



Fiscal Year 2023 Work Plan



Rubin Watershed Preservation Restriction, Petersham
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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 2023 Work Plan
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**Department of Conservation and Recreation
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FY23 Annual Work Plan Highlights

Fiscal Year 2023 is the fifth and final year in the implementation schedule for the *DCR Watershed System Watershed Protection Plan FY19-FY23*. One of the major tasks for FY23 will be the development of the FY24-FY28 Watershed Protection Plan. Work will occur over the summer and fall, with a draft by early 2023. The draft will be submitted for approval to DEP in the spring of 2023. DWSP will also undertake a review of the Land Management Plan, which called for a review after 5 years of implementation.

Our land protection efforts will continue through purchase in fee and of Watershed Preservation Restrictions (WPRs), guided by the Land Acquisition Model. Monitoring of our WPRs will continue on the desired schedule with each parcel being monitored on a 2–3-year schedule. In addition, staff is looking at technology that will allow us to view recent aerial photographs to monitor land use changes, especially on parcels not due for field monitoring. The use of GIS and electronic field data collection will continue to expand and streamline numerous protection efforts wildlife monitoring and Ranger incident reporting and violation tracking. Staff will continue implementation of the bird harassment programs at both reservoirs to continue to meet source water quality standards.

Staff will continue to implement the Watershed Protection Act across the active watersheds. We expect to move to implementation of our Ware River Watershed and Sudbury Watershed Public Access Management Plans. In addition, we will begin the update of the Wachusett Watershed Public Access Plan.

Staff will Administer the Payment in Lieu of Taxes (PILOT) program across the watershed system.

Highlights by Region are included below:

Wachusett/Sudbury Region

- 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 vegetation management, mowing, and monitoring of dam and dike structures.

- Continue to control beaver populations in the Pathogen Control Zone and work to reduce impacts of beaver in other areas of the watershed.
- Conduct the bird control program and continue efforts to manage wildlife in the watershed. Continue successful measures to reduce food sources and the overall gull population.
- Continue managing white-tailed deer populations in the Wachusett and Sudbury watersheds through deer hunting permits and through the Wachusett Reservoir Zone controlled hunt.
- Continue to maintain Ranger presence to monitor and control public access. Enforce DWSP regulations through targeted patrols and the use of citations, as needed. 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.
- Contract for removal of structures on purchased lands including the Kush property- and begin planning for restoration of the stream riparian zone on this parcel.
- 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. Continue extensive hydrologic monitoring (stream flow, groundwater, precipitation, and snowpack) by staff and in cooperation with U.S. Geological Service.
- Monitor watershed activities 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 and Quinapoxet basins. Monitor watershed ponds and streams for presence of aquatic invasive species.
- Continue work on road salt issue including Year 3 of the grant program to encourage municipal improvements to salting efforts and work on tributary monitoring.

- Continue to expand education and outreach programs both online and in-person that showcase the mission and accomplishments of DWSP.
- Work with consultants and MassDOT to move final design approval of stormwater drainage improvements to treat the final remaining direct discharge to the Reservoir in Sterling.
- Continue expansion and update of 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.

Quabbin/Ware River Region

- Implement the system-wide comprehensive Land Management Plan including development and implementation of controlled burns to enhance forest management activities.
- 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 post-harvest monitoring in the paired watershed study to investigate impact of silvicultural activities (e.g., timber harvesting) on tributary water quality.
- Continue work on management of gravel resources in both watersheds for Division needs.
- Maintain lands around the Quabbin Reservoir, including vegetation management, mowing, and monitoring of dam and dike structures; seek to implement a reduced mowing schedule in other areas to enhance pollinator habitat.
- Continue efforts to manage wildlife in the watershed. Conduct the Quabbin Bird Harassment program. Continue managing white-tailed deer populations through the allowed hunts in access zones and through the annual controlled hunt. Identify and remove aquatic animals found within the Aquatic Pathogen Control Zone.
- Pursue implementation of the Quabbin Park Deer Management Plan for fall if the pandemic has abated in time to allow public review meetings.
- Continue drone work in conjunction with DOT aeronautics division to conduct gull monitoring at Quabbin Reservoir.

- 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.
- Monitor and analyze water quality throughout the Reservoir and watersheds, 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 ponds and streams throughout both watersheds for presence of aquatic invasive species.
- Work closely with MWRA on the Quabbin Administration Complex capital improvement design study.
- Continue work with MWRA on completion of new drinking water well for the Quabbin Administration Complex.
- Continue use of new BLA process using boater ID cards, streamlined season pass sales, iPad scanning, and implementation of credit card sales at BLAs.

Wachusett/Sudbury FY23 Work Plan



Wachusett/Sudbury Work Plan for Fiscal Year 2023 (July 1, 2022 through June 30, 2023).

Task No.	Description	Assigned to	Lead Group	Additional Staff	Product	Due Date
A. Land Acquisition						
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.	Ken MacKenzie	NR	GIS-W, GIS, P, A	Protected land	As needed
A2	Develop individual parcel presentation materials and meet with MWRA Board for approval.	Ken MacKenzie	NR	P, GIS, D	Protected land	End of Q4
A3	Communicate with and convene LAP meetings to review parcels and prioritize land purchases.	Ken MacKenzie	NR	RD, ARD, EQ, EP, F	LAP Recommendations	As needed
A4	Use the LAP Prioritization Model to identify priority parcels in the watersheds.	Ken MacKenzie	NR	GIS	Model, Spreadsheet	End of Q4
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.	Ken MacKenzie	NR	P	Ongoing communications	End of Q4
A6	Establish regularly scheduled land/legal meetings to address attorney assignments and project logistics.	Ken MacKenzie	NR	D	Meetings	End of Q4
B. Watershed Preservation Restriction Monitoring						
B1	Monitor WPRs on a regular basis, following monitoring procedures	Dani Almeida	NR	EQ, GIS	Monitoring reports, updated landownership	End of Q4
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.	Dani Almeida	NR	EQ, GIS	WPR baseline reports	End of Q4
B3	Meet with Restriction Stewardship Working Group and confer with legal to respond to enforcement issues and requests to exercise reserved rights.	Dani Almeida	NR	NR, EQ, RD	Issue resolution and reserved rights decisions	End of Q4
B4	Track changes in landownership for WPRs.	Dani Almeida	NR	EQ, GIS	Updated Landownership spreadsheet	End of Q4
B5	Explore additional ways to reach out to landowners through the use of social media and web-based content.	Dani Almeida	NR	Joel Zimmerman, Jim Taylor	Outreach Content	As needed
B6	Implement WPR records procedure with DCR records manager	Dani Almeida	NR	Ken MacKenzie	Securely stored records	End of Q4
C. Land Management						
C1	Implement the system-wide comprehensive Land Management Plan (LMP).	RD	RD	F, NR, EQ,P, GIS	implemented programs	End of Q4
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.	Greg Buzzell	F	RD	Lot Summaries	End of Q3
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.	Brian Keevan	NR	F	Internal review report	End of Q4
C4	Present annual forest harvest proposals a public meeting. Publish Online Public Review document/story map. Accept public comment and respond as needed.	Greg Buzzell	F	F	Public Presentation	End of Q4
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.	Greg Buzzell	F		Forestry Database, Permit to Harvest Forest Products, Cutting Plans, Photo Series Feature Layer	End of Q4
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.	Greg Buzzell	F	EQ, NR	Forestry Database, Harvest Evaluation Form, Photo Series feature layer	End of Q4
C7	Monitor water quality (turbidity) at active harvesting stream crossing sites to measure effectiveness of BMPs.	Dave Getman	EQ	NR, F		End of Q4
C8	Continue to implement long-term paired watershed monitoring to assess impact of DWSP forest management on tributary water quality.	Dan Crocker	EQ	NR, F		End of Q4
C9	Conduct periodical regeneration and invasive species surveys to monitor forest health and development resulting from silvicultural activities or other natural disturbances and processes.	Greg Buzzell	F	NR	Report	End of Q4
C10	Conduct periodic reviews and monitoring of land management activities and forest conditions to assure compliance and consistency with Land Management Plan.	Brian Keevan	NR	F, EQ	Reporting as needed	End of Q4
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.	Greg Buzzell	F	GIS	GIS datalayers	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.	Greg Buzzell	F	CE, WM,WR	GIS datalayers, Boundaries marked	Ongoing
C13	Locate, mark, and maintain property boundaries periodically and as needed.	Greg Buzzell	F	CE, RD	Boundaries marked, GIS datalayers	End of Q3
C14	Develop scope of work and manage contracted property boundary survey work.	Bryan LaRochelle	CE	F	completed surveys	End of Q4
C15	Document and pursue resolution of all property boundary encroachments.	Sean Flood	WR	F, RD,ARD	Update Encroachment Database	Quarterly
C16	Identify, plan, and oversee non-forest or other unique habitat restoration, field reclamation, and maintenance work.	Brian Keevan	NR	F		End of Q4

Task No.	Description	Assigned to	Lead Group	Additional Staff	Product	Due Date
C17	Identify, prioritize, and implement terrestrial invasive plant (TIP) control projects in line with the expanded Terrestrial Invasive Plant Management Plan. Respond as needed to newly discovered and controllable TIP populations.	Brian Keevan	NR	F, WM, EQ, RD	Projects	End of Q4
C18	Collect data and maintain datasets, GIS datalayers, and related maps and reports of rare and listed plants and communities.	Brian Keevan	NR	F, GIS	Internal GIS layers, reports to NHESP	End of Q4
C19	If available, use unmanned aerial system (UAS) to document forest conditions, map openings, identify invasive plant populations, assess internal road conditions, or conduct other activities.	Ken MacKenzie	NR	RD, F, WM		End of Q4
C20	Continue to work with DCR Asian Longhorned Beetle Program and USDA to oversee beetle eradication in watershed areas.	Greg Buzzell	F	EQ, RD	Meetings and regular communication	As needed
C21	Hazardous Tree Removal	Greg Buzzell	F	WM, RD	Records kept, trees removed	As needed
C22	Maintain deer exclosures and sample vegetation periodically to assess impacts of herbivore browsing.	Brian Keevan	NR	F	Monitoring and repair as needed	End of Q4
C24	Organize, inventory, and categorize permit, lease, and easement information and enter information into the database.	Bill Moulton	CE		organized files, database	End of Q4
C25	Participate in process to transfer lands surrounding Framingham Reservoirs 1 and 2 to DCR Parks.	John Scannell	D	RD, P		End of Q4
	D. Wildlife Management					
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.	Tristan Lundgren	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.	Hillary Siener	NR	EQ	Weekly counts: Data used to guide harassment program	04/01/22
D3	Control Canada geese populations at Wachusett Reservoir by treating eggs during nesting season to prevent hatching.	Hillary Siener	NR		Annual report	
D4	Identify places in MA where human derived food is available for gulls and work to prevent feeding through educational signage, interaction and enforcement.	Hillary Siener	NR	WM	Field reports; Reduction of available human-derived food sources	End of Q4
D5	Aquatic Mammal Control: Remove beaver and muskrat in the Aquatic Wildlife Pathogen Control Zone at Wachusett.	Hillary Siener	NR	EQ	Field reports, Annual summary	End of Q4
D6	Respond to problems of burrowing animals on dams and dikes; take appropriate action.	Hillary Siener	NR		Field report	End of Q4
D7	Research and manage for common loons on DWSP waterbodies; provide nesting platforms, capture and sample birds for contaminants.	Jillian Whitney	NR		Annual report	End of Q4
D8	Continue long-term wildlife resource monitoring program.	Hillary Siener	NR		Database	End of Q4
D9	Work with MA Department of Fisheries and Wildlife (DFW) to survey for and document breeding bald eagles on the reservoir.	Hillary Siener	NR		Field Notes	End of Q4
D10	Plan for the White-tailed Deer Management Program on DWSP lands at Wachusett and Sudbury; Administer the applications, permits, and orientations for the Wachusett Reservoir Zone Deer Hunt	Ken MacKenzie	NR	WR, RD, WM	Orientations, permits	End of Q4
D11	Coordinate with the Massachusetts Natural Heritage and Endangered Species Program concerning rare species occurrences and protection	Hillary Siener	NR	F	Field Notes; reports	End of Q4
	E. Public Access Management					
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.	Sean Flood	WR		Report	Quarterly
E2	Continue to cooperate with state, environmental, and local police for help with enforcement when required.	Sean Flood	WR	ARD	Enforcement Resolution	Quarterly
E3	Continue to use DCR social media accounts for advertisement of interpretive programs, including general or emergency information (such as closings).	Kathryn Parent	WR	IS	Press documents	Quarterly
E4	Develop public outreach regarding allowed uses on DCR Wachusett lands.	Sean Flood	WR	IS	Plan, signage, outreach	Quarterly
E5	Continue updates and improvements to access points with signs, gates and improved parking areas. Conduct regular inspections of gates and access barriers.	Sean Flood	WR	WM, ARD	Signs, barriers	Quarterly
E6	Regularly evaluate and modify policies within the current Public Access Plan and publish annual appendices with policy modifications or to regulate new proposed uses on DWSP lands.	Sean Flood	WR	ARD	Compliance with DWSP regulations	Quarterly
E7	Continue to conduct "special operations" such as night operations, ATV, and snowmobile operations, as needed.	Sean Flood	WR		Compliance with DWSP regulations	Quarterly
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.	Sean Flood	WR		Compliance with DWSP regulations. Update database.	Quarterly
E9	Update the Wachusett Public Access Plan	Kelley Freda	EQ	WR	Completed Plan	End of Q4
	F. Watershed Security					
F1	Maintain an active presence in the watershed. Monitor watershed lands, roadways, and railways for unusual or suspicious activities; provide appropriate response.	Sean Flood	WR	ARD	Ranger logs	Quarterly
F2	Continue ongoing communication and coordination with local, state, and federal emergency responders; coordinate with MWRA on all security issues.	Sean Flood	WR	ARD	Ranger logs	Quarterly
F3	Continue program of enhancing security infrastructure around Wachusett Reservoir.	Sean Flood	WR	CE, WM	Implementation	Quarterly
F4	Inspect, maintain, and monitor gates, barways, and signage throughout the watersheds for security and access control.	Sean Flood	WR	CE, WM	Inspection, repairs, installation.	Quarterly
	G. Infrastructure					

Task No.	Description	Assigned to	Lead Group	Additional Staff	Product	Due Date
G1	Assess Wachusett and Sudbury dams, spillways, and dikes monthly, monitor conditions and maintenance activities, and prepare work requests as necessary. 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.	Bryan LaRochelle	CE	RD, ARD	Inspection logs and reports, summary reports	Monthly
G2	Assess DWSP smaller dams semi-annually, monitor conditions and maintenance activities, and prepare work requests as necessary. Coordinate DCR's role in dam removal projects.	Bryan LaRochelle	CE	WM	Plans, summary reports	2nd quarter. 4th quarter
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.	Bryan LaRochelle	CE	EQ	Maps, datalayers	End of Q4
G5	Develop annual plan for internal road repair/reconstruction projects.	Bryan LaRochelle	CE	RD,F,WM,EQ,ARD	Annual Plan, work orders, summary report	04/01/22
G6	Conduct road, stormwater BMP's, and dam maintenance/repair projects using in-house staff and resources. Provide oversight to ensure protection of water resources.	Bryan LaRochelle	CE	CE,EQ,F	Projects	End of Q4
G7	Conduct regular inspections of all DWSP BMPs, monitor conditions and maintenance activities, prepare work requests and plans for maintenance and repair projects.	Bryan LaRochelle	CE	EQ, WM	Maintained, properly operating SW BMPs	End of Q4
G8	Evaluate Sudbury watershed access, internal roads and develop work plan, as necessary.	Bill Moulton	CE	CE, EQ	Work plan, maps, work orders	End of Q4
G10	Provide supervision, coordination, oversight, and technical support or assistance for all engineering, construction, and renovation work in Section.	Bill Moulton	CE	ARD	Inspections, construction and maintenance records	End of Q4
G11	Maintain records and plans regarding property lines, reservoir and facility construction, and maintenance operations.	Bryan LaRochelle	CE	CE	Miscellaneous records	End of Q4
G12	Implement annual Major Projects		RD		Improvements	End of Q4
G13	Coordinate with WM to provide access to water quality monitoring stations and perform occasional maintenance activities at stream gages	Dave Getman	EQ	WM	Maintained access; functioning gauges	End of Q4
G14	Evaluate and coordinate the monitoring of facilities for compliance with state and federal regulations. Develop and update required documents, as necessary	Paula Davison	CE		Summary reports	End of Q4
G15	Maintenance of forest roads, dams, dike, fields, parking areas, drainage structures, snowplowing, boat launch areas, and other management activities.	Vincent Pasquale	WM	CE, ARD	Maintenance and management.	Quarterly
G16	Prioritize and schedule online workorders for division staff and add to daily work plan.	Vincent Pasquale	WM	ARD	Summary Reports	Quarterly
G17	Assist division staff with specific workorders as needed.	Vincent Pasquale	WM	ARD	Summary Reports	Quarterly
G18	Maintenance of grounds at MWRA facilities as needed. Clinton (Cosgrove), Oakdale (Shaft One)	Vincent Pasquale	WM	ARD	Ongoing maintenance	Quarterly
G19	Conduct building maintenance activities, including painting, carpentry, cleaning, minor repairs, and other routine maintenance	Richard McCarthy	WM	ARD	Ongoing maintenance	Quarterly
G20	Inspect all Wachusett facilities, buildings, related structures and building utility systems. Determine needed costs of materials for maintenance, repair and replacement of parts as needed.	Richard McCarthy	ARD	ARD	Ongoing maintenance	End of Q4
	H. Watershed Protection Act					
H1	Continue implementation of the WsPA.	Bernadette DeBlander	EQ	RD, GIS-W, P	WsPA Decisions, updated electronic files	End of Q4
H2	Convene the Watershed Protection Act Working Group regularly to discuss policy and address specific problems related to the WsPA	Joel Zimmerman	P	EQ, RD	Coordination, decisions, meeting minutes	End of Q4
H3	Review permits for watershed towns on a monthly basis with letters sent to property owners of affected parcels.	Bernadette DeBlander	EQ	RD	Letters to Property Owners of Affected Parcels	End of Q4
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.	Bernadette DeBlander	EQ	RD	Letters to Property Owners of Affected Parcels	Monthly
H5	Review files from previous year on an ongoing basis, including contact with owners and site visits as needed. Emphasis placed on monitoring active variances.	Bernadette DeBlander	EQ	Dave Getman, Vin Vignaly	Follow-up letters issued as needed. All activities documented in database.	End of Q4
H6	Provide Town Halls with WsPA maps, brochures and applications on a regular basis.	Bernadette DeBlander	EQ		Inventory of needs and inventory of information that was distributed.	Visit each town twice yearly.
	I. Education and Outreach					
I1	Review, implement, and amend the Wachusett Interpretive Services Plan.	Kathryn Parent	IS	WR,EQ	Amended plan with documentation of actions	Ongoing
I2	Coordinate Educational and Outreach programs	Kathryn Parent	IS	WR, EQ	Improved public outreach, school programs established, contacts made with public and visitors	Ongoing
I3	Maintain and enhance kiosks and bulletin boards throughout the watershed.	Kathryn Parent	IS	IS,WM	Updates on Kiosks at least quarterly	Quarterly
I4	Perform inventory of signage and make recommendations for improvements and additions of stewardship signs	Sean Flood	WR	D,RD,IS,EQ	Inventory of sign type and location	Ongoing
I5	Analyze and update current brochures. Determine need for new brochure topics and develop as needed.	Kelley Freda	EQ	WR, IS	Brochures	Ongoing
I6	Partner with other organizations on watershed programs	Kathryn Parent	IS	EQ, WR	Programs	Ongoing
I7	Provide educational materials, teacher training, and support for Mass Envirothon	Kelley Freda	EQ	IS	School Programs	Ongoing
I8	Maintain and update website with relevant news and information	Joel Zimmerman	P		Website	Ongoing
I9	Organize existing photographs and develop an inventory of new photos for Sudbury Watershed	Joshua Sjogren	EQ		organized collection of photographs	1st quarter
	J. Water Quality and Hydrologic Monitoring					

Task No.	Description	Assigned to	Lead Group	Additional Staff	Product	Due Date
J3	Conduct reservoir profile and plankton sampling at least weekly from April - September and bi-weekly from October - March when ice conditions permit. Conduct additional sampling as necessary and when nuisance taxa increase beyond established thresholds. Use remote sensors (MWRA Buoys) to inform sampling program.	Joy Trahan-Liptak	EQ	Dan Crocker	WQ data entered into database	Ongoing
J5	Conduct reservoir bacteria transect sampling monthly or more frequently in conjunction with gull harassment program.	Dave Getman	EQ	Travis Drury, Dan Crocker	Samples collected monthly or more frequently and delivered to MWRA lab	Ongoing
J6	Produce annual water quality report and document changes to sampling plan in the report.	Dan Crocker	EQ	Joy Trahan-Liptak	Draft Annual WQ report by March 31	3rd Quarter
J7	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.	Dan Crocker	EQ	Travis Drury	Instantaneous hydrology information, USGS cooperation	Ongoing
J8	Augment hydrologic data in Wachusett watershed through monitoring of stream flows, groundwater levels, and precipitation. Take snow pack measurements. Develop and maintain accurate rating curves.	Travis Drury	EQ		Rating curves, precipitation data, monthly HOB0 downloads entered into database	Ongoing
J9	Generate solute loading estimates for flow monitored tributaries. Expand to include smaller tributaries and Quabbin transfer when sufficient data has been collected.	Dan Crocker	EQ		Annual loading estimates	3rd Quarter
J10	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.	Jamie Carr	EQ	Dan Crocker	Input on DCR projects and issues; data summaries	Ongoing
J11	Identify and outline system-wide water quality issues and challenges. Bring to ResOPs and/or WQSAT for discussion and integrate into water quality modeling work with UMass.	Jamie Carr	EQ	Dan Crocker		2nd Quarter
J12	Work with local DPWs, massDOT, UMass, MWRA, and others to reduce applications of road salt in the watershed and prevent additional increases in chloride concentrations in tributaries and the reservoir.	Jamie Carr	EQ	Dan Crocker, Kelley Freda, Joel Zimmerman	Reduction in road salt use	Ongoing
J13	Continue reservoir-wide data collection to increase understanding of reservoir dynamics including stratification, interflow, and distribution of phytoplankton.	Joy Trahan-Liptak	EQ		Collection of additional data	Ongoing
J14	Continue monitoring stormwater basins at Rt 12/140 intersection for water quality, algae, invasive species, and mosquito larva.	Joy Trahan-Liptak	EQ	Max Nyquist	Collection of additional data, analysis	Ongoing
J15	Continue to develop and maintain database backed tools and applications (R,GIS,MS Access, SQL Server) to facilitate data management, review and analysis, writing reports and modeling efforts.	Dan Crocker	EQ	Travis Drury, Joy Trahan-Liptak, Max Nyquist	Improved analysis and reporting	Ongoing
J16	Complete data compilation/interpretation for 30+ Year Water Quality Report (1988-2018) and publish. Include assessment of impacts of climate change on water quality and hydrology.	Jamie Carr	EQ	Dan Crocker, Travis Drury	Comprehensive report	4th Quarter
J17	Ongoing field/lab equipment/supply management (including maintenance and calibration)	Dan Crocker	EQ	Joy Trahan-Liptak, Travis Drury, Max Nyquist, Dave Getman	Accurate measurements	Ongoing
J18	Update and maintain water quality and hydrologic monitoring SOP documents	Dan Crocker	EQ	Joy Trahan-Liptak; Travis Drury	Updated SOPs	Ongoing
J19	Develop Quality Assurance Project Plan (QAPP) for Water Quality and Hydrologic Monitoring Programs	Travis Drury	EQ	Dan Crocker; Joy Trahan-Liptak	QAPP Document - Draft for internal review	4th Quarter
J22	Conduct benthic macroinvertebrate sampling, continue identification and assessment of historic samples.	Max Nyquist	EQ		Inclusion in 30-year WQ Report	Ongoing
J23	Continue cooperative study of current population status, life history, and sustainable yield of lake trout.	Max Nyquist	EQ		Collection of data, generation of spawning area map	Ongoing
J24	Conduct basic fish monitoring in the reservoir and watershed in collaboration with MA DFW. Assess goals and explore optimal sample methods with MA DFW.	Joy Trahan-Liptak	EQ	Max Nyquist	Collection of fish, compiling and analyzing results	Ongoing
J26	Develop a study to identify trends in the long-term phytoplankton and water quality data sets and identify variables influencing these dynamics.	Joy Trahan-Liptak	EQ		Collection of additional data, analysis	Ongoing
J27	Determine needs for stormwater sampling based on analysis of historical data. Sample storm events as determined necessary.	Dan Crocker	EQ	RD, D	WQ data entered into database to improve annual nutrient loading calculations	Ongoing
	K. Watershed Monitoring and Assessment					
K1	Continue to review local records and conduct watershed surveillance to identify potential issues in the Wachusett and Sudbury watersheds that could impact water quality. Work with local boards and land owners when problems are identified. Document all work in EQ database.	all EQ staff	EQ		Document actions in EQ database; compliance with regulations	Ongoing
K2	Provide technical assistance to state and municipal boards and commissions.	Tristan Lundgren	EQ	all EQ staff	Technical assistance provided	Ongoing
K3	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	Jamie Carr	EQ	Tristan Lundgren	Corrected files, accurate useful data	Ongoing
K4	Manage the Wachusett Watershed Hydrology Mapping Project. Project proceeds within selected subwatersheds and subbasins.	Tristan Lundgren	EQ	GIS, GIS-W	Updated GIS Feature Layers: Drainage Structures, Stormwater Infrastructure, Natural Hydrography, Wetlands and Waterbodies and Stormwater Basins,	Ongoing
K5	Finalize Gates Brook District EQA and use recommendations to develop tasks for FY23 Work Plan.	Kelley Freda	EQ		Final report, FY23 work plan tasks	End of Q4
K6	Monitor hazardous materials spills and releases until considered complete for Wachusett and Sudbury watersheds. Compile and update hazardous materials sites, USTs and ASTs. Follow up with DEP as needed.	Kelley Freda	EQ	Josh Sjogren	Up to date database files and include in EQA	Ongoing, End of Q4 for EQA
K7	Inspect all agricultural operations in Gates Brook District and continue to compile an inventory of agricultural sites in Wachusett/Sudbury using iPad app	Kelley Freda	EQ	Josh Sjogren	Up to date information in app	Ongoing
K8	Develop and implement outreach strategies and programs for topics identified through EQAs	Kelley Freda	EQ		Brochures, PSAs	Ongoing

Task No.	Description	Assigned to	Lead Group	Additional Staff	Product	Due Date
K9	Monitor placement and additions of turf fields in both watersheds and remain up to date on all research and studies of PFA concentrations resulting from turf fields	Kelley Freda	EQ		Summary report	End of Q4
K10	Continue to communicate with MassDOT on roadway projects. Emphasize need for contractor to maintain safe conditions at all times. Investigate possibility of requiring contractor to have absorbent materials at work area for the duration of the project.	Kelley Freda	EQ		Up to date information in database	Ongoing
	L. Aquatic Invasive Species					
L1	Prioritize and conduct surveys of watershed/local waterways to inspect reservoirs, lakes, ponds, and tributaries for presence of aquatic invasive species.	Joy Trahan-Liptak	EQ	Max Nyquist	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 Wachusett AIS management plan.	Joy Trahan-Liptak	EQ	Max Nyquist	Annual summary in water quality report	3rd Quarter
L3	Administer AIS control contracts as appropriate and conduct aquatic vegetation surveys in conjunction with management of the Lily Ponds, South Meadow Pond complex, and Clamshell Pond.	Joy Trahan-Liptak	EQ	Max Nyquist	Field report	4th Quarter
L4	Continue to use appropriate methods to prevent the spread of Phragmites along the reservoir shoreline.	Max Nyquist	EQ	WM, NR	Annual summary in water quality report	3rd Quarter
L5	Perform aquatic vegetation surveys prior to reservoir AIS management projects. Provide results to MWRA and contractors to guide plant removal efforts.	Joy Trahan-Liptak	EQ	Max Nyquist	Field report	4th Quarter
L6	Monitor, advise, and assist contractors with plant removal operations as necessary, including boat decontamination inspections and data management through ArcGIS Online apps.	Joy Trahan-Liptak	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.	Joy Trahan-Liptak	EQ	Max Nyquist, Rangers	Annual summary in water quality report	3rd Quarter
L8	Continue to educate ranger and interpretive staff on AIS and other water quality topics for incorporation into routine education program.	Joy Trahan-Liptak	EQ	WR	Annual summary in water quality report	3rd Quarter
L9	Monitor beaver activity; if necessary make recommendations to NR for removal where contributing to spread of invasive plants or causing water quality impacts due to flooding abutting property	Joy Trahan-Liptak	EQ	NR	Field Reports	Ongoing
	M. Wastewater Management					
M1	Provide plan review and interpretation, if requested, to Boards of Health.	Vin Vignaly	EQ		Plan review, recommendations to boards, applicants	End of Q4
M2	Compile septic system information (installation date, repair date, location, etc) from watershed communities in wastewater database. Include linked electronic plans where available.	Vin Vignaly	EQ		Septic system datalayer	End of Q4
M3	Obtain sewer connection information from Holden and West Boylston; add to Wastewater database and GIS datalayer	Vin Vignaly	EQ		Updated database and GIS datalayer	End of Q4
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.	Paula Davison	CE	RD,D	Quarterly bills, correspondence with towns	End of Q4
M5	Research and provide sewer management information for legal issues regarding the Trunk and Relief sewer lines, as necessary. Work with legal and MWRA to research the option of transferring ownership of sewer lines to MWRA or the communities (would require legislative action).	Paula Davison	CE	RD	Notes, information	End of Q4
M6	Evaluate and manage new trunk line connections. Monitor trunk line for encroachments; resolve any problems.	Paula Davison	CE	RD	Permits, regular inspections	End of Q4
M7	Address I/I issues within trunk and relief sewers per DEP requirements (this is dependent upon DEP acceptance of our I/I submittal).	Paula Davison	CE	RD	Report	End of Q4
	N. Stormwater Management					
N1	Treat direct discharges at Rt 110 Sterling	RD	RD	CE	Plans	End of Q4
N2	Continue to work with towns and private landowners for regular maintenance of BMPs to ensure proper performance, inspect BMPs on a 5 year rotating basis and recommend maintenance or repairs as needed.	Kelley Freda	EQ	Tristan Lundgren	BMPs remove pollutants as designed	End of Q4
N3	Work with watershed towns to ensure compliance with MS4 requirements. Provide details of DWSP activities that indirectly support town MS4 requirements (education, sampling, inspections) and provide technical assistance or training of requested.	Kelley Freda	EQ		MS4 permit conditions met	End of Q4
N5	Modify subbasin lines in ArcGIS based on results of Wachusett Watershed Hydrology Mapping Project.	Tristan Lundgren	EQ		Updated Subbasin GIS datalayer	End of Q4
N6	Conduct regular inspections of all construction sites greater than one acre.	Vin Vignaly	EQ		ESC maintained and working as designed. Use of iPad app to document efforts	End of Q4
N7	Continue work with local DPWs to identify locations of concern, evaluate options for BMP installation, and ways to cooperatively implement recommendations.	Kelley Freda	EQ		Installed BMPs	End of Q4
	O. Emergency Response					
O1	Provide and coordinate ICS, emergency response and safety trainings to appropriate staff. Work with other agencies to provide trainings and exercises	Bill Moulton	CE	WR	Trainings, Classes, Exercises	End of Q4
O2	Update information in the Comprehensive Emergency Management Plan, Training & Exercise Plan, EAPs, and other emergency response plans.	Bill Moulton	CE	WR	Plans, documents	Quarterly
O3	Organize and maintain emergency response supplies and services.	Bill Moulton	CE	WR	Inventory	End of Q4
O5	Provide and coordinate ICS, emergency response and safety trainings to appropriate staff. Work with other agencies to provide trainings and exercises	Bill Moulton	CE	WR	Classes, Trainings	End of Q4
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	Bill Moulton	CE	WR,WM	Contain and cleanup releases	End of Q4
	P. Support					

Task No.	Description	Assigned to	Lead Group	Additional Staff	Product	Due Date
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.	RD	RD	EQ	Completed plans, budgets and reports	End of Q4
P2	Administer the Payment in Lieu of Taxes (PILOT) program.	Joel Zimmerman	P		Payments to watershed communities	End of Q4
P3	Configure and maintain both internal and externally facing ArcGIS Online applications. Work with staff to generate field data collection tools using Survey123 and/or Field Maps for ArcGIS. Maintain existing field data collection tools for staff; maintenance includes archiving of data (as needed) and ensuring that Surveys and Maps remain functional through upgrades to ArcGIS Online and mobile apps.	Erica Tefft	GIS	GIS-W	Web Apps/Surveys/Web Maps	Ongoing
P4	Publish hosted feature layers, tile layers and tile packages on an as-needed basis to support projects. Ensure that all public-facing data has proper metadata added as per the EEA ArcGIS Online Best Practices.	Erica Tefft	GIS	GIS-W	Hosted Feature Layer/Hosted Tile Layer/Tile Package	As Needed
P5	Provide staff with training in desktop, mobile and online GIS applications.	Erica Tefft	GIS		Training Materials	Ongoing
P6	Train staff in GIS on an as-needed basis to provide them with knowledge needed to complete basic GIS-related tasks.	Craig Fitzgerald	GIS-W	GIS	Staff receive training	As Needed
P7	Assist staff with GIS project requests by providing maps, data analysis, data exports and data collection.	Craig Fitzgerald	GIS-W	GIS	Hardcopy Maps/Web maps/data analysis	As Needed
P8	Maintain and update GIS data hosted in ArcGIS Online for divisional staff use; ensure all data is current and available to staff via that 'DWSP - Data Store' group, and has updated FGDC-compliant metadata. Ensure newly publish data are added as a new record to the DWSP Data Inventory spreadsheet, which is shared with users via MS Teams. Ensure that a layer file is created (for ArcMap & ArcGIS Pro) and added to the appropriate location in the DWSP-GIS Team.	Craig Fitzgerald	GIS-W	GIS	File Geodatabase/Metadata/Layer Files	As Needed
P10	Create parcel maps for Land Acquisition Coordinator meetings with landowners and MWRA board. Create and maintain one Story Map per FY for Land Acquisition Panel meetings, with one section per potential property. Should be provided to LAP meeting attendees prior to meeting.	Craig Fitzgerald	GIS-W	GIS	Hardcopy Maps/Story Map/Hosted Feature Layer	As Needed
P11	Complete GIS-related special projects	Craig Fitzgerald	GIS-W		Various	As Needed
P12	Operate administrative offices, including answering phones, greeting visitors, etc.	Kris Keegan	ARD	Michelle Andrade	Information is provided in response to public inquiries	End of Q4
P13	Provide payroll assistance and personnel services for all Section employees.	Michelle Andrade	RD		Weekly payroll, HR forms processing	End of Q4
P14	Provide contract administration, financial management, record-keeping, purchasing of goods and services, and other financial support services.	Christy Raillo	RD		Accounting and financial services	End of Q4
P15	Coordinate with EEA IT to provide local MIS support for the Section. Update IT Plan as required addressing technology needs for the coming year.	RD	RD		Support and troubleshooting services; IT Plan	End of Q4
P16	Administer Logging Permit program, including mailings, bid openings, financial management, database management, permit and key issuance, etc.	Kris Keegan	ARD		Program administration; annual revenue report; database maintenance	End of Q4
P17	Plan and implement vehicle and equipment purchases and leases.	Derek Liimatainen	ARD	Vin Pasquale	Vehicle purchases and leases	End of Q4
P18	Inspect, provide regular maintenance, and repair vehicles, boats and other motorized equipment, utilizing Fleet Wave system. Maintain up-to-date records of all vehicles and equipment in Fleet Wave system.	Vincent Pasquale	ARD	ARD	Ongoing maintenance	End of Q4
P19	Complete watershed-wide vulnerability assessment to identify potential impacts of climate change on the water supply	RD	RD, D	EQ,CE, WR, F, NR	Report with action items	End of Q4

Quabbin/Ware River FY23 Work Plan



Quabbin/Ware River Work Plan for Fiscal Year 2023 (July 1, 2022 through June 30, 2023).

Task #	Task Description	Lead Group	Assigned To	Additional Staff	Product	Due Date
A. Land Acquisition						
1	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.	NR	Ken MacKenzie	P, GIS	Protected land	As needed
2	Develop individual parcel presentation materials and meet with MWRA Board for approval.	NR	Ken MacKenzie	P, GIS, D	Protected land	End of Q4
3	Communicate with and convene LAP meetings to review parcels and prioritize land purchases.	NR	Ken MacKenzie	RD, ARD, EQ, EP, F	LAP Recommendations	As needed
4	Use the LAP Prioritization Model to identify priority parcels in the watersheds.	NR	Ken MacKenzie	GIS	Model, Spreadsheet	End of Q4
5	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.	NR	Ken MacKenzie	P	Ongoing communications	End of Q4
6	Establish regularly scheduled land/legal meetings to address attorney assignments and project logistics.	NR	Ken MacKenzie	D	Meetings	End of Q4
B. Watershed Preservation Restrictions						
1	Monitor WPRs on a regular basis, following monitoring procedures	NR	Dani Almeida	EQ, F	Monitoring Reports, Updated Landownership	Ongoing
2	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.	NR	Dani Almeida		WPR baseline reports	End of Q4
3	Meet with Restriction Stewardship Working Group and confer with legal to respond to enforcement issues and requests to exercise reserved rights.	NR	Dani Almeida	None	Issue resolution and reserved rights decisions	As needed
4	Track changes in landownership for WPRs.	NR	Dani Almeida	None	Updated Landownership spreadsheet	End of Q4
5	Implement WPR records procedure with DCR records manager.	NR	Dani Almeida		Securely stored records	End of Q4
6	Explore additional ways to reach out to landowners through the use of social media and web-based content.	NR	Jim Taylor	IS, P	Outreach Content	As needed
C. Land Management						
1	Implement the 2017 system-wide comprehensive Land Management Plan.	RD	Dan Clark	P, EQ, QGIS, NR, F,		Ongoing
2	Begin the 5-year review of the Comprehensive Land Management Plan	NR	brian.keevan@state.ma.us	RD, DRD, F, WM	Draft Plan	End of FY 24
3	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..	F	Herm Eck	QGIS, NR	Lot Summaries	End of Q3
4	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.	NR	Brian Keevan	RD, F, EQ	Internal review report	End of Q4
5	Present annual forest harvest proposals at public meetings. Publish Online Public Review document/story map. Accept public comment and respond as needed.	F	Herm Eck	NR, RD	Story map of lot proposals and cutting plans	End of Q4
6	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.	F	Herm Eck	RD	Forestry Database, Permit to Harvest Forest Products, Cutting Plans, Photo Series feature layer	End of Q4

Task #	Task Description	Lead Group	Assigned To	Additional Staff	Product	Due Date
7	Provide supervision and oversight of all forest harvesting operations on DWSP property from sale until final service forester sign-off and bond return. 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.	F	Herm Eck	NR, EQ	Forestry Database, Harvest Evaluation Form, Photo Series feature layer	Ongoing
8	Monitor BMP effectiveness at active or completed stream crossings utilizing customized assessment protocol.	NR	Brian Keegan		periodic summary of assessment results	
9	Continue to implement long-term paired watershed monitoring to assess impact of DWSP forest management on tributary water quality.	EQ	Brett Boisjolie	ARD, NR	Final Report	End of Q4
10	Conduct periodical regeneration and invasive species surveys to monitor forest health and development resulting from silvicultural activities or other natural disturbances and processes.	F	Herm Eck	NR	Regeneration database, maps, and photodocumentation	As needed
11	Conduct periodic reviews and monitoring of land management activities to assure compliance and consistency with land management plans.	NR	Brian Keegan	F, EQ		As needed
12	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.	F	Herm Eck	F, QGIS	Databases, GIS coverages	Ongoing
13	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.	F	Herm Eck	NR, EQ, CE, EP		As needed
14	Locate, mark, and maintain property boundaries periodically or as needed.	F	Herm Eck	NR, WR, CE, ARD,	Marked Boundaries	As needed
15	Develop scope of work and manage contracted property boundary survey work.	F	Herm Eck	CE	Contract	End of Q4
16	Document and pursue resolution of all property boundary encroachments using the Encroachment Tracking Hub.	RD	Dan Clark	F, CE	Reduction in Encroachments	End of Q4
17	Identify, plan, and oversee non-forest or other unique habitat restoration, field reclamation, prescribed fire implementation and maintenance work.	NR	Ken MacKenzie	F, WM		Ongoing
18	Maintain the non-silvicultural lands described in the land management plan (e.g., viewsheds, gravel pits).	WM	Paul Lapierre	F, NR, ARD		Ongoing
19	Identify, prioritize, and implement terrestrial invasive plant (TIP) control projects in line with the expanded Terrestrial Invasive Plant Plan. Respond as needed to newly discovered and controllable TIP populations.	NR	Brian Keegan	F, EQ, WM, RD	projects	End of Q4
20	Collect data and maintain datasets, GIS datalayers, and related maps and reports of rare and listed plants and communities.	NR	Brian Keegan	F, RD	Database, internal reports, GIS layers	As needed
21	If available, use a UAS (unmanned aerial system) to document forest conditions, map openings, identify invasive plant populations, internal road conditions, or other activities.	NR	Ken MacKenzie	RD, F, WM		As needed
22	Analyze CFI and other available data on forest structure, composition, and regeneration. Report findings for public presentation at meetings and in updated land management plans	NR	Brian Keegan	F		End of Q4
23	Update and Implement Quabbin Park Operation and Maintenance Plan	WM	Michael Kennedy	CE	Updated Plan	Ongoing
24	Implement Quabbin and Ware River Road Management Plan	WM	Paul Lapierre	CE, F		Ongoing
25	Work with DCR's Office of Climate Resiliency and DWSP Regional Planner to develop watershed assessments.	DRD	Lisa Gustavsen	All Staff	Submit reports as required by DCR	End of Q4
D. Wildlife Management						
1	Continue the active harassment of birds within the Bird Harassment Zone at Quabbin Reservoir, using human presence, boats, pyrotechnics, passive scare devices, and other techniques. Continue to identify and test new harassment techniques.	EQ	Gary Moulton	RD, DRD, NR, other work units	Daily and annual reports; database entries; weekly reports to MWRA	Ongoing
2	Observe and document the nocturnal gull roost on Quabbin Reservoir.	NR	Jillian Whitney	EQ	Information	As needed
3	Control Canada geese populations on Quabbin Reservoir (focus in the Bird Harassment Zone) by treating eggs during nesting season to prevent hatching.	NR	Jillian Whitney	WM	Annual report	End of Q4
4	Identify places in MA where human derived food is available and work to prevent feeding through educational signage, interaction and enforcement.	NR	Jillian Whitney	None		As needed
5	Remove beaver and muskrat in the Aquatic Wildlife Pathogen Control Zone at Quabbin. Address beaver concerns outside the control zone.	NR,	Jillian Whitney	EQ, WM-B, WM-NS, WM-O	Field reports, annual summary	End of Q4

Task #	Task Description	Lead Group	Assigned To	Additional Staff	Product	Due Date
6	Respond to problems of burrowing animals on dams and dikes; report problems and take appropriate action.	NR	Jillian Whitney	CE, WM-B		As needed
7	Research and manage for common loons on DWSP waterbodies; provide nesting platforms, capture and sample birds for contaminants.	NR	Jillian Whitney	WM-C	Annual report	End of Q4
8	Continue long-term wildlife resource monitoring program.	NR	Jillian Whitney	None		Ongoing
9	Work with DFW to survey and document breeding bald eagles around Quabbin Reservoir.	NR	Jillian Whitney	WR		Ongoing
10	Administer the applications, permits, and orientations for the annual Quabbin Controlled Deer Hunt; analyze results of hunt.	NR	Ken MacKenzie	WM, IS WR	Completed orientations and scouts; annual report	End of Q4
11	Coordinate with the Massachusetts Natural Heritage and Endangered Species Program concerning rare species occurrences and protection.	NR	Jillian Whitney	F		As needed
12	Finalize, get approval, and implement the deer management plan for Quabbin Park	NR	Ken MacKenzie	F	Deer Hunt Plan	End of Q4
E. Public Access Management						
1	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).	WR	Kerry Princiotta	DRD	Reports	Quarterly
2	Continue to cooperate with state, environmental, federal, and local police for help with enforcement when required.	WR	Kerry Princiotta	DRD		Quarterly
3	Use Agency social media accounts for advertisement of interpretive programs, including general info or emergency info (e.g., closings).	IS	Maria Beiter-Tucker	IS		Ongoing
4	Continue to implement Quabbin Public Access Management Plan. 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.	WR	Kerry Princiotta	RD, DRD		Ongoing
5	Regular meetings of the Signage Committee.	DRD	Paul Davis		Updated Signs	Ongoing
6	Conduct night operations, as needed (e.g., night access permits, ATV use monitoring, illegal camping)	WR	Jenna Perschka, Kerry Princiotta, Rebecca	WM		As needed
7	Operate the boat fishing program in designated portions of Quabbin Reservoir in a manner that minimizes threats to water quality and accommodates visitors with accessibility needs.	WM	Jim Budness, Paul Lapierre	IS, DRD		As needed
8	Implement Quabbin Boat Seal Program	EQ	Brett Boisjolie			Ongoing
9	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	Jason Cebula, Jenna Perschka	CE, WR		As needed
10	Coordinate and/or support special programs and events, including Memorial Day services, public meetings, paraplegic hunts, and Tuesday Tea events.	IS	Maria Beiter-Tucker	WR		As needed
11	Develop an internal Universal Access plan.	IS	Maria Beiter-Tucker	WM, WR	Final Plan	End of Q4
12	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.	Managment	Dan Clark	IS, AS		Ongoing
13	Manage public access permits for large groups, short-term vehicles, etc.	IS	Maria Beiter-Tucker	RD, WR	Approved Permits	Ongoing
14	Finalize Ware River Public Access Management Plan Update	Management	Jenna Perschka,	WM, WR, RD	Updated Plan	End of Q4
15	Implement social media trial program	IS	Maria Beiter-Tucker	WR		Ongoing
F. Watershed Security						
1	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.	WR	Kerry Princiotta	DRD	Daily patrols; daily logbooks and incident report	Quarterly
2	maintain gates, barways, bollards and signage throughout the watersheds. Install barriers (such as guardrails or fences) as needed to protect properties and control public access.	WM	Paul Lapierre	CE, WR		As needed
3	Coordinate security monitoring and related activities at high vulnerability locations with MWRA.	Management	Dan Clark	WR, DRD, CE	annual onsite coordination meeting with DCR/MWRA	Ongoing
4	Work with local state and federal responders to ensure current agency emergency contact information.	WR	Kerry Princiotta	DRD, RD	State Control Spreadsheet with maps	

Task #	Task Description	Lead Group	Assigned To	Additional Staff	Product	Due Date
	G. Infrastructure					
1	Conduct monthly inspections and issue findings on Winsor Dam and spillway and Goodnough Dike. Coordinate inspections with MWRA and consultants. Plan for or conduct dam repair work as called for in dam inspection reports.	CE	Ann Pevere	WM, WM-B, RD	Inspection Reports	Monthly
2	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 review of new or updated Emergency Action Plans.	CE	Ann Pevere	RD	Inspection reports	2nd quarter. 4th quarter
3	Implement basic maintenance activities at the Dam, Dike, and spillway as needed	WM	Jason Cebula, michael.kennedy2@m			Ongoing
4	Provide oversight and technical support for engineering, construction, and renovation work in the Quabbin/Ware Region.	CE	Scott Campbell	RD		As needed
5	Maintain records regarding reservoir and facility construction, as well as maintenance and repair operations. Provide surveying and drafting services, maintain records, and respond to in-house and other requests for information related to land ownership, property lines, buildings, and construction projects.	CE	Jeffrey Gagner	IS	Plans, records	End of Q4
6	Conduct building maintenance activities, including painting, carpentry, cleaning, minor repairs, and other routine maintenance.	WM	Zachary Muscaro	CE		Ongoing
7	Conduct periodic inspections of drinking water sources and septic systems at the various Regional office buildings. Assure compliance with applicable state and federal regulations.	EQ	Scott Campbell	CE, RD		Ongoing
8	Conduct periodic inspections, maintenance, or oversight of heating systems, fuel pump operations, and fuel deliveries.	WM	Scott Campbell, Zachary Muscaro	CE		Ongoing
9	Develop specifications, bid packages and contracts for facility and infrastructure projects identified in the Major Projects List for FY22	CE	Steve Mansfield	WM, RD, ARD, FN		As needed
10	Conduct maintenance and management activities in Quabbin Park, including roads, roadsides, parking areas, drainage structures, fields, vistas, snowplowing, and other management activities.	WM-B	Paul Lapierre	AS, NR		As needed
11	Continue to conduct routine maintenance and burial activities in the Quabbin Park cemetery.	WM-B	Michael Kennedy	CE, AS		Ongoing
12	Conduct Quabbin Park Cemetery business and record keeping.			WM, ADM, CE		
13	Continue to conduct road maintenance activities on DWSP lands.	WM –O, WM-NS	Paul Lapierre	EQ, CE		Ongoing
14	Continue to collect data on road conditions and culvert locations.	CE	Drew Forest, Jeffrey	WM, GIS		
15	Assess gravel pits and gravel resources on DWSP lands in the Quabbin/Ware Region. Annually review and monitor gravel extraction and site closure and Best Management Practices (BMPs).	RD	Rebecca Faucher	CE, WM, F	Site specific gravel plans that include BMPs for active sand and gravel removal operations and for site closure	Ongoing
	H. Watershed Protection Act					
1	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.	EP	Allan Rantala	P, RD, EQ, AS		As needed
2	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.	EP	Allan Rantala	EQ		As needed
3	Convene WsPA Working Group meetings.	P	Joel Zimmerman	RD, EQ, EP		As needed
4	Educate and interact with local boards and officials in the watersheds about watershed protection regulations. Educate local officials, realtors, prospective buyers, land development consultants, and homeowners on WsPA regulations and procedures.	P, EP	Allan Rantala	RD, EQ		As needed
5	Provide technical assistance support to local boards through contact, meetings, and/or through regulatory review process.	EP	Allan Rantala	EQ, CE, RD,		As needed
6	Modernize the current Access database into a web-based platform.	EP	Allan Rantala	EQ	New database	End of Q4
	I. Education and Outreach					
1	Develop an Interpretive Services Plan for the Ware River Watershed	IS	Marie Beiter-Tucker	WR	Plan	End of Q4
2	Staff and operate the Visitor Center at Quabbin to educate visitors about watershed management and related topics.	IS	Maria Beiter-Tucker	WR, WM-BM		Ongoing

Task #	Task Description	Lead Group	Assigned To	Additional Staff	Product	Due Date
3	Continue established programs of public education, including school programs and field trips on DWSP properties.	IS	Kerry Princiotta, Maria Beiter-Tucker	WR		Ongoing
4	Collaborate with other organizations and watershed communities to reach more diverse audiences. Identify specific groups and their educational needs.	IS	Maria Beiter-Tucker	WR		Ongoing
5	Maintain self-guided Quabbin Park interpretive trails focusing on natural resource management and water quality protection.	IS	Maria Beiter-Tucker	F		Ongoing
6	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, and media coverage of Regional activities and Quabbin-related topics.	IS	Maria Beiter-Tucker	RD		As needed
7	Organize, catalog, and digitize oral history tapes using an outside contractor.	IS	Maria Beiter-Tucker		Digital tapes	
8	Continue to support and participate in the Envirothon, America's leading natural resource education program for high school students.	IS	Justin Gonsor	AS, WR, EQ		Ongoing
J. Water Quality and Hydrologic Monitoring						
1	Conduct routine and non-routine water quality sampling and analysis. Evaluate need for sampling before/during Quabbin transfers.	EQ	Kristina Gutches	MWRA Lab		Ongoing
2	Perform Shaft 8 Intake Zone Inspections prior to MWRA diversions.	EQ	Jennifer McGuinness	CE	Inspections, reports; notification to RD, ARD, MWRA	3rd Quarter
3	Monitor plankton in Quabbin Reservoir. Evaluate need for sampling before/during Quabbin Transfers.	EQ	Kate Langley			Ongoing
4	Collect, interpret, and manage data on reservoir elevations, water transfers and releases. Share data with DWSP staff and MWRA.	CE	Drew Forest	None	Data collection and yield reports	Ongoing
5	Monitor water quality at active harvesting stream crossing sites to measure effectiveness of BMPs.	EQ	Yuehlin Lee	NR		As needed
6	Continue improvements to database app for compiling of water quality, quantity, and other relevant data for data and trend analyses.	EQ	Brett Boisjolie			Ongoing
7	Implement streamflow monitoring at selected sites. Coordinate flow monitoring with annual water quality sampling plan.	EQ	Brett Boisjolie			Ongoing
8	Assist MWRA with the continuous water quality monitoring buoy at Quabbin Reservoir	EQ	Yuehlin Lee	MWRA		As needed
9	Provide environmental oversight for Regional activities to minimize adverse water quality impacts. Conduct pre-project reviews of all DWSP projects and activities within 100' wetland buffers.	EQ	Yuehlin Lee	RD, WM, DRD		Ongoing
10	Implement ISA with UMass for Research	EQ	Yuehlin Lee			
11	Collaborate in multi-year MWRA-UMass Research Studies of Strategies to Minimize Contaminants of Concern in MWRA's Finished Water	EQ	Yuehlin Lee	UMass, MWRA		
12	Install wind monitoring station on MWRA buoy.	EQ	Dave Gatautis			
K. Watershed Monitoring and Assessment						
1	Complete Environmental Quality Assessments in the Quabbin Reservoir and Ware River watersheds according to a prescribed schedule. Present EQAs to RD and DRD.	EQ	Yuehlin Lee	All Work Units	Inspection reports, EQA outlines for Quabbin Reservoir and West Branch Ware Districts	End of Q4
2	Prioritize recommendations in completed EQAs as necessary and complete short- and long-term remedial actions.	RD, EQ	Yuehlin Lee	All Work Units	Prioritized recommendations for next FY	End of Q3
3	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.	EQ	Gary Moulton	WR, NR	Updated inspection digital database	Ongoing
4	Coordinate with other agencies to exchange information and review projects in watershed.	EQ	Yuehlin Lee	P, All Work Units		As needed
5	Review and comment on Yearly Operational Plans related to herbicide use. Monitor and inspect no-spray and limited spray zones along rights-of-way.	EQ	Yuehlin Lee	P		Annual Due Date Dependent on EM
6	Work with timber harvesters to reduce the risk of introducing invasive species into the watersheds.	F	Herm Eck			As needed
7	Monitor ROW maintenance, repair, or replacement projects on DCR lands for water quality problems.	EQ	Yuehlin Lee	CE, WM, RD		Ongoing

Task #	Task Description	Lead Group	Assigned To	Additional Staff	Product	Due Date
8	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.	EQ	Yuehlin Lee	RD, DRD, All Work Units		Ongoing
	L. Aquatic Invasive Species					
1	Implement the AIS monitoring plan and update as necessary.	EQ	Kate Langley	DRD, RD	Updated Plan	As needed
2	Continue program to monitor AIS in the Reservoir.	EQ	Kate Langley	DRD, RD	Reports	3rd Quarter
3	Implement the AIS emergency action plan and update as necessary.	EQ	Kate Langley	RD, DRD	Updated plan	As needed
4	Continue the Quabbin Boat Seal program to minimize the risk of AIS infestation of Quabbin Reservoir.	EQ	yuehlin.lee@state.ma.us	RD, IS, WR, DRD, WM-BLA		Ongoing
5	Work in conjunction with MWRA contractors to survey areas of the Reservoir. Evaluate and make changes in program as needed.	EQ	Kate Langley	WM-BLA, DRD, RD, MWRA		As needed
6	Conduct public education in coordination with DCR Lakes and Ponds and MWRA.	EQ	Jenna Perschka, Kate Langley	WR		As needed
	M. Wastewater Management					
1	Identify potential problem sites or areas through review of local records, water quality data, and other pertinent information.	EQ	Yuehlin Lee	EP	EQA reports	As needed
	N. Stormwater Management					
1	Advise local boards on stormwater management issues related to construction activities.	EP	Allan Rantala	EQ, RD, DRD		As needed
2	Monitor stormwater management in the watersheds.	EQ	Yuehlin Lee			Ongoing
	O. Emergency Response (Preparedness)					
1	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.	Management	Lisa Gustavsen	RD, EQ		End of Q4
2	Implement SOPs for spill response and dumping and define DCR staff roles in both assessment and response.	Management		DRD, WR, EQ	Updated SOPs; equipment procurement, including storage unit to replace Gate 16 shack.	End of Q4
3	In conjunction with MWRA, coordinate spill response and/or incident command system (ICS) training to staff.	WR	Kerry Princiotta	RD, DRD, WM		As needed
4	Coordinate cleanup operations for any spills and dumping that impact or threaten water resources. 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.	RD, EQ, WR	rebecca.faucher@masmail.state.ma.us	DRD, WM		As needed
5	Develop and implement spill response plans for all timber harvesting operations on DWSP lands.	F	Herm Eck	EQ, ARD, RD	Spill Response Plans, updated spill response notification cards	As needed
6	Conduct annual review of existing spill response access sites.	WR	Kerry Princiotta	WM		Ongoing
7	Develop comprehensive Emergency Preparedness Program to include natural disasters, accidents, and intentional events.	Management	Dan Clark	All Staff	EAPs	End of Q4
	P. Support					
1	Operate administrative office	AS	Jennifer Peterkin	IS		Ongoing
2	Manage payroll through SSTA and HR/CMS.	AS	Kim Turek	None	Payroll reports; Support	Ongoing
3	Provide contract administration and related procurement	FN	Ann Marie Niejadlik	RD, ARD		Ongoing
4	Keep records and assist in purchasing of goods and services.	FN	Kim Turner			ongoing
5	Process revenue for BLAs, Cemetery, and Forestry	AS	Jennifer Peterkin			
6	Coordinate with EOEEA IT to provide local MIS support for the Quabbin/Ware Region.	QGIS	Dan Clark	All Work Units		Ongoing
7	Provide personnel services and assistance for all Quabbin/Ware Region employees.	AS	Kim Turek	RD, ARD		Ongoing
8	Submit regular reports to Division Director, MWRA, and the Water Supply Protection Trust Board.	Management	Dan Clark	ARD, FN	Completed plans, budgets and reports	End of Q4
9	Plan and implement vehicle and equipment purchases in coordination with WA.	Management	Lisa Gustavsen	WM, RD		Quarter 1
10	Conduct truck, boat, and equipment inspections and maintenance as needed, utilizing Fleetwave.	WM-M	Paul Lapierre	AS, ARD		Ongoing

Task #	Task Description	Lead Group	Assigned To	Additional Staff	Product	Due Date
11	Administer the Payment in Lieu of Taxes (PILOT) program	P	Joel Zimmerman	RD		As needed
12	Maintain ArcGIS Online environment for all staff to successfully complete projects.	GIS	Erica Tefft	None		Ongoing
13	Configure and maintain both internal and externally facing ArcGIS Online applications. Work with staff to generate field data collection tools using Survey123 and/or Field Maps for ArcGIS. Maintain existing field data collection tools for staff; maintenance includes archiving of data (as needed) and ensuring that Surveys and Maps remain functional through upgrades to ArcGIS Online and mobile apps.	GIS	Erica Tefft	QGIS		Ongoing
14	Publish hosted feature layers, tile layers and tile packages on an as-needed basis to support projects. Ensure that all public-facing data has proper metadata added as per the EEA ArcGIS Online Best Practices.	GIS	Erica Tefft	QGIS		Ongoing
15	Provide staff with training in desktop, mobile and online GIS applications.	GIS	Erica Tefft	QGIS		Ongoing
16	Train staff in field data collection applications as needed for specific projects. Assist with setting up Field Maps and Survey123 to work with Bad Elf Pro+ GPS units, or with the Arrow 100 GNSS receiver.	GIS	Erica Tefft	QGIS		Ongoing
17	Keep current in new and emerging GIS technologies by attending webinars, taking self-paced trainings and attending conferences (where possible). Alert GIS users to free training or webinars and encourage continued learning.	GIS	Erica Tefft	QGIS		Ongoing
18	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.	QGIS	Erica Tefft	F, EQ, QGIS		As needed
19	Update digital information, including all new DWSP land purchases, WSPA maps and parcels, and provide analyses for use in DWSP reports and publications.	GIS	Erica Tefft	P, AS, QGIS		Ongoing
20	Encourage staff to participate in professional development opportunities, including professional memberships, meetings, trainings, webinars, and field trips.	Management	Dan Clark	EQ, CE, F, P, WM, WR, WM, IS		Ongoing
21	Budget development, maintenance, monitoring, and forecasting (e.g., Operating, Capital when available, Major Projects, other)		Ann Marie Nijadlik			

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 2023

Section	FY22 FTE	FY23 FTE	Primary Responsibilities
Management – Director, Natural Resources Section Director	1.9	1.9	<ul style="list-style-type: none"> ▪ Supervise all OWM Staff (through Senior staff and direct supervision). ▪ Develop program goals and objectives. ▪ Ensure program goals and objectives are met. ▪ Oversee interagency coordination with MWRA. ▪ Coordinate and support programs and policies with other DCR Divisions. ▪ Coordinate and support programs and policies with EEA and other EEA agencies. ▪ Coordinate and support programs and policies with watershed communities and stakeholders. ▪ Consult with Watershed Advisory Committees.
Budget and Administrative Support	4.9	4.9	<ul style="list-style-type: none"> ▪ Provide personnel and other human resources related support. ▪ Provide budget and finance support. ▪ Provide contract administration support. ▪ Provide office management.
Natural Resources	7.5 1 LT seasonal	7.5 1 LT seasonal	<ul style="list-style-type: none"> ▪ Oversee implementation of the Comprehensive Land Management Plan. ▪ Coordinate Land Acquisition Program. ▪ Monitor and enforce Division's Watershed Preservation Restrictions (WPRs). ▪ Provide wildlife management and mitigation. ▪ Monitor roosting gulls and provide technical support, guidance, and recommendations to gull harassment program. ▪ Provide research and monitoring to support Natural Resource Management Planning. ▪ Monitoring and manage land based invasive plants.
Program Coordination & Technical Support – Environmental Planning	1	1	<ul style="list-style-type: none"> ▪ Coordinate implementation of Watershed Protection Act (WsPA). ▪ Assist in the development and implementation of Watershed Protection Plans, Public Access Plans, Land Management Plans and other associated plans, policies, and publications. ▪ Support interagency coordination with MWRA. ▪ Coordinate PILOT program with MWRA, DOR and Watershed towns. ▪ Coordinate and support programs and policies with other DCR divisions, EEA and other EEA agencies. ▪ Coordinate DCR DWSP web site.

Section	FY22 FTE	FY23 FTE	Primary Responsibilities
Program Coordination & Technical Support – GIS	3	3	<ul style="list-style-type: none"> ▪ Coordinate GIS for Office of Watershed Mgt. ▪ Capture, maintain, administrative Spatial Databases. ▪ Integrate Office's GIS program within EEA system. ▪ Provide data analysis for Office of Watershed Mgt. ▪ Distribute maps and digital information to Watershed Partners.
Total FTE	18.3	18.3	
Total LT Seasonals	1	1	

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.

DCR Division of Water Supply Protection
Office of Watershed Management
Wachusett/Sudbury Region Responsibilities and Staffing
FY 2023

Section	FY22 FTE	FY23 FTE	Primary Responsibilities
Management -- Regional Director and Assistant Regional Director	2	2	<ul style="list-style-type: none"> ▪ Supervise Staff assigned to Wachusett/Sudbury Section ▪ Develop/Implement Program Goals and Objectives including Watershed Protection Plans and Annual Work Plans ▪ Oversee day to day operations in the Region ▪ Oversee policy and plan development and implementation ▪ Ensure interagency coordination with MWRA (Reservoir Operations, Water Quality Testing, Consent Order Compliance and Reporting) ▪ Coordinate/Support programs & Policies with other DCR divisions and EEA/EEA agencies ▪ Coordinate/Support Programs & Policies with watershed communities and stakeholders ▪ Consult with Watershed Advisory Committees, Friends Groups ▪ Oversee fleet management and procurement
Administrative Support	3	3	<ul style="list-style-type: none"> ▪ Maintain payroll, employment and other records ▪ Provide budget, accounting and contract administration support ▪ Assist Regional Director in special projects, as needed ▪ Provide contract administration and database management for forestry program ▪ Provide staffing and operational support for main office
Fiscal	1	1	<ul style="list-style-type: none"> ▪ Coordinate and analyze information in the areas of procurement, contracts, budgets, accounting and finance to inform management decisions ▪ Procurement planning, coordination and preparation ▪ Purchase processing and monitoring ▪ Assist with budget development and monitoring
Environmental Quality	10 1 LT seasonal	10 1 LT seasonal	<ul style="list-style-type: none"> ▪ Develop and implement water quality and hydrologic monitoring programs in reservoirs & tributaries ▪ Develop and maintain water quality database ▪ Interpret water quality data for use in decision making ▪ Develop and implement Aquatic Invasive Species Control Plans ▪ Conduct Environmental Quality Assessments of watershed sanitary districts to identify potential pollution sources and develop mitigation measures ▪ Provide technical assistance to local boards ▪ Work with local DPWs to control stormwater through MS4 compliance. ▪ Supervise and implement Wachusett Bird Control Program ▪ Provide assistance for Emergency Response Actions ▪ Collect, monitor, and maintain records on weather/precipitation, reservoir elevations, river discharges and releases, water transfers and watershed yield. Conduct Snow Surveys

Section	FY22 FTE	FY23 FTE	Primary Responsibilities
Environmental Planning	1	1	<ul style="list-style-type: none"> Administer Watershed Protection Act(WSPA)and Regulations in the Wachusett Watershed Work with local community Boards regarding implementation of WSPA Provide notices to new landowners with parcels affected by WSPA Work with communities on bylaw implementation to satisfy MS4 permits
Forestry	2	2	<ul style="list-style-type: none"> Implement forest management plan, including planning, tree marking, timber sale preparation and supervision of logging operations Oversee and implement hayfield management permits Conduct various surveys and inventories as needed to provide data to help guide forest management operations Participate in Asian Longhorned Beetle Program Coordination in watershed Conduct or participate in other watershed management activities (e.g. boundary maintenance)
Civil Engineering	4	4	<ul style="list-style-type: none"> Provide management oversight of DCR-owned sewers, preparing municipal bills and resolving easement issues 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 Develop Road Plan and annual work plan; oversee maintenance of DCR access roads 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 Oversee major repair and renovation contracts at facilities in the Wachusett and Sudbury Watersheds Coordinate emergency response planning, preparedness and operations in the Wachusett and Sudbury Watersheds
Watershed Rangers	9	9	<ul style="list-style-type: none"> Maintain a positive visual presence in watersheds Observe activities on watershed lands & waters Ensure Rules Compliance through education/public interaction and use of citations Coordinate enforcement of watershed rules with State/Environmental Police Conduct or participate in other watershed management activities (e.g. encroachment surveys and resolution) Assist with Emergency Response Planning and Preparedness and general Watershed Security Develop and Conduct environment-based public education programs

Section	FY22 FTE	FY23 FTE	Primary Responsibilities
Interpretive Services	1	1	<ul style="list-style-type: none"> ▪ Develop and conduct watershed system school-based programs ▪ Conduct Programs at Stillwater Farm Interpretive Site ▪ Develop and Conduct environment-based public education programs
Watershed Maintenance	26 5 LT seasonals 4 ST seasonals	26 5 LT seasonals 4 ST seasonals	<ul style="list-style-type: none"> ▪ Maintain water supply dams ▪ Perform primary land and facility maintenance activities on all watershed lands and resources ▪ Maintain physical security barriers around reservoir and watershed facilities ▪ Control shoreline vegetation and maintain fire roads ▪ Maintain and repair all division equipment (motor vehicles, trucks, boats and heavy Equipment) ▪ Participate in Bird Control Program
Total FTEs	59	59	
Total LT Seasonals	6	6	
Total ST Seasonals	4	4	

LT Seasonal = Long-term Seasonal

ST Seasonal = Short-term Seasonal

DCR Division of Water Supply Protection
Office of Watershed Management
Quabbin/Ware Region Responsibilities and Staffing
FY 2023

Section	FY22 FTE	FY23 FTE	Primary Responsibilities
Management – Regional Director; Assistant Regional Director	2	2	<ul style="list-style-type: none"> ▪ Supervise staff assigned to Quabbin/Ware River Region and oversee hiring, training, and other personnel-related issues ▪ Develop and implement program goals and objectives, annual work plans and budgets ▪ Oversee policy and plan development and implementation ▪ Oversee day-to-day operations in the Region ▪ Ensure interagency coordination with MWRA (re: Reservoir Operations, Water Quality Testing, Consent Order Compliance and Reporting) ▪ Coordinate/Support programs and policies with other DCR divisions, EEA and other EEA agencies ▪ Coordinate/Support programs, policies and/or technical assistance with watershed communities and stakeholders ▪ Consult with Watershed Advisory Committees ▪ Oversee fleet management and procurement activities
Administrative Support	3	3	<ul style="list-style-type: none"> ▪ Administer research access permit and gate key issuances ▪ Process revenues and provide accounting for boat fishing program. ▪ Provide administrative services for cemetery, including deed preparation, funeral scheduling, and marker/monument settings. ▪ Assist Regional Director with special projects, as needed ▪ Maintain payroll, employment and personnel records ▪ Provide staffing and operational support for main office ▪ Provide administrative and contract support for forestry program ▪ Manage the Quabbin boat seal and fishing season pass information and communication with the public
Fiscal	2	2	<ul style="list-style-type: none"> ▪ Coordinate and analyze information in the areas of procurement, contracts, budgets, accounting and finance to inform management decisions ▪ Procurement planning, coordination and preparation ▪ Purchase processing and monitoring ▪ Assist with budget development and monitoring ▪ Manage shipping/receiving

Section	FY22 FTE	FY23 FTE	Primary Responsibilities
Environmental Quality	8	8	<ul style="list-style-type: none"> Conduct water quality and quantity monitoring in reservoir and tributaries Maintain and analyze water quality data to monitor the health of the watershed and reservoirs, and prepare periodic reports Conduct annual Environmental Quality Assessments (“Sanitary Surveys”) in both watersheds Develop and implement aquatic invasive species management and control programs Identify pollution sources and seek mitigation Implement and oversee the Quabbin Bird Harassment program Provide environmental oversight for all Region's activities that could impact water quality Assist with the design and implementation of water quality research conducted by the University of Massachusetts Provide technical review of proposed projects, as necessary Provide technical assistance to watershed communities and organizations regarding water quality issues Assist with public education efforts aimed at enhancing water quality protection on watershed lands Monitor streamflow, pathogens, algae, stormwater flows and macrophytes in watershed tributaries Monitor environmental compliance in building (e.g., drinking water testing)
Environmental Planning	2	2	<ul style="list-style-type: none"> Administer WsPA on Quabbin Reservoir and Ware River watersheds. Maintain and analyze regulatory data to ensure compliance. Provide technical assistance to town boards and commissions in watershed communities Coordinate with other agencies and local boards to enhance the development and enforcement of environmental protection regulations on watershed lands Assist Regional Director with coordinating DCR-DOT drone contract Oversee emergency spill response for Region Manage Gravel pits and resources for Region Monitor and inspect Rights-of-Way for Region
Forestry	6	6	<ul style="list-style-type: none"> Implement Forestry Program including planning, tree marking, timber sale preparation and supervision of timber harvesting operations Conduct regeneration surveys and continuous forest inventories (CFI) to provide data to help guide forest management operations Oversee field maintenance contracts Implement the Comprehensive Land Management Plan Coordinate with other state and federal agencies regarding forestry and other land management operations Conduct or participate in other watershed management activities (e.g., boundary maintenance, encroachment issues)

Section	FY22 FTE	FY23 FTE	Primary Responsibilities
Civil Engineering	5	5	<ul style="list-style-type: none"> Collect, monitor and maintain records on weather/precipitation, reservoir elevations, river discharges and releases, water transfers and watershed yield Conduct Snow Survey and calculate runoff potential in Quabbin Reservoir Watershed 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 Conduct inspections and maintain records on all buildings and bridges in the Quabbin Reservoir and Ware River watersheds 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 Maintain all historical records consisting of the construction of dams, roads, bridges and buildings in the Quabbin Reservoir and Ware River Watersheds Oversee major repair and renovation contracts on facilities in the Quabbin and Ware River watersheds Oversee and maintain Photovoltaic Systems at Quabbin Boat Launch Areas
Watershed Rangers	9 2 LT seasonal	9 2 LT seasonal	<ul style="list-style-type: none"> Conduct security and surveillance of critical infrastructure Maintain a positive visual presence in watersheds Monitor public activities on watershed lands and waters in accordance with Public Access Management Plans. Ensure Rules Compliance through education/public interaction/signage Coordinate enforcement of watershed rules with EPO, Mass State Police, and local law enforcement Assist with Emergency Spill Response and Emergency Preparedness planning Provide First Response and general watershed surveillance/security activities Maintain and analyze records of violations and public interactions

Section	FY22 FTE	FY23 FTE	Primary Responsibilities
Interpretive Services	4	4	<ul style="list-style-type: none"> Develop and conduct watershed based programs, displays and curricula for visitors and school groups Maintain and operate the Quabbin Visitors Center Participate in other EOEEA Environmental Education programs (e.g., Envirothon) Serve as press liaison for Region activities and events, in conjunction with DCR and EOEEA public information offices protocol Organize special events (e.g., Memorial Day services) Maintain vital records collection for the 4 dis-incorporated Quabbin towns, and issue official records upon request; Assist visitors with genealogical research. Manage and issue access permit requests 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. Develop informational materials on Quabbin fishing program, access issues and management activities Maintain audio-visual collection for Quabbin/Ware Region, including photographs, slides and oral history tapes
Watershed Maintenance	32 14 LT seasonals 2 ST seasonals	32 15 LT seasonals	<ul style="list-style-type: none"> Perform primary maintenance activities on watershed lands, roads, facilities and other resources Maintain physical security barriers around reservoir and watershed facilities Maintain roads, gates, barways, drainage structures, signs and other access controls Maintain and repair all division equipment (motor vehicles, trucks, boats and heavy Equipment) Provide staffing for the Bird Harassment and Controlled Deer hunt programs Maintain Quabbin Park Operate and maintain Quabbin Park Cemetery Operate and maintain the three Boat Launch Areas at Quabbin Reservoir
Total FTEs	73	73	
Total LT Seasonals	16	17	
Total ST Seasonals	2	0	

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

3. Annual Budget Summary: Expenditures and Revenues

WATER SUPPLY PROTECTION TRUST
Expenditures and Revenues Report
FY23 Work Plan Budget

		FY23	
		Projected	% of Total
A. Revenues			
OWM Revenues			
	Hydro + Transmission	\$400,000	1.9%
	Forestry	\$450,000	2.1%
	Fishing & Recreation	\$150,000	0.7%
	Misc.	\$20,000	0.1%
	OWM Revenues Subtotal	\$1,020,000	4.8%
	MWRA Payments to Trust *	\$20,305,400	95.2%
	Total Revenues	\$21,325,400	100.0%
B. Expenditures			
AA	Personnel	\$12,138,440	56.9%
BB	Employee Expenses	\$15,000	0.1%
CC	Contracted Services	\$30,000	0.1%
DD	Pensions/Insurance	\$5,172,960	24.3%
EE	Admin Expenses	\$160,000	0.8%
FF	Facility Operational Supplies	\$250,000	1.2%
GG	Energy Costs	\$340,000	1.6%
HH	Consultant Contracts	\$237,000	1.1%
JJ	Operational Services	\$45,000	0.2%
KK	Equipment	\$910,000	4.3%
LL	Leases, Rentals	\$180,000	0.8%
NN	Construction Improvements	\$1,397,000	6.6%
PP	Grants to Public Entities	\$100,000	0.5%
TT	Specials Payments	\$140,000	0.7%
UU	IT Expenses	\$210,000	1.0%
	Total Expenditures	\$21,325,400	

* not accounting for FY21 roll-over, which is credited

4. Annual Operating Budget

**DCR Division of Water Supply Protection
Office of Watershed Management
FY23 Budget Details**

Budget_Fiscal_Year	2023	FY2023 Budget						
Appropriation	28300100	6/1/2022						
Object_Class	Object	Object_Name	FY2021 Actuals	FY2021 Final Budget	FY2022 Final	FY2023 Draft	Prop FY23 vs FY22 Budget	%
AA	A01	Salaries/Inclusive	9,447,145	10,853,257	11,233,121	11,677,440	444,319	4.0%
	A06	Stand-By Pay	-	-	-	-	-	-
	A07	Shift Differential Pay	22,652	25,000	20,000	20,000	-	0.0%
	A08	Overtime Pay	220,875	275,000	270,000	240,000	(30,000)	-11.1%
	A10	Holiday Pay	42,873	40,000	40,000	45,000	5,000	12.5%
	A11	Employment Related Settlements and Judgements	-	-	-	-	-	-
	A12	Sick-Leave Buy Back	35,329	35,000	50,000	40,000	(10,000)	-20.0%
	A13	Vacation-In-Lieu	116,374	55,000	50,000	100,000	50,000	100.0%
	A14	Stipends, Bonus Pay and Awards	-	1,000	-	-	-	-
	AA1	Out of Title Pay	15,429	20,000	15,000	16,000	1,000	6.7%
AA Total			9,900,677	11,304,257	11,678,121	12,138,440	460,319	3.9%
BB	B01	Out Of State Travel - Inclusive	160	-	-	-	-	-
	B02	In-State Travel	258	-	-	-	-	-
	B03	Overtime Meals	-	-	-	-	-	-
	B05	Conference, Trng & Reg, Membership Dues, Licensing Fees	2,862	-	-	-	-	-
	B10	Exigent Job-Related Expenses	1,265	-	-	-	-	-
	B11	Employer Refund of Non-Tax Benefits	-	-	-	-	-	-
	B91	Employee Reimbursement Accounts Payable	64	-	-	-	-	-
BB Total			4,609	20,000	20,000	15,000	(5,000)	-25.0%
CC	C01	Contracted Faculty	1,866	-	-	-	-	-
	C04	Contracted Seasonal Employees	40,072	-	-	-	-	-
	C22	Engineering, Research & Scientific Services	-	-	-	-	-	-
	C98	Reimb Travel/Other Expenses CC Special Contract/Employee	65	-	-	-	-	-
CC Total			42,003	50,000	35,000	30,000	(5,000)	-14.3%
DD	D09	Non Fringe Benefits Reimbursement (Payroll Tax)	-	-	228,406	229,984	-	-
	D09	Fringe Benefits Reimbursement	3,643,715	-	4,169,205	4,718,976	-	-
	D15	Worker's Comp Chargeback	224,063	-	224,000	224,000	-	-
	D21	Health Ins Costs of Employ/Leave in Excess of 1 Yr Chgback	-	-	10,000	-	-	-
DD Total			3,867,779	4,355,678	4,631,611	5,172,960	541,349	11.7%
EE	E01	Office & Administrative Supplies	11,288	-	-	-	-	-
	E02	Printing Expenses & Supplies	7,693	-	-	-	-	-
	E04	Central Reprographics Chargeback	520	-	-	-	-	-
	E06	Postage	5,000	-	-	-	-	-
	E12	Subscriptions, Memberships & Licensing Fees	294	-	-	-	-	-
	E13	Advertising Expenses	504	-	-	-	-	-
	E14	Exhibits/Displays	1,696	-	-	-	-	-
	E15	Office Tap Water Treatment	967	-	-	-	-	-
	E19	Fees, Fines, Licenses, Permits & Chargebacks	50,654	-	-	-	-	-
	E20	Motor Vehicle Chargeback	38,417	-	-	-	-	-
	E22	Temp Use Space/Confer-Incidental Includes Reservation Fees	-	-	-	-	-	-
	E30	Credit Card Purchases	1,295	-	-	-	-	-
	E32	Tort Claims Liab Mgmt Reduc Fd	-	-	-	-	-	-
	E53	S&J: Non-reportable to claimant, sole payee	10,000	-	-	-	-	-
	E75	Advances - Administrative Expenses	-	-	-	-	-	-
	EE2	Conference, Training and Registration Fees	2,685	-	-	-	-	-
EE Total			131,013	130,000	110,000	160,000	50,000	45.5%
FF	F01	Food, Beverages, & Preservation	-	-	-	-	-	-
	F03	Laundry and Cleaning Supplies	181	-	-	-	-	-
	F05	Laboratory Supplies	2,835	-	-	-	-	-
	F06	Medical & Surgical Supplies	13,993	-	-	-	-	-
	F08	Toiletries and Personal Supplies	-	-	-	-	-	-
	F09	Clothing & Footwear	56,946	-	-	-	-	-
	F10	Facility Furnishings	374	-	-	-	-	-
	F11	Laundry & Cleaning Supplies	11,346	-	-	-	-	-
	F13	Live Animals & Related Supplies	6,057	-	-	-	-	-
	F16	Library and Teaching Supplies and Materials	487	-	-	-	-	-
	F18	Recreation, Religious & Social Supplies & Materials	18,931	-	-	-	-	-
	F19	Manufacturing Supply & Materials & Raw Materials	5,680	-	-	-	-	-
	F21	Navigational & Nautical Supplies	8,448	-	-	-	-	-
	F22	Municipal Taxes	-	-	-	-	-	-
	F24	Motor Vehicle Maintenance & Repair Parts	98,253	-	-	-	-	-
	F27	Law Enforcement & Security Supplies	6,940	-	-	-	-	-
FF Total			230,471	225,000	260,000	250,000	(10,000)	-3.8%
GG	G03	Electricity	55,617	-	-	-	-	-
	G05	Fuel For Vehicles	115,492	-	-	-	-	-
	G06	Fuel For Buildings	101,720	-	-	-	-	-
	G08	Sewage Disposal & Water	2,546	-	-	-	-	-
	G11	Natural Gas	670	-	-	-	-	-
GG Total			276,045	325,000	335,000	340,000	5,000	1.5%
HH	H05	Arbitrators/Mediators/Dispute Resolution Services	-	-	-	-	-	-
	H09	Attorneys/Legal Services	8,220	6,000	6,000	8,000	-	-
	H23	Program Coordinators	-	-	-	-	-	-
	HH1	Financial Services	16,621	35,000	40,000	20,000	-	-
	HH2	Engineering, Research & Scientific Services	160,000	289,000	-	-	-	-
		UMass - Water Quality and Spill Response Modeling	-	-	145,000	150,000	-	-
		Source Molecular	-	-	14,000	14,000	-	-
		Biodiversity Research Inst (loon capture and banding)	-	-	15,000	15,000	-	-
		Analytical Services (beaver testing)	-	-	5,000	5,000	-	-
	HH2	Contract for Invasive Treatment	-	25,000	25,000	25,000	-	-
HH Total			219,974	350,000	231,000	237,000	6,000	2.6%
JJ	J25	Laboratory and Pharmaceutical Services	-	-	-	-	-	-
	J27	Laundry Services	10,253	-	-	-	-	-
	J33	Photographic & Micrographic Services	-	-	-	-	-	-
	J44	Surveyors	59,136	-	40,000	-	-	-
	J50	Instructors/Lecturers/Trainers	-	-	-	-	-	-
	JJ1	Legal Support Services	4,953	-	-	-	-	-
JJ Total			74,342	35,000	60,000	45,000	(15,000)	-25.0%

**DCR Division of Water Supply Protection
Office of Watershed Management
FY23 Budget Details**

Budget_Fiscal_Year	2023	FY2023 Budget						
Appropriation	28300100	6/1/2022						
Object_Class	Object	Object_Name	FY2021 Actuals	FY2021 Final Budget	FY2022 Final	FY2023 Draft	Prop FY23 vs FY22 Budget	%
KK	K02	Educational Equipment						
	K03	Programmatic Facility Equipment	57,119					
	K04	Motorized Vehicle Equipment	604,587					
	K05	Office Equipment	199					
	K06	Printing , Photocopying, and Micrographic Equipment	2,932					
	K07	Office Furnishings	576					
	K09	Medical Equipment	5,485					
	K10	Law Enforcement & Security Supplies	618					
	K11	Heavy Equipment	347,285					
	K12	Television Broadcasting Equipment						
KK Total			1,018,801	1,010,000	970,000	910,000	(60,000)	-6.2%
LL	L11	Heavy Equipment Lease-Purchase	26,851					
	L23	Facility Equipment Rental or Lease	67,119					
	L24	Motorized Vehicle Equipment Rental or Lease						
	L25	Office Equipment Rental or Lease	2,604					
	L26	Printing/Photocopy & Micrographics Equip Rent/Lease	18,272					
	L31	Heavy Equipment Rental or Lease						
	L42	Educational Equipment Maintenance & Repair						
	L43	Facility Equipment Maintenance & Repair						
	L44	Motorized Vehicle Equipment Maintenance & Repair	44,419					
	L45	Office Equipment Maintenance and Repair	195					
	L46	Print, Photocopying & Micrograph Equipment Maint/Repair	2,464					
	L50	Law Enforcement/Security Equipment Maintenance/Repair						
	L51	Heavy Equipment Maintenance/Repair	10,739					
	L63	Programmatic Equipment Maintenance and Repair	7,508					
LL Total			180,171	250,000	160,000	180,000	20,000	12.5%
NN	N15	Building/Vertical Structure Construction	-					
	N16	Maj Construction, Maj Renovation, Bldg Alteration, Land Impr	2,168					
	N17	Major Building Maintenance and Land Improvements	(769)					
	N18	Initial Furnishings & Equipment Purchases						
	N19	Land Acquisition and Eminent Domain	928					
	N21	Highway Horizontal/Lateral Construction						
	N22	Highway Horizontal/Lateral Maintenance and Improvements	161,071					
	N23	Highway Horizontal/Lateral Maintenance Materials	62,267					
	N41	State Park & Recreation Facilities Construction						
	N50	Non-Major Facility Infrastructure Maintenance & Repair	201,459					
	N52	Facility Infrastructure Maint & Repair Tools & Supplies	120,539					
	N60	Lawn and Grounds Equipment Maint & Repair	6,355					
	N61	Lawn and Grounds Equipment	7,851					
	N63	Rental or Lease of Facility	0					
	N64	Garden Expenses, Tools and Supplies	29,607					
	N70		4,796					
	N71	Exterminators/Integrated Pest Management	7,694					
	N72	Hazardous Waste Removal Services	277,000					
	N73	Non-Hazardous Waste Removal Services	65,784					
	N74	Snow Removal&Groundskeeping Svcs (inc. haz. tree removal)	39820					
	N98	Reimbursement for Travel/Other Expense Infrastructure Projects						
	NN1	Engineering, Research and Scientific Services	209,492					
NN Total			1,196,062	1,373,000	1,433,000	1,397,000	(36,000)	-2.5%
PP	P01	Grants to Public Entities	38,592		100,000	100,000		
PP Total			38,592	100,000	100,000	100,000		
TT	T04	Payments & Refunds (USGS gages)	129,260		130,000	130,000		
TT Total			129,260	130,000	130,000	140,000	10,000	7.7%
UU	U01	Telecommunications Services Data		16,000				
	U02	Telecommunications Services - Voice	96,891	50,000				
	U03	Software and Information Technology (IT) Licenses	391	6,000				
	U04	Information Technology Chargeback	41,383	18,000				
	U05	Information Tech (IT) Professionals		2,000				
	U06	Information Technology Cabling	620	15,000				
	U07	Information Tech (IT) Equipment Purchase	16,598	102,000				
	U09	Information Technology (IT) Equip Rental Or Lease		-				
	U10	Information Tech (IT) Equipment Maintenance & Repair	9,576	2,000				
	U11	Information Technology (IT) Contract Services	3,720					
UU Total			169,179	215,000	305,000	210,000	(95,000)	-31.1%
Total Baseline Cost			17,478,978	19,872,935	20,468,732	21,325,400	856,668	4.2%
Revenues								
	6995	Hydro & Transmission	341,428	300,000	450,000	400,000		
	4500	Forestry	483,357	500,000	500,000	450,000		
	3148	Fishing & Recreation	157,941	225,000	210,000	150,000		
	6900	Misc.	13,627	50,000	50,000	20,000		
Revenue Total			996,353	1,075,000	1,210,000	1,020,000	-	
Net Reimbursement					19,258,732	20,305,400		
PILOT (actually paid to DCR less the reimbursements paid by Fay School and Town of Southborough)					8,500,000	8,500,000		
DEBT				-				
Total DCR Budget					27,758,732	28,805,400		

5. Annual Major Projects



Department of Conservation and Recreation
Division of Water Supply Protection Office of Watershed Management
FY2023 Major Projects

Project	Operating	Notes	Obj. Code
Quabbin/Ware Region			
Gate 40 Culvert Replacement	\$360,000	Design and start of culvert replacement	N21
Hazard Tree Removal- and Maintenance	\$30,000	Hazardous trees in cemetery and other locations	N22
Gravel/Road Supplies and repairs	\$30,000	Purchase materials for in-house work	N23
Dam/Dike/Land Maintenance	\$5,000	Turf improvements, other	N64
Rental Boat/Motor Purchase	\$20,000	Program of rental boat/motor replacement	K04
Terrestrial Invasive Species Control	\$25,000	Contract services for treatment at forestry lots; new infestations, infrastructure	HH2
Installation of barriers (fencing, guardrail)	\$25,000	Work in critical areas, dump spots, 122 boat launch, Prescott	N41
New Salem Facility Final Design	\$100,000	Final construction documents	NN1
Hazardous Materials Abatement - Spillway	\$55,000	Dam spillway catwalk restoration - hazardous material removal	N73
Mechanical Repairs, HQ and other locations	\$50,000	Various	N50
Subtotal KK	\$20,000		
Subtotal NN	\$655,000		
Subtotal HH	\$25,000		
Wachusett/Sudbury Region			
Route 110 Direct discharge design	\$30,000	Design for Rt 110 direct discharge project	NN1
Demo of abandoned buildings	\$75,000	Demo of Kush (remove buildings, slabs and pavement)	N16
Hazardous Tree Removal	\$20,000	Various sites	N74
Kush streambank restoration	\$15,000	Permitting, site evaluation	N74
Fabric Salt/Storage Structures	\$100,000	Covered storage for off season equipment, small salt storage at Lancaster St.	N50
Required Dam Studies (Phase 1s and 2s)	\$15,000	Reg-required reports/dam training	NN1
Dike Maintenance	\$20,000	Liming, seeding regularly	N74
North Dike Fence Replacement	\$80,000	Replace fence in disrepair	N72
BMP Valve install	\$30,000	Install forebay valve	N74
BMP Maintenance	\$30,000	Contract for stormwater BMP cleaning based off Aqualis quote	N22
Watershed Gravel Road Reconstruction Supplies	\$20,000	Purchase materials for in-house road work	N23
Aquatic Invasive Control Projects	\$40,000	Aquatic invasive control at Lily Pond, Coachlace, South Meadow	N73
Subtotal NN	\$475,000		
Natural Resources			
	\$0		
Major Equipment Purchases (KK)*			
Wachusett	\$150,000	Purchase of heavy equipment such as backhoes, bulldozers	K11
Quabbin	\$250,000	Purchase of heavy equipment such as backhoes, bulldozers	K11

*Does not include passenger vehicle replacements

HH Budget Totals	\$25,000
KK Budget Totals	\$420,000
NN Budget Totals	\$1,130,000
TOTAL	\$1,575,000

6. Annual Land Acquisition Capital Spending Plan

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

FY23 Proposed Watershed Land Acquisitions

DWSP staff will continue to pursue the purchase of lands that have importance to protecting the water supply. The most direct and proven method of protecting the water source's long-term quality is to own and manage watershed lands surrounding the water supply source. A major tenet of watershed management is protection through ownership of interests in watershed lands because:

- A forested landscape 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 can 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).

In addition, 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 FY23 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**

FY23 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 was established by the Mass Municipal Modernization Act – Chapter 218, Section 108 of the Acts of 2016.

Under this 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. These 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), as determined by DOR. 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 FY22 PILOT was \$8,479,324. This figure is a 1.3% increase from the FY21 PILOT paid of \$8,367,913. FY22 PILOT took into account the addition of 167.3 acres of land. This increase was less than the 5% estimated in the FY21 Work Plan.

FY23 PILOT will be based on DOR's State Owned Land adjusted by EQV for FY22. An additional 37 acres of land will now be included in the valuation. Utilizing a generic estimated increase of 5% to all towns' tax rates from FY22 to FY23, **it is estimated that PILOT will increase by approximately 1.7% to approximately \$8.6 million.** This figure could be less depending on the actual tax rates set by each community.



Department of Conservation and Recreation
Division of Water Supply Protection
Office of Watershed Management
FY22 Payments in Lieu of Taxes
January 2022 - Final

Community	FY21 PILOT	Total 2021 Property Valuation	FY22 EQV	Total FY22 Property Valuation	Assessed Acres	Valuation per Acre	2020-2021 Acquisitions (acres)	Added Valuation for Acquisitions	Total 2022 Property Valuation	FY22 Tax Rate	FY22 Minimum PILOT Due	FY22 PILOT	Hold Harmless	Increase	% Increase
Barre	\$186,168.60	\$6,586,200	1.1062	\$7,285,700	5,420.9	\$1,344	0	\$0	\$7,285,700	\$16.84	\$122,691.19	\$186,168.60	\$63,477	\$0	0.0%
Belchertown	\$257,074.40	\$12,615,800	1.0981	\$13,853,400	3,190.2	\$4,342	0	\$0	\$13,853,400	\$17.66	\$244,651.04	\$257,074.40	\$12,423	\$0	0.0%
Belchertown - Annexed Lands	\$50,625.10	\$1,680,500	1.0981	\$1,845,400	670.0	\$2,754	0	\$0	\$1,845,400	\$17.66	\$32,589.76	\$50,625.10	\$18,035	\$0	0.0%
Berlin	\$56,632.13	\$2,034,200	1.1061	\$2,250,000	46.6	\$48,325	0	\$0	\$2,250,000	\$27.18	\$61,155.00	\$61,155.00	\$0	\$4,523	8.0%
Boylston	\$595,938.71	\$32,468,400	1.1665	\$37,874,400	2,758.2	\$13,732	0	\$0	\$37,874,400	\$15.84	\$599,930.50	\$599,930.50	\$0	\$3,992	0.7%
Clinton	\$205,948.72	\$6,598,800	1.1933	\$7,874,300	469.2	\$16,782	0	\$0	\$7,874,300	\$25.06	\$197,329.96	\$205,948.72	\$8,619	\$0	0.0%
Frammingham	\$261,930.91	\$5,260,000	1.1359	\$5,974,800	235.4	\$25,386	0	\$0	\$5,974,800	\$29.00	\$173,269.20	\$261,930.91	\$88,662	\$0	0.0%
Hardwick	\$122,443.55	\$7,662,300	1.0922	\$8,368,800	4,686.9	\$1,786	0	\$0	\$8,368,800	\$14.70	\$123,021.36	\$123,021.36	\$0	\$578	0.5%
Hardwick - Annexed Lands	\$941.41	\$38,900	1.0922	\$42,500	150.0	\$283	0	\$0	\$42,500	\$14.70	\$624.75	\$941.41	\$317	\$0	0.0%
Holden	\$919,615.57	\$37,052,000	1.1231	\$41,613,100	3,910.4	\$10,642	0	\$0	\$41,613,100	\$16.56	\$689,112.94	\$919,615.57	\$230,503	\$0	0.0%
Hubbardston	\$357,113.53	\$24,113,000	1.1268	\$27,170,500	8,671.4	\$3,133	0	\$0	\$27,170,500	\$14.00	\$380,387.00	\$380,387.00	\$0	\$23,273	6.5%
Leominster	\$8,688.49	\$179,000	1.1638	\$208,300	42.5	\$4,897	0	\$0	\$208,300	\$16.56	\$3,449.45	\$8,688.49	\$5,239	\$0	0.0%
Ludlow	\$10,524.06	\$228,100	1.0503	\$239,600	50.8	\$4,717	0	\$0	\$239,600	\$19.99	\$4,789.60	\$10,524.06	\$5,734	\$0	0.0%
Marlborough	\$112,802.46	\$2,179,000	1.1675	\$2,544,000	570.4	\$4,460	0	\$0	\$2,544,000	\$22.17	\$56,400.48	\$112,802.46	\$56,402	\$0	0.0%
New Salem	\$520,470.61	\$17,936,900	1.0868	\$19,493,800	22,462.7	\$868	0	\$0	\$19,493,800	\$18.92	\$368,822.70	\$520,470.61	\$151,648	\$0	0.0%
New Salem - Annexed Lands	\$201,603.91	\$6,161,400	1.0868	\$6,696,200	11,580.0	\$578	0	\$0	\$6,696,200	\$18.92	\$126,692.10	\$201,603.91	\$74,912	\$0	0.0%
Northborough	\$103,466.89	\$5,410,700	1.1056	\$5,982,100	360.9	\$16,577	0	\$0	\$5,982,100	\$16.49	\$98,644.83	\$103,466.89	\$4,822	\$0	0.0%
Oakham	\$147,067.60	\$9,781,900	1.1616	\$11,362,700	2,537.1	\$4,479	0	\$0	\$11,362,700	\$12.72	\$144,533.54	\$147,067.60	\$2,534	\$0	0.0%
Orange	\$10,796.09	\$520,400	1.1626	\$605,000	82.8	\$7,307	0	\$0	\$605,000	\$19.12	\$11,567.60	\$11,567.60	\$0	\$772	7.1%
Pelham	\$338,086.39	\$11,717,500	1.0249	\$12,009,300	5,974.0	\$2,010	0	\$0	\$12,009,300	\$20.56	\$246,911.21	\$338,086.39	\$91,175	\$0	0.0%
Pelham - Annexed Lands	\$38,096.61	\$842,800	1.0249	\$863,800	1,080.0	\$800	0	\$0	\$863,800	\$20.56	\$17,759.73	\$38,096.61	\$20,337	\$0	0.0%
Petersham	\$296,721.61	\$10,684,400	1.0645	\$11,373,500	12,230.2	\$930	0	\$0	\$11,373,500	\$13.54	\$153,997.19	\$296,721.61	\$142,724	\$0	0.0%
Petersham - Annexed Lands	\$203,305.78	\$5,332,600	1.0645	\$5,676,600	10,000.0	\$568	0	\$0	\$5,676,600	\$13.54	\$76,861.16	\$203,305.78	\$126,445	\$0	0.0%
Phillipston	\$11,912.74	\$146,100	1.1241	\$164,200	162.8	\$1,009	0	\$0	\$164,200	\$15.58	\$2,558.24	\$11,912.74	\$9,355	\$0	0.0%
Princeton	\$279,083.95	\$17,312,900	1.1489	\$19,891,600	3,087.7	\$6,442	46.0	\$295,800	\$20,187,400	\$15.68	\$316,538.43	\$316,538.43	\$0	\$37,454	13.4%
Rutland	\$525,860.45	\$23,314,000	1.1435	\$26,659,600	6,489.0	\$4,108	0	\$0	\$26,659,600	\$15.79	\$420,955.08	\$525,860.45	\$104,905	\$0	0.0%
Shutesbury	\$299,391.54	\$7,185,600	1.1068	\$7,952,800	4,861.6	\$1,636	117.8	\$193,000	\$8,145,800	\$21.83	\$177,822.81	\$299,391.54	\$121,569	\$0	0.0%
Southborough	\$301,690.94	\$18,108,700	1.0769	\$19,501,300	1,310.6	\$14,879	0	\$0	\$19,501,300	\$16.28	\$317,481.16	\$317,481.16	\$0	\$15,790	5.2%
Sterling	\$810,129.37	\$48,820,000	1.1149	\$54,428,100	5,211.4	\$10,444	3.5	\$37,900	\$54,466,000	\$15.25	\$830,606.50	\$830,606.50	\$0	\$20,477	2.5%
Templeton	\$1,082.18	\$55,200	1.1417	\$63,000	92.1	\$684	0	\$0	\$63,000	\$15.24	\$960.12	\$1,082.18	\$122	\$0	0.0%
Ware	\$193,261.40	\$7,064,400	1.0719	\$7,572,300	4,845.0	\$1,563	0	\$0	\$7,572,300	\$19.34	\$146,448.28	\$193,261.40	\$46,813	\$0	0.0%
Ware - Annexed Lands	\$167,580.62	\$4,757,600	1.0719	\$5,099,700	3,865.0	\$1,319	0	\$0	\$5,099,700	\$19.34	\$98,628.20	\$167,580.62	\$68,952	\$0	0.0%
Wendell	\$32,706.91	\$1,332,800	1.0669	\$1,422,000	654.7	\$2,172	0	\$0	\$1,422,000	\$23.24	\$33,047.28	\$33,047.28	\$0	\$340	1.0%
West Boylston	\$683,581.59	\$22,481,400	1.1081	\$24,911,600	2,939.2	\$8,476	0	\$0	\$24,911,600	\$17.68	\$440,437.09	\$683,581.59	\$243,144	\$0	0.0%
Westborough	\$55,568.09	\$2,997,200	1.0787	\$3,233,100	190.8	\$16,947	0	\$0	\$3,233,100	\$18.49	\$59,780.02	\$59,780.02	\$0	\$4,212	7.6%
TOTAL	\$8,367,912.90	\$360,660,700					167.3	\$526,700	\$402,633,800			\$8,479,324.48	\$1,698,869	\$111,412	1.3%

NOTES:

1. Watershed PILOT, per MGL c. 59 s.5G, is determined by multiplying the DOR valuation by the local commercial tax rate. Property valuations available at https://dls.gateway.dor.state.ma.us/reports/rdPage.aspx?rdReport=BLA.DCR_WaterShedLand and https://dls.gateway.dor.state.ma.us/reports/rdPage.aspx?rdReport=BLA.DCR_WatershedAnnexLand. Calculations rounded by DOR. Tax rates available at https://dls.gateway.dor.state.ma.us/reports/rdPage.aspx?rdReport=PropertyTaxInformation.taxratesbyclass.taxratesbyclass_main.
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.
4. Acquisitions added: Shutesbury - Historical Enterprises (117.8 acres); Sterling - Kush (3.5 acres); Princeton - Martin (46.0 acres)