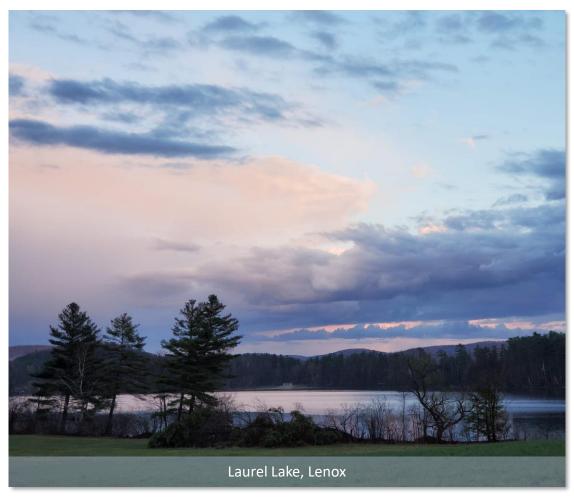


OFFICE OF WATER RESOURCES Annual Report, Fiscal Year 2021



MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION
DIVISION OF WATER SUPPLY PROTECTION
OFFICE OF WATER RESOURCES

DEPARTMENT OF CONSERVATION AND RECREATION

Conservation and Recreation (DCR) is to protect, promote, and enhance our commonwealth of natural, cultural, and recreational resources for the well-being of all. DCR fulfills its mission through the stewardship of over 450,000 acres of parks and forests, beaches, bike trails, watersheds, dams, and parkways. DCR also promotes conservation efforts throughout the state, including water resource protection, beach renourishment, aquatic invasive species management, and flood hazard mitigation.

The mission of the **Department of**



DCR OFFICE OF WATER RESOURCES

The DCR Office of Water Resources (OWR) works on behalf of people and the environment to protect

the water resources on which we all depend. By providing science-based policy, technical assistance, and resource management, our three program areas work to ensure that Massachusetts has plentiful water to support a healthy environment and economic development for generations to come, and that those generations will be better prepared to face extreme weather and will have access to healthy lakes, ponds, and rivers.

We invite you to learn more about the below programs on the pages that follow.

- Flood Hazard Management Program
- Lakes and Ponds Program
- Water Resources Assessment and Planning Program



FLOOD HAZARD MANAGEMENT PROGRAM

The Flood Hazard Management Program (FHMP) is the state coordinating office for the National Flood Insurance Program (NFIP).

- FHMP staff helps homeowners, professionals, and local officials to navigate the requirements of the NFIP.
- Staff provides technical assistance to NFIP communities on a wide range of matters, including floodplain management best practices, floodresistant standards for construction, floodplain mapping issues, flood insurance questions, and mitigation options to reduce flood losses.



FY2021 FHMP HIGHLIGHTS

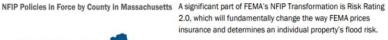
In FY2021, FHMP staff participated at the national level with engagement in the rollout of the Federal Emergency Management Agency's new Risk Rating 2.0 methodology for rating flood insurance policies across the nation. Other accomplishments of the FHMP in FY2021 include:

- 22 Community Assistance Visits and 15 training events
- 689 technical assistance contacts to help 331 of the state's 341 NFIP communities
- Implementation of an updated Massachusetts Model Floodplain Bylaw to assist NFIP communities with federal compliance
- Coordination with state, national, federal, and local partners to monitor and review floodplain development, mitigation projects, and local and regional resiliency efforts

Massachusetts — Risk Rating 2.0

With the implementation of Risk Rating 2.0, FEMA delivers rates that more accurately reflect flood risk and ensure the National Flood Insurance Program will be here for this generation and generations to come.

National Flood Insurance Program in Massachusetts





Risk Rating 2.0 is equity in action. With Risk Rating 2.0, individuals will no longer pay more than their share in flood insurance premiums based on the value of their homes Roughly two-thirds of policyholders with older pre-FIRM homes will see a premium decrease.

FEMA will reduce disaster-related suffering and disasterrelated costs in Massachusetts through insurance and the mitigation of flood risks by leveraging advances in industry best practices, technology, and flood risk modeling.

State Profile for Risk Rating 2.0

Coordination with other DCR leaders on agency-wide climate-adaptation measures

LAKES AND PONDS PROGRAM

The mission of the Lakes and Ponds Program is to protect, restore, and enhance the ecological integrity and recreational opportunities of the Commonwealth's lakes and ponds, including DCR's 300 lakes and 51 freshwater swimming beaches.

- Massachusetts has over 3,500 lakes, approximately 300 of which are on DCR property.
- The program works on behalf of visitors to DCR properties and all who use lakes and ponds, including municipalities, communities, and lake advocate groups.
- The program implements its mission through protection and restoration projects; public education, outreach and technical assistance; monitoring and assessment of lakes and their watersheds; and partnerships with stakeholders at the local, regional, state, and federal levels.



FY2021 LAKES & PONDS PROGRAM HIGHLIGHTS

PREVENTING AND MANAGING THE SPREAD OF INVASIVE SPECIES

Early detection of aquatic invasive species (AIS) in lakes and ponds is key for DCR staff to implement rapid response protocols and manage potential infestations as early as possible after introduction.

In FY2021, with the assistance of a Federal Aquatic Nuisance Species Task Force Grant, program staff implemented use of iPads by Boat Ramp Monitors (BRMs) at seven monitored priority lakes in the state parks system. Each summer, the BRMs inspect vessels that are entering or exiting a waterbody to



ensure no AIS are being transported. Species presence/absence and other qualitative data were recorded in real-time on the iPads, which allowed for monitoring and rapid response if an organism was identified. Staff worked closely with DCR Watershed GIS Director Erica Tefft to develop and manage this monitoring tool.

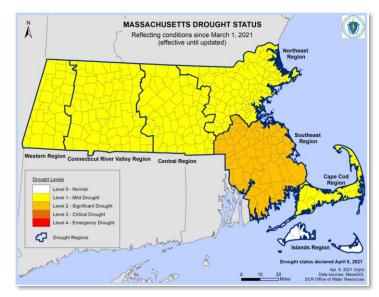
Also in FY2021, Lakes and Ponds Program staff:

- Managed nearly 1,000 acres of AIS at DCR properties throughout the Commonwealth
- Offered Weed Watcher trainings for public groups to educate residents about aquatic invasive species and to provide hands-on training in identification

WATER RESOURCES ASSESSMENT AND PLANNING PROGRAM

The WRAP mission is to provide sciencebased policy and technical assistance to decision-makers and the public to ensure that the long-term water needs of the Commonwealth's residents, communities, and environment can be met.

WRAP also provides technical and administrative staff to the Massachusetts Water Resources Commission.
Established in 1956, the Commission is responsible for developing, coordinating, and overseeing the Commonwealth's water policy and planning activities. To learn more about our work on



Commission programs, see FY2021 WRAP Highlights below and in the WRC annual report.

FY2021 WRAP HIGHLIGHTS

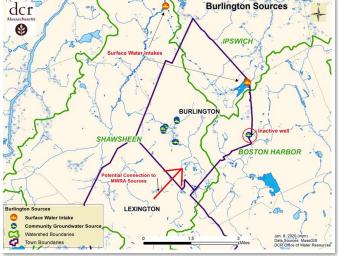
THE INTERBASIN TRANSFER ACT (ITA)

The ITA protects Massachusetts' vital water resources and the communities that rely on them. It ensures

that communities transferring drinking water and wastewater between river basins practice water conservation, and that the hydrology in the donor basin is protected. The process is transparent and includes robust public input.

In FY2021, staff reviewed both new and ongoing projects including:

- The Town of North Reading's application to increase the present rate of Interbasin Transfer of water from the Town of Andover, which was approved in August 2020
- The Town of Burlington's application for approval of an action to increase the present rate of Interbasin Transfer of water from the MWRA System, which was approved in November 2020
- Presented on proposed updates to the ITA Performance Standards for water rates and billing
- Monitored continued compliance with conditions for previously approved ITA projects



FY2021 WRAP HIGHLIGHTS, CONTINUED

MASSACHUSETTS WATER CONSERVATION STANDARDS

The Commission established the Massachusetts Water Conservation Standards (WCS) in 1992, setting statewide goals for water-use efficiency and providing guidance for effective conservation.

In FY2021, staff launched the water conservation toolkit. The website targets a wide range of water users, including residents, businesses, water suppliers, planners and other municipal officials, institutions, agricultural entities, and educators. Branded "Conserve MA Water," the website (www.mass.gov/conservemawater) features Massachusetts-specific guidance on actions users can take to reduce their water use. It features tools and outreach material that can be easily downloaded and shared.

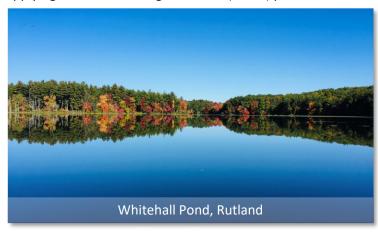
Also in FY2021, staff presented key components of the best management practices guide: *Collecting, Managing, and Analyzing Water Use Data*. This guide was developed by



DCR staff, Tighe and Bond, and Amy Vickers and Associates, with funding and technical assistance from the Division of Ecological Restoration, in FY2019-20, to support the Water Conservation Standards.

WATER NEEDS FORECASTS

WRAP staff works with public water suppliers to develop 15- to 20-year water needs forecasts, using a methodology approved by the Water Resources Commission. The forecasts are used by suppliers in applying for Water Management Act (WMA) permits and in long-range planning.



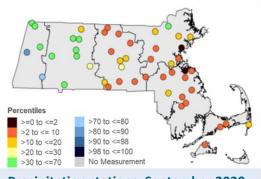
In FY2021, WRAP staff consulted with MassDEP and ten public water suppliers in eight river basins (Blackstone, Buzzards Bay, Concord, Ipswich, Merrimack, Nashua, Parker, and Westfield basins) to review, revise, or prepare new water needs forecasts.

FY2021 WRAP HIGHLIGHTS, CONTINUED

USGS COOPERATIVE PROGRAM

The U.S. Geological Survey and the state have had a water resources partnership since 1904, when the state's first modern stream gage was installed in the Connecticut River. The program currently maintains 191 monitoring stations providing data on:

- Streamflow— 58 real-time gages
- Groundwater— 65 manual and 59 automated gages
- Precipitation— 5 gages
- Tides—3 gages
- Soil moisture—1 gage



Precipitation stations, September 2020

In FY2021, staff applied for and was awarded a National Groundwater Monitoring Network (NGWMN) grant to upgrade 32 manually measured wells in the Climate Response Network to real-time measurement and data provision and to update the NGWMN well characteristics database.

HYDROLOGIC CONDITIONS, DROUGHT MONITORING AND PRECIPITATION PROGRAM

WRAP staff monitors and analyzes water conditions monthly and produces a <u>Hydrologic Conditions</u> <u>Report</u>, covering precipitation trends, rainfall deficits, river conditions, groundwater levels, and reservoir, lake and impoundment levels. Staff uses these data to monitor for a potentially developing drought or deteriorating conditions during droughts and to advise the state's Drought Management

Task Force (DMTF).

Of the hydrologic monitoring networks, WRAP staff manages the precipitation network, which has been in operation since 1956 and currently provides data from 50 active stations in Massachusetts. Other networks are operated cooperatively with the USGS. These data are critical to drought monitoring.

IN FY2021, WRAP staff continued to advise the

Drought conditions at Wenham Lake in Beverly, September 2020.

DMTF in response to the drought that started in May 2020 and extended until December 2020. However, remaining deficits in groundwater combined with above-normal temperatures to begin 2021 resulted in renewed drought declarations from February to beyond the end of FY2021 in June.

Also in FY2021, WRAP staff continued to work with the Northeast Regional Climate Center at Cornell University to develop a <u>Drought Dashboard</u> – a web-based tool to provide data and maps of drought indices, hydrologic conditions, and drought monitoring. This tool will enhance data processing capabilities and analyses for DMTF meetings.

CONTACT INFORMATION

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Anne Carroll, Director

Office of Water Resources

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anne.carroll@mass.gov

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Massachusetts Department of Conservation and Recreation



Protection Office of Water Resources

617-626-1395

www.mass.gov/service-details/dcr-office-of-waterresources

Photo sources: Cover, Page 2: A. Carroll Page 3: MyCoast.org, Fema.gov Page 4 & 6: T. Flannery Page 7: M. McCrory

APPENDIX A LIST OF FY21 SERVICES PROVIDED AND LOCATIONS

City or Town	Service Provided
Abington	Technical Assistance/Meeting
Acton	Technical Assistance/Meeting
Acushnet	Technical Assistance/Meeting
Adams	Community Assistance Visit/Contact
Agawam	Technical Assistance/Meeting
Amesbury	Technical Assistance/Meeting
Amherst	Community Assistance Visit/Contact
Aquinnah	Technical Assistance/Meeting
Arlington	Technical Assistance/Meeting
Ashby	Technical Assistance/Meeting
Ashfield	Technical Assistance/Meeting
Ashland	Technical Assistance/Meeting
Attleboro	Technical Assistance/Meeting
Auburn	Technical Assistance/Meeting
Ayer	Technical Assistance/Meeting
Barnstable	Technical Assistance/Meeting
Bellingham	Technical Assistance/Meeting
Belmont	Technical Assistance/Meeting
Berkley	Technical Assistance/Meeting
Bernardston	Technical Assistance/Meeting
Beverly	Technical Assistance/Meeting
Billerica	Technical Assistance/Meeting
Bolton	Technical Assistance/Meeting
Boston	Technical Assistance/Meeting
Bourne	Technical Assistance/Meeting
Boxford	Technical Assistance/Meeting
Braintree	Community Assistance Visit/Contact
Brewster	Technical Assistance/Meeting
Brockton	Technical Assistance/Meeting
Buckland	Technical Assistance/Meeting
Burlington	Technical Assistance/Meeting
Cambridge	Technical Assistance/Meeting
Canton	Technical Assistance/Meeting
Carlisle	Technical Assistance/Meeting
Carver	Technical Assistance/Meeting
Charlemont	Technical Assistance/Meeting
Charlton	Technical Assistance/Meeting
Chatham	Technical Assistance/Meeting
Chelmsford	Technical Assistance/Meeting

Flood Hazard Management Program		
City or Town	Service Provided	
Chelsea	Technical Assistance/Meeting	
Chicopee	Technical Assistance/Meeting	
Clarksburg	Technical Assistance/Meeting	
Cohasset	Technical Assistance/Meeting	
Colrain	Technical Assistance/Meeting	
Concord	Technical Assistance/Meeting	
Conway	Technical Assistance/Meeting	
Cummington	Technical Assistance/Meeting	
Danvers	Technical Assistance/Meeting	
Dartmouth	Technical Assistance/Meeting	
Dedham	Community Assistance Visit/Contact	
Deerfield	Technical Assistance/Meeting	
Dennis	Technical Assistance/Meeting	
Dighton	Community Assistance Visit/Contact	
Dracut	Technical Assistance/Meeting	
Dudley	Technical Assistance/Meeting	
Duxbury	Technical Assistance/Meeting	
Eastham	Technical Assistance/Meeting	
Easton	Technical Assistance/Meeting	
Edgartown	Technical Assistance/Meeting	
Erving	Technical Assistance/Meeting	
Everett	Technical Assistance/Meeting	
Fairhaven	Technical Assistance/Meeting	
Fall River	Technical Assistance/Meeting	
Falmouth	Technical Assistance/Meeting	
Fitchburg	Technical Assistance/Meeting	
Foxborough	Technical Assistance/Meeting	
Framingham	Technical Assistance/Meeting	
Franklin	Technical Assistance/Meeting	
Franklin County	Technical Assistance/Meeting	
Freetown	Community Assistance Visit/Contact	
Gardner	Technical Assistance/Meeting	
Georgetown	Technical Assistance/Meeting	
Gill	Technical Assistance/Meeting	
Gloucester	Technical Assistance/Meeting	
Gosnold	Technical Assistance/Meeting	
Granby	Technical Assistance/Meeting	
Granville	Technical Assistance/Meeting	
Great Barrington	Technical Assistance/Meeting	

City or Town	Service Provided	
Greenfield	Technical Assistance/Meeting	
Groton	Technical Assistance/Meeting	
Groveland	Technical Assistance/Meeting	
Hadley	Technical Assistance/Meeting	
Halifax	Technical Assistance/Meeting	
Hamilton	Technical Assistance/Meeting	
Hampden	Technical Assistance/Meeting	
Hanover	Community Assistance Visit/Contact	
Hanson	Technical Assistance/Meeting	
Harvard	Technical Assistance/Meeting	
Harwich	Technical Assistance/Meeting	
Hatfield	Technical Assistance/Meeting	
Haverhill	Technical Assistance/Meeting	
Hawley	Technical Assistance/Meeting	
Heath	Technical Assistance/Meeting	
Hingham	Technical Assistance/Meeting	
Hinsdale	Technical Assistance/Meeting	
Holbrook	Technical Assistance/Meeting	
Holland	Technical Assistance/Meeting	
Holliston	Technical Assistance/Meeting	
Holyoke	Technical Assistance/Meeting	
Hull	Technical Assistance/Meeting	
Ipswich	Technical Assistance/Meeting	
Kingston	Technical Assistance/Meeting	
Lakeville	Technical Assistance/Meeting	
Lee	Technical Assistance/Meeting	
Leicester	Technical Assistance/Meeting	
Lenox	Technical Assistance/Meeting	
Leominster	Technical Assistance/Meeting	
Leverett	Technical Assistance/Meeting	
Lexington	Technical Assistance/Meeting	
Leyden	Technical Assistance/Meeting	
Lowell	Technical Assistance/Meeting	
Lynn	Technical Assistance/Meeting	
Lynnfield	Technical Assistance/Meeting	
Manchester-by-the-Sea	Technical Assistance/Meeting	
Mansfield	Technical Assistance/Meeting	
Marion	Technical Assistance/Meeting	
Marshfield	Technical Assistance/Meeting	
Mashpee	Technical Assistance/Meeting	
Mattapoisett	Technical Assistance/Meeting	
Maynard	Technical Assistance/Meeting	

City or TownService ProvidedMedfieldTechnical Assistance/MeetingMedfordTechnical Assistance/MeetingMedwayCommunity Assistance Visit/ContactMelroseTechnical Assistance/MeetingMerrimacTechnical Assistance/MeetingMethuenTechnical Assistance/MeetingMiddleboroughTechnical Assistance/MeetingMiddletonTechnical Assistance/MeetingMilfordTechnical Assistance/MeetingMiltonCommunity Assistance Visit/ContactMonroeTechnical Assistance/MeetingMontagueTechnical Assistance/Meeting
Medford Technical Assistance/Meeting Medway Community Assistance Visit/Contact Melrose Technical Assistance/Meeting Merrimac Technical Assistance/Meeting Methuen Technical Assistance/Meeting Middleborough Technical Assistance/Meeting Middleton Technical Assistance/Meeting Milford Technical Assistance/Meeting Milford Technical Assistance/Meeting Milton Community Assistance Visit/Contact Monroe Technical Assistance/Meeting
Medway Community Assistance Visit/Contact Melrose Technical Assistance/Meeting Merrimac Technical Assistance/Meeting Methuen Technical Assistance/Meeting Middleborough Technical Assistance/Meeting Middleton Technical Assistance/Meeting Milford Technical Assistance/Meeting Milford Technical Assistance/Meeting Milton Community Assistance Visit/Contact Monroe Technical Assistance/Meeting
Melrose Technical Assistance/Meeting Merrimac Technical Assistance/Meeting Methuen Technical Assistance/Meeting Middleborough Technical Assistance/Meeting Middleton Technical Assistance/Meeting Milford Technical Assistance/Meeting Milton Community Assistance Visit/Contact Monroe Technical Assistance/Meeting
Merrimac Technical Assistance/Meeting Methuen Technical Assistance/Meeting Middleborough Technical Assistance/Meeting Middleton Technical Assistance/Meeting Milford Technical Assistance/Meeting Milton Community Assistance Visit/Contact Monroe Technical Assistance/Meeting
Methuen Technical Assistance/Meeting Middleborough Technical Assistance/Meeting Middleton Technical Assistance/Meeting Milford Technical Assistance/Meeting Milton Community Assistance Visit/Contact Monroe Technical Assistance/Meeting
Middleborough Technical Assistance/Meeting Middleton Technical Assistance/Meeting Milford Technical Assistance/Meeting Milton Community Assistance Visit/Contact Monroe Technical Assistance/Meeting
Middleton Technical Assistance/Meeting Milford Technical Assistance/Meeting Milton Community Assistance Visit/Contact Monroe Technical Assistance/Meeting
Milford Technical Assistance/Meeting Milton Community Assistance Visit/Contact Monroe Technical Assistance/Meeting
Milton Community Assistance Visit/Contact Monroe Technical Assistance/Meeting
Monroe Technical Assistance/Meeting
Montague Technical Assistance/Meeting
Nahant Technical Assistance/Meeting
Nantucket Technical Assistance/Meeting
Natick Technical Assistance/Meeting
New Bedford Technical Assistance/Meeting
New Marlborough Technical Assistance/Meeting
New Salem Technical Assistance/Meeting
Newbury Technical Assistance/Meeting
Newburyport Technical Assistance/Meeting
Newton Community Assistance Visit/Contact
Norfolk Technical Assistance/Meeting
North Andover Technical Assistance/Meeting
North Attleborough Community Assistance Visit/Contact
North Reading Technical Assistance/Meeting
Northampton Technical Assistance/Meeting
Northborough Technical Assistance/Meeting
Northbridge Community Assistance Visit/Contact
Northfield Technical Assistance/Meeting
Norton Technical Assistance/Meeting
Norwell Technical Assistance/Meeting
Norwood Technical Assistance/Meeting
Oak Bluffs Technical Assistance/Meeting
Orange Technical Assistance/Meeting
Orleans Technical Assistance/Meeting
Otis Technical Assistance/Meeting
Peabody Technical Assistance/Meeting
Pelham Technical Assistance/Meeting
Pembroke Technical Assistance/Meeting
Pepperell Technical Assistance/Meeting
Peru Technical Assistance/Meeting
Pittsfield Technical Assistance/Meeting

City or Town	Service Provided
Plainville	Technical Assistance/Meeting
Plymouth	Technical Assistance/Meeting
Plympton	Technical Assistance/Meeting
Provincetown	Technical Assistance/Meeting
Quincy	Technical Assistance/Meeting
Randolph	Community Assistance Visit/Contact
Raynham	Technical Assistance/Meeting
Reading	Community Assistance Visit/Contact
Rehoboth	Technical Assistance/Meeting
Revere	Technical Assistance/Meeting
Richmond	Technical Assistance/Meeting
Rochester	Technical Assistance/Meeting
Rockland	Technical Assistance/Meeting
Rockport	Technical Assistance/Meeting
Rowe	Technical Assistance/Meeting
Russell	Technical Assistance/Meeting
Rutland	Technical Assistance/Meeting
Salem	Technical Assistance/Meeting
Salisbury	Technical Assistance/Meeting
Sandwich	Technical Assistance/Meeting
Saugus	Technical Assistance/Meeting
Savoy	Technical Assistance/Meeting
Scituate	Technical Assistance/Meeting
Seekonk	Technical Assistance/Meeting
Sharon	Community Assistance Visit/Contact
Shelburne	Technical Assistance/Meeting
Sherborn	Technical Assistance/Meeting
Shutesbury	Technical Assistance/Meeting
Somerset	Technical Assistance/Meeting
Somerville	Technical Assistance/Meeting
South Hadley	Technical Assistance/Meeting
Southborough	Community Assistance Visit/Contact
Southwick	Technical Assistance/Meeting
Springfield	Technical Assistance/Meeting
Stockbridge	Technical Assistance/Meeting
Stoughton	Technical Assistance/Meeting
Sturbridge	Technical Assistance/Meeting
Sunderland	Technical Assistance/Meeting
Sutton	Technical Assistance/Meeting
Swampscott	Technical Assistance/Meeting
Swansea	Technical Assistance/Meeting
Tewksbury	Technical Assistance/Meeting

Flood Hazard Management Program		
City or Town	Service Provided	
Tisbury	Technical Assistance/Meeting	
Tolland	Technical Assistance/Meeting	
Topsfield	Technical Assistance/Meeting	
Truro	Technical Assistance/Meeting	
Tyngsborough	Community Assistance Visit/Contact	
Tyringham	Technical Assistance/Meeting	
Uxbridge	Community Assistance Visit/Contact	
Walpole	Community Assistance Visit/Contact	
Waltham	Technical Assistance/Meeting	
Ware	Technical Assistance/Meeting	
Wareham	Community Assistance Visit/Contact	
Warren	Technical Assistance/Meeting	
Warwick	Technical Assistance/Meeting	
Washington	Technical Assistance/Meeting	
Watertown	Technical Assistance/Meeting	
Wayland	Technical Assistance/Meeting	
Wellfleet	Technical Assistance/Meeting	
Wendel	Technical Assistance/Meeting	
Wenham	Technical Assistance/Meeting	
West Boylston	Technical Assistance/Meeting	
West Newbury	Technical Assistance/Meeting	
West Tisbury	Technical Assistance/Meeting	
Westborough	Technical Assistance/Meeting	
Westfield	Technical Assistance/Meeting	
Westminster	Technical Assistance/Meeting	
Weston	Technical Assistance/Meeting	
Westport	Technical Assistance/Meeting	
Westwood	Technical Assistance/Meeting	
Weymouth	Technical Assistance/Meeting	
Whately	Technical Assistance/Meeting	
Whitman	Technical Assistance/Meeting	
Wilbraham	Community Assistance Visit/Contact	
Williamstown	Technical Assistance/Meeting	
Wilmington	Technical Assistance/Meeting	
Winchendon	Technical Assistance/Meeting	
Winchester	Community Assistance Visit/Contact	
Winthrop	Technical Assistance/Meeting	
Woburn	Technical Assistance/Meeting	
Worcester	Technical Assistance/Meeting	
Worthington	Technical Assistance/Meeting	
Yarmouth	Technical Assistance/Meeting	

APPENDIX A (CONTINUED) LIST OF FY21 SERVICES PROVIDED AND LOCATIONS

Lakes and Ponds Program			
City or Town	Location	Waterbody	Service Provided
Abington	Ames Nowell State Park	Cleveland Pond	Aquatic Plant Management
Andover	Harold Parker State Forest	Field Pond	Aquatic Plant Management
Becket	October Mountain State Forest	Buckley Dunton Lake	Aquatic Plant Management
Boston, Cambridge, Newton, Watertown	Charles River Reservation	Charles River Lower Basin	Aquatic Plant Management Permitting
Cheshire	Town Route 8	Cheshire Reservoir	Zebra Mussel Dive Inspection
Clarksburg	Clarksburg State Park	Mausert's Pond	Aquatic Plant Management
Clinton	Wachusett Reservoir Watershed	South Meadow Pond System	Aquatic Plant Management
Concord	Walden Pond State Reservation	Walden Pond	Erosion Control Planning & Permitting, Boat Ramp Monitor
Douglas	Douglas State Forest	Wallum Lake	Stormwater & Erosion Control Design & Permitting, Boat Ramp Monitor
East Otis	Tolland State Forest	Otis Reservoir & Big Pond	Aquatic Plant Management
Egremont	Prospect Lake Road	Prospect Lake	Zebra Mussel Dive Inspection
Framingham	DCR Water Supply Protection	Stearns Reservoir	Aquatic Plant Management & Boat Ramp Development
Framingham, Natick, Wayland	Lake Cochituate State Park	Lake Cochituate & Fiske Pond	Aquatic Plant Management & Baseline Water Quality Monitoring
Georgetown	DFG Office of Fishing & Boating site	Rock Pond	Aquatic Plant Management
Great Barrington	Lake Mansfield Road	Lake Mansfield	Zebra Mussel Dive Inspection
Groton, Pepperell	J. Harry Rich State Forest	Nashua River	Aquatic Plant Management
Ipswich, Topsfield	Willowdale State Forest	Hood Pond	Aquatic Plant Management
Lee, Lenox	Town Route 20	Laurel Lake	Zebra Mussel Dive Inspection, Boat Ramp Monitors
Marshfield	Town of Marshfield	Marshfield Ponds	Aquatic Plant Management
Medford, Somerville	Mystic River Reservation	Mystic Lakes & River	Aquatic Plant Management
Milton	Blue Hills Reservation	Houghton's Pond	Aquatic Plant Management
Monterey	DCR Route 57	Lake Buel	Zebra Mussel Dive Inspection
Multiple Locations	Multiple Locations	10 Lakes & Ponds	eDNA Analysis of Lakes at High Risk for Zebra Mussels
Multiple Locations	Multiple Locations	29 Lakes & Ponds	AIS Surveys & Mapping
Newburyport	Maudslay State Park	Flowering Pond	Post-Dredging Monitoring
Newton	Charles River Reservation	Ware's Cove, Charles River	Aquatic Plant Management
Newton, Waltham	Charles River Reservation	Purgatory Cove, Charles River	Aquatic Plant Management & Dredge Feasibility Study
Norfolk	Bristol-Blake State Reservation	Stony Brook Pond	Aquatic Plant Management

Lakes and Ponds Program			
City or Town	Location	Waterbody	Service Provided
North Adams	Natural Bridge State Park	Natural Bridge Pond	Sediment Removal, Phase II
Pittsfield	City - Burbank Park & Hancock Road	Lake Onota & Pontoosuc Lake	Zebra Mussel Dive Inspection, Boat Ramp Monitor Grants
Richmond	Town - Beach Road	Richmond Pond	Zebra Mussel Dive Inspection
Rutland	Rutland State Park	White Hall Pond	Aquatic Plant Management
Stockbridge	Town Route 183	Stockbridge Bowl	Zebra Mussel Dive Inspection, Boat Ramp Monitor Grant
Sturbridge	Walker Pond State Reservation	Walker Pond	Aquatic Plant Management
Waltham, Weston, Newton	Charles River Reservation	Charles River Lakes District	Aquatic Plant Management
Westfield	Hampton Ponds State Park	Pequot Pond	Zebra Mussel Dive Inspection
Westfield	Hampton Ponds State Park	Pequot Pond	Boat Ramp Monitor
Westminster	Leominster State Forest	Crow Hill & Paradise Ponds	Aquatic Plant Management
Virtual	North American Lake Management Society annual symposium		Attendees
Virtual	Northeast Aquatic Nuisance Species Panel		Panel Co-Chair and Attendees
Virtual	Northeast Aquatic Plant Management Society meeting		Attendees

Water Resources Assessment and Planning Program		
City or Town	Service Provided	
Auburn	Interbasin Transfer Act Pre-Application	
Auburn	Water Needs Forecast, Blackstone River Basin	
Beverly-Salem WSB	Water Needs Forecast, Ipswich River Basin	
Billerica	Water Needs Forecast Review, Concord River Basin	
Burlington	Interbasin Transfer Act Approval	
Buzzards Bay WD	Water Needs Forecast, Buzzards Bay Basin	
Foxborough	Interbasin Transfer Act Review of Monitoring Conditions	
Hudson	Water Needs Forecast Review, Concord River Basin	
Ipswich	Water Needs Forecast Review, Parker River Basin	
Lunenburg	Water Needs Forecast, Nashua River Basin	
Marion	Water Needs Forecast Review, Buzzards Bay Basin	
Merrimac	Water Needs Forecast Review, Merrimack River Basin	
North Reading	Interbasin Transfer Act Approval	
Shrewsbury	Interbasin Transfer Act Applicability Review	
Southwick	Water Needs Forecast Review, Westfield	