



# Fiscal Year 2020 Work Plan



The Burnshirt River, a tributary to the Ware River, as it bisects DCR Watershed property in Phillipston and Templeton. These resources are part of the 35 year legacy of land acquisition led by Jim French that is a cornerstone of the DCR/MWRA unfiltered water supply system.

June 2019

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Massachusetts Department of Conservation and Recreation  
Division of Water Supply Protection  
Office of Watershed Management



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**Fiscal Year 2020 Work Plan**  
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# **1. Annual Work Plans**

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**Department of Conservation and Recreation  
Division of Water Supply Protection  
Office of Watershed Management**

**FY20 Annual Work Plan Highlights**

Fiscal Year 2020 is the second year in the implementation schedule for the *DCR Watershed System Watershed Protection Plan FY19-FY23*. Selective land protection efforts will continue through purchase in fee and of Watershed Preservation Restrictions. The use of GIS and electronic field data collection will continue to streamline numerous protection efforts. Successful implementation of the gull harassment program will continue to enable DCR to meet source water quality standards. The use of drones to track the gull roosts, especially at Quabbin, will enable staff to better understand the bird patterns. The 28-year old Watershed Protection Act will continue to provide the ability to review and regulate projects in proximity to critical water resource areas. Comprehensive emergency response planning continues. Public access plans and regulations for each watershed continue to be important tools in our protection efforts, led by our Watershed Rangers; two plans (Ware River and Sudbury) will be updated in this fiscal year.

**Staffing:**

In March, DCR DWSP leadership started the process of a Personnel Assessment which analyzed the OWM organization to determine the most effective structure for continuing to meet the responsibilities of protecting the metropolitan water supply watersheds. The outcome of that study will lead to the reduction in full-time staff (FTE) from 157.5 to 150 positions. This will be accomplished partly by reductions in staff and partly by shifting of some labor positions to long-term seasonal positions, focusing resources on the busier times of year.

The full-implementation of the Personnel Assessment will not occur immediately, with several position conversions happening as individuals leave positions. In FY20, the FTE count will be reduced from 157.3 to 150.3.

**Wachusett/Sudbury Region**

- Continue acquisition of critical parcels through fee or Watershed Preservation Restriction.
- Continue implementation of the system-wide comprehensive Land Management Plan.
- Continue forestry operations. Active forest lots will be monitored by Foresters and Environmental Quality staff to ensure there are no short-term water quality issues related

to forestry operations. Continue a long-term, paired watershed study to investigate impact of silviculture on tributary water.

- Maintain lands around the Wachusett Reservoir including mowing of dikes to assure maintenance is in compliance with federal and state dam standards.
- Conduct the bird control program and continue efforts to manage wildlife in the watershed. Continue measures to reduce food sources and the overall gull population. Continue managing white-tailed deer populations through the controlled hunt.
- Continue to maintain Ranger presence to monitor and control public access. Enforce DWSP regulations through targeted patrols and the use of citations. Issue written warnings and/or non-criminal citations for repeat offenders and serious violations.
- Continue to implement the Wachusett Internal Road Plan, including routine maintenance and upgrades to higher priority roads.
- Monitor and maintain major dams in the system, as well as smaller watershed dams.
- Monitor and analyze water quality, including monthly sampling of tributaries for bacteria, turbidity, temperature, and specific conductance. Continue monthly or more frequent sampling for nutrients and total suspended solids at tributaries. Continue weekly or more frequent sampling of the reservoir for plankton, pH, temperature, and dissolved oxygen. Conduct extensive hydrologic monitoring (stream flow, groundwater, precipitation, and snow pack) by staff and in cooperation with U.S. Geological Service.
- Monitor watershed activities in order to ensure compliance with 313 CMR 11.09. Track activities in EQ database.
- Continue efforts to streamline data management, data storage, and data visualization tools to facilitate and enhance short term and long term analysis of monitoring results.
- Continue efforts in concert with MWRA to maintain and document progress controlling aquatic invasive species, including the DASH (Diver Assisted Suction Harvest) removal of invasive plants in the Stillwater basin. Monitor watershed ponds and streams, as time allows, for presence of aquatic invasive species.
- Expand and redevelop a well-rounded education and outreach program that showcases the mission and accomplishments of DWSP.
- Work with consultants, the town of Sterling, MassDOT, and MWRA to complete design of stormwater drainage improvements to treat the final remaining direct discharge to the reservoir in Sterling.
- Continue work with watershed communities to implement NPDES Stormwater MS4 requirements.

- Improve and update GIS data layers such as hydrologic connectivity and septic/sewer layers to better characterize and analyze watershed attributes that impact water quality.
- Continue work with MWRA on preparedness for potential railroad spills.
- Complete construction of a new Clinton Labor Crew Headquarters.
- Initiate update to the Sudbury Reservoir Watershed Public Access Management Plan.

### **Quabbin/Ware Region**

- Complete the Ware River Public Access Management Plan.
- Continue acquisition of critical parcels through fee or Watershed Preservation Restriction.
- Implement the system-wide comprehensive Land Management Plan.
- Continue forestry operations. Active forest lots will be monitored by Foresters and Environmental Quality staff to ensure there are no short-term water quality issues caused by the work. Continue a long-term water quality monitoring study to investigate impact of silviculture on tributary water quality.
- Use ArcGIS online to present annual proposed timber sales.
- Start Continuous Forest Inventory (CFI) monitoring at the Ware River.
- Continue work on identifying and planning for Division gravel needs.
- Maintain lands around the Quabbin Reservoir, including mowing and monitoring of dam and dike.
- Continue efforts to manage wildlife in the watershed. Conduct the Quabbin Gull Harassment program. Continue managing white-tailed deer populations through the annual controlled hunt. Identify and remove aquatic animals found within the Pathogen Control Zone.
- Write a Quabbin Park Deer Management Plan.
- Establish a relationship with DOT aeronautics division and UMass Air for use of drones; conduct regular roost counts at Quabbin.

- Continue to maintain Watershed Ranger presence to monitor and control public access in both the Quabbin and Ware River watersheds. Enhance enforcement of rules and regulations through targeted patrols and the use of citations. Issue written warnings and/or non-criminal citations for repeat offenders and serious violations.
- Monitor and maintain major dams in the system, as well as smaller watershed dams.
- Study Brigham Pond Dam to assess alternative potential actions.
- Monitor and analyze water quality, including biweekly sampling of tributaries for bacteria, turbidity, temperature, pH, dissolved oxygen, and specific conductance. Continue biweekly sampling for alkalinity, nutrients and for Environmental Quality Assessments and quarterly sampling for nutrients at core sites. Continue at least monthly sampling of the reservoir for plankton, pH, temperature, dissolved oxygen, specific conductance, bacteria, turbidity, and alkalinity; reservoir sampling for nutrients is completed quarterly. Conduct hydrologic monitoring (monthly groundwater measurements) by staff, in cooperation with U.S. Geological Service.
- Continue monitoring of watershed ponds and streams for presence of aquatic invasive species.
- Start construction of Quabbin Maintenance Facility.
- Finish construction on the New Salem office building.
- Start design phase of the New Salem garage.
- Work closely with MWRA and others on Quabbin Administrative Complex capital improvement projects.
- Present the Quabbin Facility Master Plan vision document.
- Implement new BLA process using boater ID cards, streamlined season pass sales, and iPad scanning.
- Integrate social media into our operations.

**Wachusett/Sudbury Region  
FY2020 Work Plan**

<b>Task #</b>	<b>Task Description</b>	<b>Priority</b>	<b>Lead Group</b>	<b>Additional Staff</b>	<b>Product</b>	<b>Product Due Date</b>
<b>A. Land Acquisition</b>						
A1	Coordinate due diligence and other tasks/services from DCR and private contractors to complete survey, appraisal, title, engineering, and environmental assessments for proposed acquisitions. Negotiate WPR language, purchase prices and conditions of sale with sellers of property.	High	NR	GIS-W, GIS, P, A	Protected land	As needed
A2	Develop individual parcel presentation materials and meet with MWRA Board for approval.	High	NR	P, GIS-W, D	Protected land	ongoing
A3	Convene LAP meetings to review parcels and prioritize land purchases.	High	NR		LAP Recommendations	As needed
A4	Continue to work on the LAP Prioritization Model	Medium	NR	GIS	Model, Spreadsheet	09/30/19
A5	Continue to solicit and work with landowners in donating conservation interests in land and assist in advising landowners on the tax incentives available when donating conservation interests.	Medium	NR		Ongoing communications	ongoing
<b>B. Watershed Preservation Restriction Monitoring</b>						
B1	Monitor WPRs on a regular basis, following monitoring procedures	Medium	NR	EQ	Monitoring reports, updated landownership	06/30/20
B2	Complete baseline documentation reports for new WPRs prior to acquisition or within a reasonable time after acquisition, following EOEEA specifications. Baselines will be done in-house or through appropriate contracts.	High	NR		WPR baseline reports	upon purchase
B3	Meet with Restriction Stewardship Working Group and confer with legal to respond to enforcement issues and requests to exercise reserved rights.	High	NR		Issue resolution and reserved rights decisions	as needed
B4	Track changes in landownership twice a year.	High	NR	Support Staff	Updated Landownership spreadsheet	06/30/20
B5	Write and distribute Watershed Currents, the WPR landowner newsletter.	Medium	NR	P	Newsletter	annually
B6	Implement WPR records procedure with DCR records manager	Medium	NR		Securely stored records	06/30/20
<b>C. Land Management</b>						
C1	Implement the system-wide comprehensive Land Management Plan (LMP).		RD	F, NR, EQ,P, GIS	Implemented programs	06/30/19
C2	Prepare forest harvest proposals for next fiscal year including data on proposed harvest areas, characteristics of stands, soils, cultural resources, wetlands, wildlife, unique features, and priority habitats. Proposals shall also include information on lot layout, landings, stream crossings, wetland crossings, and stonewall crossings.	High	F	RD	Lot Summaries	02/01/20



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C3	Plan and conduct an internal review of proposed logging operations for the coming year, including assessments of silviculture, water quality, wildlife, and other potential impacts/benefits Review lots to ensure consistency with aspects of the CLMP, including wildlife, forestry objectives, and environmental quality.	High	NR	F	Reviews	04/30/20
C5	Plan, lay out, mark products for removal, prepare maps and permits, establish photo monitoring points, file Forest Cutting Plans, seek bids, award permits, and properly advertise and post forest management operations consistent with the Forest Cutting Practices regulations, the LMP, and approved harvest proposals.	High	F	NR		ongoing
C6	Provide supervision and oversight of all forest harvesting operations on DWSP property. Assure compliance with applicable DCR and NHESP regulations and restrictions, approved BMPs, and all Permit conditions. Maintain adequate site visit records. Monitor post-harvest and collect photo point images consistent with internal policy.	High	F	EQ, NR		ongoing
C7	Monitor water quality at active harvesting stream crossing sites to measure effectiveness of BMPs.	High	EQ	NR, F		ongoing
C8	Continue to implement long-term paired watershed monitoring to assess impact of DWSP forest management on tributary water quality.	Medium	EQ	NR, F		ongoing
C9	Conduct periodical regeneration and invasive species surveys to monitor forest health and development resulting from silvicultural activities or other natural disturbances and processes.	Medium	F	NR		ongoing
C10	Conduct periodic reviews and monitoring of land management activities and forest conditions to assure compliance and consistency with Land Management Plan.	High	NR	F, EQ		ongoing
C11	Collect data and maintain GIS datalayers related to forest structure, composition, regeneration, roads, boundary information, stone walls, wetlands, streams, and other data to guide the land management program. Maintain GIS data documenting the location, extent, and intensity of all silvicultural operations.	Medium	F	GIS		ongoing
C12	Assess all new fee land acquisitions, documenting existing conditions of forests, access roads, bridges and culverts, boundary markings, and restoration needs. Integrate these lands into existing GIS datasets and land management, public access, and other watershed management programs.	High	F	CE, WM, WR		within 60 days of purchase
C13	Locate, mark, and maintain property boundaries periodically or as needed.	Medium	F	CE, RD		ongoing
C16	Identify, plan, and oversee non-forest or other unique habitat restoration, field reclamation, and maintenance work.	Medium	NR	F		ongoing

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<b>D. Wildlife Management</b>						
D1	Continue the active harassment of gulls within the Pathogen Control Zone at Wachusett Reservoir, using human presence, boats, pyrotechnics, passive scare devices, and other techniques. Continue to identify and test new harassment techniques.	High	EQ	F, WM, CE	Birds are moved out of control zone.	Ongoing
D2	Observe and document the nocturnal roost of gulls on the reservoir weekly during the months of September- March.	High	NR	EQ	Weekly counts: Data used to guide harassment program	04/01/20
D3	Control Canada geese populations at Wachusett Reservoir by treating eggs during nesting season to prevent hatching.	High	NR		Annual report	6/30/2020
D4	Identify places in MA where human derived food is available and work to prevent feeding through educational signage, interaction and enforcement.	Medium	NR	WM	Field reports; Reduction of available human-derived food sources	ongoing
D5	Aquatic Mammal Control: Remove beaver and muskrat in the Aquatic Wildlife Pathogen Control Zone at Wachusett.	High	NR	EQ		ongoing
D6	Respond to problems of burrowing animals on dams and dikes; take appropriate action.	High	NR		Field report	ongoing
D7	Research and manage for common loons on DWSP waterbodies; provide nesting platforms, capture and sample birds for contaminants.	Medium	NR		Annual report	ongoing
D8	Continue long-term wildlife resource monitoring program.	Medium	NR	CE, WM		ongoing
D9	Work with MA Department of Fisheries and Wildlife (DFW) to survey for and document breeding bald eagles on the reservoir.	Low	NR		Field Notes	ongoing
D10	Plan for the White-tailed Deer Management Program on DWSP lands at Wachusett; Administer the applications, permits, and orientations for the Wachusett Reservoir Zone Deer Hunt	High	NR	WR, RD, WM	Orientations, permits	ongoing
D11	Coordinate with the Massachusetts Natural Heritage and Endangered Species Program concerning rare species occurrences and protection	Low	NR	F	Field Notes; reports	Ongoing
<b>E. Public Access Management</b>						
E1	Proactively patrol watershed lands to ensure compliance with DCR regulations and policies. Tally visitor contact and produce quarterly and annual summary reports. Conduct trend analysis on visitor statistics and rule violations.	High	WR		Reports	Ongoing
E2	Continue to cooperate with state, environmental, and local police for help with enforcement when required.	High	WR	RD	Enforcement Resolution	Ongoing
E3	Continue to use DCR social media accounts for advertisement of interpretive programs, including general or emergency information (such as closings).	Medium	WR	IS	Press documents	Ongoing
E4	Develop public outreach regarding allowed uses on DCR Wachusett lands.	Medium	WR	IS	Plan, signage, outreach	Ongoing
E5	Continue updates and improvements to access points with signs, gates and improved parking areas. Conduct regular inspections of gates and access barriers.	High	WR	WM, RD	Signs, barriers	Ongoing

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E6	Regularly evaluate and modify policies within the current Public Access Plan	Medium	WR	RD	Compliance with DWSP regulations	Ongoing
E7	Continue to conduct “special operations” such as night operations, ATV, and snowmobile operations, as needed.	High	WR		Compliance with DWSP regulations	Ongoing
E8	Enforce rules and regulations of 313 CMR 11.09 through the use of citations. Issue written warnings and/or non-criminal citations for repeat offenders and serious violations.	High	WR		Compliance with DWSP regulations. Update database.	Ongoing
E9	Evaluate and modify, if necessary, specific access plan policies as part of the draft Wachusett Reservoir Watershed 2020 Public Access Plan update.	High	EQ	WR	Draft report	06/30/20
<b>F. Watershed Security</b>						
F1	Maintain an active presence in the watershed. Monitor watershed lands, roadways, and railways for unusual or suspicious activities; provide appropriate response.	High	WR	RD	Ranger logs	ongoing
F2	Continue ongoing communication and coordination with local, state, and federal emergency responders; coordinate with MWRA on all security issues.	High	WR	RD	Ranger logs	ongoing
F3	Continue program of enhancing security infrastructure around Wachusett Reservoir.	Medium	WR	CE,WM	Implementation	ongoing
<b>G. Infrastructure</b>						
G1	Assess Wachusett and Sudbury dams, spillways, and dikes monthly. Forward all significant issues to the Regional Director and the MWRA. Coordinate with MWRA on biannual dam safety inspections for compliance with 302 CMR 10.00.	High	CE	RD	Inspection logs and reports, summary reports	Monthly
G2	Assess DWSP smaller dams semi-annually; review maintenance plans and revise as necessary.	High	CE	WM	Plans, summary reports	2nd quarter. 4th quarter
G3	Continue maintenance plans for the improvement of the Wachusett and Sudbury dams and dike structures. Monitor conditions and maintenance activities and revise plans, as necessary.	High	CE	WM	Inspection reports, summary reports	ongoing
G4	Conduct annual inspection/evaluation of Wachusett internal roads, drainage structures and shoreline access points; update GIS data layers as needed and develop list of maintenance and repairs needs.	High	CE	EQ	Maps, datalayers	ongoing
G5	Develop annual plan for internal road repair/reconstruction projects.	High	CE	RD,F,WM,EQ	Annual Plan, work orders, summary report	04/01/20
G6	Monitor the stability of River Road in Clinton.	Medium	CE		Report	ongoing
G7	Conduct projects using in-house staff and resources. Provide oversight to ensure protection of water resources.	Medium	CE	CE,EQ,F	Projects	ongoing
G8	Conduct regular inspection and maintenance of all DWSP BMPs.	High	CE	EQ, WM	Maintained, properly operating SW BMPS	ongoing
G9	Evaluate conditions of Sudbury watershed internal roads and develop work plan, as necessary.	Medium	CE	EQ	Work plan, maps, work orders	06/30/20

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G10	Provide supervision, coordination, oversight, and technical support or assistance for all engineering, construction, and renovation work in Section.	High	CE	RD	Inspections, construction and maintenance records	ongoing
G11	Maintain records regarding property plans & data; reservoir and facility construction and maintenance operations.	Medium	CE		Miscellaneous records	ongoing
G12	Implement annual Major Projects	High	RD		Improvements	06/30/20
G13	Provide access to water quality monitoring stations and perform occasional maintenance activities at stream gages	High	EQ, WM		Maintained access; functioning gauges	ongoing
G14	Evaluate and coordinate the monitoring of facilities for compliance with state and federal regulations. Develop and update required documents, as necessary	High	CE		Summary reports	06/30/20
<b>H. Watershed Protection Act</b>						
H1	Continue implementation of the WsPA. Review and track all WsPA applications and activity in database. Issue decisions within timeframes as required by the regulations. Add all relevant information to the EQ electronic database.	High	EQ	RD, GIS-W, P	WsPA Decisions, updated electronic files	ongoing
H2	Convene the Watershed Protection Act Working Group regularly to discuss policy and address specific problems related to the WsPA	High	P	EQ, R. D	Coordination, decisions, meeting minutes	as needed
H3	Review permits for watershed towns on a monthly basis with letters sent to property owners of affected parcels.	High	EQ	RD	Letters to Property Owners of Affected Parcels	Ongoing
H4	Review property transfers for seven towns on a monthly basis with letters sent to new property owners of affected parcels informing them of the WsPA and how they may obtain additional information.	High	EQ	RD	Letters to Property Owners of Affected Parcels	Ongoing
H5	Review files from previous year on an ongoing basis, including contact with owners and site visits as needed.	High	EQ		Follow-up letters issued within six months of Decisions. All activities documented in database.	Ongoing
H6	Provide Town Halls with WsPA maps, brochures and applications on a regular basis.	High	EQ		Inventory of needs and inventory of information that was distributed.	Visit each town twice yearly.

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<b>I. Education and Outreach</b>						
I1	Review, implement, and amend the Wachusett Interpretive Services Plan. Coordinate all educational and outreach programs and document activities, successes, and any problems.	Medium	IS	WR,EQ	Amended plan with documentation of actions	Ongoing
I2	Inspect kiosks and brochure boxes quarterly, submit work orders, and update as necessary. Have IS review all; develop overall plan? Look into improving our kiosks and bulletin boards throughout the watershed.	Medium	WR	IS,WM	Updates on Kiosks at least quarterly	Quarterly
I3	Perform inventory of signage and make recommendations for improvements and additions of stewardship signs	Medium	WR	D,RD	Inventory of sign type and location	1st quarter
I4	Analyze and update current brochures. Determine need for new brochure topics and develop as needed.	Medium	EQ	WR, IS	Brochures	Ongoing
I5	Partner with other organizations on watershed programs		IS	EQ, WR	Programs	Ongoing
I6	Conduct watershed, wildlife, forests, and history educational programs in the local school districts.	Medium	IS	WR	School Programs	Ongoing
I7	Provide educational materials, teacher training, and support for Mass Envirothon.	High	EQ	IS	School Programs	Ongoing
I8	Provide education through visitor contacts and formal presentations.	Medium	WR	IS	Programs, visitor contacts	Ongoing
I9	Publish bi-annual Downstream newsletter.	Low	NR	P, IS	Newsletter	2nd Quarter and 4th Quarter
I10	Maintain and update website.	Medium	P		Website	Ongoing
<b>J. Water Quality and Hydrologic Monitoring</b>						
J1	Continue routine sampling of tributaries for bacteria, turbidity, temperature, and specific conductance. Continue monthly sampling for nutrients and TSS at 10 tributaries.	High	EQ		WQ data entered into database	Ongoing
J2	Continue weekly or more frequent sampling of the reservoir for plankton, pH, temperature, and dissolved oxygen. Sample nutrients quarterly. Conduct reservoir transect sampling in conjunction with gull harassment program.	High	EQ		WQ data entered into database	Ongoing
J3	Produce annual water quality summary and sampling plan.	High	EQ		Annual WQ report by March 15	3rd Quarter
J4	Maintain continuous stream flow gages in all four watersheds through USGS contract. Coordinate with USGS to ensure proper performance of all gages, and accurate and timely reporting of data.	High	EQ		Instantaneous hydrology information, USGS cooperation	Ongoing
J5	Augment hydrologic data in Wachusett watershed through establishment and monitoring of stream gages and rain gages, and take snow pack measurements. Develop and maintain accurate rating curves.	High	EQ		Rating curves, precipitation data, monthly HOBO downloads entered into database	Ongoing
J6	Determine needs for stormwater sampling based on analysis of historical data. Sample storm events as determined necessary.	High	EQ	RD, D	WQ data entered into database to improve annual nutrient loading calculations	Ongoing

<b>Task #</b>	<b>Task Description</b>	<b>Priority</b>	<b>Lead Group</b>	<b>Additional Staff</b>	<b>Product</b>	<b>Product Due Date</b>
J7	Generate solute loading estimates for flow monitored tributaries using Flux, RCMODEL, or other statistical software. For FY19 expand to include smaller tributaries and Quabbin transfer.	Medium	EQ		Annual loading estimates	3rd Quarter
J8	Continue contract to work with UMass to use results of water quality models and other watershed/water quality analyses to help to make watershed management decisions. Project will include topics in Quabbin/Ware watersheds as appropriate.	High	EQ		Input on DCR projects and issues; data summaries	Ongoing
J9	Identify and outline system-wide water quality issues. Bring to ResOPs and/or WQSAT for discussion and integrate into water quality modeling work with UMass.	High	EQ		Issues	2nd Quarter
J10	Continue to work with MWRA, Quabbin EQ, NEIWPCC and other stakeholders to characterize cyanobacteria and cyanotoxins in the reservoir.	High	EQ		Info in annual WQ report	Ongoing
J11	Continue to develop database backed tools and applications (R,GIS,MS Access) to facilitate data management, review and analysis, writing reports and modeling efforts.	High	EQ		Improved analysis and reporting	Ongoing
J12	Continue data compilation/interpretation for 30-Year Water Quality Report (1988-2017). Include assessment of impacts of climate change on water quality and hydrology.	High	EQ		Comprehensive report	4th Quarter
J13	Increase understanding of reservoir dynamics by collecting profiles in South Basin, Andrews Harbor, etc. in late summer or early fall when the interflow is well established.	Medium	EQ		Collection of additional data	Ongoing
J14	Complete identification and assessment of all macroinvertebrate samples and write summary report.	Low	EQ		Inclusion in 30-year WQ Report	Ongoing
J15	Continue cooperative study of current population status, life history, and sustainable yield of lake trout. Use GIS to predict spawning areas in the reservoir.	Medium	EQ		Collection of data, generation of spawning area map	Ongoing
J16	Develop a study to identify trends in the long-term phytoplankton and water quality data sets and identify variables influencing these dynamics.	Medium	EQ		Collection of additional data, analysis	Ongoing
J17	Initiate basic fish monitoring by collaborating with MA DFW to conduct fish in the reservoir. Explore if spring electroshocking is a feasible way to collect Lake Trout in the reservoir.	Medium	EQ		Collection of fish, compiling and analyzing results	Ongoing

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<b>K. Watershed Monitoring and Assessment</b>						
K1	Continue to review local records and conduct watershed surveillance to identify potential issues in the watershed that could impact water quality. Work with local boards and land owners when problems are identified. Document all work in EQ database.	High	EQ		Document actions in EQ database; compliance with regulations	Ongoing
K2	Review files in EQ database and resolve any inconsistencies with paper records. Maintain records of all water quality related issues and EQ actions taken in EQ database. Make improvements to structure and data as needed	High	EQ		Corrected files, accurate useful data	Ongoing
K3	Continue to update water and wetland resources using plans, field observations, and other available data. Add centerlines to streams and wetlands and correct any inaccurate wetland boundaries.	High	EQ	GIS, GIS-W	Updated hydrology datalayer	Ongoing
K4	Finalize Stillwater District EQA and use recommendations to develop tasks for FY21 Work Plan.	High	EQ		Final report, FY21 work plan tasks	06/30/20
K5	Update status of agriculture sites, hazardous material sites, hazardous materials spills, USTs, and ASTs.	High	EQ		Updated info in database and EQ files	Ongoing
K6	Develop and implement outreach strategies and programs for topics identified through EQAs.	High	EQ		Brochures, programs	Ongoing
<b>L. Aquatic Invasive Species</b>						
L1	Inspect reservoir, lakes, ponds and tributaries for presence of AIS.	High	EQ		Annual summary in water quality report	3rd Quarter
L2	Conduct surveys, gather information, and make recommendations for management actions on an individual basis if/when new infestations are found in accordance with the updated Wachusett AIS management plan.	High	EQ		Annual summary in water quality report	3rd Quarter
L3	Conduct aquatic vegetation surveys prior to and after aquatic herbicide treatments planned for the Lily Ponds, South Meadow Pond complex, and Clamshell Pond.	Medium	EQ		Field report	4th Quarter
L4	Continue to use appropriate methods to prevent the spread of pioneering stands of Phragmites along the reservoir shoreline.	High	EQ	WM, NR	Annual summary in water quality report	3rd Quarter
L5	Perform aquatic vegetation survey work prior to Thomas, Oakdale, and cove vegetation management. Provide report to MWRA and contractors to guide 2019-2020 plant removal efforts.	High	EQ		Field report	4th Quarter
L6	Monitor, advise, and assist contractors with any necessary plant removal operations.	Medium	EQ	WM	Annual summary in water quality report	3rd Quarter
L7	Enforce the decontamination procedures for all watercraft entering the reservoir by inspecting each vessel and collecting completed decontamination certification forms.	High	EQ		Annual summary in water quality report	3rd Quarter
L8	Continue education efforts through formal presentations and visitor contacts.	Medium	EQ	WR	Annual summary in water quality report	3rd Quarter
L9	Distribute AIS brochure.	Medium	IS		Brochure; program	Ongoing
L10	Monitor beaver activity; if necessary make recommendations to NR for removal where contributing to spread of invasive plants.	Medium	EQ	NR	Field Reports	Ongoing

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<b>M. Wastewater Management</b>						
M1	Provide plan review and interpretation, if requested, to Boards of Health.	Medium	EQ		Plan review, recommendations to boards, applicants	Ongoing
M2	Compile septic system information (installation date, repair date, location, etc) from watershed communities in wastewater database. Include linked electronic plans where available.	High	EQ		Septic system datalayer	06/30/20
M3	Obtain sewer connection information from Holden and West Boylston; add to Wastewater database and GIS datalayer	Medium	EQ		Updated database and GIS datalayer	06/30/20
M4	Continue to provide management support, with the MWRA, of the Rutland-Holden trunk sewer and Rutland Holden Relief trunk sewer. Coordinate inspections and maintenance projects for the sewer lines. Prepare and submit quarterly bills to the user communities in a timely manner.	High	CE	RD,D	Quarterly bills, correspondence with towns	Ongoing
M5	Research and provide sewer management information for legal issues regarding the Trunk and Relief sewer lines, as necessary.	High	CE	RD	Notes, information	Ongoing
M6	Evaluate and manage new trunk line connections. Monitor trunk line for encroachments; resolve any problems.	High	CE	RD	Permits, regular inspections	Ongoing
M7	Develop a report summarizing the results of the flow study and guidance information on managing sewer capacity in DCR lines.	High	CE	RD	Report	06/30/20
<b>N. Stormwater Management</b>						
N1	Treat remaining 2 direct discharges, Rt 110 Sterling	High	RD	CE	design	12/31/2019
N2	Continue to work with towns and private landowners for regular maintenance of BMPs to ensure proper performance	Medium	EQ		BMPs remove pollutants as designed	Ongoing
N3	Work with watershed towns to ensure compliance with MS4 requirements.	Medium	EQ		MS4 permit conditions met	Ongoing
N4	Maintain and enhance GIS data layer of storm water and drainage conveyance structures data layer. Add flow direction to storm sewer network.	High	EQ	GIS-W, GIS	Updated GIS datalayer.	06/30/20
N5	Conduct regular inspections of all construction sites greater than one acre.	High	EQ		ESC maintained and working as designed	Ongoing
N6	Continue work with local DPWs to identify locations of concern, evaluate options for BMP installation, and ways to cooperatively implement recommendations.	Medium	EQ		Installed BMPs	Ongoing



Task #	Task Description	Priority	Lead Group	Additional Staff	Product	Product Due Date
<b>O. Emergency Response</b>						
O1	Coordinate Emergency Spill Response training with MWRA and local responders.	High	CE	WR	Trainings	Ongoing
O2	Update contact list and information in Comprehensive Emergency Management Plan, EAPs, and other emergency response plans.	High	CE	WR	Plan	ongoing
O3	Organize and maintain emergency response supplies and services.	High	CE	WR	Inventory	monthly
O4	Review and modify the Training and Exercise Plan as necessary. Work with other agencies to provide trainings and exercises.	High	CE	WR	Plan, Trainings	06/30/20
O5	Provide ICS and Emergency Response training to appropriate staff.	High	CE	WR	Classes, Trainings	06/30/20
O6	Evaluate, monitor and oversee spill clean-ups that impact or threaten water resources of DWSP property. Work with appropriate local, state and federal agencies to ensure that containment, cleanup, and mitigation of the spill are proceeding in a manner that protects drinking water quality	High	CE	WR,WM	Contain and cleanup releases	as needed
<b>P. Support</b>						
P1	Prepare and submit to MWRA and the Water Supply Protection Trust Annual Work Plans, budgets, progress reports, and program goals and objectives. Track Section progress in meeting program goals.	High	RD		Completed plans, budgets and reports	as scheduled
P2	Administer the Payment in Lieu of Taxes (PILOT) program.	High	P		Payments to watershed communities	Ongoing
P3	Configure and maintain ArcGIS Online applications and field data collection tools to suit individual user needs	High	GIS		Web Applications/Mobile field data collection solutions	Ongoing
P4	Publish features and map tiles as hosted web layers for ArcGIS Online users	Medium	GIS		Published data/maps	Ongoing
P5	Integrate Encroachment Collector database with MS Access Encroachment database maintained by WR.	High	GIS	WR	Workflow for integrating ArcGIS Online data and MS Access database	06/30/20
P6	Develop staff training for Migrating from ArcMap to ArcGIS Pro.	Medium	GIS		Training materials	Ongoing
P7	Provide in-person staff training for Migrating from ArcMap to ArcGIS Pro.	Medium	GIS		Staff receive training	Ongoing
P8	Maintain and update all GIS databases on the shared G Drive; ensure all digital data is current and available to staff and has updated metadata	High	GIS-W		Databases	Ongoing
P9	Use GPS equipment to capture and maintain data for all staff. Coordinate use of GPS equipment and download and process all GPS data	High	GIS-W		Digital data	Ongoing
P10	Create parcel maps for Land Acquisition Coordinator meetings with landowners, LAP meeting and MWRA board	High	GIS-W		Maps, analyses	as needed

<b>Task #</b>	<b>Task Description</b>	<b>Priority</b>	<b>Lead Group</b>	<b>Additional Staff</b>	<b>Product</b>	<b>Product Due Date</b>
P11	Support municipalities and other partners by providing GIS products and technical support	High	GIS-W		Maps, digital data	as needed
P12	Create 'original owner' GIS layer that includes original parcel boundaries, and attribute information detailing the following: original owner name, deed book/page, original acres, acquisition date	Medium	GIS-W	NR, GIS	GIS datalayer	06/30/20
P13	Create Sudbury Reservoir bathymetry contours by digitizing contour information from scanned paper plans.	Medium	GIS-W	GIS	GIS datalayer	06/30/20
P14	Operate administrative offices, including answering phones, greeting visitors, etc.	High	RD		Weekly payroll, HR forms processing	Ongoing
P15	Provide payroll assistance and personnel services for all Section employees.	High	RD		Account set-up, Invoice processing, regular finance reporting	Ongoing
P16	Provide contract administration, financial management, record-keeping, purchasing of goods and services, and other financial support services.	High	RD		Accounting and financial services	Ongoing
P17	Coordinate with EEA IT to provide local MIS support for the Section. Update IT Plan as required addressing technology needs for the coming year.	Medium	RD		Support and troubleshooting services; IT Plan	Ongoing
P18	Administer Logging Permit program, including mailings, bid openings, financial management, database management, permit and key issuance, etc.	High	RD		Program administration; annual revenue report; database maintenance	Ongoing
P19	Plan and implement vehicle and equipment purchases and leases.	High	RD		Vehicle purchases and leases	Ongoing
P20	Inspect, provide regular maintenance, and repair vehicles, boats and other motorized equipment.	Medium	RD		Work completion	Ongoing
P21	Provide routine repairs and maintenance to all Wachusett facilities.	High	RD		Work completion	Ongoing
P22	Complete watershed-wide vulnerability assessment to identify potential impacts of climate change on the water supply	Medium	RD	EQ,CE, WR, F, NR	Report with action items	Ongoing

**Quabbin/Ware Region  
FY2020 Work Plan**

<b>Task #</b>	<b>Task Description</b>	<b>Priority</b>	<b>Lead Group</b>	<b>Additional Staff</b>	<b>Product</b>	<b>Product Due Date</b>
<b>A. Land Acquisition</b>						
A1	Acquire land. Coordinate due diligence and other tasks/services from DCR and private contractors to complete survey, appraisal, title, engineering, and environmental assessments for proposed acquisitions. Negotiate WPR language, purchase prices, and conditions of sale with sellers of property.	High	NR	P, GIS	Protected land	ongoing
A2	Convene LAP meetings to review parcels and prioritize land purchases.	High	NR	RD, ARD, EQ, EP, F	Prioritized lists by region; input; advice	as needed
A3	Develop individual parcel presentation materials and meet with MWRA Board for approval.	High	NR	P, GIS	Protected land	ongoing
A4	Continue to work on the LAP Prioritization Model	High	NR	GIS	Model, spreadsheet	9/30/2019
A5	Continue to work with landowners on donations of land conservation interests, solicit donations, and provide information on potential tax incentives available for such donations.	Low	NR		Ongoing communications	ongoing
<b>B. Watershed Preservation Restrictions</b>						
B1	Monitor WPRs on a regular basis, following monitoring procedures	Medium	NR	EQ, F	Monitoring Reports, Updated Landownership	annually
B2	Complete baseline documentation reports for new WPRs prior to acquisition or within a reasonable time after acquisition, following EOEEA specifications. Baselines will be done in-house or through appropriate contracts.	High	NR	None	WPR baseline reports	upon purchase
B3	Meet with Restriction Stewardship Working Group and confer with legal to respond to enforcement issues and requests to exercise reserved rights.	High	NR	None	Issue resolution and reserved rights decisions	as needed
B4	Track changes in landownership twice a year.	High	NR		Updated Landownership spreadsheet	6/30/2020
B5	Write and distribute Watershed Currents, the WPR landowner newsletter	Low	NR		Newsletter	annually
B6	Continue to implement WPR records procedure with DCR records manager.	Medium	NR		Securely stored records	6/30/2020

Task #	Task Description	Priority	Lead Group	Additional Staff	Product	Product Due Date
	<b>C. Land Management</b>					
C1	Implement the system-wide comprehensive Land Management Plan.	Medium	RD	P, EQ, QGIS, NR, F	Current Plans	ongoing
C2	Prepare forest harvest proposals for next fiscal year including data on proposed harvest areas, characteristics of stands, soils, cultural resources, wetlands, wildlife, unique features, and priority habitats. Proposals shall also include information on lot layout, landings, stream crossings, wetland crossings, and stonewall crossings.	High	F	QGIS, NR	Lot proposals	2/1/2020
C3	Plan and conduct an internal review of proposed logging operations for the coming year, including assessments of silviculture, water quality, wildlife, and other potential impacts/benefits Review lots to ensure consistency with aspects of the CLMP, including wildlife, forestry objectives, and environmental quality.	High	NR	RD, F, EQ	Annual lot reviews, comments	4/30/2020
C4	Present annual forest harvest proposals at a public meeting. Accept public comment and respond as needed.		RD	F, NR		6/30/2020
C5	Plan, lay out, mark products for removal, prepare maps and permits, establish photo monitoring points, file Forest Cutting Plans, seek bids, award permits, and properly advertise and post forest management operations consistent with the Forest Cutting Practices regulations, the LMP, and approved harvest proposals.	High	F	RD	Permits and timber sales	ongoing
C6	Provide supervision and oversight of all forest harvesting operations on DWSP property. Assure compliance with applicable DCR and NHESP regulations and restrictions, approved BMPs, and all Permit conditions. Maintain adequate site visit records. Monitor post-harvest and collect photo point images consistent with internal policy.	High	F	NR, EQ	Supervision and oversight of all harvesting operations	ongoing
7	Monitor water quality at active harvesting stream crossing sites to measure effectiveness of BMPs.		EQ			ongoing
C8	Continue to implement long-term paired watershed monitoring to assess impact of DWSP forest management on tributary water quality.	High	EQ	ARD, NR	Stream sampling; periodic evaluation	ongoing
C9	Conduct periodical regeneration and invasive species surveys to monitor forest health and development resulting from silvicultural activities or other natural disturbances and processes.	Medium	F	NR	Regeneration database, maps, and photodocumentation	ongoing
C10	Conduct periodic reviews and monitoring of land management activities to assure compliance and consistency with land management plans.	High	NR	F, EQ	Internal review; Review memos	ongoing

Task #	Task Description	Priority	Lead Group	Additional Staff	Product	Product Due Date
C11	Collect data and maintain GIS datalayers related to forest structure, composition, regeneration, roads, boundary information, stone walls, wetlands, streams, and other data to guide the land management program. Maintain GIS data documenting the location, extent, and intensity of all silvicultural operations.	High	NR	F, QGIS	Databases, GIS coverages	ongoing
C12	Complete assessments on all new land acquisitions, including descriptions of fire/access roads, bridges, restoration needs, and forest conditions. Integrate these lands into land management, public access, and other watershed management programs.	Medium	F	NR, EQ, CE, EP	Completed assessments	with 60 days of purchase
C13	Locate, mark, and maintain property boundaries periodically or as needed.	Medium	F	NR, WR, CE, ARD, RD	Clearly marked boundaries; encroachment resolutions	ongoing
C14	Develop scope of work and manage contracted property boundary survey work.		F			6/15/2020
C15	Document and pursue resolution of all property boundary encroachments.		RD			ongoing
C16	Identify, plan, and oversee non-forest or other unique habitat restoration, field reclamation, and maintenance work.	Low	NR	F	Contract	ongoing
C17	Maintain the non-silvicultural lands described in the land management plan (e.g., viewsheds, gravel pits).	Low	WM	F, NR, ARD	Acres maintained in Quabbin and Ware watersheds, plan implementation	ongoing
C18	Develop a Terrestrial Invasive Plant Plan. Identify and implement terrestrial invasive management projects. Respond as needed to newly discovered and controllable populations of terrestrial invasive species.	High	NR	F, EQ, WM, RD	New Plan; Completed projects	6/30/2020
C19	Collect data and maintain datasets, GIS datalayers, and related maps and reports of rare and listed plant and animal species or communities.		NR			ongoing
C20	If available, use a UAS (unmanned aerial system) to document forest conditions, map openings, identify invasive plant populations, internal road conditions, or other activities.	Medium	NR	RD, F, WM	Updated forest data; updated culvert and road data	ongoing
C21	Complete 2019 Continuous Forest Inventory		F			12/31/2019

Task #	Task Description	Priority	Lead Group	Additional Staff	Product	Product Due Date
<b>D. Wildlife Management</b>						
D1	Continue the active harassment of gulls within the Pathogen Control Zone at Quabbin Reservoir, using human presence, boats, pyrotechnics, passive scare devices, and other techniques. Continue to identify and test new harassment techniques.	High	EQ	RD, ARD, NR, other work units	Daily and annual reports; database entries; weekly reports to MWRA	4/30/2020
D2	Observe and document the nocturnal roost of gulls on Quabbin Reservoir.	High	NR	EQ	Weekly counts	4/30/2020
D3	Control Canada geese populations in the Pathogen Zone on Quabbin Reservation by treating eggs during nesting season to prevent hatching.	High	NR	WM	Annual report	6/30/2020
D4	Identify places in MA where human derived food is available and work to prevent feeding through educational signage, interaction and enforcement.		NR			ongoing
D5	Remove beaver and muskrat in the Aquatic Wildlife Pathogen Control Zone at Quabbin. Address beaver concerns outside the control zone.	High	NR,	EQ, WM-B, WM-NS, WM-O	Field reports, annual summary	ongoing
D6	Respond to problems of burrowing animals on dams and dikes; report problems and take appropriate action.	High	NR	CE, WM-B	Field reports	ongoing
D7	Research and manage for common loons on DWSP waterbodies; provide nesting platforms, capture and sample birds for contaminants.	Low	NR	WM-C	Annual report	ongoing
D8	Continue long-term wildlife resource monitoring program.	Medium	NR			ongoing
D9	Work with DFW to survey and document breeding bald eagles around Quabbin Reservoir.	Low	NR		Field report	ongoing
D10	Administer the applications, permits, and orientations for the annual Quabbin Controlled Deer Hunt; analyze results of hunt.	High	NR	WM, IS WR	Completed orientations and scouts; annual report	12/31/2019
D11	Coordinate with the Massachusetts Natural Heritage and Endangered Species Program concerning rare species occurrences and protection.	Low	NR	F	Field Notes; reports	ongoing
D12	Develop and implement a deer management plan for Quabbin Park	Medium	NR	F	Deer Hunt Plan	6/30/2020
<b>E. Public Access Management</b>						
E1	Proactively patrol watershed lands to ensure compliance with DCR regulations and policies. Tally visitor contacts and produce quarterly and annual summary reports. Conduct trend analyses on data collected (e.g., rule violations, access permits, encounters).	High	WR	ARD	Reports	ongoing
E2	Continue to cooperate with state, environmental, federal, and local police for help with enforcement when required.	High	WR	ARD	Enforcement resolution	ongoing
E3	Use Agency social media accounts for advertisement of interpretive programs, including general info or emergency info (e.g., closings).	Medium	WR		Press documents	ongoing

Task #	Task Description	Priority	Lead Group	Additional Staff	Product	Product Due Date
E4	Continue public access updates and improvements with signs and gates. Conduct regular inspections of locks, signage, gates, and access barriers. Develop, install, and maintain appropriate signage throughout the watersheds, including walkway signs and signs indicating access restrictions. Develop and distribute materials to inform visitors of access rules, policies, and general watershed protection information. Update and maintain kiosks and bulletin boards with appropriate visitor information.	High	WR	IS, WM-M, WM-O,	Signs produced and posted, as needed; fact sheets, brochures; kiosk maintenance; new kiosks	ongoing
E5	Continue to implement Quabbin and Ware Public Access Management Plan policies. Enforce rules and regulations of 313 CMR 11.09 through the use of citations. Issue written warnings and/or non-criminal citations for repeat offenders and serious violations. Complete semi-annual Compliance and Enforcement Reporting to MassDEP.	High	WR		Tracking databases; compliance with DWSP regulations; MassDEP Compliance reports	ongoing
E6	Continue to conduct "special operations" such as night operations, ATV, and snowmobile operations, as needed		WR		Compliance with DWSP regulations.	ongoing
E7	Operate the shoreline and boat fishing program in designated portions of Quabbin Reservoir in a manner that minimizes threats to water quality and accommodates visitors with accessibility needs. Implement the Quabbin Boat Seal program at BLAs and produce annual report.		WM		BLAs opened/closed six months of operation 7 days/week. Annual Quabbin Fishing Report (December due date)	ongoing
E8	Provide ongoing support and consultation to DCR's Division of Parks regarding Comet Pond beach. Maintain boat ramp launch at Long Pond and boat ramp launch and parking lot at Comet Pond.		WM		Maintain ramp, parking lot, and dam; pick up trash; support and consultation	ongoing
E9	Coordinate and/or support special programs and events, including Memorial Day services, public meetings, paraplegic hunts, and Tuesday Tea events.		IS		Public events	ongoing
E11	Continue to control and monitor research and other public access through an internal review process and permit system. Maintain electronic databases for permit issuances, access notification, and any problems.		RD		Research requests evaluated; permits issued; databases maintained; policy changes as needed	ongoing
E12	Complete Ware River Public Access Management Plan Update 2019.		ARD			12/31/2019
E13	Implement Quabbin Park Cemetery Management Plan		WM			ongoing
E14	Implement Quabbin Park Operation and Maintenance Plan		WM			ongoing

Task #	Task Description	Priority	Lead Group	Additional Staff	Product	Product Due Date
<b>F. Watershed Security</b>						
F1	Continue regular ranger patrols to provide watershed security. Perform regular security checks at key access points and MWRA facilities. Use daily logbooks to record all encounters and violations. Produce periodic reports.	High	WR		Daily patrols; daily logbooks and incident report	ongoing
F2	Inspect, maintain, and monitor gates, barways, and signage throughout the watersheds for security and access control. Install barriers (such as guardrails or fences) as needed to protect properties and control public access.	High	WR, WM	CE	Inspection; repairs; installation	ongoing
F3	Coordinate security monitoring and related activities at high vulnerability locations with MWRA.	High	RD	WR, ARD	Enhanced security	ongoing
F4	Work with local state and federal responders to ensure current agency emergency contact information.		WR		Annual MEMA update. Annual DCR update. Annual MWRA update.	ongoing
<b>G. Infrastructure</b>						
G1	Conduct monthly inspections and issue findings on Winsor Dam and spillway and Goodnough Dike. Implement basic maintenance activities as needed. Coordinate inspections with MWRA and consultants. Plan for or conduct dam repair work as called for in dam inspection reports.	High	CE	WM, WM-B, RD	Dam repair and maintenance; monthly reports filed and sent to MWRA Western Operations	monthly
G2	Conduct periodic inspections and issue findings on DCR's bridges and small dams in the Quabbin/Ware Region. Assure compliance with all dam safety requirements for small dams on DWSP lands, including the preparation or updating of Emergency Action Plans.	Medium	CE	RD	Inspection reports	ongoing
G3	Provide oversight and technical support or assistance for engineering, construction, and renovation work in the Quabbin/Ware Region.	Medium	CE, WM	RD	Ongoing project oversight	ongoing
G4	Maintain records regarding reservoir and facility construction, as well as maintenance and repair operations. Provide surveying and drafting services, and respond to requests for information related to land, buildings, and construction projects.	Low	CE	IS	Plans, records	ongoing
G5	Conduct building maintenance activities, including painting, carpentry, cleaning, minor repairs, and other routine maintenance.	High	WM	CE	Ongoing maintenance	ongoing
G6	Conduct periodic inspections of drinking water sources and septic systems at the various Regional office buildings. Assure compliance with applicable state and federal regulations.	High	CE	EQ, RD	Meet MassDEP requirements; monthly and annual reports	ongoing



Task #	Task Description	Priority	Lead Group	Additional Staff	Product	Product Due Date
G7	Conduct periodic inspections, maintenance, or oversight of heating systems, fuel pump operations, and fuel deliveries.	High	CE, WM	WM-B	Daily maintenance and operation during heating season; inspections	ongoing
G8	Develop specifications, bid packages and contracts for facility and infrastructure projects scheduled for FY20	High	CE	WM, RD, ARD, FN	Specs, bid packages, contracts	ongoing
G9	Conduct maintenance and management activities in Quabbin Park, including roads, roadsides, parking areas, drainage structures, fields, vistas, snowplowing, and other management activities.	High	WM-B	AS, NR	Maintenance and management of Quabbin Park	ongoing
G10	Continue to investigate improved Emergency Spill Response access.	Low	EQ	CE, WM	Realignment of Gate 16 road	ongoing
G11	Assess gravel pits and gravel resources on DWSP lands in the Quabbin/Ware Region. Develop overall management strategy with summaries of each known gravel pit. Annually review and monitor gravel extraction.	High	EQ, WM	F, RD, ARD,	Gravel management strategy for DWSP lands.	06/30/20
G12	Investigate sedimentation on and around Hangar ramp.	Low	EQ	ARD	Plan for ramp maintenance	06/30/20
<b>H. Watershed Protection Act</b>						
H1	Implement the Watershed Protection Act regulations in 14 Quabbin Reservoir and Ware River Watershed towns. Review and process all WsPA applications, and track the status of applications and associated projects using an Access database. Inspect sites throughout the duration of any activity to ensure compliance. Investigate and resolve violations of WsPA regulations.	High	EP	P, RD, EQ, AS	Application processing; decision issuance; field work; database management	ongoing
H2	Continue to review or evaluate public notices, local board agendas and minutes, and information provided by local sources for additional jurisdictional activities or enforcement actions.	Low	EP	EQ	Local notice review and interactions with contact persons in the watershed towns.	ongoing
H3	Convene WsPA Working Group meetings.	Medium	P	RD, EQ, EP	Regular meetings	as needed
H4	Educate and interact with local boards and officials in the watersheds about watershed protection regulations. Educate realtors, buyers, consultants, and homeowners on WsPA regulations and procedures.	Low	P, EP	RD, EQ	Education of local boards, homeowners, consultants, etc.	ongoing
H5	Provide technical assistance support to local boards through contact, meetings, and/or through regulatory review process.	Low	EP	EQ, CE, RD,	Review of bylaws and regulations; meetings; local development project review.	as needed

Task #	Task Description	Priority	Lead Group	Additional Staff	Product	Product Due Date
	<b>I. Education and Outreach</b>					
I1	Implement the Interpretive Services Plan for the Quabbin Watershed.	Medium	IS		Plan implementation or development	ongoing
I2	Staff and operate the Visitor Center at Quabbin to educate visitors about watershed management and related topics. Coordinate with visiting groups to provide orientation at the Visitor Center and in Quabbin Park. Maintain records on Visitor Center activities.	High	IS		Visitor center operation; count of visitors	ongoing
I3	Continue established programs of public education, including school programs and field trips on DWSP properties. Expand outreach efforts in Quabbin Park. Expand the Quabbin Reservoir watershed curriculum using materials developed by MWRA, MassDEP, EPA, ProjectWild, Project Learning Tree, Project WET, and other appropriate watershed resources. Continue to support watershed school system teachers through in-service workshops and offerings for school groups.	Medium	IS		Curriculum; education materials and services	ongoing
I4	Collaborate with other organizations and watershed communities to reach more diverse audiences. Identify specific groups and their educational needs.	Low	IS	WR	Programs; public contacts	ongoing
I5	Develop watershed exhibits and portable displays for use in talks and presentations, both in the Quabbin Visitor Center and in watershed communities.	Medium	IS	WM-C, WM-B	Exhibits and displays	ongoing
I6	Maintain self-guided Quabbin Park interpretive walkways focusing on natural resource management and water quality protection; include interpretive signs with information related to watershed protection programs, forest succession, history of the reservoir, wildlife. Utilize outside sources of assistance (e.g., Student Conservation Association) for walkway maintenance.	Low	IS	F	Walkway improvement; signage; brochures	ongoing
I7	Improve the educational signage regarding drinking water protection in the Quabbin Visitor Center and in Quabbin Park.	High	IS	WM-C	New signs	06/30/20
I8	Continue to support and participate in the Envirothon, America's leading natural resource education program for high school students.	Low	IS	AS, WR, EQ	Participation	ongoing
I9	Publish bi-annual Downstream newsletter.	Low	NR	P, IS, EQ, EP, WR, RD	Newsletter	06/30/20

Task #	Task Description	Priority	Lead Group	Additional Staff	Product	Product Due Date
<b>J. Water Quality and Hydrologic Monitoring</b>						
J1	Provide environmental oversight for Regional activities. Conduct pre-project reviews of all DWSP projects and activities within 1002 wetland buffers.	Medium	EQ	RD, WR, ARD	Field reports; SOPs	ongoing
J2	Continue routine and non-routine water quality sampling and analysis (including algae and nutrients) in order to track water quality parameters and trends in the reservoir and tributaries. Continue analyses for nutrients and calcium on selected tributaries. Review water quality data and prepare annual report summarizing changes over time. Modify sampling plan as needed.	High	EQ		Weekly bacterial triggers; database updates; annual reports; annual sample collection plans.	ongoing
J3	Perform Shaft 8 Intake Zone Inspections prior to MWRA diversions.	High	EQ	CE	Inspections, reports; notification to RD, ARD, MWRA	as needed
J4	Monitor plankton in Quabbin Reservoir and selected tributaries.	High	EQ		Data collection; periodic reports	ongoing
J5	Collect, interpret, and manage data on reservoir elevations, water transfers and releases. Share data with DWSP staff and MWRA.	High	CE		Data collection and yield reports	ongoing
J6	Conduct short-term water sampling of forest harvesting operations on DWSP lands.	Medium	EQ	NR	Inspections, sample collections	ongoing
J7	Investigate re-establishing wind monitoring station to help determine wind impacts to changes in water quality parameters	Low	EQ	WM	Wind database	06/30/20
J8	Continue improvements to database app for compiling of water quality, quantity, and other relevant data for data and trend analyses.	High	EQ		Water quality database	ongoing
J9	Implement streamflow monitoring at selected sites. Coordinate flow monitoring with annual water quality sampling plan.	Medium	EQ		Streamflow database	06/30/20
J10	Continue to implement long-term monitoring of paired sub-basins in order to assess impact of forestry on water quality. Increase monitoring frequency once harvesting is initiated.	High	EQ	F, NR	Annual report summarizing data and activities	ongoing
J11	Work with MWRA to install continuous water quality monitoring buoy at Quabbin Reservoir.		EQ		buoy	6/30/2020
<b>K. Watershed Monitoring and Assessment</b>						
K1	Complete Environmental Quality Assessments in the Quabbin Reservoir and Ware River watersheds according to a prescribed schedule. Include AIS surveys of lakes, ponds, and tributaries. Present EQAs to RD.	Low	EQ		Inspection reports, EQA outlines for Quabbin Reservation and West Branch Ware Districts	as scheduled
K2	Prioritize recommendations in completed EQAs as necessary and complete short- and long-term remedial actions.	High	RD, EQ		Quarterly reporting	ongoing

Task #	Task Description	Priority	Lead Group	Additional Staff	Product	Product Due Date
K3	Update and assess land use/land cover statistics for watershed, sanitary districts, and sub-districts when new GIS coverages are available.	Medium	QGIS		Updated coverages and analyses	ongoing
K4	Use site inspections, environmental quality assessments, local board meetings, and information from Watershed Rangers to identify and mitigate possible violations of state and federal regulations. Monitor progress and pursue enforcement if needed.	High	EQ	RD, ARD, All Work Units	Regulation enforcement	ongoing
K5	Conduct routine inspections of the Winsor basin/CVA intake area. Inspect MWRA CVA screen washing when necessary. Report debris and aquatic organisms trapped on screens.	High	EQ		Routine inspection summaries; database entries	ongoing
K7	Monitor MassDEP databases regularly for new c.21E information.	Low	EQ		Hazardous waste database; EQA inspections and reports.	ongoing
K8	Review periodic reports on closed landfills in the watersheds. Coordinate with town and/or MassDEP to review monitoring reports.	Low	EQ		Reports	ongoing
K9	Review and comment on Yearly Operational Plans related to herbicide use. Monitor and inspect no-spray and limited spray zones along rights-of-way.	Medium	EQ	P	Letter to DFA; brief field reports	as needed
K10	Work with loggers and utility rights-of-way contractors to reduce the risk of introducing invasive species into the watersheds.	High	EQ, F		Meetings with contractors; DCR permit language to	ongoing
K11	Monitor utility maintenance, repair, or replacement projects on DCR lands for water quality problems.	Low	EQ		Meetings with contractors; permits;	as needed
K12	Continue to identify, map, and monitor locations of agricultural operations that could impact water quality through the EQA process.	Low	EQ	EP	Maps, reports	ongoing
<b>L. Aquatic Invasive Species</b>						
L1	Continue program to monitor AIS in tributaries and other water bodies. Review and update the AIS monitoring and AIS emergency action plan.	High	EQ	RD	Reports;	ongoing
L2	Conduct public education about AIS.	Medium	EQ	IS	Education	ongoing
L3	Continue the Quabbin Boat Seal program to minimize the risk of AIS infestation of Quabbin Reservoir. Conduct Cold Weather Decontamination Program and Boat Inspection Program. Maintain database; investigate and pilot test electronic data collection.	High	EQ	RD, IS, WR, ARD, WM-BLA	Boat Seal tracking, inspections, decontamination, public education.	ongoing

Task #	Task Description	Priority	Lead Group	Additional Staff	Product	Product Due Date
L4	Implement a program of detection, monitoring and control of invasive aquatic species and other macrophytes in the Quabbin and Ware River watersheds, including education and training of Boat Launch Area attendants and other appropriate staff. Work in conjunction with the DCR Lakes and Ponds, MWRA and MWRA contractors. Evaluate and make changes in program as needed.	High	EQ	WM-BLA, ARD, RD, MWRA	Monitoring program; training	ongoing
L5	Implement Quabbin/Ware Region's AIS Management Plan.	High	EQ	RD, ARD	Updated Plan	ongoing
<b>M. Wastewater Management</b>						
M1	Identify potential problem sites or areas through review of local records, water quality data, and other pertinent information.	Medium	EQ	EP	EQ file reports	ongoing
<b>N. Stormwater Management</b>						
N1	Advise local boards on stormwater management issues related to construction activities.	Low	EQ	EP, RD, ARD	Advice as needed.	ongoing
N2	Continue to collect data on and update maps of culverts and other stormwater conveyance structures in the Quabbin and Ware River watersheds. Maintain culvert database.	Low	CE, WM	QGIS	Updated database records and photos	ongoing
N3	Develop Internal Road Management Plan		WM	ARD, RD, F		6/30/2020
<b>O. Emergency Response (Preparedness)</b>						
O1	Develop and/or update Emergency Response materials for the Quabbin and Ware River watersheds, with up-to-date contact information, emergency procedures, and roles/responsibilities.	High	EQ, WR	RD, ARD	Emergency Response Materials; Contact Lists	ongoing
O2	Update SOPs for spill response and define DCR staff roles in both assessment and response. Work with MWRA to maintain emergency response trailers and/or other spill response supplies and equipment.	High	EQ, WR	RD, ARD	Updated SOPs; equipment procurement, including storage unit to replace Gate 16 shack.	ongoing
O3	In conjunction with MWRA, coordinate spill response and/or incident command system (ICS) training to staff.	High	EQ, WR	RD, ARD, WM	Training of staff	ongoing
O4	Coordinate cleanup operations for any spills that impact or threaten water resources or DWSP property. Work with the appropriate local, state and federal agencies to ensure that spill containment, cleanup, and mitigation is conducted in a manner that protects water quality.	High	RD, EQ, WR	ARD, WM	Incident notification; emergency response; incident reports	as needed
O5	Develop and implement spill response plans for all timber harvesting operations on DWSP lands.	High	F	EQ, ARD, RD	Spill Response Plans, updated spill response notification cards	ongoing
O6	Develop comprehensive Emergency Preparedness Program to include natural disasters, accidents, and intentional events.	Medium	TBD	all	EAPs	ongoing

Task #	Task Description	Priority	Lead Group	Additional Staff	Product	Product Due Date
	<b>P. Support</b>					
P1	Operate administrative offices, including answering phones, greeting visitors, etc.	High	AS	IS	Main office operation	ongoing
P2	Manage payroll through SSTA and HR/CMS.	High	AS		Payroll reports; Support	ongoing
P3	Provide contract administration, financial management, record-keeping, purchasing of goods and services, and other financial support services.	High	FN	RD, ARD	Accounting and financial services	ongoing
P4	Coordinate with EOEEA IT to provide local MIS support for the Quabbin/Ware Region. Develop an annual IT Plan with input from Regional staff that addresses technology needs for the coming year.	Medium	QGIS	All Work Units	Support and troubleshooting services; IT Plan	ongoing
P6	Prepare annual work plans, budgets, quarterly progress reports, and program goals; track progress and submit reports to Division Director, MWRA, and the Water Supply Protection Trust Board.	High	RD	ARD, FN	Completed plans, budgets and reports	as scheduled
P7	Provide GIS and GPS services and associated mapping for all Regional plans, reports and projects, as needed. Keep GIS datalayers updated as new information becomes available. Begin implementation of ArcGIS Online and GIS mobile device applications for selected staff.	High	QGIS	F, EQ	Maps; datalayer updates; other services	ongoing
P8	Update digital information, including all new DWSP land purchases, WsPA maps and parcels, and provide analyses for use in DWSP reports and publications.	High	GIS	P, AS, QGIS	Updated maps for all Quabbin communities	ongoing
P9	Plan and implement vehicle and equipment purchases.	High	ARD	WM, RD	Vehicle purchases; up-to-date records	ongoing
P10	Conduct truck, boat, and equipment inspections and maintenance as needed, utilizing the Facility Asset Management Information System (FAMIS). Maintain up-to-date records of all vehicles and equipment (in FAMIS and file system).	High	WM-M	AS, ARD	Maintenance and repair of vehicles and equipment, updated records	ongoing
P11	Maintain vital records collection for former Quabbin valley towns, issue official records and conduct genealogical and historical research upon request. Manage audio-visual collection of the Region including photographs, slides, oral history tapes and media coverage of Regional activities and Quabbin-related topics.	Medium	IS	RD	Record management	ongoing
P12	Administer the Payment in Lieu of Taxes (PILOT) program	Medium	P		Payments to watershed communities	ongoing
P13	Assemble a working group to develop a scope that defines a vulnerability assessment for the watershed system and develop timeline for completion.	Medium	D	RD, EQ, CE, P	Scope of work and timeline	ongoing

## **2. Region Responsibilities and Staffing Levels**

- A. Office-wide
- B. Wachusett/Sudbury
- C. Quabbin/Ware

DCR Division of Water Supply Protection  
Office of Watershed Management  
Office-Wide Responsibilities and Staffing  
FY 2020

Section	FY19 FTE	FY20 FTE	Primary Responsibilities
Management – Director, Natural Resources Section Director	1.9	1.9	<ul style="list-style-type: none"> <li>▪ Supervise all OWM Staff (through Senior staff and direct supervision).</li> <li>▪ Develop program goals and objectives.</li> <li>▪ Ensure program goals and objectives are met.</li> <li>▪ Oversee interagency coordination with MWRA.</li> <li>▪ Coordinate and support programs and policies with other DCR Divisions.</li> <li>▪ Coordinate and support programs and policies with EEA and other EEA agencies.</li> <li>▪ Coordinate and support programs and policies with watershed communities and stakeholders.</li> <li>▪ Consult with Watershed Advisory Committees.</li> </ul>
Budget and Administrative Support	4.9	4.9	<ul style="list-style-type: none"> <li>▪ Provide personnel and other human resources related support.</li> <li>▪ Provide budget and finance support.</li> <li>▪ Provide contract administration support.</li> <li>▪ Provide office management.</li> </ul>
Natural Resources	7.5  1 LT seasonal	7.5  1 LT seasonal	<ul style="list-style-type: none"> <li>▪ Oversee implementation of the Comprehensive Land Management Plan.</li> <li>▪ Coordinate Land Acquisition Program.</li> <li>▪ Monitor and enforce Division’s Watershed Preservation Restrictions (WPRs).</li> <li>▪ Provide wildlife management and mitigation.</li> <li>▪ Monitor roosting gulls and provide technical support, guidance, and recommendations to gull harassment program.</li> <li>▪ Provide research and monitoring to support Natural Resource Management Planning.</li> <li>▪ Monitoring and manage land based invasive plants.</li> </ul>
Program Coordination & Technical Support – Environmental Planning	1	1	<ul style="list-style-type: none"> <li>▪ Coordinate implementation of Watershed Protection Act (WsPA).</li> <li>▪ Assist in the development and implementation of Watershed Protection Plans, Public Access Plans, Land Management Plans and other associated plans, policies, and publications.</li> <li>▪ Support interagency coordination with MWRA.</li> <li>▪ Coordinate PILOT program with MWRA, DOR and Watershed towns.</li> <li>▪ Coordinate and support programs and policies with other DCR divisions, EEA and other EEA agencies.</li> <li>▪ Coordinate DCR DWSP web site.</li> </ul>



<b>Section</b>	<b>FY19 FTE</b>	<b>FY20 FTE</b>	<b>Primary Responsibilities</b>
Program Coordination & Technical Support – GIS	1	3*	<ul style="list-style-type: none"> <li>▪ Coordinate GIS for Office of Watershed Mgt.</li> <li>▪ Capture, maintain, administrative Spatial Databases.</li> <li>▪ Integrate Office’s GIS program within EEA system.</li> <li>▪ Provide data analysis for Office of Watershed Mgt.</li> <li>▪ Distribute maps and digital information to Watershed Partners.</li> </ul>
<b>Total FTE</b>	<b>16.3</b>	<b>18.3</b>	
<b>Total LT Seasonals</b>	<b>1</b>	<b>1</b>	

Note: Partial FTEs due to one half-time position in Natural Resources, and time sharing with DWSP Office of Water Resources in Management and Budget Support.

\* Regional GIS Staff moved to Division staff

DCR Division of Water Supply Protection  
Office of Watershed Management  
Wachusett/Sudbury Region Responsibilities and Staffing  
FY 2020

Section	FY19 FTE	FY20 FTE	Primary Responsibilities
Management -- Regional Director and Assistant Regional Director	2	2	<ul style="list-style-type: none"> <li>▪ Supervise Staff assigned to Wachusett/Sudbury Section</li> <li>▪ Develop/Implement Program Goals and Objectives including Watershed Protection Plans and Annual Work Plans</li> <li>▪ Oversee day to day operations in the Region</li> <li>▪ Oversee policy and plan development and implementation</li> <li>▪ Ensure interagency coordination with MWRA (Reservoir Operations, Water Quality Testing, Consent Order Compliance and Reporting)</li> <li>▪ Coordinate/Support programs &amp; Policies with other DCR divisions and EEA/EEA agencies</li> <li>▪ Coordinate/Support Programs &amp; Policies with watershed communities and stakeholders</li> <li>▪ Consult with Watershed Advisory Committees, Friends Groups</li> <li>▪ Oversee fleet management and procurement</li> </ul>
Administrative Support	5	3*	<ul style="list-style-type: none"> <li>▪ Maintain payroll, employment and other records</li> <li>▪ Provide budget, accounting and contract administration support</li> <li>▪ Assist Regional Director in special projects, as needed</li> <li>▪ Provide contract administration and database management for forestry program</li> <li>▪ Provide staffing and operational support for main office</li> </ul>
Fiscal	1	1	<ul style="list-style-type: none"> <li>▪ Coordinate and analyze information in the areas of procurement, contracts, budgets, accounting and finance to inform management decisions</li> <li>▪ Procurement planning, coordination and preparation</li> <li>▪ Purchase processing and monitoring</li> <li>▪ Assist with budget development and monitoring</li> </ul>
Environmental Quality	10  1 LT seasonal	10  1 LT seasonal	<ul style="list-style-type: none"> <li>▪ Develop and implement water quality and hydrologic monitoring programs in reservoirs &amp; tributaries</li> <li>▪ Develop and maintain water quality database</li> <li>▪ Interpret water quality data for use in decision making</li> <li>▪ Develop and implement Aquatic Invasive Species Control Plans</li> <li>▪ Conduct Environmental Quality Assessments of watershed sanitary districts to identify potential pollution sources and develop mitigation measures</li> <li>▪ Provide technical assistance to local boards</li> <li>▪ Work with local DPWs to control stormwater through MS4 compliance.</li> <li>▪ Supervise and implement Wachusett Bird Control Program</li> <li>▪ Provide assistance for Emergency Response Actions</li> <li>▪ Collect, monitor, and maintain records on weather/precipitation, reservoir elevations, river discharges and releases, water transfers and watershed yield. Conduct Snow Surveys</li> </ul>

<b>Section</b>	<b>FY19 FTE</b>	<b>FY20 FTE</b>	<b>Primary Responsibilities</b>
Environmental Planning	1	1	<ul style="list-style-type: none"> <li>▪ Administer Watershed Protection Act(WSPA)and Regulations in the Wachusett Watershed</li> <li>▪ Work with local community Boards regarding implementation of WSPA</li> <li>▪ Provide notices to new landowners with parcels affected by WSPA</li> <li>▪ Work with communities on bylaw implementation to satisfy MS4 permits</li> </ul>
Forestry	2	2	<ul style="list-style-type: none"> <li>▪ Implement forest management plan, including planning, tree marking, timber sale preparation and supervision of logging operations</li> <li>▪ Oversee and implement hayfield management permits</li> <li>▪ Conduct various surveys and inventories as needed to provide data to help guide forest management operations</li> <li>▪ Participate in Asian Longhorned Beetle Program Coordination in watershed</li> <li>▪ Conduct or participate in other watershed management activities (e.g. boundary maintenance)</li> </ul>
Civil Engineering	4	4	<ul style="list-style-type: none"> <li>▪ Provide management oversight of DCR-owned sewers, preparing municipal bills and resolving easement issues</li> <li>▪ Coordinate and maintain records of all surveying required to determine property lines and boundaries, investigate encroachments and maintain records of all agency owned lands including new acquisitions</li> <li>▪ Develop Road Plan and annual work plan; oversee maintenance of DCR access roads</li> <li>▪ Conduct monthly inspections of Wachusett Dam, Sudbury Dam and other dams in the Wachusett and Sudbury watersheds; plan and oversee maintenance of dams and dikes</li> <li>▪ Oversee major repair and renovation contracts at facilities in the Wachusett and Sudbury Watersheds</li> <li>▪ Coordinate emergency response planning, preparedness and operations in the Wachusett and Sudbury Watersheds</li> </ul>
Watershed Rangers	9	9	<ul style="list-style-type: none"> <li>▪ Maintain a positive visual presence in watersheds</li> <li>▪ Observe activities on watershed lands &amp; waters</li> <li>▪ Ensure Rules Compliance through education/public interaction and use of citations</li> <li>▪ Coordinate enforcement of watershed rules with State/Environmental Police</li> <li>▪ Conduct or participate in other watershed management activities (e.g. encroachment surveys and resolution)</li> <li>▪ Assist with Emergency Response Planning and Preparedness and general Watershed Security</li> <li>▪ Develop and Conduct environment-based public education programs</li> </ul>

<b>Section</b>	<b>FY19 FTE</b>	<b>FY20 FTE</b>	<b>Primary Responsibilities</b>
Interpretive Services	1	1	<ul style="list-style-type: none"> <li>▪ Develop and conduct watershed system school based programs</li> <li>▪ Conduct Programs at Stillwater Farm Interpretive Site</li> <li>▪ Develop and Conduct environment-based public education programs</li> </ul>
Watershed Maintenance	33 4 ST seasonals	26* 4 LT seasonals 4 ST seasonals	<ul style="list-style-type: none"> <li>▪ Maintain water supply dams</li> <li>▪ Perform primary land and facility maintenance activities on all watershed lands and resources</li> <li>▪ Maintain physical security barriers around reservoir and watershed facilities</li> <li>▪ Control shoreline vegetation and maintain fire roads</li> <li>▪ Maintain and repair all division equipment (motor vehicles, trucks, boats and heavy Equipment)</li> <li>▪ Participate in Bird Control Program</li> </ul>
<b>Total FTEs</b>	<b>68</b>	<b>59</b>	
<b>Total LT Seasonals</b>	<b>1</b>	<b>5</b>	
<b>Total ST Seasonals</b>	<b>4</b>	<b>4</b>	

LT Seasonal = Long-term Seasonal  
ST Seasonal = Short-term Seasonal

\*reductions in Watershed Maintenance staff include elimination of tradesperson positions and conversion of 4 Laborers to seasonal positions. Reductions in Administrative staff included the moving of the GIS staff person to Divisional staff and a Program Coordinator position that is not being filled at this time (which will be moved back to Interpretive Services in the future)

DCR Division of Water Supply Protection  
Office of Watershed Management  
Quabbin/Ware Region Responsibilities and Staffing  
FY 2020

Section	FY19 FTE	FY20 FTE	Primary Responsibilities
Management – Regional Director; Assistant Regional Director	2	2	<ul style="list-style-type: none"> <li>▪ Supervise staff assigned to Quabbin/Ware River Region and oversee hiring, training, and other personnel-related issues</li> <li>▪ Develop and implement program goals and objectives, annual work plans and budgets</li> <li>▪ Oversee policy and plan development and implementation</li> <li>▪ Oversee day-to-day operations in the Region</li> <li>▪ Ensure interagency coordination with MWRA (re: Reservoir Operations, Water Quality Testing, Consent Order Compliance and Reporting)</li> <li>▪ Coordinate/Support programs and policies with other DCR divisions, EEA and other EEA agencies</li> <li>▪ Coordinate/Support programs, policies and/or technical assistance with watershed communities and stakeholders</li> <li>▪ Consult with Watershed Advisory Committees</li> <li>▪ Oversee fleet management and procurement activities</li> </ul>
Administrative Support	3	3	<ul style="list-style-type: none"> <li>▪ Administer research access permit and gate key issuances</li> <li>▪ Process revenues and provide accounting for boat fishing program.</li> <li>▪ Provide administrative services for cemetery, including deed preparation, funeral scheduling, and marker/monument settings.</li> <li>▪ Assist Regional Director with special projects, as needed</li> <li>▪ Maintain payroll, employment and personnel records</li> <li>▪ Provide staffing and operational support for main office</li> <li>▪ Provide administrative and contract support for forestry program</li> </ul>
Fiscal	2	2	<ul style="list-style-type: none"> <li>▪ Coordinate and analyze information in the areas of procurement, contracts, budgets, accounting and finance to inform management decisions</li> <li>▪ Procurement planning, coordination and preparation</li> <li>▪ Purchase processing and monitoring</li> <li>▪ Assist with budget development and monitoring</li> </ul>

Section	FY19 FTE	FY20 FTE	Primary Responsibilities
Environmental Quality	9	9	<ul style="list-style-type: none"> <li>▪ Conduct water quality monitoring in reservoir and tributaries</li> <li>▪ Maintain and analyze water quality data to monitor the health of the watershed and reservoirs, and prepare periodic reports</li> <li>▪ Conduct Environmental Quality Assessments (“Sanitary Surveys”)</li> <li>▪ Develop and implement aquatic invasive species control programs</li> <li>▪ Identify pollution sources and seek mitigation</li> <li>▪ Implement and oversee the Quabbin gull harassment program</li> <li>▪ Provide environmental oversight for all Region's activities that could impact water quality</li> <li>▪ Assist with the design and implementation of water quality research conducted by the University of Massachusetts</li> <li>▪ Provide technical review of proposed projects, as necessary</li> <li>▪ Provide technical assistance to watershed communities and organizations regarding water quality issues</li> <li>▪ Assist with public education efforts aimed at enhancing water quality protection on watershed lands</li> <li>▪ Maintain Spill Response trailers and assist with Emergency Response</li> <li>▪ Monitor streamflow, pathogens, algae, stormwater flows and macrophytes</li> <li>▪ Monitor environmental compliance in building (e.g., drinking water testing)</li> </ul>
Environmental Planning	1	1	<ul style="list-style-type: none"> <li>▪ Administer WsPA on Quabbin and Ware River watersheds.</li> <li>▪ Provide technical assistance to town boards and commissions in watershed communities</li> <li>▪ Coordinate with other agencies and local boards to enhance the development and enforcement of environmental protection regulations on watershed lands</li> </ul>
Forestry	6	6	<ul style="list-style-type: none"> <li>▪ Implement Forestry Program including planning, tree marking, timber sale preparation and supervision of timber harvesting operations</li> <li>▪ Conduct regeneration surveys and continuous forest inventories (CFI) to provide data to help guide forest management operations</li> <li>▪ Oversee field maintenance contracts</li> <li>▪ Implement the Comprehensive Land Management Plan</li> <li>▪ Coordinate with other state and federal agencies regarding forestry and other land management operations</li> <li>▪ Conduct or participate in other watershed management activities (e.g., boundary maintenance, encroachment issues)</li> </ul>

Section	FY19 FTE	FY20 FTE	Primary Responsibilities
Civil Engineering	5  1 LT seasonal	5	<ul style="list-style-type: none"> <li>▪ Collect, monitor and maintain records on weather/precipitation, reservoir elevations, river discharges and releases, water transfers and watershed yield</li> <li>▪ Conduct Snow Survey and calculate runoff potential in Quabbin Reservoir Watershed</li> <li>▪ Conduct monthly inspections of Winsor Dam, Goodnough Dike and other dams in the Quabbin Reservoir and Ware River watersheds; take necessary Piezometer readings when appropriate and maintain records</li> <li>▪ Conduct inspections and maintain records on all buildings and bridges in the Quabbin Reservoir and Ware River watersheds</li> <li>▪ Coordinate and maintain records of all surveying required to determine property lines and boundaries; investigate encroachments and maintain records of all agency owned lands including new acquisitions; provide assistance to private surveyors requesting historic surveying data on agency lands</li> <li>▪ Maintain all historical records consisting of the construction of dams, roads, bridges and buildings in the Quabbin Reservoir and Ware River Watersheds</li> <li>▪ Oversee major repair and renovation contracts on facilities in the Quabbin and Ware River watersheds</li> <li>▪ Oversee and maintain Photovoltaic Systems at Quabbin Boat Launch Areas</li> </ul>
Watershed Rangers	9  1 LT seasonal	9  2 LT seasonal	<ul style="list-style-type: none"> <li>▪ Maintain a positive visual presence in watersheds</li> <li>▪ Monitor public activities on watershed lands and waters in accordance with Public Access Management Plans.</li> <li>▪ Ensure Rules Compliance through education/public interaction/signage</li> <li>▪ Coordinate enforcement of watershed rules with State/Environmental Police</li> <li>▪ Assist with Emergency Response planning and preparedness</li> <li>▪ Provide First Response and general watershed surveillance/security activities</li> <li>▪ Maintain records of violations and public interactions</li> </ul>

<b>Section</b>	<b>FY19 FTE</b>	<b>FY20 FTE</b>	<b>Primary Responsibilities</b>
Interpretive Services	4	4	<ul style="list-style-type: none"> <li>▪ Develop and conduct watershed based programs, displays and curricula for visitors and school groups</li> <li>▪ Maintain and operate the Quabbin Visitors Center</li> <li>▪ Participate in other EOEEA Environmental Education programs (e.g., Envirothon)</li> <li>▪ Serve as press liaison for Region activities and events, in conjunction with DCR and EOEEA public information offices protocol</li> <li>▪ Organize special events (e.g., Memorial Day services)</li> <li>▪ Maintain vital records collection for the 4 dis-incorporated Quabbin towns, and issue official records upon request; Assist visitors with genealogical research.</li> <li>▪ Manage and issue access permit requests</li> <li>▪ Administer Quabbin controlled deer hunt application process,</li> <li>▪ Serve as liaison with other organizations, including Friends of Quabbin, Swift River Valley Historical Society, Valley Environmental Education Collaborative, Massachusetts Drinking Water Education Partnership, and Envirothon steering committee.</li> <li>▪ Develop informational materials on Quabbin fishing program, access issues and management activities</li> <li>▪ Maintain audio-visual collection for Quabbin/Ware Region, including photographs, slides and oral history tapes</li> </ul>
Watershed Maintenance	32  12 LT seasonals  3 ST seasonals	32  12 LT seasonals  3 ST seasonals	<ul style="list-style-type: none"> <li>▪ Perform primary maintenance activities on watershed lands, roads, facilities and other resources</li> <li>▪ Maintain physical security barriers around reservoir and watershed facilities</li> <li>▪ Maintain roads, gates, barways, drainage structures, signs and other access controls</li> <li>▪ Maintain and repair all division equipment (motor vehicles, trucks, boats and heavy Equipment)</li> <li>▪ Provide staffing for the Gull Harassment and Controlled Deer hunt programs</li> <li>▪ Maintain Quabbin Park</li> <li>▪ Operate and maintain Quabbin Park Cemetery</li> <li>▪ Operate and maintain the three Boat Launch Areas at Quabbin Reservoir</li> </ul>
<b>Total FTEs</b>	<b>73</b>	<b>73</b>	
<b>Total LT Seasonals</b>	<b>14</b>	<b>14</b>	
<b>Total ST Seasonals</b>	<b>3</b>	<b>3</b>	

LT Seasonal = Long-term Seasonal  
ST Seasonal = Short-term Seasonal

\*GIS staff person was moved to Divisional staff



### **3. Annual Budget Summary: Expenditures and Revenues**

**WATER SUPPLY PROTECTION TRUST  
Expenditures and Revenues Report  
FY20 Work Plan Budget**

		FY20 Projected	% of Total
<b>A. Revenues</b>			
<b>OWM Revenues</b>			
	Hydro + Transmission	\$300,000	1.7%
	Forestry	\$500,000	2.8%
	Fishing & Recreation	\$225,000	1.3%
	Misc.	\$50,000	0.3%
	<b>OWM Revenues Subtotal</b>	<b>\$1,075,000</b>	<b>6.0%</b>
	<b>MWRA Payments to Trust *</b>	<b>\$16,778,600</b>	<b>94.0%</b>
	<b>Total Revenues</b>	<b>\$17,853,600</b>	<b>100.0%</b>
<b>B. Expenditures (not inc. Trust Capital Projects)</b>			
AA	Personnel	\$10,924,239	61.2%
BB	Employee Expenses	\$20,000	0.1%
CC	Contracted Services	\$50,000	0.3%
DD	Pensions/Insurance	\$4,117,361	23.1%
EE	Admin Expenses	\$130,000	0.7%
FF	Facility Operational Supplies	\$228,000	1.3%
GG	Energy Costs	\$295,000	1.7%
HH	Consultant Contracts	\$355,000	2.0%
JJ	Operational Services	\$45,000	0.3%
KK	Equipment	\$540,000	3.0%
LL	Leases, Rentals	\$133,000	0.7%
NN	Construction Improvements	\$675,000	3.8%
PP	Grants to Public Entities		
TT	Specials Payments	\$130,000	0.7%
UU	IT Expenses	\$211,000	1.2%
	<b>Total Expenditures</b>	<b>\$17,853,600</b>	

\* not accounting for FY19 roll-over, which is credited

## **4. Annual Operating Budget**

DCR Division of Water Supply Protection  
Office of Watershed Management  
FY20 Budget Details

Budget_Fiscal_Year	FY2020 Budget							
2020	5/15/2019							
Object_Class	Object	Object Name	FY18 Actuals	FY2018 Final Budget	FY2019 Final Budget	FY2020 Draft Budget	vs FY19 Budget	% Difference
AA	A01	Salaries:Inclusive	9,515,345	9,838,408	10,316,300	10,486,239	169,939	1.6%
	A06	Stand-By Pay						
	A07	Shift Differential Pay	21,706	23,000	23,000	23,000		0.0%
	A08	Overtime Pay	248,414	230,000	260,000	265,000	5,000	1.9%
	A10	Holiday Pay	33,843	24,000	30,000	35,000	5,000	16.7%
	A11	Employment Related Settlements and Judgements						
	A12	Sick-Leave Buy Back	17,262	30,000	35,000	35,000	0	0.0%
	A13	Vacation-In-Lieu	61,402	60,000	50,000	50,000	0	0.0%
	A14	Stipends, Bonus Pay and Awards	23,314			20,000	20,000	
	AA1	Out of Title Pay	8,463	20,000	20,000	10,000	(10,000)	-50.0%
<b>AA Total</b>			<b>9,929,749</b>	<b>10,085,408</b>	<b>10,734,300</b>	<b>10,924,239</b>	<b>189,939</b>	<b>1.8%</b>
BB	B01	Out Of State Travel - Inclusive	3,505	2,500	3,000			
	B02	In-State Travel	841	3,000	2,500			
	B03	Overtime Meals	158					
	B05	Conference, Trng & Reg, Membership Dues, Licensing Fees	6,462	5,000	5,000			
	B10	Exigent Job-Related Expenses	19	100	100			
	B11	Employer Refund of Non-Tax Benefits	12	50	50			
	B91	Employee Reimbursement Accounts Payable	282	500	500			
<b>BB Total</b>			<b>11,279</b>	<b>11,150</b>	<b>11,150</b>	<b>20,000</b>	<b>8,850</b>	<b>79.4%</b>
CC	C04	Contracted Seasonal Employees	32,114	77,000	60,000			
	C22	Engineering, Research & Scientific Services						
	C98	Reimb Travel/Other Expenses CC Special Contract/Employee						
<b>CC Total</b>			<b>32,114</b>	<b>77,000</b>	<b>60,000</b>	<b>50,000</b>	<b>(10,000)</b>	<b>-16.7%</b>
DD	D09	Non Fringe Benefits Reimbursement (Payroll Tax)	930,042	171,745	186,741	267,771	81,030	43.4%
	D09	Fringe Benefits Reimbursement	2,537,928	3,439,637	3,668,228	3,739,589	71,361	1.9%
	D15	Worker's Comp Chargeback	100,000	100,000	100,000	100,000	0	0.0%
	D21	Health Ins Costs of Employ/Leave in Excess of 1 Yr Chgback		10,000	10,000	10,000	0	0.0%
<b>DD Total</b>			<b>3,567,970</b>	<b>3,723,748</b>	<b>3,964,970</b>	<b>4,117,361</b>	<b>152,391</b>	<b>3.8%</b>
EE	E01	Office & Administrative Supplies	9,364	7,500	8,500			
	E02	Printing Expenses & Supplies	6,571	12,000	12,000			
	E04	Central Reprographics Chargeback		500	1,000			
	E06	Postage	10,500	5,500	7,000			
	E12	Subscriptions, Memberships & Licensing Fees	633	1,600	1,500			
	E13	Advertising Expenses	5,691					
	E14	Exhibits/Displays	1,772	2,000	2,000			
	E15	Office Tap Water Treatment	1,203	900	1,000			
	E19	Fees, Fines, Licenses, Permits & Chargebacks	24,705	28,000	31,000			
	E20	Motor Vehicle Chargeback	39,129	29,000	34,000			
	E22	Temp Use Space/Confer-Incidental Includes Reservation Fees	1,631	1,000				
	E32	Tort Claims Liab Mqnt Reduc Fd						
	E53	S&J: Non-reportable to claimant, sole payee	10,000	10,000	10,000			
	E75	Advances - Administrative Expenses						
	EE2	Conference, Training and Registration Fees	1,130	2,000	2,000			
<b>EE Total</b>			<b>112,329</b>	<b>100,000</b>	<b>110,000</b>	<b>130,000</b>	<b>20,000</b>	<b>18.2%</b>

DCR Division of Water Supply Protection  
Office of Watershed Management  
FY20 Budget Details

Budget_Fiscal_Year	FY2020 Budget							
2020	5/15/2019							
Appropriation	28300100							
Object_Class	Object	Object Name	FY18 Actuals	FY2018 Final Budget	FY2019 Final Budget	FY2020 Draft Budget	vs FY19 Budget	% Difference
FF	F01	Food, Beverages, & Preservation	433					
	F03	Laundry and Cleaning Supplies						
	F05	Laboratory Supplies	3,476	1,500	2,000			
	F06	Medical & Surgical Supplies	11,680	1,000	2,000			
	F08	Toiletries and Personal Supplies	44,970					
	F09	Clothing & Footwear	647	20,000	25,000			
	F11	Laundry & Cleaning Supplies	13,017	9,000	9,000			
	F13	Live Animals & Related Supplies	2,292	1,000	1,000			
	F16	Library and Teaching Supplies and Materials	377	200	200			
	F18	Recreation, Religious & Social Supplies & Materials	15,603	13,000	13,000			
	F19	Manufacturing Supply & Materials & Raw Materials	3,405					
	F21	Navigational & Nautical Supplies	9,307	15,000	12,800			
	F22	Municipal Taxes						
	F24	Motor Vehicle Maintenance & Repair Parts	82,210	85,000	130,000			
F27	Law Enforcement & Security Supplies	10,791	2,500	3,000				
<b>FF Total</b>			<b>198,208</b>	<b>148,200</b>	<b>198,000</b>	<b>228,000</b>	<b>30,000</b>	<b>15.2%</b>
GG	G03	Electricity	51,974	24,000	30,000			
	G05	Fuel For Vehicles	106,332	185,000	140,000			
	G06	Fuel For Buildings	108,549	120,000	115,000			
	G08	Sewage Disposal & Water	5,784	6,500	6,000			
	G11	Natural Gas	12,533	500	500			
<b>GG Total</b>			<b>285,172</b>	<b>336,000</b>	<b>291,500</b>	<b>295,000</b>	<b>3,500</b>	<b>1.2%</b>
HH	H05	Arbitrators/Mediators/Dispute Resolution Services						
	H09	Attorneys/Legal Services	5,500	6,000	6,000	6,000	0	0.0%
	H23	Program Coordinators						
	HH1	Financial Services	34,920	45,000	45,000	35,000	(10,000)	-22.2%
	HH2	Engineering, Research & Scientific Services	176,162					
		UMass - Water Quality and Spill Response Modeling		135,000	135,000	135,000	0	0.0%
		Source Molecular		14,000	14,000	14,000	0	0.0%
		Biodiversity Research Inst (loon capture and banding)		15,000	15,000	15,000	0	0.0%
		Analytical Services		5,000	5,000	5,000	0	0.0%
		DOT Drone ISA				75,000		
		Aquatic Invasives Control Project		8,000	6,000	45,000	39,000	650.0%
HH4	Health and Safety Services (including Quabbin Asbestos)	36,527	3,000	5,000	25,000	20,000	400.0%	
<b>HH Total</b>			<b>253,109</b>	<b>231,000</b>	<b>231,000</b>	<b>355,000</b>	<b>124,000</b>	<b>53.7%</b>
JJ	J21	Hazardous Waste Removal Services						
	J25	Laboratory and Pharmaceutical Services			1,000			
	J27	Laundry Services	7,847	8,000	19,000			
	J33	Photographic & Micrographic Services		500				
	J44	Surveyors	1,563	10,000	4,000			
	J50	Instructors/Lecturers/Trainers		500	4,000			
	JJ1	Legal Support Services	24,320	25,000	22,000			
	JJ2	Auxiliary Services						
<b>JJ Total</b>			<b>33,730</b>	<b>44,000</b>	<b>50,000</b>	<b>45,000</b>	<b>(5,000)</b>	<b>-10.0%</b>

DCR Division of Water Supply Protection  
Office of Watershed Management  
FY20 Budget Details

Budget_Fiscal_Year	FY2020 Budget							
2020								
Appropriation	28300100	5/15/2019						
Object_Class	Object	Object Name	FY18 Actuals	FY2018 Final Budget	FY2019 Final Budget	FY2020 Draft Budget	vs FY19 Budget	% Difference
KK	K02	Educational Equipment	4,376	3,000	3,000			
	K03	Facility Equipment	22,619	65,000	60,000			
	K04	Motorized Vehicle Equipment	608,515	602,000	420,000			
	K05	Office Equipment		5,000	5,000			
	K07	Office Furnishings	6,709	3,000	3,000			
	K09	Medical Equipment	5,944					
	K10	Law Enforcement & Security Supplies	1,464	4,000	4,000			
	K11	Heavy Equipment	110,617	23,000	30,000			
<b>KK Total</b>			<b>760,244</b>	<b>705,000</b>	<b>525,000</b>	<b>540,000</b>	<b>15,000</b>	<b>2.9%</b>
LL	L11	Heavy Equipment Lease-Purchase	29,292	33,000	30,000			
	L23	Facility Equipment Rental or Lease	29882		29,000			
	L24	Motorized Vehicle Equipment Rental or Lease	238					
	L25	Office Equipment Rental or Lease	2,437	2,500	2,500			
	L26	Printing/Photocopy & Micrographics Equip Rent/Lease	14,638	15,000	15,000			
	L31	Heavy Equipment Rental or Lease		2,000	2,000			
	L42	Educational Equipment Maintenance & Repair		2,000	2,000			
	L43	Facility Equipment Maintenance & Repair						
	L44	Motorized Vehicle Equipment Maintenance & Repair	18,774	28,000	15,000			
	L45	Office Equipment Maintenance and Repair	195	1,000	1,000			
	L46	Print, Photocopying & Micrograph Equipment Maint/Repair	8,268	3,000	3,000			
	L50	Law Enforcement/Security Equipment Maintenance/Repair		500				
	L51	Heavy Equipment Maintenance/Repair	16,207	25,000	22,000			
L63	Programmatic Equipment Maintenance and Repair	6,136	15,000	8,000				
<b>LL Total</b>			<b>126,067</b>	<b>127,000</b>	<b>129,500</b>	<b>133,000</b>	<b>3,500</b>	<b>2.7%</b>
NN	N15	Building/Vertical Structure Construction						
	N16	Maj Construction, Maj Renovation, Bldg Alteration, Land Impr	75,248	100,000	100,000			
	N17	Major Building Maintenance and Land Improvements	21,271	95,000	80,000			
	N18	Initial Furnishings & Equipment Purchases						
	N19	Land Acquisition and Eminent Domain	2,820					
	N21	Highway Horizontal/Lateral Construction	10,425					
	N22	Highway Horizontal/Lateral Maintenance and Improvements		130,000	70,000			
	N23	Highway Horizontal/Lateral Maintenance Materials	31,175	50,000	30,000			
	N41	State Park & Recreation Facilities Construction	151,996	15,000	74,000			
	N50	Non-Major Facility Infrastructure Maintenance & Repair	102,681	55,000	55,000			
	N52	Facility Infrastructure Maint & Repair Tools & Supplies	127,003	110,000	110,000			
	N60	Lawn and Grounds Equipment Maint & Repair	21,612	5,000	5,000			
	N61	Lawn and Grounds Equipment	183,662	75,000	75,000			
	N64	Garden Expenses, Tools and Supplies	24,449	25,000	25,000			
	N71	Exterminators/Integrated Pest Management	3,309	4,000	4,000			
	N72	Hazardous Waste Removal Services	7,173	15,000	12,000			
	N73	Non-Hazardous Waste Removal Services	12,643	21,000	25,000			
	N74	Snow Removal&Groundskeeping Svcs (inc. haz. tree removal)	34149	5,000				
	N98	Reimbursement for Travel/Other Expense Infrastructure Projects						
N11	Engineering, Research and Scientific Services	43,025	90,000	10,000				
<b>NN Total</b>			<b>852,641</b>	<b>795,000</b>	<b>675,000</b>	<b>675,000</b>	<b>0</b>	<b>0.0%</b>

DCR Division of Water Supply Protection  
Office of Watershed Management  
FY20 Budget Details

Budget_Fiscal_Year		FY2020 Budget						
Appropriation		5/15/2019						
Object_Class	Object	Object_Name	FY18 Actuals	FY2018 Final Budget	FY2019 Final Budget	FY2020 Draft Budget	vs FY19 Budget	% Difference
PP	P01	Grants to Public Entities						
<b>PP Total</b>			-	-				
TT	T04	Payments & Refunds (USGS gages)	126,760	125,000	130,000			
<b>TT Total</b>			<b>126,760</b>	<b>125,000</b>	<b>130,000</b>	<b>130,000</b>	<b>0</b>	<b>0.0%</b>
UU	U01	Telecommunications Services Data	12,395	10,500	8,000	16,000	8,000	100.0%
	U02	Telecommunications Services - Voice	36,659	55,000	68,000	50,000	(18,000)	-26.5%
	U03	Software and Information Technology (IT) Licenses	3,000	15,000	10,000	6,000	(4,000)	-40.0%
	U04	Information Technology Chargeback	16,930	2,000	8,000	18,000	10,000	125.0%
	U05	Information Tech (IT) Professionals		6,000	4,000	2,000	(2,000)	-50.0%
	U06	Information Technology Cabling	68,694			15,000	15,000	
	U07	Information Tech (IT) Equipment Purchase	100,310	110,000	110,000	102,000	(8,000)	-7.3%
	U09	Information Technology (IT) Equip Rental Or Lease						
	U10	Information Tech (IT) Equipment Maintenance & Repair	1,159	4,000	3,000	2,000	(1,000)	-33.3%
<b>UU Total</b>			<b>239,147</b>	<b>342,500</b>	<b>211,000</b>	<b>211,000</b>	<b>0</b>	<b>0.0%</b>
<b>Total Baseline Cost</b>			<b>16,528,519</b>	<b>16,851,006</b>	<b>17,321,420</b>	<b>17,853,600</b>	<b>532,180</b>	<b>3.1%</b>

DCR Division of Water Supply Protection  
Office of Watershed Management  
FY20 Budget Details

Budget_Fiscal_Year		FY2020 Budget						
2020		5/15/2019						
Appropriation		28300100						
Object_Class	Object	Object_Name	FY18 Actuals	FY2018 Final Budget	FY2019 Final Budget	FY2020 Draft Budget	vs FY19 Budget	% Difference
<b>"Capital Projects" Funded by Water Supply Protection Trust</b>								
<b>Wachusett/Sudbury Region Projects</b>								
KK	K04	Large Equipment (items over \$100k)	122,811	150,000				
<b>KK Total</b>			<b>122,811</b>	<b>150,000</b>	<b>-</b>		<b>-</b>	
NN	N41	Clinton Crew Headquarters construction	75,000	750,000	1,100,000	1,100,000	0	0.0%
	N41	Clinton Maintenance Garage addition						
<b>NN Total</b>			<b>75,000</b>	<b>750,000</b>	<b>1,100,000</b>	<b>1,100,000</b>	<b>0</b>	<b>0.0%</b>
<b>Wachusett/Sudbury Total</b>			<b>197,811</b>	<b>900,000</b>	<b>1,100,000</b>	<b>1,100,000</b>	<b>0</b>	<b>0.0%</b>
<b>Quabbin/Ware Region Projects</b>								
KK	K04	Large Equipment (items over \$100k) (Dump Truck in FY19)	121,973	150,000				
<b>KK Total</b>			<b>121,973</b>	<b>150,000</b>	<b>-</b>			
	N22	Road and drainage reconstruction				125,000		
	N41	New Salem restoration ( design)				75,000		
	N41	Quabbin Administration Corrosion Control				150,000		
	N41	Administration Building roof repairs				105,000		
<b>NN Total</b>			<b>-</b>	<b>-</b>	<b>-</b>	<b>455,000</b>		
<b>Quabbin/Ware Total</b>			<b>121,973</b>	<b>150,000</b>	<b>-</b>	<b>455,000</b>	<b>-</b>	
<b>Capital Projects Total</b>			<b>319,784</b>	<b>1,050,000</b>	<b>1,100,000</b>	<b>1,555,000</b>		
<b>Grand Total Expenses</b>			<b>16,848,303</b>	<b>17,901,006</b>	<b>18,421,420</b>	<b>19,408,600</b>	<b>987,180</b>	<b>5.4%</b>
<b>Revenues</b>								
	6995	Hydro & Transmission	310,428	500,000	400,000	300,000	(100,000)	-25.0%
	4500	Forestry	509,329	200,000	354,993	500,000	145,007	40.8%
	3148	Fishing & Recreation	224,904	240,000	230,000	225,000	(5,000)	-2.2%
	6900	Misc.	68,274	50,000	30,000	50,000	20,000	66.7%
<b>Revenue Total</b>			<b>1,112,935</b>	<b>990,000</b>	<b>1,014,993</b>	<b>1,075,000</b>	<b>60,007</b>	<b>5.9%</b>
<b>Net Reimbursement</b>			<b>15,735,368</b>	<b>16,911,006</b>	<b>17,406,427</b>	<b>18,333,600</b>	<b>927,173</b>	<b>5.3%</b>
<b>PILOT (actually paid to DCR less the reimbursements paid by Fay School and Town of Southborough)</b>			<b>8,169,711</b>	<b>8,220,120</b>	<b>8,319,000</b>	<b>8,500,000</b>	<b>181,000</b>	<b>2.2%</b>
<b>Total DCR Budget</b>			<b>23,905,078</b>	<b>25,131,126</b>	<b>25,725,427</b>	<b>26,833,600</b>	<b>1,108,173</b>	



## **5. Annual Major Projects**

**Department of Conservation and Recreation  
Division of Water Supply Protection Office of Watershed Management  
FY20 Major Projects**

**FY20 NN Spending Proposal Dividing Projects Between Operating Funds and Trust "Capital"**

<b>Wachusett</b>				
<b>Project</b>	<b>Operating</b>	<b>Trust "Capital"</b>	<b>Notes</b>	<b>Obj. Code</b>
Hazardous Tree Removal	\$5,000		Various sites	N74
Direct Discharge Elimination Design/Construction Management	\$120,000		DOT construction	NN1
Required Dam Studies (Phase 1s and 2s)	\$5,000		Reg-required reports\dam training	NN1
Dike Maintenance	\$20,000		Liming, seeding regularly	N74
BMP Maintenance	\$30,000		Contract for stormwater BMP cleaning	N22
Watershed Gravel Road Reconstruction Supplies	\$20,000		Purchase materials for in-house work	N23
Construction of New Clinton Crew Headquarters		\$1,100,000	Completion of crew building replacement	N15
Regular NN Spending	\$125,000			Multiple NN
<b>Subtotal</b>	<b>\$325,000</b>	<b>\$1,100,000</b>		
<b>Quabbin</b>				
<b>Project</b>	<b>Operating</b>	<b>Trust "Capital"</b>	<b>Notes</b>	<b>Obj. Code</b>
Road Paving and Drainage Improvements			paving, culvert work	N21
Gate 40 culvert replacements		\$125,000	major culvert replacement on Dana Common Road	N21
BLA 3 bridge repair		\$0	required bridge repair, based on recent design work	N21
New Salem Crew Headquarters building		\$75,000	Design of crew building replacement	NN1
Cemetery Tree Removal	\$50,000		Hazardous trees in cemetery threatening graves	N74
Gravel\Road Supplies	\$30,000		Purchase materials for in-house work	N23
Asbestos Abatement	\$20,000		Continue abatement work in facilities	HH4
Dike Maintenance	\$10,000		Liming, seeding regularly	N74
Brighan Pond Dam stabilization	\$60,000		Design of repairs to failing dam	NN1
Rental Boat Purchase	\$20,000		Program of rental boat replacement	K04
Quabbin Admin Building Roof repairs		\$105,000	repairs of critical leaks causing damage	N50
Mechanical Repairs, HQ and other locations	\$50,000		various	N50
Quabbin Admin Corrosion Control		\$150,000	construction of corrosion control for Admin water system	N16
Regular NN Spending	\$140,000			Multiple NN
<b>Subtotal NN</b>	<b>\$340,000</b>	<b>\$455,000</b>		
<b>Subtotal KK</b>	<b>\$20,000</b>			
<b>Subtotal HH-</b>	<b>\$20,000</b>			
<b>Natural Resources</b>				
Regular NN Spending	\$10,000			Multiple NN
<b>Major Equipment Purchases (KK)*</b>				
<b>Wachusett</b>		\$0		KK
<b>Quabbin</b>		\$0		KK
*Does not include passenger vehicle replacements typically funded through Operating Budget				
<b>HH Total</b>	<b>\$20,000</b>			
<b>KK Budget Totals</b>	<b>\$20,000</b>	<b>\$0</b>		
<b>NN Budget Totals</b>	<b>\$675,000</b>	<b>\$1,555,000</b>		
<b>TOTAL</b>	<b>\$715,000</b>	<b>\$1,555,000</b>		

## **6. Annual Land Acquisition Capital Spending Plan**

**Department of Conservation and Recreation  
Division of Water Supply Protection**

**FY20 Proposed Watershed Land Acquisitions**

Owning and managing watershed lands surrounding a water supply source is recognized as the most direct and proven method of protecting the water source's long-term quality. A major tenet of watershed management is protection through ownership of interests in watershed lands because:

- A forested watershed provides the best quality water.
- The purchase of undeveloped lands protects water sources from development, which can alter vegetation and drainage, and add impervious surfaces that move pollutants quickly towards streams.
- The purchase of vegetated buffers provides natural "treatment" or protection to lessen water quality impacts of future development.
- The purchase of stream buffers provides protections against changing flow patterns due to climate change.
- The purchase of problem properties can halt the problem of activity or use, and allows for proper clean-up or re-vegetation of the site.

Landowners continually solicit DCR interest in purchasing their land for watershed protection. DCR also approaches selected landowners holding acreages which are determined applicable to watershed acquisition criteria. Priority is given to those projects which:

- Rate favorably on the Watershed Land Acquisition Model Map for each of the three active watersheds.
- Are determined important for an administrative and/or strategic purpose (agency access, boundary consolidation, prevention of assemblage threat).

Additional consideration is given to landowners who are willing to consider the placement of a Watershed Protection Restriction on their land in place of a fee transfer.

The "Land List" remains fluid as proposed projects are brought before the Land Acquisition Panel (LAP) for approval to proceed with due diligence. All proposed acquisitions are subsequently approved by the MWRA Board of Directors.

**The projected budget for watershed land acquisition in FY20 is estimated to be \$1 million.**

## **7. Annual Payments in Lieu of Taxes**

**Department of Conservation and Recreation  
Division of Water Supply Protection  
Office of Watershed Management**

**FY20 Payments in Lieu of Taxes Estimate**

Payments in Lieu of Taxes (PILOT), required under MGL c.59 s.5G, are based upon the valuation set by the Department of Revenue (DOR) and the local commercial tax rate. The process used by DOR for valuing State Owned Land (SOL – which includes DCR Watershed Management ) under MGL c. 58 changed in FY19 due to the Mass Municipal Modernization Act – Chapter 218, Section 108 of the Acts of 2016.

Under the new process, DOR determined a base year SOL valuation for each community as of January 1, 2017. After a hearing and appeal process, base year SOL valuations were finalized. Going forward under the new process, the base year valuations will be adjusted every two years by a percentage equal to the change in a city or town's equalized cash value (EQV). Valuations are also updated annually to include the value of any acquisitions and/or dispositions in a community. Calculations for acquired lands will be made using the cost per acre average for each town, adjusted by the EQV.

MGL c.59 s.5G still requires that the Watershed PILOT amount can never be less than the previous year.

The FY19 PILOT was \$8,255,642. This figure is a 0.1 % increase from the FY18 PILOT paid of \$8,249,177. Several towns' tax rates did not grow as much as in recent years, so this increase was lower than the estimated 1% potential increase stated in the FY19 Work Plan.

FY20 PILOT will be based on DOR's State Owned Land revaluation that took place in Calendar Year 2017 adjusted by EQV and include 352 acres of land purchased in fee in 2017 and 2018. Utilizing a generic estimated increase of 5% to all towns' tax rates from FY19 to FY20, **it is estimated that PILOT will increase by approximately 3% to approximately \$8.5 million.**

**Department of Conservation and Recreation Office of Watershed Management**  
**FY19 Payments in Lieu of Taxes**  
*February 2019 - Final*

Community	2017 DOR Property Valuation	FY18 Tax Rate	FY18 PILOT	FY19 Tax Rate	FY19 Minimum PILOT Due	FY19 PILOT	Hold Harmless	Increase	% Increase
Barre	\$6,196,400	\$18.80	<b>\$186,168.60</b>	\$18.12	\$112,278.77	<b>\$186,168.60</b>	\$73,890	\$0	
Belchertown	\$11,835,800	\$18.19	<b>\$257,074.40</b>	\$18.32	\$216,831.86	<b>\$257,074.40</b>	\$40,243	\$0	
Belchertown - Annexed Lands	\$1,576,600	\$18.19	<b>\$50,625.10</b>	\$18.32	\$28,883.31	<b>\$50,625.10</b>	\$21,742	\$0	
Berlin	\$1,900,900	\$23.36	<b>\$47,008.43</b>	\$25.83	\$49,100.25	<b>\$49,100.25</b>	\$0	\$2,092	4.4%
Boylston	\$29,059,700	\$16.73	<b>\$595,938.71</b>	\$16.04	\$466,117.59	<b>\$595,938.71</b>	\$129,821	\$0	
Clinton	\$5,701,400	\$30.73	<b>\$205,948.72</b>	\$28.20	\$160,779.48	<b>\$205,948.72</b>	\$45,169	\$0	
Framingham	\$5,502,600	\$35.39	<b>\$261,930.91</b>	\$33.61	\$184,942.39	<b>\$261,930.91</b>	\$76,989	\$0	
Hardwick	\$7,274,600	\$16.74	<b>\$121,776.80</b>	\$16.04	\$116,684.58	<b>\$121,776.80</b>	\$5,092	\$0	
Hardwick - Annexed Lands	\$36,900	\$16.74	<b>\$941.41</b>	\$16.04	\$591.88	<b>\$941.41</b>	\$350	\$0	
Holden	\$32,372,600	\$17.61	<b>\$919,615.57</b>	\$17.45	\$564,901.87	<b>\$919,615.57</b>	\$354,714	\$0	
Hubbardston	\$21,254,800	\$15.13	<b>\$321,585.12</b>	\$15.22	\$323,498.06	<b>\$323,498.06</b>	\$0	\$1,913	0.6%
Leominster	\$162,800	\$19.33	<b>\$8,688.49</b>	\$18.54	\$3,018.31	<b>\$8,688.49</b>	\$5,670	\$0	
Ludlow	\$221,800	\$19.01	<b>\$10,524.06</b>	\$19.82	\$4,396.08	<b>\$10,524.06</b>	\$6,128	\$0	
Marlborough	\$1,984,300	\$25.73	<b>\$112,802.46</b>	\$24.95	\$49,508.29	<b>\$112,802.46</b>	\$63,294	\$0	
New Salem	\$16,884,600	\$18.13	<b>\$520,470.61</b>	\$17.57	\$296,662.42	<b>\$520,470.61</b>	\$223,808	\$0	
New Salem - Annexed Lands	\$5,812,600	\$18.13	<b>\$201,603.91</b>	\$17.57	\$102,127.38	<b>\$201,603.91</b>	\$99,477	\$0	
Northborough	\$4,934,100	\$17.39	<b>\$103,466.89</b>	\$17.15	\$84,619.82	<b>\$103,466.89</b>	\$18,847	\$0	
Oakham	\$9,675,500	\$15.20	<b>\$147,067.60</b>	\$14.51	\$140,391.51	<b>\$147,067.60</b>	\$6,676	\$0	
Orange	\$479,400	\$21.94	<b>\$10,518.04</b>	\$22.52	\$10,796.09	<b>\$10,796.09</b>	\$0	\$278	2.6%
Pelham	\$11,306,000	\$20.87	<b>\$338,086.39</b>	\$21.59	\$244,096.54	<b>\$338,086.39</b>	\$93,990	\$0	
Pelham - Annexed Lands	\$813,200	\$20.87	<b>\$38,096.61</b>	\$21.59	\$17,556.99	<b>\$38,096.61</b>	\$20,540	\$0	
Petersham	\$10,525,200	\$16.37	<b>\$296,721.61</b>	\$16.93	\$178,191.64	<b>\$296,721.61</b>	\$118,530	\$0	
Petersham - Annexed Lands	\$5,255,300	\$16.37	<b>\$203,305.78</b>	\$16.93	\$88,972.23	<b>\$203,305.78</b>	\$114,334	\$0	
Phillipston	\$140,500	\$16.48	<b>\$11,912.74</b>	\$16.65	\$2,339.33	<b>\$11,912.74</b>	\$9,573	\$0	
Princeton	\$14,859,200	\$17.28	<b>\$256,766.98</b>	\$16.02	\$238,044.38	<b>\$256,766.98</b>	\$18,723	\$0	
Rutland	\$20,933,800	\$18.13	<b>\$525,860.45</b>	\$17.89	\$374,505.68	<b>\$525,860.45</b>	\$151,355	\$0	
Shutesbury	\$7,398,700	\$23.06	<b>\$299,391.54</b>	\$23.26	\$172,093.76	<b>\$299,391.54</b>	\$127,298	\$0	
Southborough	\$17,383,800	\$16.14	<b>\$294,207.30</b>	\$16.74	\$291,004.81	<b>\$294,207.30</b>	\$3,202	\$0	
Sterling	\$44,254,600	\$17.54	<b>\$776,225.68</b>	\$17.27	\$764,276.94	<b>\$776,225.68</b>	\$11,949	\$0	
Templeton	\$50,800	\$16.72	<b>\$1,082.18</b>	\$17.24	\$875.79	<b>\$1,082.18</b>	\$206	\$0	
Ware	\$6,669,600	\$20.71	<b>\$193,261.40</b>	\$20.21	\$134,792.62	<b>\$193,261.40</b>	\$58,469	\$0	
Ware - Annexed Lands	\$4,491,700	\$20.71	<b>\$167,580.62</b>	\$20.21	\$90,777.26	<b>\$167,580.62</b>	\$76,803	\$0	
Wendell	\$1,322,200	\$20.96	<b>\$27,713.31</b>	\$22.61	\$29,894.94	<b>\$29,894.94</b>	\$0	\$2,182	7.9%
West Boylston	\$20,540,500	\$18.72	<b>\$683,581.59</b>	\$18.85	\$387,188.43	<b>\$683,581.59</b>	\$296,393	\$0	
Westborough	\$2,796,700	\$18.46	<b>\$51,627.08</b>	\$18.33	\$51,263.51	<b>\$51,627.08</b>	\$364	\$0	
<b>TOTAL</b>	<b>\$331,609,200</b>		<b>\$8,249,177.08</b>			<b>\$8,255,641.51</b>	\$2,273,637	\$6,464	0.08%

NOTES:

1. Watershed PILOT, per MGL c. 59 s.5G, is determined by multiplying the DOR valuation by the local commercial tax rate.
2. The process used by MA Department of Revenue (DOR) for valuing State Owned Land (SOL – which includes DCR Watershed Management ) under MGL c. 58 changed in FY 19. Under the new process, DOR determined a base year SOL valuation for each community as of January 1, 2017. After a hearing and appeal process, base year SOL valuations were finalized. Going forward under the new process, the base year valuations will be adjusted every two years by a percentage equal to the change in a city or town's equalized cash value (EQV). Valuations are also updated annually to include the value of any acquisitions and/or dispositions in a community.
3. "Hold Harmless" is a provision in the legislation that requires any payment never to be less than the previous year's payment. Therefore, if either valuations or tax rates drop, the municipality is guaranteed a consistent payment.