

From: w.shortiii@verizon.net
To: [Derek Standish \(derek.standish@mass.gov\)](mailto:derek.standish@mass.gov)
Cc: [Curtis Mooney](#); [Skip Medford](#); [Lucas W. Wright \(lwright@wareriverpower.com\)](mailto:lwright@wareriverpower.com)
Subject: Gardners Falls LIHI Re-Certification
Date: Wednesday, March 10, 2021 4:41:00 PM
Attachments: [Mass DEP Letter 2021_03_xx.docx](#)
[Mass DEP Letter 2017_04_25.pdf](#)
[05_GF-- Project View.pdf](#)
[06_GF_ZOE -- Tailrace to Deerfield #2 Impoundment.pdf](#)
[07_GF_ZOE -- Bypassed Reach.pdf](#)
[08_GF_ZOE -- Impoundment to Deerfield #3 Tailrace.pdf](#)
[Pages 69-75 from Massachusetts Year 2016 Integrated List Of Waters \(16ilwplist\).pdf](#)
[Pages 190-191 from Massachusetts Year 2016 Integrated List Of Waters \(16ilwplist\).pdf](#)
[Pages 270-276 from Massachusetts Year 2016 Integrated List Of Waters \(16ilwplist\).pdf](#)
[MDEP Gardners Falls Water Quality Certificate 1994-12-14.pdf](#)

Derek,

Great talking with you today. I hope that I can meet you some day.

I, on behalf of Central Rivers Power MA, LLC, am working on a Low Impact Hydropower Institute ("LIHI") Re-Certification of Gardners Falls Project (the "Project"). (Its FERC project number is P-2334). Accordingly, I am requesting an e-mail or letter from the Massachusetts Department of Environmental Protection on the following aspect of the Project in order to determine if the Project continues to meet the certification standards of LIHI:

- Water Quality; and
- Minimum Flow

This letter or e-mail could take the form of Bob Kubit's letter of April 25, 2017 for the Project's 2017 LIHI Re-Certification Application.

As you may know, LIHI is requesting that agencies provide separate responses to each of the above aspects to each of the Project's Zones of Effect ("ZoE"). The Project's ZoEs are as follows:

- The Gardners Falls Impoundment;
- The Gardners Falls Bypassed Reach until the confluence with the Gardners Falls Tailrace; and
- The Gardners Falls Tailrace until Deerfield (New England Power Co.) #2 dam Impoundment.

Please review my e-mail and, if you have any questions or concerns, please do not hesitate to contact me.

Bill Short

William P. Short III

Consultant

(917) 206-0001 Work

(201) 970-3707 Mobile

w.shortiii@verizon.net

P.O. Box 237173 (Mailing Address)

New York, New York 10023-7173

44 West 62nd Street (Street Address)

New York, New York 10023-7008

March [REDACTED], 2021

Mr. William P. Short III
P.O. Box 237173
New York, New York 10023

Subject: Central Rivers Power MA, LLC Request Regarding Gardner Falls Project
FERC #2334

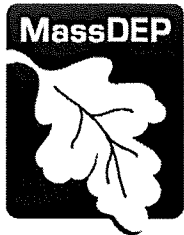
Dear Mr. Short:

In response to your inquiry about the water quality of the Deerfield River in the vicinity of the Gardners Falls Project and its Water Quality Certificate, issued December 14, 1994, the Massachusetts Department of Environmental Protection provides the following assessment.

1. The Upper Impoundment ZoE, Bypassed Reach ZoE and River Below Tailrace ZoE at the Gardners Falls Project (MA33-03) are Category 5 waters requiring a TMDL given the presence of *Escherichia Coli* (*e. Coli*).
2. Despite the presence of *Escherichia Coli* (*e. Coli*), the Gardners Falls Project does not cause or contribute to the limitations of the designated uses – (i) aesthetics, (ii) fish, other aquatic life and wildlife, (iii) primary contact recreation and (iv) secondary contact recreation -- of the Deerfield River in the Upper Impoundment ZoE, Bypassed Reach ZoE and River Below Tailrace ZoE.
3. The Water Quality Certificate issued for the Gardners Falls Project, dated December 14, 1994, is still in effect and appropriate for the Upper Impoundment ZoE, Bypass Reach ZoE and River Below Tailrace ZoE.

If I can be of further assistance, please contact me at [REDACTED] or derek.standish@state.ma.us.

Sincerely yours,



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Central Regional Office • 8 New Bond Street, Worcester MA 01606 • 508-792-7650

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Matthew A. Beaton
Secretary

Martin Suuberg
Commissioner

William P. Short III
P.O. Box 237173
New York, New York 10023-7173

April 25, 2017

Subject: LIHI Request regarding Gardner Falls Project FERC #2334

Dear Mr. Short,

In response to your inquiry about the water quality of the Deerfield River in the vicinity of the Gardners Falls Project, the MA Department of Environmental Protection provides the following assessment.

1. The Upper Impoundment, Bypass Reach and River Below Tailrace at the Gardners Falls Project are not part of a Water Quality Limited area.
2. The Gardners Falls Project does not contribute to a limitation of designated uses of the Deerfield River in the Upper Impoundment, Bypass Reach and River Below Tailrace.
3. The Water Quality Certificate issued for the Gardners Falls Project December 14, 1994 is still in effect and appropriate for the Upper Impoundment, Bypass Reach and River Below Tailrace.

If I can be of further assistance, please contact me at 508-767-2854 or robert.kubit@state.ma.us.

Sincerely,

Robert Kubit, P.E.

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.

TTY# MassRelay Service 1-800-439-2370

MassDEP Website: www.mass.gov/dep

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Massachusetts Year 2016 Integrated List of Waters

*Final Listing of the Condition of Massachusetts' Waters Pursuant to
Sections 305(b), 314 and 303(d) of the Clean Water Act*



CN 470.1

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Kathleen A. Theoharides, Secretary
Massachusetts Department of Environmental Protection
Martin Suuberg, Commissioner
Bureau of Water Resources
Kathleen Baskin, Assistant Commissioner

Category 2 waters listed alphabetically by major watershed
"Attaining some uses; other uses not assessed"

Water Body	Segment ID	Description	Size	Units	Uses Attained				
					Aesthetic	Fish, other Aquatic Life and Wildlife	Primary Contact Recreation	Secondary Contact Recreation	Shellfish Harvesting
Sawmill River	MA34-41	Dudleyville Road, Leverett to mouth at confluence with Connecticut River, Montague (formerly part of MA34-26).	11.00	Miles	X	X	X	X	
Temple Brook	MA34-08	Headwaters, outlet Bradley Pond, Monson to mouth at confluence with Scantic River, Hampden.	3.60	Miles		X			
Tripple Brook	MA34-16	Headwaters, perennial portion, Southampton to mouth at confluence with Manhan River, Southampton.	1.00	Miles		X			
Upper Highland Lake	MA34093	Goshen.	51.00	Acres			X	X	
West Branch Mill River	MA34-38	East Street, Goshen to the confluence of Meekin Brook, Williamsburg.	5.90	Miles		X			
West Branch Mill River	MA34-39	From the confluence of Meekin Brook, Williamsburg to mouth at confluence with East Branch Mill River (forming headwaters Mill River), Williamsburg.	0.60	Miles		X			
Deerfield									
Albee Brook	MA33-33	Headwaters, north of Dodge Corner Road, Hawley to confluence with Deerfield River, Charlemont.	1.00	Miles		X			
Allen Brook	MA33-34	Headwaters, east of the Shelburne Colrain Road and Route 2 intersection, Shelburne to confluence with Green River, Greenfield.	3.60	Miles		X			
Avery Brook	MA33-35	Headwaters, perennial portion south of Colrain Brook Road, Heath to confluence with Deerfield River, Charlemont.	3.70	Miles		X			
Basin Brook	MA33-36	Headwaters, Kenneth M. Dubuque Memorial State Forest, Hawley to confluence with King Brook, Hawley.	2.20	Miles		X			
Black Brook	MA33-37	Headwaters, west of Chapel Road, Savoy to confluence with Cold River, Savoy.	3.30	Miles		X			
Borden Brook	MA33-38	Vermont-Massachusetts stateline, Colrain to confluence with Green River, Colrain.	0.60	Miles		X			
Bozrah Brook	MA33-13	Headwaters, located west of East Hawley Road, Hawley (drains wetland) to confluence with Deerfield River, Charlemont.	3.00	Miles	X	X	X	X	
Brandy Brook	MA33-117	Headwaters east of North County Road, Leyden to confluence with Glen Brook, Leyden.	1.60	Miles		X			
Brown Brook	MA33-39	Headwaters, perennial portion east of Scott Road, Savoy to confluence with Chickley River, Savoy.	0.40	Miles		X			
Burrington Brook	MA33-40	Headwaters, east of Sadoga Road, Heath to confluence with West Branch Brook (forming headwaters West Branch North River), Heath.	2.00	Miles		X			
Burton Brook	MA33-41	Vermont-Massachusetts stateline, Rowe to confluence with West Branch Brook, Heath.	1.30	Miles		X			
Cary Brook	MA33-42	Perennial portion north of East Catamount Hill Road, Colrain to confluence with West Branch North River, Colrain.	0.50	Miles		X			



**Category 2 waters listed alphabetically by major watershed
"Attaining some uses; other uses not assessed"**

Water Body	Segment ID	Description	Size	Units	Uses Attained				
					Aesthetic	Fish, other Aquatic Life and Wildlife	Primary Contact Recreation	Secondary Contact Recreation	Shellfish Harvesting
Cascade Brook	MA33-43	Headwaters, perennial portion southeast of Moore Road, Florida to confluence with Deerfield River, Florida.	1.80	Miles		X			
Chapel Brook	MA33-44	Outlet of unnamed pond, Ashfield to confluence with Poland Brook, Conway.	3.40	Miles	X	X	X	X	
Chickley River	MA33-11	Headwaters Savoy Mountain State Forest, Savoy to confluence with Deerfield River, Charlemont.	11.10	Miles	X	X	X	X	
Clark Brook	MA33-16	Headwaters, near Moonshine Road (Howes Road)/East Buckland Road, Buckland to confluence with Clesson Brook, Buckland.	3.80	Miles	X	X	X	X	
Clesson Brook	MA33-15	Outlet of unnamed pond south of Forget Road, Hawley through Cox Pond to confluence with Deerfield River, Buckland.	10.30	Miles	X	X	X	X	
Cold River	MA33-05	Source in Florida to confluence with Deerfield River, Charlemont.	13.70	Miles	X	X	X	X	
Cooley Brook	MA33-45	Headwaters, north of La Belle Road, Hawley to confluence with Clesson Brook, Buckland.	1.50	Miles		X			
Creamery Brook	MA33-46	Headwaters, perennial portion west of Steady Lane Road, Ashfield to confluence with South River, Ashfield.	2.40	Miles	X	X	X	X	
Davenport Brook	MA33-111	Headwaters outlet Papoose Lake, Heath to confluence with Kinsman Brook forming headwaters Taylor Brook, Heath.	0.90	Miles		X			
Deerfield River	MA33-02	Confluence with Cold River, Charlemont to confluence with North River, Charlemont/Shelburne.	11.40	Miles	X	X	X	X	
Dickenson Brook	MA33-120	Headwaters west of Sumner Stetson Road, Heath to confluence with West Branch Brook, Heath.	0.70	Miles		X			
Drakes Brook	MA33-23	Headwaters, (perennial portion) west of North Warger Road, Ashfield to confluence with Bear River, Conway.	2.30	Miles		X			
Dunbar Brook	MA33-48	Vermont-Massachusetts stateline, Monroe to confluence with Deerfield River, Monroe.	5.60	Miles		X			
East Glen Brook	MA33-49	Headwaters, perennial portion north of East Glen Road, Leyden to inlet of Upper Greenfield Reservoir (Glen Brook Upper Reservoir), Leyden.	1.90	Miles		X			
East Oxbow Brook	MA33-72	Headwaters, perennial portion east of Deer Run Lane, Charlemont to confluence with Deerfield River, Charlemont.	1.40	Miles		X			
Fife Brook	MA33-50	Headwaters, perennial portion southwest of Spruce Mountain in the Monroe State Forest, Monroe to confluence with Deerfield River, Florida.	2.60	Miles		X			
Foundry Brook	MA33-25	Headwaters north of Calvin Coombs Road, Colrain to confluence with East Branch North River, Colrain.	2.80	Miles	X	X	X	X	
Fox Brook	MA33-51	From the outlet of Fox Brook Upper Reservoir, Colrain to confluence with North River, Colrain.	0.80	Miles		X			



**Category 2 waters listed alphabetically by major watershed
"Attaining some uses; other uses not assessed"**

Water Body	Segment ID	Description	Size	Units	Uses Attained				
					Aesthetic	Fish, other Aquatic Life and Wildlife	Primary Contact Recreation	Secondary Contact Recreation	Shellfish Harvesting
Fuller Brook	MA33-118	Perennial portion in Dubuque State Forest, Hawley to confluence with Chickley River, Hawley.	0.90	Miles		X			
Glen Brook	MA33-52	Headwaters, east of Brattleboro Road, Leyden to inlet of Upper Greenfield Reservoir (Glen Brook Upper Reservoir), Leyden.	3.50	Miles		X			
Glen Brook	MA33-96	Outlet of Upper Greenfield Reservoir, Leyden to confluence with Green River, Greenfield.	3.20	Miles		X			
Granger Brook	MA33-53	Headwaters, west of Bliss Road, Florida to confluence with Dunbar Brook, Monroe.	1.20	Miles		X			
Great Brook	MA33-54	Headwaters, perennial portion west at Zerah Fiske Road, Shelburne to confluence with Hawkes Brook, Shelburne.	1.20	Miles		X			
Green River	MA33-28	Vermont line, Colrain to water supply dam north of Eunice Williams Drive (Pumping Station Dam, National ID MA02291), Greenfield (formerly part of MA33-09).	8.40	Miles	X	X	X	X	
Green River	MA33-29	From water supply dam north of Eunice Williams Drive (Pumping Station Dam, National ID MA02291), Greenfield to the Swimming Pool #2 Dam (National Dam ID MA02321) northwest of Nashs Mill Road, Greenfield (formerly part of MA33-09).	4.60	Miles		X			
Green River	MA33-55	Headwaters, perennial portion in Florida State Forest west of Blackstone Road, Florida to confluence with Cold River, Florida.	1.30	Miles		X			
Gulf Brook	MA33-56	Outlet of Burnett Pond, Savoy to confluence with Cold River, Savoy.	3.50	Miles		X			
Haley Brook	MA33-57	Headwaters north of Main Street, Monroe to confluence with Dunbar Brook, Monroe.	1.50	Miles		X			
Hartwell Brook	MA33-58	Headwaters, south of South Heath Road, Charlemont to confluence with Deerfield River, Charlemont.	2.10	Miles		X			
Hawkes Brook	MA33-112	Headwaters east of Zerah Fiske Road, Shelburne to confluence with Dragon Brook, Shelburne.	1.20	Miles		X			
Heath Brook	MA33-59	Headwaters, south of West Main Street, Heath to confluence with Mill Brook, Heath.	1.00	Miles		X			
Hibbard Brook	MA33-60	Headwaters, north of West Leyden Road, Leyden to confluence with Green River, Leyden.	1.50	Miles		X			
Horsefords Brook	MA33-62	Headwaters, west of Bannis Road, Savoy to confluence with Chickley River, Savoy.	1.90	Miles		X			
Johnny Bean Brook	MA33-63	Headwaters, Poland Brook State Wildlife Management Area, Conway to confluence with South River, Conway.	1.70	Miles		X			
Katley Brook	MA33-99	Headwaters, east of Katley Hill, Leyden to confluence with Green River, Leyden.	1.30	Miles		X			



**Category 2 waters listed alphabetically by major watershed
"Attaining some uses; other uses not assessed"**

Water Body	Segment ID	Description	Size	Units	Uses Attained				
					Aesthetic	Fish, other Aquatic Life and Wildlife	Primary Contact Recreation	Secondary Contact Recreation	Shellfish Harvesting
King Brook	MA33-64	Outlet Hallockville Pond, Hawley to confluence with Chickley River, Hawley.	2.10	Miles		X			
Legate Hill Brook	MA33-65	Headwaters, perennial portion north of Blueberry Peak, Charlemont to confluence with Deerfield River, Charlemont.	3.40	Miles		X			
Manning Brook	MA33-66	Headwaters, north of South County Road, Florida to confluence with Cold River, Florida.	1.40	Miles		X			
Maxwell Brook	MA33-67	Headwaters, located north of Tatro Road, Rowe to confluence with Mill Brook, Charlemont.	3.20	Miles		X			
Mccard Brook	MA33-68	Headwaters, east of Oak Hill Road, Leyden to confluence with Mill Brook, Greenfield.	2.10	Miles		X			
Meadow Brook	MA33-130	Headwaters, outlet McLeod Pond, Colrain to mouth at confluence with North River, Colrain.	1.20	Miles		X			
Mill Brook	MA33-14	Headwaters, originating north of Rowe Road, Heath to confluence with the Deerfield River, Charlemont.	5.70	Miles	X	X	X	X	
Mill Brook	MA33-69	Headwaters, outlet Beaver Pond, Hawley to confluence with Chickley River, Hawley.	4.10	Miles		X			
North Pond	MA33014	Florida.	19.00	Acres			X	X	
North River	MA33-06	From confluence of East and West branches of the North River, Colrain to confluence with Deerfield River, Shelburne/Charlemont. (Segment changed 1997 - East Branch no longer included in length) (HQW applies upstream of Barnhardt discharge (NPDES# MA0003697)).	3.30	Miles	X	X	X	X	
Nye Brook	MA33-71	Headwaters, perennial portion north of Guinea Gulf (Conway State Forest), Conway to confluence with Poland Brook, Conway.	0.70	Miles		X			
Parsonage Brook	MA33-123	Headwaters north of Main Road, Monroe to confluence with Dunbar Brook, Monroe.	1.50	Miles		X			
Pelham Brook	MA33-12	Headwaters outlet Pelham Lake, Rowe to confluence with Deerfield River, Charlemont.	4.80	Miles	X	X	X	X	
Phelps Brook	MA33-73	Perennial portion, north of Main Road, Monroe to inlet of Phelps Brook Reservoir, Monroe.	1.20	Miles		X			
Poland Brook	MA33-74	Confluence with Chapel Brook, Conway to confluence with South River, Conway.	2.60	Miles	X	X	X	X	
Potash Brook	MA33-75	Headwaters, Cranberry Swamp, Hawley (drains wetland) to confluence with Mill Brook, Hawley.	1.40	Miles		X			
Pumpkin Hollow Brook	MA33-32	Headwaters north of Conway State Forest and south of Old Cricket Hill Road, Conway to confluence with South River, Conway.	2.30	Miles		X	X	X	



**Category 2 waters listed alphabetically by major watershed
"Attaining some uses; other uses not assessed"**

Water Body	Segment ID	Description	Size	Units	Uses Attained				
					Aesthetic	Fish, other Aquatic Life and Wildlife	Primary Contact Recreation	Secondary Contact Recreation	Shellfish Harvesting
Punch Brook	MA33-100	Headwaters, perennial portion east of Smead Road, Shelburne to confluence with Green River, Greenfield.	2.10	Miles		X			
Rice Brook	MA33-76	Headwaters, north of Hazelton Road, Rowe to confluence with Pelham Brook, Rowe.	1.20	Miles		X			
Roberts Brook	MA33-77	Headwaters, east of Hosmer Road, Heath to confluence with West Branch North River, Colrain.	1.00	Miles		X			
Ross Brook	MA33-78	Headwaters, south of Tannery Road, Savoy to confluence with Tannery Brook, Savoy.	2.00	Miles		X			
Ruddock Brook	MA33-79	Headwaters, west of Dodge Corner Road, Hawley to confluence with Clesson Brook, Buckland.	1.10	Miles		X			
Sanders Brook	MA33-80	Vermont/Massachusetts border, Heath to confluence with West Branch North River, Colrain.	2.80	Miles		X			
Schneck Brook	MA33-113	Headwaters, north of Wilder Hill Road, Conway to confluence with the Deerfield River, Conway.	2.00	Miles		X			
Sheldon Brook	MA33-81	Headwaters, south of Old Albany Road, Shelburne to confluence with Deerfield River, Deerfield/Greenfield.	1.40	Miles		X			
Shingle Brook	MA33-22	Headwaters north of Guy Manners Road, Shelburne to confluence with the Deerfield River, Deerfield.	2.80	Miles	X	X	X	X	
Sids Brook	MA33-82	Headwaters, perennial portion north of Baptist Corner Road, Ashfield to confluence with Drakes Brook, Conway.	1.70	Miles		X			
Sluice Brook	MA33-83	Headwaters, north of Tower Road, Shelburne to confluence with Deerfield River, Shelburne.	3.30	Miles		X			
Smead Brook	MA33-84	Headwaters, east of Old Albany Road, Greenfield to confluence with Wheeler Brook, Greenfield.	1.70	Miles		X			
Smith Brook	MA33-26	Headwaters, outlet Upper Reservoir, Ashfield to confluence with Clesson Brook, Buckland.	2.70	Miles	X	X	X	X	
South Pond	MA33019	Savoy.	29.00	Acres			X	X	
Spur Brook	MA33-106	Headwaters, outlet small pond just west at intersection of Christian Hill Road and Thompson Road, Colrain to confluence with East Branch North River, Colrain.	2.00	Miles		X			
Stafford Brook	MA33-98	Headwaters, perennial portion south of East Colrain Road, Colrain to confluence with Green River, Colrain.	1.40	Miles		X			
Staples Brook	MA33-121	Headwaters east of Spruce Hill, North Adams to confluence Tower Brook, Florida.	1.40	Miles		X			
Steele Brook	MA33-85	Headwaters, perennial portion north of Tunnel Road, Rowe to confluence with Pelham Brook, Rowe.	1.70	Miles		X			



**Category 2 waters listed alphabetically by major watershed
"Attaining some uses; other uses not assessed"**

Water Body	Segment ID	Description	Size	Units	Uses Attained				
					Aesthetic	Fish, other Aquatic Life and Wildlife	Primary Contact Recreation	Secondary Contact Recreation	Shellfish Harvesting
Stewart Brook	MA33-132	Perennial portion north of Wilson Graves Road, Shelburne to mouth at confluence with Hinsdale Brook, Shelburne.	1.00	Miles		X			
Tannery Brook	MA33-86	Outlet of Tannery Pond, Savoy to confluence with Gulf Brook, Savoy.	0.70	Miles		X			
Taylor Brook	MA33-31	From the confluence of Kinsman Brook and Davenport Brook, Heath to confluence with West Branch North River, Colrain.	2.60	Miles	X	X	X	X	
Tilton Brook	MA33-119	Headwaters in Savoy Mountain State Forest, west of Bannis Road, Savoy to confluence with Chickley River, Savoy.	2.00	Miles		X			
Tissdell Brook	MA33-24	Headwaters perennial portion east of Christian Hill Cemetary, Colrain to confluence with West Branch North River, Colrain.	1.70	Miles	X	X	X	X	
Tower Brook	MA33-87	Headwaters, west of Central Shaft Road, Florida (drains wetland) to confluence with Cold River, Florida.	1.90	Miles		X			
Trout Brook	MA33-88	Headwaters, perennial portion west of Hawks Mountain, Charlemont/Hawley to confluence with Cold River, Charlemont.	0.60	Miles		X			
Tuttle Brook	MA33-129	Headwaters east of Leshures Road, Rowe to mouth at confluence with Potter Brook, Rowe.	2.00	Miles		X			
Unnamed Tributary	MA33-103	Unnamed tributary to Hinsdale Brook, perennial portion east of Little Mohawk Road, Shelburne to confluence with Hinsdale Brook, Shelburne.	1.90	Miles		X			
Unnamed Tributary	MA33-104	Unnamed tributary to an unnamed tributary to Hinsdale Brook from Shearer Pond Dam (National Dam ID MA01531), Colrain to confluence with an unnamed tributary to Hinsdale Brook, Shelburne.	0.90	Miles		X			
Unnamed Tributary	MA33-105	Unnamed tributary to Glen Brook, headwaters north of Oak Hill Road, Leyden to confluence Glen Brook, Greenfield.	1.90	Miles		X			
Unnamed Tributary	MA33-107	Unnamed tributary to the East Branch North River, headwaters south of Fairbanks Road, Colrain to the confluence of the East Branch North River, Colrain.	1.70	Miles		X			
Unnamed Tributary	MA33-108	Unnamed tributary to East Branch North River, headwaters outlet Mt. Brook Reservoir, Colrain to confluence with East Branch North River, Colrain.	1.40	Miles		X			
Unnamed Tributary	MA33-109	Unnamed tributary to West Branch North River, headwaters west of Wilson Hill Road, Colrain to confluence with West Branch North River, Colrain.	1.40	Miles		X			
Unnamed Tributary	MA33-110	Unnamed tributary to Taylor Brook, headwaters, Catamount State Forest, Colrain to confluence Taylor Brook, Colrain.	1.50	Miles		X			
Unnamed Tributary	MA33-114	Headwaters east of Pine Hill Road, Conway to confluence with South River, Conway.	1.00	Miles		X			



Category 2 waters listed alphabetically by major watershed
"Attaining some uses; other uses not assessed"

Water Body	Segment ID	Description	Size	Units	Uses Attained				
					Aesthetic	Fish, other Aquatic Life and Wildlife	Primary Contact Recreation	Secondary Contact Recreation	Shellfish Harvesting
Unnamed Tributary	MA33-115	Unnamed tributary to Chapel Brook, headwaters west of Bird Hill Road, Ashfield to confluence with Chapel Brook, Ashfield.	1.50	Miles		X			
Unnamed Tributary	MA33-116	Unnamed tributary to Clesson Brook, headwaters north of Avery Road, Buckland to confluence with Clesson Brook, Buckland.	1.80	Miles		X			
Unnamed Tributary	MA33-133	Unnamed tributary to the Deerfield River from headwaters, outlet Goodnow Road Pond, Buckland to mouth at confluence with the Deerfield River, Buckland.	1.50	Miles		X			
Unnamed Tributary	MA33-134	Unnamed tributary to East Branch North River from headwaters east of Franklin Hill Road and southwest at Franklin Hill, Colrain to mouth at confluence with East Branch North River, Colrain.	0.70	Miles		X			
Unnamed Tributary	MA33-61	Unnamed tributary to Clark Brook locally known as "Hog Hollow Brook", headwaters north of Bray Road, Buckland to confluence with Clark Brook, Buckland.	1.10	Miles		X			
Vincent Brook	MA33-89	Headwaters, perennial portion east of Stetson Brothers Road, Colrain to confluence with West Branch North River, Colrain.	1.00	Miles		X			
West Branch Brook	MA33-90	Headwaters, Vermont-Massachusetts stateline, Heath to confluence with Burrington Brook (forming headwaters West Branch North River), Heath.	5.40	Miles		X			
West Branch North River	MA33-27	Headwaters, confluence of West Branch Brook and Burrington Brook, Heath to confluence with East Branch North River, forming headwaters North River, Colrain.	7.20	Miles	X	X	X	X	
Wheeler Brook	MA33-95	Headwaters, south of Old Greenfield Road, Shelburne to confluence with Green River, Greenfield.	2.50	Miles	X	X	X	X	
Whitcomb Brook	MA33-91	Headwaters, perennial portion east of Whitcomb Hill Road, Florida to confluence with Deerfield River, Florida.	0.60	Miles		X			
White Brook	MA33-122	Headwaters east of Olson Road, Florida to confluence with the Cold River, Florida.	1.60	Miles		X			
Wilder Brook	MA33-92	Headwaters, east of Flagg Hill Road, Heath to confluence with Deerfield River, Charlemont.	2.90	Miles		X			
Willis Brook	MA33-93	Headwaters, perennial portion south of South Road, Heath to confluence with Hartwell Brook, Charlemont.	1.60	Miles		X			
Workman Brook	MA33-94	Headwaters, perennial portion west of East Colrain Road, Colrain (drains wetland) to confluence with Green River, Colrain.	1.40	Miles		X			
Farmington									
Babcock Brook	MA31-32	Headwaters west of Amos Case Road, Tolland to mouth at confluence with Hall Pond Brook (forming headwaters Hubbard Brook), Tolland.	3.30	Miles		X			



Massachusetts Year 2016 Integrated List of Waters

*Final Listing of the Condition of Massachusetts' Waters Pursuant to
Sections 305(b), 314 and 303(d) of the Clean Water Act*



CN 470.1

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Kathleen A. Theoharides, Secretary
Massachusetts Department of Environmental Protection
Martin Suuberg, Commissioner
Bureau of Water Resources
Kathleen Baskin, Assistant Commissioner

Category 5 waters listed alphabetically by major watershed
The 303(d) List – "Waters requiring a TMDL"

Water Body	Segment ID	Description	Size	Units	Impairment	EPA TMDL No.
Porter Lake West	MA34072	Springfield.	5.00	Acres	(Non-Native Aquatic Plants*)	
					Algae	
					Aquatic Plants (Macrophytes)	
Scantic River	MA34-30	Massachusetts/Connecticut border, Monson downstream to the Massachusetts/Connecticut border, Hampden.	9.60	Miles	Escherichia Coli (E. Coli)	
Stony Brook	MA34-19	Headwaters, Granby to mouth at confluence with Connecticut River, South Hadley (thru Upper Pond formerly segment MA34095 and Lower Pond formerly segment MA34049).	13.30	Miles	(Non-Native Aquatic Plants*)	
					Escherichia Coli (E. Coli)	
					Turbidity	
Unnamed Tributary	MA34-60	Unnamed tributary to the Connecticut River, locally known as 'Willimansett Brook', headwaters, perennial portion, east of Memorial Drive (Route 33), Chicopee to mouth at confluence with Connecticut River, Chicopee (approximately 1200 feet culverted near mouth).	2.30	Miles	Escherichia Coli (E. Coli)	
Upper Van Horn Park Pond	MA34128	Springfield (Changed from MA36158 to 34128 on 6/21/02, TRD).	8.00	Acres	Nutrient/Eutrophication Biological Indicators	
Venture Pond	MA34096	Springfield.	7.00	Acres	Phosphorus, Total	
					Dissolved Oxygen	
					Nutrient/Eutrophication Biological Indicators	
Watershops Pond	MA34099	Springfield.	161.00	Acres	Phosphorus, Total	
					Nutrient/Eutrophication Biological Indicators	
Weston Brook	MA34-23	Headwaters, south of State Street (Route 202), Belchertown to mouth at inlet Forge Pond, Granby (WWF applies from the confluence of Lampson Brook in Belchertown to the mouth).	2.70	Miles	Phosphorus, Total	
Wilton Brook	MA34-15	Headwaters, perennial portion, Easthampton to outlet RubberThread Pond (formerly segment MA34105) , Easthampton.	1.10	Miles	(Non-Native Aquatic Plants*)	
					Aquatic Plants (Macrophytes)	
Deerfield						
Bear River	MA33-17	Headwaters west of Barnes Road, Ashfield to confluence with Deerfield River, Conway.	6.90	Miles	Temperature	
Cherry Rum Brook	MA33-97	Headwaters, northeast of Stoneleigh Burnham Drive, Greenfield to confluence with Green River, Greenfield.	2.10	Miles	Benthic Macroinvertebrates	
Davis Mine Brook	MA33-18	Headwaters, south of Dell Road, Rowe to confluence with Mill Brook, Charlemont.	3.30	Miles	Fish Bioassessments	
					pH, Low	



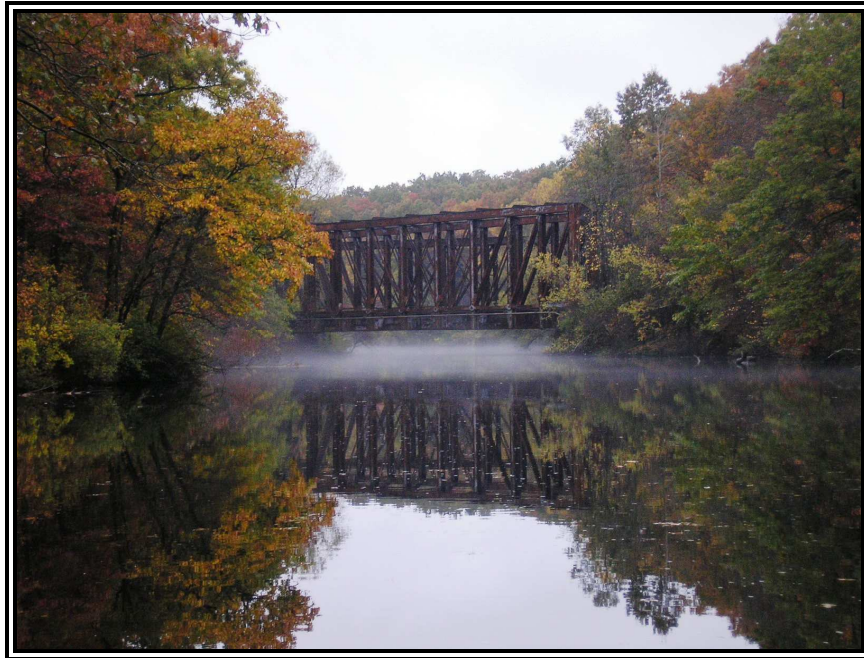
Category 5 waters listed alphabetically by major watershed
The 303(d) List – "Waters requiring a TMDL"

Water Body	Segment ID	Description	Size	Units	Impairment	EPA TMDL No.
Deerfield River	MA33-03	Confluence with North River, Charlemont/Shelburne to confluence with Green River, Greenfield.	16.80	Miles	Escherichia Coli (E. Coli)	
Deerfield River	MA33-04	Confluence with Green River, Greenfield to confluence with Connecticut River, Greenfield/Deerfield.	2.00	Miles	Escherichia Coli (E. Coli)	
Dragon Brook	MA33-20	Headwaters, perennial portion north of Patten Road, Shelburne to confluence with the Deerfield River, Shelburne.	4.40	Miles	Temperature	
East Branch North River	MA33-19	Vermont line, Colrain to confluence with West Branch North River, Colrain.	7.50	Miles	Escherichia Coli (E. Coli)	
Green River	MA33-30	From Swimming Pool #2 Dam (National Dam ID MA02321) northwest of Nashs Mill Road, Greenfield to confluence with the Deerfield River, Greenfield (formerly segment MA33-10 and part of segment MA33-09) (HQP applies upstream of former Greenfield WWTF discharge (NPDES# MA0101214), from approximately 0.5 mile upstream of mouth).	3.70	Miles	Escherichia Coli (E. Coli)	
					Fecal Coliform	
					Turbidity	
Hinsdale Brook	MA33-21	Headwaters east of Fiske Mill Road, Shelburne to confluence with Punch Brook, Greenfield.	2.80	Miles	Escherichia Coli (E. Coli)	
Mill Brook	MA33-70	Headwaters, north of West Mountain Road, Bernardston to confluence with Cherry Rum Brook, Greenfield.	8.40	Miles	Benthic Macroinvertebrates	
Pelham Lake	MA33016	Rowe.	80.00	Acres	Mercury in Fish Tissue	
Sherman Reservoir	MA33018	Massachusetts portion only. Rowe/Monroe.	72.00	Acres	Mercury in Fish Tissue	
South River	MA33-07	Headwaters, outlet Ashfield Pond, Ashfield to Emmets Road, Ashfield.	2.30	Miles	Temperature	
South River	MA33-101	Emmets Road, Ashfield to confluence with Johnny Bean Brook, Conway (formerly part of MA33-08).	6.10	Miles	Escherichia Coli (E. Coli)	
					Fecal Coliform	
South River	MA33-102	From confluence with Johnny Bean Brook, Conway to confluence with Deerfield River, Conway (formerly part of MA33-08), (through South River Impoundment formerly segment MA33022).	6.80	Miles	(Physical substrate habitat alterations*)	
					Escherichia Coli (E. Coli)	
					Fecal Coliform	
Farmington						
Benton Brook	MA31-11	Headwaters, drainage from Hayden Swamp, Otis to mouth at confluence with the West Branch Farmington River, Otis.	5.20	Miles	Benthic Macroinvertebrates	
Big Pond	MA31004	Otis.	325.00	Acres	Dissolved Oxygen	
					Mercury in Fish Tissue	33880



Massachusetts Year 2016 Integrated List of Waters

Final Listing of the Condition of Massachusetts' Waters Pursuant to Sections 305(b), 314 and 303(d) of the Clean Water Act



CN 470.1

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Kathleen A. Theoharides, Secretary
Massachusetts Department of Environmental Protection
Martin Suuberg, Commissioner
Bureau of Water Resources
Kathleen Baskin, Assistant Commissioner

Appendix 1

Assessment units and integrated list categories presented alphabetically by major watershed

Water Body	Segment ID	Description	Size	Units	Category
White Brook	MA34-14	Headwaters, perennial portion, Easthampton to mouth at inlet Nashawannuck Pond, Easthampton.	1.80	Miles	3
Whiting Street Reservoir	MA34101	Holyoke.	102.00	Acres	4c
Wilton Brook	MA34-15	Headwaters, perennial portion, Easthampton to outlet RubberThread Pond (formerly segment MA34105) , Easthampton.	1.10	Miles	5
Deerfield					
Albee Brook	MA33-33	Headwaters, north of Dodge Corner Road, Hawley to confluence with Deerfield River, Charlemont.	1.00	Miles	2
Allen Brook	MA33-34	Headwaters, east of the Shelburne Colrain Road and Route 2 intersection, Shelburne to confluence with Green River, Greenfield.	3.60	Miles	2
Ashfield Pond	MA33001	Ashfield.	38.00	Acres	4a
Avery Brook	MA33-35	Headwaters, perennial portion south of Colrain Brook Road, Heath to confluence with Deerfield River, Charlemont.	3.70	Miles	2
Basin Brook	MA33-36	Headwaters, Kenneth M. Dubuque Memorial State Forest, Hawley to confluence with King Brook, Hawley.	2.20	Miles	2
Bear River	MA33-17	Headwaters west of Barnes Road, Ashfield to confluence with Deerfield River, Conway.	6.90	Miles	5
Black Brook	MA33-37	Headwaters, west of Chapel Road, Savoy to confluence with Cold River, Savoy.	3.30	Miles	2
Bog Pond	MA33003	Savoy.	35.00	Acres	3
Borden Brook	MA33-38	Vermont-Massachusetts stateline, Colrain to confluence with Green River, Colrain.	0.60	Miles	2
Bozrah Brook	MA33-13	Headwaters, located west of East Hawley Road, Hawley (drains wetland) to confluence with Deerfield River, Charlemont.	3.00	Miles	2
Brandy Brook	MA33-117	Headwaters east of North County Road, Leyden to confluence with Glen Brook, Leyden.	1.60	Miles	2
Brown Brook	MA33-39	Headwaters, perennial portion east of Scott Road, Savoy to confluence with Chickley River, Savoy.	0.40	Miles	2
Burnett Pond	MA33005	Savoy.	18.00	Acres	3
Burrington Brook	MA33-40	Headwaters, east of Sadoga Road, Heath to confluence with West Branch Brook (forming headwaters West Branch North River), Heath.	2.00	Miles	2
Burton Brook	MA33-41	Vermont-Massachusetts stateline, Rowe to confluence with West Branch Brook, Heath.	1.30	Miles	2
Cary Brook	MA33-42	Perennial portion north of East Catamount Hill Road, Colrain to confluence with West Branch North River, Colrain.	0.50	Miles	2
Cascade Brook	MA33-43	Headwaters, perennial portion southeast of Moore Road, Florida to confluence with Deerfield River, Florida.	1.80	Miles	2
Chapel Brook	MA33-44	Outlet of unnamed pond, Ashfield to confluence with Poland Brook, Conway.	3.40	Miles	2
Cherry Rum Brook	MA33-97	Headwaters, northeast of Stoneleigh Burnham Drive, Greenfield to confluence with Green River, Greenfield.	2.10	Miles	5
Chickley River	MA33-11	Headwaters Savoy Mountain State Forest, Savoy to confluence with Deerfield River, Charlemont.	11.10	Miles	2
Clark Brook	MA33-16	Headwaters, near Moonshine Road (Howes Road)/East Buckland Road, Buckland to confluence with Clesson Brook, Buckland.	3.80	Miles	2
Clesson Brook	MA33-15	Outlet of unnamed pond south of Forget Road, Hawley through Cox Pond to confluence with Deerfield River, Buckland.	10.30	Miles	2



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Assessment units and integrated list categories presented alphabetically by major watershed

Water Body	Segment ID	Description	Size	Units	Category
Cold River	MA33-05	Source in Florida to confluence with Deerfield River, Charlemont.	13.70	Miles	2
Cooley Brook	MA33-45	Headwaters, north of La Belle Road, Hawley to confluence with Clesson Brook, Buckland.	1.50	Miles	2
Creamery Brook	MA33-46	Headwaters, perennial portion west of Steady Lane Road, Ashfield to confluence with South River, Ashfield.	2.40	Miles	2
Davenport Brook	MA33-111	Headwaters outlet Papoose Lake, Heath to confluence with Kinsman Brook forming headwaters Taylor Brook, Heath.	0.90	Miles	2
Davis Mine Brook	MA33-18	Headwaters, south of Dell Road, Rowe to confluence with Mill Brook, Charlemont.	3.30	Miles	5
Deerfield River	MA33-01	Outlet Sherman Reservoir Monroe/Rowe, to confluence with Cold River, Charlemont (through former segment, Lower Reservoir MA33028).	13.10	Miles	4c
Deerfield River	MA33-02	Confluence with Cold River, Charlemont to confluence with North River, Charlemont/Shelburne.	11.40	Miles	2
Deerfield River	MA33-03	Confluence with North River, Charlemont/Shelburne to confluence with Green River, Greenfield.	16.80	Miles	5
Deerfield River	MA33-04	Confluence with Green River, Greenfield to confluence with Connecticut River, Greenfield/Deerfield.	2.00	Miles	5
Dickenson Brook	MA33-120	Headwaters west of Sumner Stetson Road, Heath to confluence with West Branch Brook, Heath.	0.70	Miles	2
Dragon Brook	MA33-20	Headwaters, perennial portion north of Patten Road, Shelburne to confluence with the Deerfield River, Shelburne.	4.40	Miles	5
Drakes Brook	MA33-23	Headwaters, (perennial portion) west of North Warger Road, Ashfield to confluence with Bear River, Conway.	2.30	Miles	2
Dunbar Brook	MA33-48	Vermont-Massachusetts stateline, Monroe to confluence with Deerfield River, Monroe.	5.60	Miles	2
East Branch North River	MA33-19	Vermont line, Colrain to confluence with West Branch North River, Colrain.	7.50	Miles	5
East Glen Brook	MA33-49	Headwaters, perennial portion north of East Glen Road, Leyden to inlet of Upper Greenfield Reservoir (Glen Brook Upper Reservoir), Leyden.	1.90	Miles	2
East Oxbow Brook	MA33-72	Headwaters, perennial portion east of Deer Run Lane, Charlemont to confluence with Deerfield River, Charlemont.	1.40	Miles	2
Fife Brook	MA33-50	Headwaters, perennial portion southwest of Spruce Mountain in the Monroe State Forest, Monroe to confluence with Deerfield River, Florida.	2.60	Miles	2
Foundry Brook	MA33-25	Headwaters north of Calvin Coombs Road, Colrain to confluence with East Branch North River, Colrain.	2.80	Miles	2
Fox Brook	MA33-51	From the outlet of Fox Brook Upper Reservoir, Colrain to confluence with North River, Colrain.	0.80	Miles	2
Fox Brook Upper Reservoir	MA33006	Colrain.	3.00	Acres	3
Fuller Brook	MA33-118	Perennial portion in Dubuque State Forest, Hawley to confluence with Chickley River, Hawley.	0.90	Miles	2
Glen Brook	MA33-52	Headwaters, east of Brattleboro Road, Leyden to inlet of Upper Greenfield Reservoir (Glen Brook Upper Reservoir), Leyden.	3.50	Miles	2
Glen Brook	MA33-96	Outlet of Upper Greenfield Reservoir, Leyden to confluence with Green River, Greenfield.	3.20	Miles	2
Goodnow Road Pond	MA33007	Buckland.	11.00	Acres	3



Appendix 1

Assessment units and integrated list categories presented alphabetically by major watershed

Water Body	Segment ID	Description	Size	Units	Category
Granger Brook	MA33-53	Headwaters, west of Bliss Road, Florida to confluence with Dunbar Brook, Monroe.	1.20	Miles	2
Great Brook	MA33-54	Headwaters, perennial portion west at Zerah Fiske Road, Shelburne to confluence with Hawkes Brook, Shelburne.	1.20	Miles	2
Green River	MA33-28	Vermont line, Colrain to water supply dam north of Eunice Williams Drive (Pumping Station Dam, National ID MA02291), Greenfield (formerly part of MA33-09).	8.40	Miles	2
Green River	MA33-29	From water supply dam north of Eunice Williams Drive (Pumping Station Dam, National ID MA02291), Greenfield to the Swimming Pool #2 Dam (National Dam ID MA02321) northwest of Nashs Mill Road, Greenfield (formerly part of MA33-09).	4.60	Miles	2
Green River	MA33-30	From Swimming Pool #2 Dam (National Dam ID MA02321) northwest of Nashs Mill Road, Greenfield to confluence with the Deerfield River, Greenfield (formerly segment MA33-10 and part of segment MA33-09) (HQP applies upstream of former Greenfield WWTF discharge (NPDES# MA0101214), from approximately 0.5 mile upstream of mouth).	3.70	Miles	5
Green River	MA33-55	Headwaters, perennial portion in Florida State Forest west of Blackstone Road, Florida to confluence with Cold River, Florida.	1.30	Miles	2
Gulf Brook	MA33-56	Outlet of Burnett Pond, Savoy to confluence with Cold River, Savoy.	3.50	Miles	2
Haley Brook	MA33-57	Headwaters north of Main Street, Monroe to confluence with Dunbar Brook, Monroe.	1.50	Miles	2
Hallockville Pond	MA33009	Plainfield/Hawley.	18.00	Acres	3
Hartwell Brook	MA33-58	Headwaters, south of South Heath Road, Charlemont to confluence with Deerfield River, Charlemont.	2.10	Miles	2
Hawkes Brook	MA33-112	Headwaters east of Zerah Fiske Road, Shelburne to confluence with Dragon Brook, Shelburne.	1.20	Miles	2
Heath Brook	MA33-59	Headwaters, south of West Main Street, Heath to confluence with Mill Brook, Heath.	1.00	Miles	2
Hibbard Brook	MA33-60	Headwaters, north of West Leyden Road, Leyden to confluence with Green River, Leyden.	1.50	Miles	2
Highland Pond	MA33032	Greenfield.	2.00	Acres	3
Hinsdale Brook	MA33-21	Headwaters east of Fiske Mill Road, Shelburne to confluence with Punch Brook, Greenfield.	2.80	Miles	5
Horsefords Brook	MA33-62	Headwaters, west of Bannis Road, Savoy to confluence with Chickley River, Savoy.	1.90	Miles	2
Johnny Bean Brook	MA33-63	Headwaters, Poland Brook State Wildlife Management Area, Conway to confluence with South River, Conway.	1.70	Miles	2
Johnson Brook	MA33-131	Headwaters, west of Route 112 (Main Road) and northeast at Houghton Hill, Colrain to the mouth at confluence with North River, Colrain.	1.40	Miles	4c
Katley Brook	MA33-99	Headwaters, east of Katley Hill, Leyden to confluence with Green River, Leyden.	1.30	Miles	2
King Brook	MA33-64	Outlet Hallockville Pond, Hawley to confluence with Chickley River, Hawley.	2.10	Miles	2
Kinsman Brook	MA33-124	Headwaters north of Colrain Stage Road, Heath to confluence with Davenport Brook forming headwaters Taylor Brook, Heath.	1.80	Miles	3
Legate Hill Brook	MA33-65	Headwaters, perennial portion north of Blueberry Peak, Charlemont to confluence with Deerfield River, Charlemont.	3.40	Miles	2



Appendix 1

Assessment units and integrated list categories presented alphabetically by major watershed

Water Body	Segment ID	Description	Size	Units	Category
Manning Brook	MA33-66	Headwaters, north of South County Road, Florida to confluence with Cold River, Florida.	1.40	Miles	2
Maxwell Brook	MA33-67	Headwaters, located north of Tatro Road, Rowe to confluence with Mill Brook, Charlemont.	3.20	Miles	2
Maynard Pond	MA33011	Greenfield.	3.00	Acres	3
Mccard Brook	MA33-68	Headwaters, east of Oak Hill Road, Leyden to confluence with Mill Brook, Greenfield.	2.10	Miles	2
McLeod Pond	MA33012	Colrain.	41.00	Acres	3
Meadow Brook	MA33-130	Headwaters, outlet McLeod Pond, Colrain to mouth at confluence with North River, Colrain.	1.20	Miles	2
Mill Brook	MA33-14	Headwaters, originating north of Rowe Road, Heath to confluence with the Deerfield River, Charlemont.	5.70	Miles	2
Mill Brook	MA33-69	Headwaters, outlet Beaver Pond, Hawley to confluence with Chickley River, Hawley.	4.10	Miles	2
Mill Brook	MA33-70	Headwaters, north of West Mountain Road, Bernardston to confluence with Cherry Run Brook, Greenfield.	8.40	Miles	5
Mt. Brook Reservoir	MA33024	Colrain.	1.00	Acres	3
Newell Pond	MA33013	Greenfield.	0.90	Acres	3
North Brook	MA33-126	Perennial portion north of Harwood Road, Hawley to confluence with Chickley River, Hawley.	1.20	Miles	3
North Pond	MA33014	Florida.	19.00	Acres	2
North River	MA33-06	From confluence of East and West branches of the North River, Colrain to confluence with Deerfield River, Shelburne/Charlemont. (Segment changed 1997 - East Branch no longer included in length) (HQW applies upstream of Barnhardt discharge (NPDES# MA0003697)).	3.30	Miles	2
Nye Brook	MA33-71	Headwaters, perennial portion north of Guinea Gulf (Conway State Forest), Conway to confluence with Poland Brook, Conway.	0.70	Miles	2
Papoose Lake	MA33023	Heath.	14.00	Acres	3
Parsonage Brook	MA33-123	Headwaters north of Main Road, Monroe to confluence with Dunbar Brook, Monroe.	1.50	Miles	2
Pelham Brook	MA33-12	Headwaters outlet Pelham Lake, Rowe to confluence with Deerfield River, Charlemont.	4.80	Miles	2
Pelham Lake	MA33016	Rowe.	80.00	Acres	5
Phelps Brook	MA33-73	Perennial portion, north of Main Road, Monroe to inlet of Phelps Brook Reservoir, Monroe.	1.20	Miles	2
Phelps Brook Reservoir	MA33030	Monroe.	0.05	Acres	3
Plainfield Pond	MA33017	Plainfield.	60.00	Acres	4a
Poland Brook	MA33-74	Confluence with Chapel Brook, Conway to confluence with South River, Conway.	2.60	Miles	2
Potash Brook	MA33-75	Headwaters, Cranberry Swamp, Hawley (drains wetland) to confluence with Mill Brook, Hawley.	1.40	Miles	2
Pumpkin Hollow Brook	MA33-32	Headwaters north of Conway State Forest and south of Old Cricket Hill Road, Conway to confluence with South River, Conway.	2.30	Miles	2



Appendix 1

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Water Body	Segment ID	Description	Size	Units	Category
Punch Brook	MA33-100	Headwaters, perennial portion east of Smead Road, Shelburne to confluence with Green River, Greenfield.	2.10	Miles	2
Rice Brook	MA33-125	Perennial portion east of Legate Hill Road, Charlemont to confluence with Deerfield River, Charlemont.	3.10	Miles	3
Rice Brook	MA33-76	Headwaters, north of Hazelton Road, Rowe to confluence with Pelham Brook, Rowe.	1.20	Miles	2
Roberts Brook	MA33-77	Headwaters, east of Hosmer Road, Heath to confluence with West Branch North River, Colrain.	1.00	Miles	2
Ross Brook	MA33-78	Headwaters, south of Tannery Road, Savoy to confluence with Tannery Brook, Savoy.	2.00	Miles	2
Ruddock Brook	MA33-79	Headwaters, west of Dodge Corner Road, Hawley to confluence with Clesson Brook, Buckland.	1.10	Miles	2
Sanders Brook	MA33-80	Vermont/Massachusetts border, Heath to confluence with West Branch North River, Colrain.	2.80	Miles	2
Schneck Brook	MA33-113	Headwaters, north of Wilder Hill Road, Conway to confluence with the Deerfield River, Conway.	2.00	Miles	2
Sheldon Brook	MA33-81	Headwaters, south of Old Albany Road, Shelburne to confluence with Deerfield River, Deerfield/Greenfield.	1.40	Miles	2
Sherman Reservoir	MA33018	Massachusetts portion only. Rowe/Monroe.	72.00	Acres	5
Shingle Brook	MA33-22	Headwaters north of Guy Manners Road, Shelburne to confluence with the Deerfield River, Deerfield.	2.80	Miles	2
Sids Brook	MA33-82	Headwaters, perennial portion north of Baptist Corner Road, Ashfield to confluence with Drakes Brook, Conway.	1.70	Miles	2
Sluice Brook	MA33-83	Headwaters, north of Tower Road, Shelburne to confluence with Deerfield River, Shelburne.	3.30	Miles	2
Smead Brook	MA33-84	Headwaters, east of Old Albany Road, Greenfield to confluence with Wheeler Brook, Greenfield.	1.70	Miles	2
Smith Brook	MA33-26	Headwaters, outlet Upper Reservoir, Ashfield to confluence with Clesson Brook, Buckland.	2.70	Miles	2
South Pond	MA33019	Savoy.	29.00	Acres	2
South River	MA33-07	Headwaters, outlet Ashfield Pond, Ashfield to Emmets Road, Ashfield.	2.30	Miles	5
South River	MA33-101	Emmets Road, Ashfield to confluence with Johnny Bean Brook, Conway (formerly part of MA33-08).	6.10	Miles	5
South River	MA33-102	From confluence with Johnny Bean Brook, Conway to confluence with Deerfield River, Conway (formerly part of MA33-08), (through South River Impoundment formerly segment MA33022).	6.80	Miles	5
Spur Brook	MA33-106	Headwaters, outlet small pond just west at intersection of Christian Hill Road and Thompson Road, Colrain to confluence with East Branch North River, Colrain.	2.00	Miles	2
Stafford Brook	MA33-98	Headwaters, perennial portion south of East Colrain Road, Colrain to confluence with Green River, Colrain.	1.40	Miles	2
Staples Brook	MA33-121	Headwaters east of Spruce Hill, North Adams to confluence Tower Brook, Florida.	1.40	Miles	2
Steele Brook	MA33-85	Headwaters, perennial portion north of Tunnel Road, Rowe to confluence with Pelham Brook, Rowe.	1.70	Miles	2
Stewart Brook	MA33-132	Perennial portion north of Wilson Graves Road, Shelburne to mouth at confluence with Hinsdale Brook, Shelburne.	1.00	Miles	2



Appendix 1

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Water Body	Segment ID	Description	Size	Units	Category
Tannery Brook	MA33-86	Outlet of Tannery Pond, Savoy to confluence with Gulf Brook, Savoy.	0.70	Miles	2
Tannery Pond	MA33020	Savoy.	0.50	Acres	3
Taylor Brook	MA33-31	From the confluence of Kinsman Brook and Davenport Brook, Heath to confluence with West Branch North River, Colrain.	2.60	Miles	2
Tilton Brook	MA33-119	Headwaters in Savoy Mountain State Forest, west of Bannis Road, Savoy to confluence with Chickley River, Savoy.	2.00	Miles	2
Tissdell Brook	MA33-24	Headwaters perennial portion east of Christian Hill Cemetary, Colrain to confluence with West Branch North River, Colrain.	1.70	Miles	2
Todd Brook	MA33-127	Headwaters east of Coon Hill, Charlemont to confluence with Deerfield River, Charlemont.	1.20	Miles	3
Tower Brook	MA33-87	Headwaters, west of Central Shaft Road, Florida (drains wetland) to confluence with Cold River, Florida.	1.90	Miles	2
Trout Brook	MA33-88	Headwaters, perennial portion west of Hawks Mountain, Charlemont/Hawley to confluence with Cold River, Charlemont.	0.60	Miles	2
Tuttle Brook	MA33-129	Headwaters east of Leshures Road, Rowe to mouth at confluence with Potter Brook, Rowe.	2.00	Miles	2
Unnamed Tributary	MA33-103	Unnamed tributary to Hinsdale Brook, perennial portion east of Little Mohawk Road, Shelburne to confluence with Hinsdale Brook, Shelburne.	1.90	Miles	2
Unnamed Tributary	MA33-104	Unnamed tributary to an unnamed tributary to Hinsdale Brook from Shearer Pond Dam (National Dam ID MA01531), Colrain to confluence with an unnamed tributary to Hinsdale Brook, Shelburne.	0.90	Miles	2
Unnamed Tributary	MA33-105	Unnamed tributary to Glen Brook, headwaters north of Oak Hill Road, Leyden to confluence Glen Brook, Greenfield.	1.90	Miles	2
Unnamed Tributary	MA33-107	Unnamed tributary to the East Branch North River, headwaters south of Fairbanks Road, Colrain to the confluence of the East Branch North River, Colrain.	1.70	Miles	2
Unnamed Tributary	MA33-108	Unnamed tributary to East Branch North River, headwaters outlet Mt. Brook Reservoir, Colrain to confluence with East Branch North River, Colrain.	1.40	Miles	2
Unnamed Tributary	MA33-109	Unnamed tributary to West Branch North River, headwaters west of Wilson Hill Road, Colrain to confluence with West Branch North River, Colrain.	1.40	Miles	2
Unnamed Tributary	MA33-110	Unnamed tributary to Taylor Brook, headwaters, Catamount State Forest, Colrain to confluence Taylor Brook, Colrain.	1.50	Miles	2
Unnamed Tributary	MA33-114	Headwaters east of Pine Hill Road, Conway to confluence with South River, Conway.	1.00	Miles	2
Unnamed Tributary	MA33-115	Unnamed tributary to Chapel Brook, headwaters west of Bird Hill Road, Ashfield to confluence with Chapel Brook, Ashfield.	1.50	Miles	2
Unnamed Tributary	MA33-116	Unnamed tributary to Clesson Brook, headwaters north of Avery Road, Buckland to confluence with Clesson Brook, Buckland.	1.80	Miles	2
Unnamed Tributary	MA33-128	Unnamed tributary to Deerfield River known as 'Bear Swamp Outflow', from headwaters north of Tunnel Road, Rowe to confluence with Deerfield River, Rowe.	1.30	Miles	3
Unnamed Tributary	MA33-133	Unnamed tributary to the Deerfield River from headwaters, outlet Goodnow Road Pond, Buckland to mouth at confluence with the Deerfield River, Buckland.	1.50	Miles	2
Unnamed Tributary	MA33-134	Unnamed tributary to East Branch North River from headwaters east of Franklin Hill Road and southwest at Franklin Hill, Colrain to mouth at confluence with East Branch North River, Colrain.	0.70	Miles	2



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Assessment units and integrated list categories presented alphabetically by major watershed

Water Body	Segment ID	Description	Size	Units	Category
Unnamed Tributary	MA33-61	Unnamed tributary to Clark Brook locally known as "Hog Hollow Brook", headwaters north of Bray Road, Buckland to confluence with Clark Brook, Buckland.	1.10	Miles	2
Upper Greenfield Reservoir	MA33021	Leyden.	6.00	Acres	3
Upper Highland Springs Reservoir	MA33025	Ashfield.	2.00	Acres	3
Upper Reservoir Bear Swamp	MA33026	Rowe.	108.00	Acres	3
Vincent Brook	MA33-89	Headwaters, perennial portion east of Stetson Brothers Road, Colrain to confluence with West Branch North River, Colrain.	1.00	Miles	2
West Branch Brook	MA33-90	Headwaters, Vermont-Massachusetts stateline, Heath to confluence with Burrington Brook (forming headwaters West Branch North River), Heath.	5.40	Miles	2
West Branch North River	MA33-27	Headwaters, confluence of West Branch Brook and Burrington Brook, Heath to confluence with East Branch North River, forming headwaters North River, Colrain.	7.20	Miles	2
Wheeler Brook	MA33-95	Headwaters, south of Old Greenfield Road, Shelburne to confluence with Green River, Greenfield.	2.50	Miles	2
Whitcomb Brook	MA33-91	Headwaters, perennial portion east of Whitcomb Hill Road, Florida to confluence with Deerfield River, Florida.	0.60	Miles	2
White Brook	MA33-122	Headwaters east of Olson Road, Florida to confluence with the Cold River, Florida.	1.60	Miles	2
Wilder Brook	MA33-92	Headwaters, east of Flagg Hill Road, Heath to confluence with Deerfield River, Charlemont.	2.90	Miles	2
Willis Brook	MA33-93	Headwaters, perennial portion south of South Road, Heath to confluence with Hartwell Brook, Charlemont.	1.60	Miles	2
Workman Brook	MA33-94	Headwaters, perennial portion west of East Colrain Road, Colrain (drains wetland) to confluence with Green River, Colrain.	1.40	Miles	2
Farmington					
Babcock Brook	MA31-32	Headwaters west of Amos Case Road, Tolland to mouth at confluence with Hall Pond Brook (forming headwaters Hubbard Brook), Tolland.	3.30	Miles	2
Benton Brook	MA31-11	Headwaters, drainage from Hayden Swamp, Otis to mouth at confluence with the West Branch Farmington River, Otis.	5.20	Miles	5
Benton Pond	MA31003	Otis.	61.00	Acres	4c
Big Pond	MA31004	Otis.	325.00	Acres	5
Bradley Brook	MA31-37	Headwaters, perennial portion, west of Ridgeview Terrace, Southwick to MA/CT border, Southwick.	1.40	Miles	3
Buck River	MA31-38	Headwaters draining wetland just south of Morley Hillard Crank Road, Sandisfield to inlet Abbey Lake, Sandisfield (formerly part of segment MA31-12).	1.70	Miles	3
Buck River	MA31-39	Outlet Abbey Lake, Sandisfield to mouth at confluence with Clam River, Sandisfield (formerly part of segment MA31-12).	4.10	Miles	2
Cherry Brook	MA31-18	Headwaters, perennial portion, north of York Lake Road, Sandisfield to mouth at confluence with Sandy Brook, Sandisfield.	2.40	Miles	3
Clam River	MA31-03	Headwaters, perennial portion, outlet small unnamed pond, Otis to mouth at confluence with West Branch Farmington River, Sandisfield (excluding the 0.8 miles thru the Clam Lake Dam (NATID: MA01052) impoundment).	7.90	Miles	2
Cone Brook	MA31-08	Headwaters, drainage from Angerman Swamp in Beartown State Forest, Otis to mouth at inlet Hayden Pond, Otis.	2.10	Miles	2





Commonwealth of Massachusetts
Executive Office of Environmental Affairs

Department of Environmental Protection

William F. Weld
Governor

Trudy Coxe
Secretary, EOE

Thomas B. Powers
Acting Commissioner

December 14, 1994

Ronald G. Chevalier, Vice President
Northeast Utilities Service Company
P.O. Box 270
Hartford, CT 06141-0270

Re: Water Quality Certification
Gardners Falls Hydroelectric Project
FERC Project No. 2334-01

Dear Mr. Chevalier:

The Massachusetts Department of Environmental Protection has finalized the water quality certification for the referenced project for which Northeast Utilities Service Company as agent for Western Massachusetts Electric Company originally applied for on December 16, 1991. The Department feels that compliance with the conditions of this certification will assure compliance with the Massachusetts Surface Water Quality Standards (MSWQS: 314 CMR 4.00).

The Department acknowledges that the conditions of the certification will not be accomplished until the issuance of the final license from the Federal Energy Regulatory Commission (FERC). The Department reserves the right to modify this certification if the final conditions of the FERC license will not lead to compliance with this certification and the MSWQS.

If you have any questions concerning this certification, please contact me (617-292-5653) or Paul Hogan (508-792-7470) at your convenience.

Very truly yours,

 PDH

Andrew Gottlieb
Director
Office of Watershed Management

enclosure (1)
cc: K. Hodge, NUSCO



Commonwealth of Massachusetts
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401 Water Quality Certification
Applicant: Western Massachusetts Electric Company
(Agent: Northeast Utilities Service Company)
Gardners Falls Hydroelectric Project
BRPWP39

Introduction: The Massachusetts Department of Environmental Protection (MADEP) has reviewed the application for a Water Quality Certification (WQC) for the Gardners Falls Hydroelectric Project (GFHP) submitted by Western Massachusetts Electric Company (WMECO) (through its agent Northeast Utilities Service Company {NUSCO}) and has determined to issue a water quality certification according to conditions outlined below. A chronology of milestones related to the issuance of this certification include:

- * Water Quality Certification application submitted to the Department by WMECO on December 16, 1991
- * an alternative fee and schedule agreement as provided in M.G.L. c.21A s.18 and 310 CMR 4.00 was concluded by MADEP and WMECO on May 13, 1992
- * a draft water quality certification was issued to WMECO on August 27, 1992
- * WMECO withdrew and reapplied for water quality certification in 1992 and 1993; MADEP amended alternative fee agreement
- * The Massachusetts Office of the Attorney General submitted the Commonwealth's recommendations to the Federal Energy Regulatory Commission on October 5, 1994.
- * The Department held a public hearing on the draft certification on October 25, 1994
- * The period for submittal of final comments on the draft certification ended on November 25, 1994.

WMECO filed for a new license for the GFHP with the Federal Energy Regulatory Commission (FERC) to continue to generate hydropower at the WMECO Gardners Falls site in Shelburne, MA. The application (FERC # 2334) was filed on December 20, 1991 with a copies of the application submitted to the Department for review as part of the WQC process. The information contained in the application, subsequent information gathered during the WQC review, and input from numerous entities involved in the license application were used in making the final WQC determination and its conditions. This certification will outline the regulatory jurisdiction of the WQC and the conditions required for the project.

The Department also received an application for a water quality certification from New England Power Company (NEPCO) for the Deerfield River Hydroelectric Project sites located on the Deerfield River. Because the hydrodynamics of the two projects are linked, the Department is reviewing the certification conditions of both projects collectively. The Department is issuing a certification for the NEPCO projects at the same time as for the GFHP.

The Deerfield River is designated under 314 CMR 4.06(3) as a Class B river for its entire length. The river from the Vermont-Massachusetts state line to the confluence with the North River is designated as a cold water fishery while the river from the North River to the confluence with the Connecticut River is designated as a warm water fishery. The Massachusetts Surface Water Quality Standards (314 CMR 4.00) contain minimum criteria for numerous water quality indicators which are required to achieve compliance with the Deerfield River water quality standards designation.

Project Description: WMECO generates hydropower at one site on the Deerfield River in Massachusetts (Gardners Falls Dam: River Mile 16.1 and Powerhouse: River Mile 15.8) which is subject to the FERC application #2334 and this WQC. The power generation augments peak power generation for the WMECO regional electric network. This operation of the Gardners Falls Hydroelectric Project creates a by-pass reach below the Gardners Falls Dam in the Deerfield River that is subject to episodic low and high flow conditions due to the current nature of the hydroelectricity generation. This by-pass reach is defined as the river reach from below the dam to the confluence with the tailrace. Minimum flows must be provided within this by-pass reach in order to maintain a viable biological community as it relates to designated uses as defined in the Massachusetts Surface Water Quality Standards (314 CMR 4.00). These uses include various recreational as well as biological designations of the Deerfield River in concert with the hydroelectric power generation from the Gardners Falls Hydroelectric Project site.

Deerfield River Resource Management: The Massachusetts Division of Fisheries and Wildlife (MADF&W) has developed the Massachusetts Fisheries and Wildlife Management Plan: Deerfield River 1991-2011 (DRFMP). This plan calls for the creation of suitable river flow in the by-pass reach below the Gardners Falls Dam to enhance fisheries. This certification requires that a minimum flow be maintained in the by-pass reach which is deemed acceptable to the goals of the DRFMP. The flow is the result of stream flow needs determined by the Instream Flow Incremental Methodology (IFIM) studies conducted by WMECO and other stream flow analysis such as the Aquatic Base Flow (ABF). Additional information requested as part of the FERC application process by application reviewers was also used to evaluate required stream flows which are part of the conditions of this certification. The MADF&W DRFMP calls for the creation of downstream fish passage facilities at Gardners Falls Dam.

IFIM studies indicated that a flow of 150 cfs would provide substantial habitat for brown trout (adult, juvenile, and fry), juvenile Atlantic Salmon and adult rainbow trout. In addition, maintenance of a relatively steady flow in the by-pass reach will help maintain a viable fishery.

Certification Provisions: In accordance with the provisions of MGL Ch. 21, s.26-53, 314 CMR 4.00, 314 CMR 9.00, and Section 401 of the Federal Clean Water Act (Public Law 92-500 as amended), this Department has determined that the project can be operated to minimize impacts to waters and wetlands and that there is reasonable assurance that the project can be conducted in a manner which will not violate applicable water quality standards, as required by 314 CMR 4.00 and 314 CMR 9.04, and will be in compliance with Sections 301, 302, 303, 306, and 307 of the Federal Clean Water Act. The Department issues this Water Quality Certification for this project subject to the following conditions:

A. The project shall be operated in accordance with the conditions contained in this certification and the provisions included in the FERC application (#2334) and any modifications made thereto, to the extent such application provisions and modifications are consistent with this water quality certification. The operation of the hydrofacility (including high flow, peaking releases) should not interfere with the attainment of the designated uses of the Deerfield River as outlined in the Massachusetts Surface Water Quality Standards (314 CMR 4.00) and the maintenance of an integrated and diverse biological community in the Deerfield River.

B. The release and maintenance of minimum flows at the by-pass reach and at the powerhouse which are consistent with the goals of the DRFMP. The required flow at the site is as follows:

1. Location: Below Gardners Falls Dam
Flow: 150 cubic feet per second (cfs) continuous minimum or inflow from New England Power Company #3 project if such inflow is lower than 150 cfs; minimum flow is comprised of the total flow through the fish passage unit (attraction and transport flows) and flow over the dam
Condition: flow into the by-pass reach should be maintained at 150 cfs during high flow conditions if operationally possible

C. This certification requires the following conditions related to fisheries in the Deerfield River:

1. Location: At Gardners Falls Dam
Requirements:
 - a. construction of a louver system (or other bypass system approved by MADF&W and United States Fish and Wildlife Service {USFWS}) for downstream salmon smolt passage
 - b. facility operational within two construction seasons after issuance of the new FERC license
 - c. flows necessary to operate the facility should be provided during the periods of downstream migration (April 1 to June 15 and September 15 to November 15); these flow periods can be modified by this Department if additional information regarding the period of migration warrants such change
 - d. plans to evaluate the effectiveness of the facility should be submitted by WMECO to MADF&W within one year of the issuance of the FERC license

D. Any construction activities shall be conducted in compliance with the Massachusetts Wetlands Protection Act (MGL c.131, s.40).

E. The applicant shall comply with MGL c.91.

F. All maintenance and repair activities, including disposal of debris and removal of sediments in impounded areas, and construction of fish passage facilities shall be conducted in a manner so as not to impair water quality.

G. Any recreational facilities and/or recreational uses of the project area shall be planned and conducted in such a manner as presented in the FERC application and conducted to protect and maintain water quality of the Deerfield River. The applicant shall enhance access for recreational uses according to the recreation plan submitted as part of the FERC application. Recreational access must comply with applicable state and federal regulations.


H. Any modification of the operation of the project which would affect the conditions of this certification must be approved by this Department.

I. This Department may request, at any time during which this certification is in effect, that the Federal Energy Regulatory Commission reopen the license to make modifications necessary to maintain compliance with the Massachusetts Surface Water Quality Standards.

J. This Department reserves the right to review, and modify if necessary, the conditions of this certification if the State of Vermont Water Quality Certification (or future changes therein) results in non-compliance with this certification.

Compliance: Should any violation of the Massachusetts Surface Water Quality Standards (314 CMR 4.00) or the terms of this certification occur as a result of the proposed activity, this Department will direct that the violation be corrected. Non-compliance on the part of Western Massachusetts Electric Company will be cause for this Department to recommend the revocation of the permit(s) and/or certification issued therefor or to take such other action as is authorized by the General Laws of the Commonwealth. Substantial civil and criminal penalties are authorized under MGL Ch. 21, Section 42 for discharging into Massachusetts waters in violation of an order or permit issued by this Department. This certification does not relieve Western Massachusetts Electric Company of the duty to comply with other applicable Massachusetts statutes and regulations.

Dated: December 14, 1994

Signed: 

Andrew Gottlieb, Director
Office of Watershed Management
Boston, MA