



July 26, 2023

Dave Coppes
Chief Operating Officer
Massachusetts Water Resources Authority
Deer Island
33 Tafts Avenue
Boston, MA 02128

RE: Transmittal of Quarterly Progress Report
Fourth Quarter, FY2023 (April 1 – June 30, 2023)

Dear Mr. Coppes:

Pursuant to the provisions of Section 2.4 of the Memorandum of Understanding (MOU) between our agencies, executed and effective as of April 27, 2004, enclosed please find the Quarterly Progress Report for the fourth quarter of Fiscal Year 2023 covering the period from April 1 – June 30, 2023. This progress report highlights FY2023 Work Plan activities for the quarter. Copies of the Quabbin/Ware and Wachusett/Sudbury reports from Smartsheet are attached. In addition, the quarterly ranger interaction tables are included with this submittal.

Staff worked through the quarter to implement the tasks in the FY2023 Work Plan. This includes stream and reservoir sampling, watershed monitoring, and forest management activities in the watersheds, wildlife control activities on all watersheds, and ranger oversight of public access activities.

There were two major changes at DCR in this last Quarter. First, Brian Arrigo was named the new Commissioner. DWSP has welcomed Commissioner Arrigo and has quickly integrated him into watershed management issues. Second, after more than twenty years of residency at 251 Causeway Street, DCR's main office in Boston moved to its new home at 10 Park Plaza – the State Transportation Building. DWSP's Boston staff worked diligently and cooperatively with other DCR and EEA staff to make this transition as smooth and seamless as possible. Full occupancy took place after the Fourth of July holiday.

In addition to the attached work plan updates, some highlights from activities in the quarter are outlined below.

- Staff finalized the Watershed Protection Plan (FY24-28) draft. It was sent to DEP for initial comments which have been addressed. The final plan has been sent to DEP for approval. Implementation began on July 1, 2023.



- The Wachusett Watershed Public Access Plan Update was completed and approved. This is a 10-year plan that outlines what public access activities are allowed on Division properties in the Wachusett watershed. Implementation began July 1, 2023.
- Staff continued water quality monitoring in the Reservoirs and tributaries. This included phytoplankton sampling in both Reservoirs, nutrient sampling in the Reservoirs and tributaries, in-person and Mayfly water quality measurements in tributaries, and collection of groundwater quality samples.
- The Division completed the protection of 233.6 acres of land, 200.8 as fee purchase and 32.8 as a Watershed Preservation Restriction. Two acquisitions totaling 65 acres (fee, 32 acres; WPR, 32.8 acres) were gifts. The remaining 170 acres were purchased using \$649,000 of MWRA funding.
- Phase 1 of the New GIS map for hunting/fishing has been completed and is available online. Phase 1 shows where hunting is allowed and any requirements. Phase 2 will add fishing to this publicly available map. [Click here to open the DCR-DWSP Hunting Map.](#)
- Staff continued work on a draft Terrestrial Invasive Species plan for the watershed system.
- Wildlife staff worked to control spring nesting of Canada geese at Quabbin, Wachusett, and Sudbury Reservoirs by treating eggs in 41 nests.
- The EEA Forests as Climate Solutions initiative began which included a 6-month pause on release of new proposals for active timber management on DWSP lands. Forestry staff, however, continued to oversee timber harvesting on lots that were sold prior to the pause. Staff also met in the field with new DCR Archeology staff to review a wide range of topics related to forestry and cultural resource protection.

Wachusett/Sudbury Region

- Rangers continued to monitor public access across the watershed. Rangers logged 6,212 visitor contacts through the quarter, with 462 violations recorded.
- Interpretive staff and rangers offered 34 public programs in the quarter for 1,592 people. Staff also held the spring Dam Day with over 4,000 people in attendance. The Education Coordinator demonstrated the Watershed Model to 17 classrooms, where students created models and discovered connections and interactions between landforms, land use, and water supply protection.
- Work was completed to repair the sills and replace the wood siding on the historic Lancaster Street barn at the labor yard in West Boylston. New windows were installed in the gym at 180 Beaman Street.
- The 2023 Annual Water Quality report for Wachusett was issued.
- Staff continued their work to reduce impacts from road salt in the watershed. Staff collected winter 2022-2023 road salt totals from Wachusett watershed town DPWs. Early numbers show lower totals than in recent years. Some towns used significantly lower amounts of road salt, although it was also a moderate winter.

Quabbin/Ware Region

- Watershed Rangers tallied a total of 7,160 visitor contacts and 146 violations for the 4th Quarter. Quabbin Rangers tallied a total of 5,152 visitor contacts and 32 violations. Ware river tallied a total of 2,008 visitor contacts and 114 violations.
- In the 4th Quarter, the Visitor Center had 1,157 visitors on weekends. Staff offered eight public programs to 125 members of the public. Staff also offered five programs to community groups to a total of 145 people. Staff continue to expand outdoor programs and have plans to offer "pop up" programming on weekends. In the 4th Quarter, the IS staff offered 11 programs to schools.
- Forestry staff worked to identify sites for Forest Diversity Enhancement work to be completed this summer with seasonal staff.
- Staff working on a number of infrastructure projects including contracts for Administration Building window replacement, shed demolition, asbestos abatement work and paving at Gate 43 to Fishing Area 3 using a legislative earmark for much of the project cost.
- Work continued on Environmental Quality Assessments (sanitary surveys) in the Quabbin and Ware Watersheds. Draft EQA reports were completed in Burnshirt Canesto & Natty Sanitary District and Fever Brook Sanitary District.
- Aquatic biology staff identified an infestation of the aquatic invasive plant Swollen Bladderwort in Pottapaug Pond. Mapping activities and some hand pulling occurred late in quarter. Private boat access has been suspended to limit the potential for spread of the invasive to the Reservoir or other water bodies.

Watershed staff continue to work diligently on the hiring process to fill vacancies in our staffing. It has been challenging to raise the FTE count, with promotions and departures creating new vacancies. At the end of the quarter, the FTE count was at 138. Staff are working to fill the remaining positions to meet the goal of being fully staffed.

Please let me know if there are any questions.

Sincerely,



John M. Scannell
Director, Division of Water Supply Protection

Cc: Rebecca Tepper, Secretary, EOEEA
Brian Arrigo, Commissioner, DCR
Kim Hanton, Chief of Staff, DCR
Priscilla Geigis, Deputy Commissioner, DCR
Fred Laskey, Executive Director, MWRA
Vandana Rao, EOEEA Water Policy
William J. Meehan, Water Supply Protection Trust
Fred Heyes, Water Supply Protection Trust
Matthew Romero, Director, MWRA Advisory Board
Valerie Moran, MWRA Waterworks Director
Stephen Estes-Smargiassi, MWRA Planning
John Gregoire, MWRA, Reservoir Operations
Kathy Baskin, DEP
Yvette DePeiza, DEP
Dan Clark, DCR, Regional Director, Quabbin/Ware
Kelley Freda, DCR, Regional Director, Wachusett/Sudbury
Ken MacKenzie, DCR, Natural Resources Director

Wachusett/Sudbury FY 23 Fourth Quarter Report



Update on selected tasks in Wachusett/Sudbury Work Plan for April 1 to June 30, 2023.

Task No.	Description	April 1 - June 30 Accomplishments
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.	A 28-acre fee project in Sterling (Vaghini) and a 40-acre fee project in Princeton (Pioneer Millennium Realty Trust - South) went to record this quarter. Four projects are currently underway at various stages of due diligence: two fee projects in Sterling (10 acres and 150+ acres), a 10-acre fee project in Boylston, and a 44-acre fee project in Rutland.
A2	Develop individual parcel presentation materials and meet with MWRA Board for approval.	No projects went before the MWRA Board this quarter.
A3	Communicate with and convene LAP meetings to review parcels and prioritize land purchases.	A virtual LAP meeting was held 6/13. One Wachusett fee project was approved.
A4	Use the LAP Prioritization Model to identify priority parcels in the watersheds.	Work to identify priority parcels is ongoing.
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.	Of the ongoing projects, work continues on a proposed donation of a 44-acre fee transfer in Rutland.
A6	Establish regularly scheduled land/legal meetings to address attorney assignments and project logistics.	Meetings with legal are ongoing.
B. Watershed Preservation Restriction Monitoring		
B1	Monitor WPRs on a regular basis, following monitoring procedures	WPR Coordinator and Regional Monitors completed 29 WPR monitoring visits. WPR Coordinator assisted Regional Monitors with visits as needed and reviewed all monitoring reports. WPR Coordinator completed 1 Aerial Monitoring report using Lens software.
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.	No baseline reports completed this quarter. One draft baseline report is in process (still waiting on information from landowner-Thorell 2 WPR).
B3	Meet with Restriction Stewardship Working Group and confer with legal to respond to enforcement issues and requests to exercise reserved rights.	Restriction Stewardship Working Group met once this quarter. WPR Coordinator continued working with DCR-Parks stewardship staff on updating the Enforcement Procedure. WPR Coordinator conferred with Natural Resource Director on a few minor issues and violations that were discovered during routine monitoring.
B4	Track changes in landownership for WPRs.	WPR Coordinator and Regional Monitors continued to track changes in landownership for WPRs.
B5	Explore additional ways to reach out to landowners through the use of social media and web-based content.	WPR Coordinator and Jim Taylor completed the second issue of A Watershed Moment w/ a new "Notes from the Field" StoryMap and sent it out to WPR landowner email list. Discussion with Regional Director re:adding a small water quality tip in each newsletter.
B6	Implement WPR records procedure with DCR records manager	WPR Coordinator spent 1-2 days/week at the Boston office culling DWSP land files as part of the File Digitization Project (April-May).
C. Land Management		
C1	Implement the system-wide comprehensive Land Management Plan (LMP).	A review of the LMP and updates on hold until the new Forestry Guidelines are presented in December, as called for in the new EEA Forests as Climate Solutions policy
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.	Hikes were done for all proposals with NR staff. A separate round of hikes were done for selected proposals with NR staff and DCR Archeologist JP Patton. Several Quabbin/Ware River foresters attended as it was a good opportunity to meet the new DCR Archeologist and discuss a wide range of issues at the confluence of forestry and cultural resource protection.
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.	All lot proposal narratives and maps were finalized and distributed to foresters and reviewers. All internal reviews were completed. All proposals were toured and some were revisited when CR office staff came out to see specific lots at their request. Final internal review document pending potential updates resulting from the EEA Forestry Guidelines review committee.

Task No.	Description	April 1 - June 30 Accomplishments
C4	Present annual forest harvest proposals at a public meeting. Publish Online Public Review document/story map. Accept public comment and respond as needed.	No activity this quarter.
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.	Prepared one lot on 56 acres and started work on a second lot on 47 acres before the Governor's Forests as Climate Solutions effort halted all work on marking and showing new lots for six months.
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.	Supervised four lots on a combined 202 acres of which two on 124 acres were completed.
C7	Monitor water quality (turbidity) at active harvesting stream crossing sites to measure effectiveness of BMPs.	No Activity this quarter
C8	Continue to implement long-term paired watershed monitoring to assess impact of DWSP forest management on tributary water quality.	Sampling still on hold awaiting start of timber harvest. Monitoring of flow was also suspended as of this spring.
C9	Conduct periodical regeneration and invasive species surveys to monitor forest health and development resulting from silvicultural activities or other natural disturbances and processes.	No activity this quarter. The vacant Forester II Wachusett position has been transferred to the Natural Resources section to assist with terrestrial invasive species management going forward.
C10	Conduct periodic reviews and monitoring of land management activities and forest conditions to assure compliance and consistency with Land Management Plan.	Little activity this quarter with focus on lot proposals, although some analysis was required for development of the invasive plant mgt. plan.
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.	Ongoing as needed.
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.	Ongoing as needed. Reviewed and provided comments for all potential land acquisitions
C13	Locate, mark, and maintain property boundaries periodically and as needed.	The boundaries were located, flagged, blazed and tagged on the 1.0 mile perimeter of the newly acquired Vaghini property in Sterling.
C14	Develop scope of work and manage contracted property boundary survey work.	Surveyors completed projects early. We received extra slippage Stewardship funds and were able to complete 3 extra projects using the same surveyors.
C15	Document and pursue resolution of all property boundary encroachments.	DCR has implemented a new Encroachment Policy. For now, smaller, simple encroachments have been resolved. Information and documentation for more complex encroachments have been added to the database.
C16	Identify, plan, and oversee non-forest or other unique habitat restoration, field reclamation, and maintenance work.	Withheld putting out requests for bids for Wachusett projects pending results of mowing by WM staff.
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.	No new treatment activity this quarter. Continued development of draft invasive mgt. plan. Interviewed potential candidates for LTS Forestry Assistants but eventually withdrew from hiring. Advertised new Forester II position specifically to administer invasive control projects across DWSP and to lead seasonal team for invasive control and FSI work.
C18	Collect data and maintain datasets, GIS datalayers, and related maps and reports of rare and listed plants and communities.	No new monitoring in Q4. Corresponded with NPT surveyors about joining them for upcoming surveys on DWSP lands.
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.	UAS flights were continued to monitor the gull roost during Q2 and Q3. There was no further activity in Q4. No other UAS missions were done because we have not received approval from EEA to expand the DWSP UAS Program. Additionally, no other individual projects were proposed to EEA for approval."
C20	Continue to work with DCR Asian Longhorned Beetle Program and USDA to oversee beetle eradication in watershed areas.	No activity this quarter. No ALB has been detected in the watershed for over a year.

Task No.	Description	April 1 - June 30 Accomplishments
C21	Hazardous Tree Removal	Responded to numerous potentially hazardous tree inquiries from abutters in both Wachusett and Sudbury watersheds.
C22	Maintain deer exclosures and sample vegetation periodically to assess impacts of herbivore browsing.	Ongoing as needed. No repairs this quarter.
C23	Conducts field inspections of mapped sensitive resource areas, review YOPs and VMPs, and provides comment for ROW Management projects.	Reviewed the Town of Holden Vegetation Management YOP/herbicide application route and wetland resources along the route. Reviewed and field verified resource areas and provided comments for P&W 2023 YOP Comment letter.
C24	Organize, inventory, and categorize permit, lease, and easement information and enter information into the database.	Organized permits and lease agreements and entered them into the database.
C25	Participate in process to transfer lands surrounding Framingham Reservoirs 1 and 2 to DCR Parks.	There has been no discussion on this land transfer
	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.	No activity this quarter for active harassment. Contacted participants to remind them of FID/LTC expiration dates and renewals. Recorded and filed the documents received.
D2	Observe and document the nocturnal roost of gulls on the reservoir weekly during the months of September- March.	Roost counts were completed for the season on April 10th. High count for the quarter was 120 gulls. DOT Aeronautics Program flew drones three times during this quarter. We tested out methods of flight to try to best photograph large groups of birds when they don't fit all in one view of the camera.
D3	Control Canada geese populations at Wachusett Reservoir by treating eggs during nesting season to prevent hatching.	Canada goose eggs from 9 nests at Wachusett and 27 nests at Sudbury were treated. Coyote decoys were deployed on the South Dike and geese were harassed as needed. A coyote decoy has been used as an interpretive display at the bi-annual dam opening. Outreach describing their use is also displayed.
D4	Identify places in MA where human derived food is available for gulls and work to prevent feeding through educational signage, interaction and enforcement.	No activity this quarter.
D5	Aquatic Mammal Control: Remove beaver and muskrat in the Aquatic Wildlife Pathogen Control Zone at Wachusett.	No activity this quarter. Lab results are still pending for fecal pathogens. No new habitat modifications were made this quarter. Previous pipe installations were assessed and maintained as needed.
D6	Respond to problems of burrowing animals on dams and dikes; take appropriate action.	Dikes were surveyed and one animal burrow was treated.
D7	Research and manage for common loons on DWSP waterbodies; provide nesting platforms, capture and sample birds for contaminants.	Seven loon rafts were repaired as needed, deployed, and the loon monitoring season began on Wachusett reservoir. Six nesting pairs were observed with two pair hatching a total of 3 chicks in June and one nest failure. The remaining pairs are due to hatch in July. Attendance to the NELSWG subgroup meetings continue.
D8	Continue long-term wildlife resource monitoring program.	Annual long-term monitoring of wildlife resources commenced this quarter.
D9	Work with MA Department of Fisheries and Wildlife (DFW) to survey for and document breeding bald eagles on the reservoir.	Eagle nest on Wachusett Reservoir was monitored and information was shared with MassWildlife.
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	A new online GIS application has been created for use by the public that shows hunting areas and parking. Analysis of the Wachusett harvest data is complete and the Annual Deer Report has been completed.
D11	Coordinate with the Massachusetts Natural Heritage and Endangered Species Program concerning rare species occurrences and protection	Communicated with State Ornithologist about state listed bird species breeding on Wachusett lands and updated him on kestrel activity.
	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.	Rangers continue to proactively patrol all watershed lands. Rangers are addressing violations by education and if necessary eviction. For the fourth quarter of FY23, there were 6,212 Visitor contacts, 462 violations reported and 14 Parking tickets written.

Task No.	Description	April 1 - June 30 Accomplishments
E2	Continue to cooperate with state, environmental, and local police for help with enforcement when required.	Ranger supervisors and staff continue to work with Massachusetts State Police, Environmental Police and all local Law Enforcement teams in the watershed. Rangers continue to communicate and make proper notifications to all law enforcement entities when necessary. A coordinated effort for Opening Day of Fishing operations was planned with MEP and the spring Dam Day event was planned with MSP and CPD. Rangers also set up an MOU agreement with CSX police regarding individuals on CSX property abutting DCR.
E3	Continue to use DCR social media accounts for advertisement of interpretive programs, including general or emergency information (such as closings).	Education Coordinator and RD fulfilled an interview request from WBUR radio and Spectrum News to promote the spring dam opening.
E4	Develop public outreach regarding allowed uses on DCR Wachusett lands.	Rangers continue to inspect conditions and placement of all the rules and regulation signage throughout the watershed. Rangers posted seasonal updates for regulatory hunting and the closing of fishing season where appropriate.
E5	Continue updates and improvements to access points with signs, gates and improved parking areas. Conduct regular inspections of gates and access barriers.	Rangers continue to inspect conditions and placement of all the rules and regulation signage throughout the watershed. Rangers posted seasonal updates for regulatory hunting and the closing of fishing season where appropriate.
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.	Recurring violations due to changes in Sudbury access policies was discussed internally. Rangers continue to enforce regulations and respond to complaints.
E7	Continue to conduct "special operations" such as night operations, ATV, and snowmobile operations, as needed.	All ranger staff utilize the equipment provided to ranger staff for various patrols. Rangers use boats to patrol the shoreline perimeter efficiently and use ATV/UTV to patrol areas when necessary.
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.	Rangers while proactively patrolling will inspect gates, barriers and access points for improvements. Rangers continue to fill out work orders when necessary.
E9	Update the Wachusett Public Access Plan	A public meeting on the draft access plan was held in person on April 26, 2023 and comments were accepted until May 26, 2023 via the online portal. Required approvals were received on June 14 and the updated plan was posted on the DCR website on June 15. The plan will go into effect July 1.
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.	All ranger staff are proactively patrolling and reporting any type of suspicious person, vehicle or activity to appropriate authorities.
F2	Continue ongoing communication and coordination with local, state, and federal emergency responders; coordinate with MWRA on all security issues.	Rangers continue to communicate with MWRA staff and Security group on any issues where a response is needed.
F3	Continue program of enhancing security infrastructure around Wachusett Reservoir.	Rangers continue to make suggestions for improvements to infrastructures around the reservoir.
F4	Inspect, maintain, and monitor gates, barways, and signage throughout the watersheds for security and access control.	Rangers continue to fill out work requests when repairs are needed to any gate, sign or pipe gates to maintain access and control points.
G. Infrastructure		
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.	Performed monthly inspections and wrote summary reports.
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.	Checked beaver activities at Muschopauge Dam, Unionville Dam and Tenney's-Pond Dam and continued to perform inspections on small dams.
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.	Performed an annual inspection of roads. Development of road work maintenance items is on-going.
G5	Develop annual plan for internal road repair/reconstruction projects.	Roads were inspected and maintenance items were identified. Development of work plans is on-going.

Task No.	Description	April 1 - June 30 Accomplishments
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.	On-going. Road work continues inside Gate 28. Submitted work request for installation of culvert inside Gate 35
G7	Conduct regular inspections of all DWSP BMPs, monitor conditions and maintenance activities, prepare work requests and plans for maintenance and repair projects.	Conducted spring inspection of BMPs.
G8	Evaluate Sudbury watershed access, internal roads and develop work plan, as necessary.	No work done
G9	Layout and oversee construction of Sudbury Boat Ramp at East Main Street	Filed for and received an extension to the Order of Conditions. Planning on beginning work for E. Main Street ramp this summer.
G10	Provide supervision, coordination, oversight, and technical support or assistance for all engineering, construction, and renovation work in Section.	Ongoing
G11	Maintain records and plans regarding property lines, reservoir and facility construction, and maintenance operations.	On-going
G12	Implement annual Major Projects	Regular meetings were held and frequent communications to monitor the statuses of major projects. Submitted RDA to Sterling Conservation Commission for Kush demolition. A Negative Determination of Applicability ruling is forthcoming. Sill repairs have been completed and siding and trim have been installed on 3 of 4 sides of the Lancaster Street barn. Additional cosmetic repairs have been made to the window casings on the interior so that insulation and framing are no longer visible. Window repairs for John Augustus Hall gymnasium were completed.
G13	Coordinate with WM to provide access to water quality monitoring stations and perform occasional maintenance activities at stream gages	Coordinated as needed. Station access maintained on a fixed schedule with WM.
G14	Evaluate and coordinate the monitoring of facilities for compliance with state and federal regulations. Develop and update required documents, as necessary	Performed spill training with entire maintenance staff and several environmental quality staff in attendance. Submitted RFQ for tank inspections to contracts; informed that an RFR will need to be developed since there is no existing contract to address this need. RFR is being drafted. Confirmed that leak detection system is functional in air boat shed.
G15	Maintenance of forest roads, dams, dike, fields, parking areas, drainage structures , snowplowing, boat launch areas, and other management activities.	Ongoing. Watershed Maintenance completed (55) work requests in the fourth quarter. Building Maintenance completed (15) work requests in the fourth quarter
G16	Prioritize and schedule online workorders for division staff and add to daily work plan.	Watershed Maintenance completed (55) work requests in the forth quarter.
G17	Assist division staff with specific workorders as needed.	Ongoing
G18	Maintenance of grounds at MWRA facilities as needed. Clinton (Cosgrove), Oakdale (Shaft One)	Ongoing.
G19	Conduct building maintenance activities, including painting, carpentry, cleaning, minor repairs, and other routine maintenance	Building Maintenance completed (15) work requests in the forth quarter.
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.	Re-decked equipment trailer; staff attended asbestos training; had water meter replaced at SF; Commissioner's table brought to JAH; repaired the end of DCR boat dock; made a ramp for ADA access to gym from inside JAH; assisted with Ranger Academy @ Stillwater Farm; passed fire alarm inspection; held fire drill; p/m'd a/c units at JAH; assisted engineering group with electrical issues at 77 Lancaster St.; installed new Veteran's parking signs; installed new Handicapped Accessible parking signs;
H. Watershed Protection Act		
H1	Continue implementation of the WsPA.	Staff processed 9 Requests for Advisory Rulings , 1 Request for Watershed Determination of Applicability, and 1 Variance Decision. An appeal to a Variance Decision was received and we're working with our counsel to arrive at an outcome which will protect the quality of water in the watershed. The WsPA database was updated to include 11 new WsPA applications this quarter as well as status updates for construction and new information. Staff is in the process of reviewing hard copy files to obtain the information needed to migrate approximately 475 historic WsPA files to the database.

Task No.	Description	April 1 - June 30 Accomplishments
H2	Convene the Watershed Protection Act Working Group regularly to discuss policy and address specific problems related to the WsPA	No formal WsPAWG meeting was held, but WsPA staff interacted regularly via phone calls and Teams to discuss implementation of regulations. Items brought forward for next formal meeting agenda in First Quarter of FY24.
H3	Review permits for watershed towns on a monthly basis with letters sent to property owners of affected parcels.	Building permits were reviewed on a monthly basis to determine if any projects required WsPA review.
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.	Staff sent letters to property owners of recent Approval Not Acquired (ANR) lots in the watershed to inform them of the WsPA Regulations and provide our welcome to the watershed informative brochures and guides.
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.	Coordinated with Holden Conservation Agent on Variance that had filling of Bordering Vegetated Wetland, worked with property owner to supplement plantings and remove invasive species. Contacted Weston and Sampson regarding Variance for Holden DPW Facility, the as-built plans are still being developed and once they're finished the town will request a Notice of Completion.
H6	Provide Town Halls with WsPA maps, brochures and applications on a regular basis.	Provided watershed towns with website link to Watershed Protection Act (WsPA) information, Regulations, online WsPA Map Viewer, Application Forms, along with various WsPA brochures.
I. Education and Outreach		
I1	Review, implement, and amend the Wachusett Interpretive Services Plan.	Watershed Rangers and Interpretive Staff accommodated several end-of-school-year requests for programming including History Hikes, Watershed Wildlife Presentations, Model Watershed Activities, and Fishing Lessons. Watershed Rangers presented engaging wildlife programs to entire grades at 3 schools. The Education Coordinator demonstrated the Watershed Model to 17 classrooms, where students created models and discovered connections and interactions between landforms, land use, and water supply protection.
I2	Coordinate Educational and Outreach programs	Interpretive Services and Watershed Rangers offered 34 programs with an attendance of 5,592 participants, this includes 4,000 attending May Dam Day. Information sent to DCR Digital Strategist requested to be placed on Twitter. Drinking Water Week, promotion of programs, and watershed management was featured on DCR social media. (tinyurl.com/3v6d2rev). Staff returned to Fay School 5/10-5/12 at Sudbury Reservoir for follow up Water Quality lessons. Watershed Rangers and Interpretive Staff accommodated several end-of-school-year requests for programming including History Hikes, Watershed Wildlife Presentations, Model Watershed Activities, and Fishing Lessons. Total student attendance for school programming 1,044 Q4 total. Watershed Rangers presented engaging wildlife programs to entire grades at 3 schools. The Education Coordinator demonstrated the Watershed Model to 17 classrooms, where students created models and discovered connections and interactions between landforms, land use, and water supply protection.
I3	Maintain and enhance kiosks and bulletin boards throughout the watershed.	Watershed Education brochures were updated with coming events and distributed. Two new professional bulletin boards were ordered and will replace the 4 sided kiosks at the OSC and Gate 36.
I4	Perform inventory of signage and make recommendations for improvements and additions of stewardship signs	Rangers have recommended and replaced many signs throughout the watershed. They also continue to update signs at the reservoirs to reflect the changes in the public access plan.
I5	Analyze and update current brochures. Determine need for new brochure topics and develop as needed.	Pool brochure was distributed to Surfside Pool Company in West Boylston.
I6	Partner with other organizations on watershed programs	Maintained relationships with local hiking groups and cross-promoted events with a shared mission of stewardship and water conservation. Attended MEES board meetings.
I7	Provide educational materials, teacher training, and support for Mass Envirothon	Ran the Water Station for the Envirothon Competition at Blackstone Heritage State Park 5/25.
I8	Maintain and update website with relevant news and information	Website updated regularly. Wachusett programs listed in timely manner. Alert banners posted for short-term information. Meeting information for Wachusett related events, including Water Supply Protection Trust, Wachusett Access Plan, and annual fishing season, published in required time frame. Events such as the semi-annual Dam Day provide up-to-date information to the public.

Task No.	Description	April 1 - June 30 Accomplishments
I9	Organize existing photographs and develop an inventory of new photos for Sudbury Watershed	Staff have started to move photos to appropriate folders.
J. Water Quality and Hydrologic Monitoring		
J1	Perform routine tributary sampling twice per month (bacteria, turbidity, field parameters) (WATTRB)	Sampling completed as expected, twice per month. Monthly water quality summary reports were completed and distributed in Mar 2022, Apr 2023, May 2023 during Q4.
J2	Perform Nutrient, Chloride and TSS sampling every month at 10 tributaries, including field parameters (and Shaft 1 when Quabbin transfer is active.) (WATMDC)	Sampling completed as expected, once per month and all data through May 2023 has been imported to SQL server database
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.	A total of 25 phytoplankton samples were analyzed during Q4. 9 profiles were collected at Basin North. Sampling was conducted weekly following the Reservoir sampling plan. No phytoplankton Alert Levels were exceeded during this period and the MWRA buoys are deployed.
J4	Conduct quarterly reservoir nutrient sampling	Nutrient samples and associated water quality profiles were collected on May 9. This event followed the initiation of thermal stratification in the reservoir.
J5	Conduct reservoir bacteria transect sampling monthly or more frequently in conjunction with gull harassment program.	Transects collected once per month in April, May, and June 2023
J6	Produce annual water quality report and document changes to sampling plan in the report.	A final report was completed and posted to the DCR website in Q4
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.	All gages were operational for the entirety of Q4. FY24 JFA executed.
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.	All 6 Mayfly stations operational. 3 have no telemetry due to modem failures. Boards at MD02, and MD06 were switched back to v0.5 due to logging issues. No snow to measure this quarter
J9	Generate solute loading estimates for flow monitored tributaries. Expand to include smaller tributaries and Quabbin transfer when sufficient data has been collected.	No progress this 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.	Shared the recently completed Groundwater monitoring results report with UMass to gain input and comment on future monitoring plans. UMass was able to assist in obtaining multiple citations covering the social aspects of road salt. Planned a progress meeting for the first quarter of FY24.
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.	New bi-monthly water quality data meeting held with MWRA WQ staff to discuss water quality data and issues, challenges, and research needs for water quality has proven to be very helpful and productive. Water quality, phytoplankton, AIS and groundwater monitoring results were presented at summer Res Ops meeting.
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.	Requested winter 2022-2023 salt totals from Wachusett watershed towns. Early numbers show lower totals than in recent years. Some towns used significantly lower amounts of road salt, although it was also a moderate winter. Requested Wachusett watershed salt totals from MassDOT as well. A Citizen Scientist Outreach program was designed and held at the Wachusett dam day, exposing over 4,000 visitors to negative impacts of using too much salt. Several hundred people stopped to ask questions, get water tested, or received pamphlets. Public feedback was positive. Sterling, Paxton, and West Boylston completed their salt reduction projects under the grant program, submitted reimbursement paperwork, and were paid the amount of the FY23 grants. Confirmed with Town of Holden that they will receive the equipment and spend funds prior to June 30, 2023 to then request reimbursement from DCR under the matching grant awarded towards the procurement of a salt brine generation system.
J13	Continue reservoir-wide data collection to increase understanding of reservoir dynamics including stratification, interflow, and distribution of phytoplankton.	Following an increase in Urogenopsis density observed on May 8, profile data was collected outside of routine locations to better understand the distribution of chrysophytes.
J14	Continue monitoring stormwater basins at Rt 12/140 intersection for water quality, algae, invasive species, and mosquito larva.	Monthly monitoring continued during this period. No mosquito larva or cyanobacteria were detected.

Task No.	Description	April 1 - June 30 Accomplishments
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.	Small updates were made to TribTools. WIT was updated for new QC samples collected since the start of CY 2023. QC and calibration summaries added to the Monthly WQ Report. Survey123 forms underwent slight revisions to fix minor issues and improve UE.
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.	No progress. This effort has been postponed.
J17	Ongoing field/lab equipment/supply management (including maintenance and calibration)	New YSI part tracking system established. Projected replacement dates calculated for all parts.
J18	Update and maintain water quality and hydrologic monitoring SOP documents	YSI Pro Quatro Calibration SOP updates mostly finalized
J19	Develop Quality Assurance Project Plan (QAPP) for Water Quality and Hydrologic Monitoring Programs	QAPP fully reviewed and finalized
J20	Continue to work with MWRA, Quabbin EQ, NEIWPC and other stakeholders to characterize cyanobacteria and cyanotoxins in the reservoir.	Biology staff resumed cooperative cyanotoxin sampling with MWRA for the summer season. Samples are collected for MWRA/lab analysis every other week and DCR continues to record cyanobacteria data along with the routine phytoplankton sampling program.
J21	Initiate development of a plan for HAB response in the watersheds.	Components of the draft cyanobacteria response plan were tested during a cyanobacteria aggregation that occurred in mid-June. Wildlife cameras were deployed to track bloom duration and status.
J22	Conduct benthic macroinvertebrate sampling, continue identification and assessment of historic samples.	Macroinvertebrate samples continue to be identified and enumerated. Priority has been given to samples from the Quinapoxet River Mill Street site ahead of planned dam removal.
J23	Continue cooperative study of current population status, life history, and sustainable yield of lake trout.	No activity this quarter.
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.	DCR completed shoreline surveys for smelt spawning activity. No evidence of smelt spawning was observed.
J25	Conduct creel survey during the 2022 fishing season (April – November) and begin Creel Report.	Creel Survey data quality control is underway in preparation for report writing.
J26	Develop a study to identify trends in the long-term phytoplankton and water quality data sets and identify variables influencing these dynamics.	The new phytoplankton action plan and alert levels have been implemented for the 2023 season. Final approval by MWRA and DCR is pending.
J27	Determine needs for stormwater sampling based on analysis of historical data. Sample storm events as determined necessary.	No activity this quarter
J28	Investigate the use of eDNA for water quality applications including bacteria source tracking and invasive species.	No activity this quarter.
K. Watershed Monitoring and Assessment		

Task No.	Description	April 1 - June 30 Accomplishments
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.	10 EQ files were created; 4 Active files, 4 Resolved files, and 2 Watch files. EQ staff investigated the following: (no water quality issues or has been resolved.) Submitted NOI and Restoration Plan (approved) for hazardous tree removal within the Riverfront Area along Wachusett Dam Lower Rd in Clinton: Restoration work completed. NOI hearing closed and Clinton ConCom drafting OOC. Car fire on the I-190 N off-ramp, Gate 35 forest fire, High flow at French Brook after significant rain event, Cleared lot on Campground Road - contact Sterling TH to determine status, Car accident at the I-190 N on-ramp, New section of pavement on DCR property (Rt 12), Thomas Street manhole overflow: possible SSO with impacts to road and unmitigated flow into Quinapoxet Basin. EQ staff & Watershed Maintenance crews responded - deployed sandbags and lime as control/mitigation measures. Samples were collected for bacteria and chemistry. Overflow was determined to not be sewerage. EQ staff worked with Watershed Maintenance staff to remove a large tree from Trout Brook. EQ staff met with manager of Surfside Pool company re the storage of pool chemicals outside (this needs to be monitored). MADOT upgraded the drainage structure in front of 264 Lancaster Street (RT 110) - Installed riprap and a paved waterway/berm near the catch basin. RT 140 Sterling - Sterling DPW removed accumulated sediment and vegetation from the gutter line along a section of Rt 140; erosion controls in place - no WQ issues. Water main leak on RT 70 in Boylston causing erosion - water running down Diamond Hill Road - No WQ issues observed. Elevated bacteria levels were detected at Gates Brook 4. The source is still unknown. Samples have been taken that pinpoint the source to upstream of Chapman Ave - further investigation is needed to isolate/determine potential sources. Surplus fire trucks stored on WBDPW property adjacent to West Boylston Brook have been removed by the Wbfd. The following was passed along to WsPA staff and found to be no issue: Road work on Rt 12 at Greenland Road Sterling.
K2	Provide technical assistance to state and municipal boards and commissions.	Researched assigned sections of Southboro and Wachusett watersheds. Reviewed agendas and minutes for watershed Conservation Commissions. Relevant issues referred to appropriate staff for review/resolution. Few issues required attention.
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	The new OneVision dashboard was produced by GIS and EQ staff that visually displays all EQ apps (WsPA, EQ, Ag, CGP) plus the sewer/septic datalayer all in one place and on one map.
K4	Manage the Wachusett Watershed Hydrology Mapping Project. Project proceeds within selected subwatersheds and subbasins.	Field work continued in April. Desktop editing in ArcGIS Pro began during April as well. Subbasins in the Quinapoxet Reservoir were targeted. Resolution of problem areas highlighted. Participation in the EEOA internship was finalized. Two interns selected. Training conducted. Reservoir and Gates Brook subwatersheds targeted. Field work with interns on limited basis.
K5	Complete Gates Brook District EQA and use recommendations to develop tasks for FY24 Work Plan.	Gates Brook EQA complete. Recommendations were identified and will be used to develop tasks for the FY24 Work Plan
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.	Two new releases in Wachusett Watershed. One new release in Sudbury Watershed. They are all being monitored.
K7	Inspect all agricultural operations in Gates Brook District and continue to compile an inventory of agricultural sites in Wachusett/Sudbury using iPad app	Staff started monitoring agricultural sites in the Waushacum District in preparation of the upcoming EQA.
K8	Develop and implement outreach strategies and programs for topics identified through EQAs	Updated and sent out Pyrethroid letter to companies providing mosquito and tick control/treatment in Watershed communities.
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	Research has been conducted for updates on turf field PFAS as a project is being proposed in the watershed utilizing artificial turf. Request for information to DEP; awaiting a response from their research lab.
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.	Not yet accomplished. No MassDOT projects within the watershed this quarter. Regular review/check of MassDOT ProjectInfo.
	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.	Surveys for early season growth were conducted at Clamshell Ponds and the Lily Ponds.

Task No.	Description	April 1 - June 30 Accomplishments
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.	No new infestations were detected this 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.	Assessment and treatment of South Meadow Pond was initiated including treatment of Curly-leaf Pondweed. Fluridone treatment targeting Hydrilla will be ongoing for the 2023 growing season. Fluridone treatment for Brittle naiad was also initiated in the Lily Ponds for the 2023 season. A June survey of Clamshell Pond resulted in no submersed AIS observations.
L4	Continue to use appropriate methods to prevent the spread of Phragmites along the reservoir shoreline.	Results of an initial survey conducted in June show that above-ground biomass has been reduced such that that initial management this summer will focus on hand-pulling.
L5	Perform aquatic vegetation surveys prior to reservoir AIS management projects. Provide results to MWRA and contractors to guide plant removal efforts.	DCR assisted MWRA with drafts of the RFPs for DASH, QA, and macrophyte surveys, including prioritization of management areas and timing based on historic growth of plants.
L6	Monitor, advise, and assist contractors with plant removal operations as necessary, including boat decontamination inspections and data management through ArcGIS Online apps.	ArcGIS Online tools are receiving updates based on program advancements and changing data needs.
L7	Enforce the decontamination procedures for all watercraft entering the reservoir by inspecting each vessel and collecting completed decontamination certification forms.	No watercraft external to DCR launched this quarter.
L8	Continue to educate ranger and interpretive staff on AIS and other water quality topics for incorporation into routine education program.	Aquatic biologists are collaborating with other DWSP staff on a watershed sporting activities mapping application which will provide opportunities to educate the public on our AIS programs and policies across the watersheds.
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.	No new observations of beaver activity were made this quarter.
L10	Update DWSP AIS web pages	No activity this quarter.
M. Wastewater Management		
M1	Provide plan review and interpretation, if requested, to Boards of Health.	No requests from any BOHs this quarter.
M2	Compile septic system information (installation date, repair date, location, etc) from watershed communities in wastewater database. Include linked electronic plans where available.	Ongoing. Regularly reviewed minutes and communication with BOHs /Town Clerks to obtain septic inspection info in order to update wastewater database. Entered information compiled into Sewer/Septic Tracking Database.
M3	Obtain sewer connection information from Holden and West Boylston; add to Wastewater database and GIS datalayer	Ongoing. Still waiting for a response from West Boylston DPW to provide sewer connection information.
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.	One entity has paid all bills in full. Two entities have submitted partial payments, but checks were made out to DCR and therefore will be returned. One entity has made no payments, with no explanation. DCR Legal and Commissioner's Office are in the process of drafting language and trying to set up meetings to address this ongoing issue with elected officials. MWRA has installed laser meters at both metering stations.
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).	Met with Legal and Commissioner's Office to discuss options going forward. Legal is drafting letters to look into the option of transferring ownership of the sewer line to another entity. Issues are still not resolved.
M6	Evaluate and manage new trunk line connections. Monitor trunk line for encroachments; resolve any problems.	No new requests for sewer connections. No new encroachments. MWRA crews continue to work to clear debris from the easement after multiple storms brought down trees and branches.
M7	Address I/I issues within trunk and relief sewers per DEP requirements (this is dependent upon DEP acceptance of our I/I submittal).	All information has been compiled. Final report, links to AGOL info to be supplied to DEP in July.
N. Stormwater Management		
N1	Treat direct discharges at Rt 110 Sterling	DOT will continue to fund the project. Tighe and Bond has submitted the 75% design for review. DCR is collecting pond elevation data for Tighe & Bond modelling of the pond's hydrology. Project construction is anticipated to occur in FY25.

Task No.	Description	April 1 - June 30 Accomplishments
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.	Field work was continued in April. Desktop editing in ArcGIS Pro began during April as well. Subbasins in the Quinapoxet Reservoir were targeted. Resolution of problem areas highlighted. Participation in the EEOA internship was finalized. Two interns selected. Training conducted. Reservoir and Gates Brook subwatersheds targeted. Field work with interns on limited basis.
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.	DCR Salt Sleuths table at Sterling DPW open house
N4	Create geometric network in ArcGIS to route stormwater flows through drainage network.	No activity this quarter
N5	Modify subbasin lines in ArcGIS based on results of Wachusett Watershed Hydrology Mapping Project.	Field work was continued in April. Desktop editing in ArcGIS Pro began during April as well. Subbasins in the Quinapoxet Reservoir were targeted. Resolution of problem areas highlighted. Participation in the EEOA internship was finalized. Two interns selected. Training conducted. Reservoir and Gates Brook subwatersheds targeted. Field work with interns on limited basis.
N6	Conduct regular inspections of all construction sites greater than one acre.	Ongoing. Regularly monitor CGP sites for site compliances and check NPDES site monthly for status of permits. Added 4 new CGP sites to CGP database to start routine monitoring. Worked with GIS Coordinator to revamp CGP database.
N7	Continue work with local DPWs to identify locations of concern, evaluate options for BMP installation, and ways to cooperatively implement recommendations.	Met with WB DPR Director to discuss partnering on a solution of current discharge to Quinapoxet Basin from roadway
N8	Conduct culvert assessments for culverts identified in Gates Brook District and add information into NAACC database	No culvert assessments were conducted this quarter.
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	Moran Environmental Recovery conducted an OPA 90 class and Terrestrial Spill Response training with 12 attendees.
O2	Update information in the Comprehensive Emergency Management Plan, Training & Exercise Plan, EAPs, and other emergency response plans.	Wachusett Reservoir RR Exercise AAR-IP and Unionville Pond Dam TTX were finalized.
O3	Organize and maintain emergency response supplies and services.	Received new Regional Response trailer. The old trailer will be utilized as a Fire Response trailer. Surplus stewardship funds were used to acquire some fire equipment.
O5	Provide and coordinate ICS, emergency response and safety trainings to appropriate staff. Work with other agencies to provide trainings and exercises	Developing a wildland firefighting training for Wachusett Rangers.
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	A sanitary sewer overflow occurred on Thomas Street by the rail trail. DCR responded to the scene to prevent the SSO from going into the Quinapoxet Basin and mitigate with lime.
P. Support		
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.	
P2	Administer the Payment in Lieu of Taxes (PILOT) program.	Completed all PILOT obligations for FY2023. Total FY23 PILOT is \$8,479,324.48. Total amount paid to Wachusett towns was \$3,564,910, or 42% of total. The amount paid to Sudbury towns was \$855,461, or 10% of total PILOT.

Task No.	Description	April 1 - June 30 Accomplishments
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.	New CGP database and management tools completed and in-use by EQ staff. Worked with EQ staff on development of "One Vision" a new Dashboard that brings all newly developed databases together into one place. This allows EQ staff to visualize WsPA, EQ, CGP, Ag and Sewer/Septic databases on one map. A series of filters and an address search allow staff to easily see what is going on at or around any parcel; links at the bottom of the One Vision dashboard allow staff to easily access any of the other management hubs. Phase 1 of the new Hunting Map development is completed; this name was changed from Sportsman Map as that seemed too gender-specific. This new map will release on July 1. Phase 2 development of a Fishing Map will start up in this fall. A slight modification was made to the Pool Vehicle Reservation system to allow Jussara to easily update existing reservations.
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.	All layers relating to the new Hunting Map were added into the Data Inventory and shared with staff via the Data Store group in ArcGIS Online. These layers were also updated a number of times. The new 2023 WsPA Affected Parcel and Potentially Affected Parcel layers were created, published to AGOL and added to the WsPA public viewer. Worked with Paula D and Craig to get the MDC Manhole layer updated in AGOL.
P5	Provide staff with training in desktop, mobile and online GIS applications.	A series of 4 ArcGIS Pro trainings were offered to staff each week in June. Trainings were recorded and training documents are available to staff via the DWSP-GIS Team. A new workflow document that reviews ways Arcade can be used to customize maps and apps in ArcGIS Online was created and added to the DWSP-GIS Team as a new resource for staff.
P6	Train staff in GIS on an as-needed basis to provide knowledge needed to complete basic GIS-related tasks.	Completed Editing in ArcGIS Pro training document.
P7	Assist staff with GIS-related projects by providing maps, data analysis, data exports and data collection.	Created Manhole, Trunk, And Relief Sewer Line datalayers/attribute tables with Civil Engineering staff for CERO DEP. Worked with Bill Moulton on updated emergency response maps that contained bathymetry data. Worked extensively with Dave Getman on EQA reports.
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 ArcGIS Pro and added to the appropriate location in the DWSP-GIS Team.	Maintenance to Data Inventory & Online data available to staff completed as necessary.
P10	Create parcel maps for Land Acquisition Coordinator meetings with landowners and MWRA board. Create and maintain one Story Map per Land Acquisition Panel meeting, with one section per potential property.	Completed LAP story maps for the Dale, Porter, Mecum, Natty Brook Estates, Power and Salloom properties.
P11	Complete GIS-related special projects	Modifications made to WPP and Wachusett Public Access Plan maps. Provided the Town of West Boylston with Sewer Hookup status information and the Sterling Land Trust with mapping assistance.
P12	Operate administrative offices including answering phones, greeting visitors, scheduling interviews, receiving orders for office supplies, updating emergency contacts and other documents as needed. Managing the BHP unit 2 & 3 weekly schedules.	Continued providing general administrative duties for the department. Answered phone calls and checked voice messages daily. Provided reception for visitors and others using the building for meetings/trainings. Processed daily mail including letters/parcels metered and delivered to the post office. Picking up, sorting and distributing daily incoming mail to staff/department. Continued to assist staff members with requests for room reservations at JAH and also vehicle reservations. Updated information on the portal for new hires, former employees, vehicle information, forms, etc.. Received and recorded monthly mileage reports.
P13	Provide payroll assistance and personnel services for all Section employees.	Continued providing payroll assistance and personnel services for all section employees. Performed onboarding/offboarding tasks and worked to resolve several issues with staff paychecks.

Task No.	Description	April 1 - June 30 Accomplishments
P14	Provide contract administration, financial management, record-keeping, purchasing of goods and services, and other financial support services.	A total of 70 encumbrances were submitted and a total of 216 invoices were paid for Wachusett. Notable purchases/services in the 4th quarter include multi-year contracts for Aquatic Vegetation Assessment & Treatment Services at SMP and as-needed Herbicide Application Services at Lily Ponds, purchase of Commercial Grade Battery Electric Lawn Equipment using Academy Raffle Funds, large office furniture order with Staples, and an increase with Tighe & Bond to provide additional Hydraulic Modelling. Utilizing Land Stewardship slippage, Fire Equipment & Supplies, soil aggregate materials and additional survey work encumbrances were done. A total of 10 encumbrances were submitted and a total of 13 invoices were paid for NR.
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.	Building wide Wi-Fi has been installed but not yet active. Additional access points being added to main panel. Updated cabling for direct network connection scheduled during the summer.
P16	Training to Administer Logging Permit program, including mailings, bid openings, financial management, database management, permit and key issuance, etc.	Continued to collaborate with Forestry reviewing the Timber Sales database for lot information such as harvest expiration dates, completion dates, financials, etc. Prepared correspondence for the RD to review and sign. Updated physical and electronic files.
P17	Plan and implement vehicle and equipment purchases and leases.	Received two new tractor mower decks for our farm tractors.
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.	Garage Staff completed 47 work requests in the forth quarter.
P19	Complete watershed-wide vulnerability assessment to identify potential impacts of climate change on the water supply	Staff involved with NetZero committee- attending meetings and site walks. Assessment has not been completed but climate change has been taken into account for all watershed projects.
P20	Develop the new 5 year Watershed Protection Plan	Draft sent to MWRA for review on 4/4/2023. MWRA's comments were integrated into final draft, which was submitted to MassDEP on 5/8/2023. DEP sent back their comments on 5/26/2023; concerns were relatively minor, focusing on a few formatting issues, typos, and some policy clarifications. The summary of their review was, "Overall, the organization and content of the plan is really good, an improvement from the last plan. The update provides DCR staff, the public and others with a very useful history and current status of reservoir operations and watershed programs and is very reader friendly. The five-year action plan is impressive and the incorporation of climate change information throughout the watershed programs is excellent." Completed Plan, integrating DEP's comments and enhancing the layout with pictures and pull quotes, was submitted to DEP for approval on 6/26/2023.

Quabbin/Ware FY 23 Fourth Quarter Report



Update on selected tasks in Quabbin/Ware Work Plan for April 1 to June 30, 2023.

Task #	Task Description	Quarterly Progress
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.	Three Quabbin projects went to record this quarter: a 32-acre fee gift in Hardwick (Zglobicki), a 29.4 acre fee project in Wendell (Simon), and a 32.8-acre WPR gift in Petersham (Petrie). One Ware River project went to record this quarter: a 72-acre fee bargain sale in Rutland (Nelson Calkins Trust). Seventeen projects are currently underway at various stages of due diligence including: 8.9-acre WPR and 128 fee transfer in Petersham; an 168-acre WPR and 73 acre fee transfer in Barre; 101-acre, 15.5-acre, and 35.5-acre WPR and a 5-acre and 31-acre fee project in Wendell; a 6.8-acre WPR in Rutland; 70-acre, 25.5-acre, 7.5-acre and 50-acre fee projects in Hubbardston; a 47-acre WPR in Hubbardston, and a 1.5 acre fee transfer in New Salem. Nine projects are in Quabbin; six projects are in Ware River.
2	Develop individual parcel presentation materials and meet with MWRA Board for approval.	One Quabbin project was approved by the MWRA Board on April 12: a 168-acre WPR acquisition in Barre (Quabbin).
3	Communicate with and convene LAP meetings to review parcels and prioritize land purchases.	A virtual LAP meeting was held 6/13. Two Quabbin fee projects and one Ware River fee project was approved.
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.	Of the projects closed this quarter two were gifts and one was a bargain sale: a 32-acre fee gift in Hardwick (Zglobicki), a 32.8-acre WPR gift in Petersham (Petrie) and a 72-acre fee bargain sale in Rutland (Nelson Calkins Trust). Of the ongoing projects, work continues on two proposed donations (8.9-acre WPR in Petersham and 6.8-acre WPR in Rutland) and four proposed bargain sales (168-acre WPR in Barre, 70-acre fee transfer in Rutland, and 70-acre, 7.5-acre and 50-acre fee transfers in Hubbardston). In total, one donation is in Quabbin and one in Ware River, and one bargain sale is in Quabbin and four are in Ware River.
B. Watershed Preservation Restrictions		
1	Monitor WPRs on a regular basis, following monitoring procedures, to meet schedule of monitoring WPRs every 1-3 years.	WPR Coordinator and Regional Monitors completed 19 WPR monitoring visits, including 9 Forest Legacy visits. WPR Coordinator assisted Regional Monitors with training, monitoring visits, and report writing as needed. WPR Coordinator reviewed all monitoring reports completed by Regional Monitors.
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.	1 baseline completed this quarter (Petrie).
3	Meet with Restriction Stewardship Working Group and confer with legal to respond to enforcement issues and requests to exercise reserved rights.	Restriction Stewardship Working Group met once this quarter. WPR Coordinator continued working with DCR-Parks stewardship staff on updating the Enforcement Procedure.
5	Implement WPR records procedure with DCR records manager.	WPR Coordinator spent 1-2 days/week at the Boston office culling DWSP land files as part of the File Digitization Project (April-May).
6	Explore additional ways to reach out to landowners through the use of social media and web-based content.	WPR Coordinator and Jim Taylor completed the second issue of A Watershed Moment w/ a new "Notes from the Field" StoryMap and sent it out to WPR landowner email list.
C. Land Management		
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..	Completed field reconnaissance, mapping, and narrative for PT-24-04. Led site visits to all 4 FY24 proposals (NS-24-12, NS-24-24, PT-24-09, PT-24-04) with NR staff, and to 2 of them (NS-24-12, PT-24-04) with the state archaeologist. Completed field reconnaissance, mapping and narratives for both proposals (WR-24-24, WR-24-44), made updates as needed. Held multiple NR and Archaeologist site visits for both proposals. Completed write up and toured four FY 24 harvest proposals in Quabbin South. Completed HA 24-5 write-up and toured proposal with NR, discussed road work with WM.
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.	All lot proposal narratives and maps were finalized and distributed to foresters and reviewers. All internal reviews were completed. All proposals were toured and some were revisited when Cultural Resource office staff came out to see specific lots at their request. Final internal review document pending potential updates resulting from the EEA Forestry Guidelines review committee. Vernal pool surveys were completed for the FY24 DWSP Quabbin and Ware River watershed proposed forestry lots. Wildlife habitat review of FY24 lots are in progress. The DSWP wildlife staff held a vernal pool workshop at Quabbin for DCR parks foresters.
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.	No lots were allowed to be put out to bid this quarter. Foresters have five lots marked and ready to go out as soon as permission is granted by the administration.
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.	Foresters continue to supervise two active harvests. Foresters also supervised permitted access across DWSP property by a logger to facilitate an active harvest on an abutters property. Foresters have worked diligently during adverse weather conditions to ensure that BMP's are being followed and DWSP property is protected. Two small oil leaks caused by logging equipment breakdowns were detected quickly and cleaned up quickly to successfully ensure that no water resources were impacted.

Task #	Task Description	Quarterly Progress
9	Continue to implement long-term paired watershed monitoring to assess impact of DWSP forest management on tributary water quality.	Due to staffing constraints, EQ focused primarily on maintaining the routine sampling necessary to keep the project on timeline during this quarter. Event-based sampling and monthly sampling targets were met, aided by coordination with Watershed maintenance and MWRA staff. EQ met quarterly sampling goals for storm-event monitoring, collecting a 2" rainfall event in April 2023. Event sampling continues to be carried out on a quarterly interval. Review of the calibration period report provided important insights and considerations from DCR staff that will aid in finalizing the calibration period report and development of the subsequent final reporting.
10	Conduct periodical regeneration and invasive species surveys to monitor forest health and development resulting from silvicultural activities or other natural disturbances and processes.	Foresters completed Forest Diversity Enhancement scouting and prioritization. Foresters have begun to release desired species in high priority openings.
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.	Foresters completed assessments on the Simon and Caulkins acquisitions.
14	Locate, mark, and maintain property boundaries periodically or as needed.	Foresters maintained approximately 8 miles of DWSP property. Foresters established boundary lines on two new acquisitions.
15	Develop scope of work and manage contracted property boundary survey work.	Two projects were completed this quarter, one in Hubbardston and one in Petersham. Thirteen monuments were set, and two plans were recorded. One encroachment was documented.
17	Identify, plan, and oversee non-forest or other unique habitat restoration, field reclamation, prescribed fire implementation and maintenance work.	Completed draft burn plan for Gay's Hill Heath, and sent it to Fire Control for technical review. Acquired permits from MESA, and DEP for prescribed fire and activities related to fire on Gay's Hill Heath. Identified potential additional oak woodland restoration on the Prescott Peninsula. Started looking at Pottapaug Hill restoration work, specifically for the conservation of a state-listed plant. A new Statewide contract was developed and approved. The new contract replaces FAC103 and went into effect on April 1st. The new list was used to solicit vendors for invasive species contracts for two sites in the Ware River. Contract work using EEA Stewardship funding for Barre Heath and Riis Hill was completed in June of 2023. Twin Hill was not revisited this year as previous work was highly successful. Completed mowing of fields on Prescott Peninsula. Oak Hill fields in Ware river were completed with various equipment including bulldozer and forestry mulching head. Also two flail type mower heads were purchased for our mini excavators to assist with these tasks on both watersheds.
18	Maintain the non-silvicultural lands described in the land management plan (e.g. viewsheds, gravel pits).	202 viewscapes have been completed for the season including off highway locations in N.Salem. Pit activity was minimal due to seasonal restrictions on two of them. Reclaimed Oak hill fields. Constructed a parking lot for the public at the Prison camp area and regraded road around the cell block.
20	Collect data and maintain datasets, GIS datalayers, and related maps and reports of rare and listed plants and communities.	Ginny monitored purple milkweed and corresponded with NHESP regarding development.
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.	UAS flights ceased after the gull roost monitoring season concluded. No other flights were done because we still have not received approval from EEA to expand the DWSP UAS Program. Additionally, no other individual projects were proposed to EEA for approval.
23	Update and Implement Quabbin Park Operation and Maintenance Plan	Prioritize the mow plan and complete weekly tasks with a smaller staff. New ventrac mower is a tremendous help on maintaining the slopes.
24	Implement Quabbin and Ware River Road Management Plan	Repaired drainage on section of Shearer Rd. Installed 3-12" culverts. Graded and rolled gate 8 road. Graded the 17 road. Graded Mount Pleasant Road on Prescott. Dug out culverts along Hell Huddle Road. Installed culvert and improved drainage on Griswald Road (prescott). Scraped, graded and repaired the gate 35 road. Started to repair Mary Tamplin road in Petersham. Road graded Granger, Adams, Gilwee roads total miles 2.25. Road grading repairs on Prison Camp, Whitehall, Coldbrook & Ruben walker total miles approximately 7.5 miles. Fourth quarter Rice Road bridge approaches, culvert work and road widening project is complete. Completely rebuilt Whitney Hill road in Petersham and vastly improved drainage on the 35 road. Both roads have always had issues with improper drainage.
D. Wildlife Management		
2	Observe and document the nocturnal gull roost on Quabbin Reservoir.	Gull roost observations continued into mid-April utilizing drones to photograph and document the nocturnal roost on the Quabbin Reservoir. Two nights of roost observations utilizing the drones took place during this quarter with 281 gulls on April 4th and 171 gulls on April 13th, the final night for the season.
3	Control Canada geese populations on Quabbin Reservoir (focus in the Bird Harassment Zone) by treating eggs during nesting season to prevent hatching.	The Canada goose control zone was surveyed for active nests; there was 1 nest located and 7 eggs were treated to prevent hatching. Five active goose nests were located on Pottapaug Pond and four were treated. A total of 18 eggs were treated in four nests. The adult pair at the fifth nest would not budge from the nest so 5 eggs were left untreated. There were no reports or observations of geese on the dam or dike this quarter. A coyote decoy was placed on the lawn near the hangar after geese were observed utilizing the area on multiple occasions. Barrier fencing was placed on the hangar ramp and fencing remained closed at each end of the Winsor dam to prevent geese from accessing these areas.
4	Identify places in MA where human derived food is available and work to prevent feeding through educational signage, interaction and enforcement.	Monthly collaborative surveys continued into this quarter to identify new areas where human-derived food is made available to gulls. No new areas were found.
5	Remove beaver and muskrat in the Aquatic Wildlife Pathogen Control Zone at Quabbin. Address beaver concerns outside the control zone.	Three beaver were removed from boat cove and fecal samples collected from two of them. The fecal samples will be submitted with all other fecals samples for testing. Beaver removal at the Wax Pond site was completed. Two new flow devices were installed this quarter (one at Quabbin, one at Ware River) and two flow devices were repaired (one at Quabbin, one at Ware River). Active sites continue to be monitored regularly and all other sites monitored periodically.
7	Research and manage for common loons on DWSP waterbodies; provide nesting platforms, capture and sample birds for contaminants.	Eleven loon rafts were repaired as needed, deployed, and the loon monitoring season began on Quabbin reservoir, Pottapaug Pond and O'Loughlin Pond. Fourteen nesting pairs were observed in May and June. Attendance to the NELSWG subgroup meetings continue.

Task #	Task Description	Quarterly Progress
8	Continue long-term wildlife resource monitoring program.	Long-term wildlife resource monitoring for birds were completed on the habitat restoration areas located in the Quabbin and Ware River Watersheds. The annual Breeding Bird Surveys were completed at Prescott and Petersham established routes in June. In addition bird surveys were completed at the habitat restoration areas on Quabbin and Ware River watersheds and grassland fields at Ware River. Quabbin eagle surveys began alongside the loon monitoring program. Whip-poor-will surveys were completed at all focus areas, Quabbin park and the Prescott peninsula.
10	Administer the applications, permits, and orientations for the annual Quabbin Controlled Deer Hunt; analyze results of hunt.	Results from the Quabbin hunts were analyzed and finalized. The 2023 results and plans for 2024 were published in the 2023 Deer Report. NR met with staff to discuss plans for the upcoming deerhunt in FY24. A lot of work was done to revamp the Deer Hunt webpages and Deer hunt maps. A new online mapping experience was developed with DWSP GIS team to make it easier for hunters to identify where they can hunt and what permit(s) they need. https://www.mass.gov/dcr-watershed-hunting MAP: https://experience.arcgis.com/experience/6f29d9152ce24f88880ab0eb180def4 All applications were updated and posted in preparation for the July 1st (FY24) application date. Smartsheet will be used again to provide hunters with a free, online form to apply for the Quabbin hunts.
12	Finalize, get approval, and implement the deer management plan for Quabbin Park	Updated the Quabbin Park Hunt briefing to send to the new Commissioner.
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).	Watershed Rangers proactively patrol watershed lands to ensure compliance with DCR regulations and policies 7 days a week. Watershed Rangers tallied a total of 7,160 visitor contacts and 146 violations for 4th quarter. Quabbin Rangers tallied a total of 5,152 visitor contacts and 32 violations. Ware river tallied a total of 2,008 visitor contacts and 114 violations. Two cameras were installed at the chain-link fence to Shaft 6, at the request of MWRA, 5/5/23. The fence was presumably rammed into with a vehicle on two separate occasions, within a three-week period of time. Cameras are in place to try to capture vehicle information (make, model, license plate). Since installation, no additional occurrences have taken place. Rangers periodically check the battery life and photos caught to date. No suspicious activity noted.
2	Continue to cooperate with state, environmental, federal, and local police for help with enforcement when required.	Watershed Rangers continue to cooperate with state, environmental, federal, and local police for help with enforcement when required. River/Small Waterbody Spill Response completed on the Ware River at the 122 canoe launch. New Ranger and MEO staff in attendance. Practical, hands-on experience using the equipment from the On-Water Spill Response Trailer: throw ropes, large sling shot, boom, hand tools. Simulated spill and clean-up.
3	Use Agency social media accounts for advertisement of interpretive programs, including general info or emergency info (e.g., closings).	IS staff has reviewed the website and provided corrections and updates. We have collaborated with Wachusett IS staff to promote events via agency social media.
4	Continue to implement Quabbin and Ware River Public Access Management Plans. 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.	Watershed Rangers tallied a total of 7,160 visitor contacts and 146 violations for 4th quarter. Quabbin Rangers tallied a total of 5,152 visitor contacts and 32 violations. Ware river tallied a total of 2,008 visitor contacts and 114 violations.
5	Regular meetings of the Signage Committee.	Quarterly meeting was conducted in June to review projects completed, underway, and planned. New information signs posted and gates repaired and repainted at Shaft 12 and Shaft 8 gates. Significant effort invested in replacing and updating signage throughout the complex for renaming of the Quabbin Visitor Center to the Les and Terry Campbell Quabbin Visitor Center
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.	BLA season is in full operation. A fifth staff member was added to each area this season. BLA II had one staff resign their position so BLA II is operating with four staff for the remainder of the season. FOTL is filling in daily supervisory duties due to regular supervisor being out on leave.
8	Oversee data management for Quabbin Boat Seal Program	Minimal changes were made to established workflows for Quabbin Boat Seal records data collection in FY23. Records of Quabbin private boat entry and private boat decontamination continued to be imported and processed through AGOL and R-based tools and checked by former EAI (now EAI). Coordination on an authoritative list of boater records continues to be led by Management, Admin, GIS and Ranger staff, with EQ staff providing input and technical support as needed.
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.	WR Rangers checked in with the returning Comet Pond beach F&PI at the beginning of the season- introduced him to our new WR Ranger. Some parking enforcement has been necessary at the Comet Pond boat ramp lot. Rangers have issued parking citations, as needed. Long Pond users are enjoying the newly improved and repaved boat ramp.
14	Finalize Ware River Public Access Management Plan Update	Several internal meeting and discussions with the Secretary's office during this period to discuss outstanding issues on a path to finalizing the plan.
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.	Watershed Rangers continue regular ranger patrols to provide watershed security. Perform daily security checks at key access points and MWRA facilities. Use daily e-logs to record all encounters and violations. Produce periodic reports.
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.	Trade group is staying up on gate maint. (scraping, priming, painting) throughout both watersheds. Sign maker is in the middle of a daunting task of updating/replacing border signs and informative signs. Added new kiosk by VC parking lot. Also new signs were installed for the main entrance/visitor center.
4	Work with local state and federal responders to ensure current agency emergency contact information.	Emergency contact information updated via email. Ranger Captain and Lieutenants also met with MEMA dispatchers in Framingham to discuss protocols and other pertinent information.
G. Infrastructure		

Task #	Task Description	Quarterly Progress
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.	<p>the MWRA Winsor Dam Intake Building Maintenance project (OP-449) kicked off on 5/22/2023 with contractor mobilization and site setup. DCR staff was asked to temporarily remove bollards at west end of Winsor Dam, and the contractor replaced them with construction barriers to give them flexibility on deliveries. The containment boom and turbidity curtain were deployed that same week as part of the project, serving as a safety measure for when cleaning begins on the outside walls of the building. June work included the contractor arranging for a crane to come onsite to remove a swath of riprap along the north and south sides of the building, as to allow them access to previously covered sections of wall. It took approximately four days of crane work to remove the rock, which will be placed back into their original locations towards the end of the project. By the end of June the contractor had washed the south wall, had exterior and interior abatement of the south windows, and cut out and repointed approximately 90% of the south wall. The north wall is slated for the same procedure in July, followed by the water-facing west wall. DCR electricians were able to begin installation of a weather station that is to be mounted atop the Intake Building, and will complete their work when contractor staging is set up for the water-facing west wall. An MWRA maintenance crew were also onsite in June to core a ~2" hole through the west wall that will allow for conduit to pass through as part of the weather station connections.</p> <p>A Goodnough Dike drainage run on the east side of the downstream embankment showed signs of porcupine living inside near the outfall. Manhole covers were popped open along the drainage run, and dry conditions were observed. DCR will be involved in an MWRA effort to video the pipe run in FY24, kickoff is scheduled for August 2023.</p>
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.	<p>WM staff breached beaver dam structure at Wax Factory Pond Dam and water levels have returned to normal.</p> <p>Preliminary outreach made to the New Salem Conservation Commission, Mark Stinson of MA DEP and DCR Green Docket concerning condition of Keystone Bridge in New Salem. In April, staff met with DCR SP bridge engineers, DCR Cultural Resource staff and representatives from MIG Corporation to evaluate remedial options to shore up the collapsing SE spandrel wall.</p> <p>In May, DCR WSP staff met with senior DCR Engineering staff to discuss the potential for remedial actions to be taken to shore up the collapsing spandrel wall (actions recommended in the Weitzner report). Placing rip-rap and bringing the roadway up to grade doesn't look like a remedial option at this point as it was not implemented before the wall collapse progressed to its current state. Next steps will involve seeking an Emergency Certification for short term stabilization efforts and reaching out to DCR Heavy Equipment contractors to discuss remedial options."</p>
4	Provide oversight and technical support for engineering, construction, and renovation work in the Quabbin/Ware Region.	<p>Gate 43 Road Improvement project was presented to Green Docket in mid May. RDA Permitting documents were sent to the Hardwick Conservation Commission in early June. RDA Hearing held on June 21st was continued to July 19th and site walk scheduled for July 3rd.</p> <p>Encumbrance request for approval for NE Paving to utilize \$295K of ARPA 2.0 funds to proceed with Phase I of Gate 43 Road Improvement Project was denied due to an exceedance of the Western MA Paving Contract Cap. New Master Paving contract to be bid this summer and encumbrance process will be repeated again late fall (Contract Award tentatively planned for October 1st).</p> <p>SMI Inc on-site from May 1st-5th to complete removal of pipe insulation containing asbestos inside of the Quabbin Visitor Center and unisex bathroom. SMI would return in late June to begin work on removing asbestos insulation from piping inside the Hangar East and Central bays. On June 29th, GZA Consultants submitted BRP WS 34 Application to MA DEP for review of the design of a new water treatment building to service the Stockroom and future Quabbin Maintenance Building.</p> <p>In June, DCR executed a Service Work Order with NGRID to upgrade electrical service to the Stockroom Complex. As part of the upgrade ten (10) new overhead poles will be installed along Blue Meadow Road and carry new, three phase power to the future Maintenance Building. Work is being completed at no cost to the DCR.</p> <p>In May, T Ford Construction completed hazardous abatement and demolition work on the Stockroom Metal Shed and Quonset Hut. Removal of the two structures affords the space needed to properly site the new Quabbin Maintenance Building. On April 26th, DCR/MWRA staff met with MA DEP to perform a final inspection of the new groundwater source supplying the Quabbin Administrative Building Complex. MA DEP was informed of current programming status with the following systems actively being monitored and operational under the Mission Control System: flow monitoring, tank levels and pump operation. DEP was made aware that due to a series of problems and false pressure readings measured at the Rosemount Transducer device, automated programming of pump controls has not been completed and troubleshooting remains ongoing.</p> <p>In support of water supply compliance efforts, DCR staff have submitted the following items: >On May 16th, raw water quality results tested in collaboration with Whitewater Inc. The laboratory results provided to MA DEP on May 19th were negative for total coliform bacteria in all samples. >On May 26th, staff notified MA DEP that Well 02G was being placed into service, but, automated operation was still being troubleshooted. >On June 23rd, a BRP WS 36 Permit application was submitted to MA DEP for approval to abandon Well 01G as a drinking water source. >On June 26th, a current O&M Plan and updated Emergency Response Checklist was submitted to MA DEP.</p>

Task #	Task Description	Quarterly Progress
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.	<p>Carlin Rosen finished their internship in early April. Great progress was made digitizing and organizing the real estate plans in the CE Office.</p> <p>Monica Gildea was hired as an Intern in early June for the CE section to aid in the organization and digitization of records in the CE Office. Efforts are focused on flat file cabinets in the basement and in the CE Office. These plans are comprised of a variety of contract drawings, site plans, land plans and more. The Internship will go until mid-August.</p> <p>FY23 Surveys - Two projects were completed under survey contract by 6/15/2023. >2303 - Healdville Road, Hubbardston (G&H) >2304 - Narrow Lane, Petersham (Hannigan)</p> <p>CE Staff assisted with outside Surveyors with land boundary inquiries and plan requests.</p> <p>CE Staff input boundary points for properties acquired through NR. Typically, final acquisitions are completed with a recorded surveyed plan. CE received these plans and inventoried.</p> <p>Ongoing in-house work for roads and boundaries. Review and recon of future prospective survey projects.</p>
6	Conduct building maintenance activities, including painting, carpentry, cleaning, minor repairs, and other routine maintenance.	<p>Initiated a 6-month pm schedule for floor care. Strip, rewax and burnish on schedule for proper maintenance to protect surfaces. Updated cleaning procedures and trained SWIV on what is to be expected going forward. Decommissioned Rangers Building, Salvaging materials and supplies to be used around the campus. Oakham roof replacement on schedule. Waiting for a dumpster and time. All materials have been ordered and received. Asbestos removal in the Gull/ N.R storage, V.C center and offices in admin. Furniture in garage has been inventoried, waiting for a dumpster or other ways to remove correctly. Working with carpentry to start working on worn areas around Quabbin (Repaint damaged walls, rot, sand and poly worn wood floors, re-paint peeling floors). Cleaned and re-organized Cleaning Dept. Moved out of the vault and into jail cells for storage. Worked with B&G mechanical to fix leaks in boiler room (water meter, condensate pump, steam valve). Followed up on missing annual pm. Brought B&G in to get the stockroom heating issue resolved. We are planning for sept to do testing. Building a repairs recommendation list for defiance's that should be addressed.</p>
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.	<p>Staff assisted Whitewater Inc with monthly water quality compliance monitoring and water operator duties required for the Quabbin Administration Building PWS. Plans for new staffing, coliform sampling, lead and copper, O&M and emergency response were all updated to reflect changes in system operation. In May, compliance testing for Lead and Copper, Backflow device testing, and source water for Well 01G were completed by WW.</p> <p>Coordination and assistance with the MWRA Cont 7753 Quabbin Well and Pipeline project remains ongoing. Efforts completed this quarter were focused on final well disinfection and de-chlorination, installation of pump instrumentation and controls, and troubleshooting of equipment. Troubleshooting work is ongoing as progress towards achieving a fully automated operation thru the use of a pressure transducer and the Mission control system panel has been hampered by electrical storm damage, suspect wiring, programming challenges, and site conditions. Most boiler systems were shut down with normal operation. Stockroom still has exhaust issues which may be a draft issue. No major issues were noted otherwise. Minor repairs done in the offseason at the admin bldg: Steam line fitting replaced, condensate pump replaced and lastly replaced water meter. Water condensate tank still needs to be re-configured before heating season. Ranger station is in progress to be de-commissioned, Forestry tank was successfully removed. wood chip burner is still offline. Mechanics have been maintaining fuel pump operations with deliveries and system communications. Oil and propane deliveries arrived on time and with no hazards noted.</p>
9	Develop specifications, bid packages and contracts for facility and infrastructure projects identified in the Major Projects List for FY23.	<p>Contracts under development for new Generator Contract and Ready Mix Concrete Contract. Initial posting of Ready Mix contract yielded no bids.</p> <p>In April, Fire Equipment Inc on-site to perform 5 YR internal inspections on sprinkler systems servicing the Admin Bldg and Hangar, replaced 30 sprinkler heads inside the boiler room, and performed annual system inspections on all four (4) systems at the Complex.</p> <p>On May 10th, staff met with DCR State Park counterparts James Luke and Victor Moreno and Alex from Power Line Contractors to troubleshoot failed photovoltaic battery at Fishing Area III. A check on the solar equipment found a "Short" on the Negative Lead to the battery. Wires, from old 120 volt Battery Charging Equipment were found to be rotten and they were removed. James suggested "jumping" the forklift battery to re-energize and further troubleshoot Outback controllers.</p> <p>On May 23rd, DCR staff Jack Dejnak (Lead Mechanic) & SRM used two deep cycle batteries to provide 24 volts to the FA III Forklift Battery. This allowed the OutBack Controllers to energize (they need 10 volts to start). OutBacks were reset and Forklift Battery was closely monitored and nursed back to full strength after a couple weeks of charging. All system components powered by the photovoltaic facility, including the Restroom and well pump, were restored to full operation on June 5th.</p>
12	Conduct Quabbin Park Cemetery business and record keeping.	<p>Created/Scanned 162 QPC deed owner files. 5 internments completed.</p>
13	Continue to conduct road maintenance activities on DWSP lands.	<p>Repaired drainage on section of Shearer Rd. Installed 3-12" culverts. Graded and rolled gate 8 road. Graded the 17 road. Graded Mount Pleasant Road on Prescott. Dug out culverts along Hell Huddle Road. Installed culvert and improved drainage on Griswald Road (prescott). Scraped, graded and repaired the gate 35 road. Started to repair Mary Tamplin road in Petersham. Roadside cutting on Gilbert,Granger,gilwee,Adams,Blake, Old wood, Kitchen fire, & Camp fire roads were completed total miles 7.75. Gutter and drainage repairs on Gilwee, Adams, Granger roads completed total miles 2.50</p>

Task #	Task Description	Quarterly Progress
14	Continue to collect data on road conditions and culvert locations.	Camel Brook project was presented to Green Docket in early May. Permitting documents were sent to the regulatory authorities in early June. Abutter notifications were sent out and an ad was placed in the newspaper for a June 22, 2023 hearing. Keystone Bridge at Gate 30, over the Middle Branch of the Swift River suffered a partial collapse of the southeast spandrel wall. Due to substandard safety conditions, DCR has suspended formal monitoring surveys. Periodic inspections continue while a solution is being sought.
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.	Received and processed 4 cases in the Ware River Watershed. Received and processed 2 in the Quabbin Watershed. Investigated and resolved several violations in the Ware River Watershed. Conducted multiple site inspections in the Ware and Quabbin watersheds. Fielded numerous calls from town boards, consultants, and homeowners.
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.	Reviewed agendas and minutes for all the towns in both watersheds. Contacted towns regarding projects and violations within WsPA jurisdiction.
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.	Fielded calls from town officials, developers, engineering firms, and homeowners and assisted them with the Watershed Protection Act.
6	Modernize the current Access database into a web-based platform.	Digitizing and uploading historical files into Sharepoint.
I. Education and Outreach		
1	Develop an Interpretive Services Plan for the Ware River Watershed	In anticipation of the approval of the access plan, Quabbin IS staff have planned two fall events for the watershed area. Staff will outline priorities to focus on for programming.
2	Staff and operate the Visitor Center at Quabbin to educate visitors about watershed management and related topics.	In the 4th quarter, the Visitor Center had 1,157 visitors on weekends. We offered 8 public programs to 125 members of the public. Staff also offered five programs to community groups to a total of 145 people. We continue to expand our outdoor programs and have plans to offer "pop up" programming on weekends.
3	Continue established programs of public education, including school programs and field trips on DWSP properties.	In the 4th quarter, the IS staff offered 11 programs to schools, a mixture of both in person and remote. We also offered several programs in classrooms as well. In total 753 students either visited or interacted with Quabbin IS staff for educational purposes.
4	Collaborate with other organizations and watershed communities to reach more diverse audiences. Identify specific groups and their educational needs.	Quabbin IS staff have scheduled presentations for libraries in the watershed region. As well we will be providing programs for local historical societies, nature clubs and participating in Belchertown National Night Out to connect with the local community. As well, we will continue to reach out to community organizations to offer presentations on the Quabbin/Ware Region..
5	Maintain self-guided Quabbin Park interpretive trails focusing on natural resource management and water quality protection.	Pioneer Valley Hiking Club has completed a volunteer stewardship agreement for 1 year. They plan to hold around 2-3 trail maintenance days throughout the year. SCA completed a trail hitch at Quabbin in June and cut back overgrowth on all trails in Quabbin Park. Justin continues to offer group hikes on Saturdays during the spring, fall, and winter.
9	Continue to support and participate in the Envirothon, America's leading natural resource education program for high school students.	Planning for the 2024 Envirothon is currently happening.
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.	Routine and non-routine sampling and analysis continue. No needs identified for sampling before/during transfers.
3	Monitor plankton in Quabbin Reservoir. Evaluate need for sampling before/during Quabbin Transfers.	Starting in May plankton monitoring at site 202 (Winsor Dam) has been conducted on a weekly basis, while plankton monitoring at the two other reservoir sites (206 and Den Hill) has continued on a monthly basis. A phytoplankton action plan has been created for the 2023 growing season. This action plan determines that monitoring frequency will increase to twice a week for site 202 and twice a month for site 206 and Den Hill, if any of the taxa of concern exceed the alert levels. The action plan also states that once populations stabilize, increased monitoring frequency will shift to investigative monitoring to better understand trends in phytoplankton dynamics across the reservoir.
4	Collect, interpret, and manage data on reservoir elevations, water transfers and releases. Share data with DWSP staff and MWRA.	Ongoing daily activity. The reservoir elevation continued its upward trend into May, exceeding the lower Quabbin Spillway wall - triggering spill into the Swift River. The elevation would dip back below the lower spillway by the end of May, after an approximate total of 102 MG spilled during that period. This was a result of somewhat dry weather conditions coupled with the announcement that transfer from Quabbin to Wachusett was going online 5/10/23 - ramping up to ~300 MGD for most of May and June. Quabbin Reservoir elevation at the start of the quarter (April 1, 2023) was 527.15 ft, and the quantity of water in storage was 390,240 MG (94.7%). The Reservoir elevation at the end of the quarter (June 30, 2023) was 526.91 ft, and the quantity of water in storage was 388,425 MG (94.2%). The max elevation reached during the quarter was 528.32 ft on May 9, 2023.
6	Continue improvements to database app for compiling of water quality, quantity, and other relevant data for data and trend analyses.	New staff continued to be trained on data management practices. New R-scripts have been developed to assist staff working in SQL environments for data tidying. Data flagging efforts are currently underway to properly document historical data. Further database development is in works to better coordinate sensor calibration workflows with DCR-Wachusett staff. This will include the development of new data tables and revision of R-scripts for Quabbin workflows.
7	Implement streamflow monitoring at selected sites. Coordinate flow monitoring with annual water quality sampling plan.	Flow monitoring is ongoing at the seven established stream gauge locations in the Quabbin Reservoir Watershed. This quarter routine data download was completed at select gauge locations. Coordination with Wachusett staff on workflow development is ongoing. Troubleshooting on Mayfly sensor cloud-based data transmission is ongoing. Further progress on hydrologic monitoring program is limited due to current EQ staffing levels and multiple vacancies within the section going into the busy summer field season.

Task #	Task Description	Quarterly Progress
8	Assist MWRA with the continuous water quality monitoring buoy at Quabbin Reservoir	The buoy was deployed 5/10/23. Boat support for MWRA troubleshooting (winch coupler, solar regulator) and sonde replacement (ORP sensor) was provided. Staff and State Police were notified of deployment and no-wake zone in the buoy's vicinity.
9	Implement ISA with UMass for Research	Participated in meetings and planning. For the Total Coliform project, coordinated meetings and logistics, and requested MWRA participation and assistance. Provided requested info to UMass/RWU.
10	Coordinate with MWRA on Res Ops work groups as needed.	Participated in meetings as needed. Collaborated and shared data. For MWRA/UMass HAA Precursors project, responded to inquiries on Gate 13 access, East Fever Brook area, and table of subwatershed areas; reviewed quarterly report, confirmed no in-reservoir sampling needed during algal blooms.
K. Watershed Monitoring and Assessment		The Biology of Oak Regeneration
1	Complete Environmental Quality Assessments in the Quabbin Reservoir and Ware River watersheds according to a prescribed schedule. Present EQAs to RD and DRD.	Integration of GIS and significant refinements of the EQA template have been completed to standardize reporting across both watersheds. Draft EQA reports being completed in Burnshirt Canesto & Natty sanitary district and Fever Brook sanitary district. Three ponds were surveyed for AIS presence/absence, two in the Quabbin Reservoir Watershed and one in the Ware River Watershed. No new AIS to report. Ten more surveys are scheduled for the field season. Utricularia inflata (swollen bladderwort) was found during a routine survey of the fragment barrier above BLA3. In response, an initial investigation took place to determine location and extent of infestation. Two days were then spent (24 manpower hours) to hand remove plants (72.5 gallons were collected & disposed of). Based on the density present & control effort required, it was decided contractors would need to be brought in.
2	Prioritize recommendations in completed EQAs as necessary and complete short- and long-term remedial actions.	Draft recommendations presented to RD and DRD on 5/23/2023. Edits made and incorporated into final report.
4	Coordinate with other agencies to exchange information and review projects in watershed.	MEPA Environmental Monitor was reviewed regularly for projects in watersheds. This quarter, one project was identified in Ware River Watershed for aquatic plant treatment on Lovewell Pond.
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.	Railroad in Ware River walked to verify YOP herbicide locations; suggestions made to Railroad on updating faded signs.
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.	Identified several dumping sites and areas with illegal access in the Ware River watershed. Collaborated with Rangers and other staff to find solutions (where possible) and/or mitigate threats. Established new relationships with town offices through EQA writing process (e.g., BOH, Planning). Staff made in-person visits to Town Clerks/BOH agents at New Salem and Petersham (remainder available on-line) for town reports to gather septic info for inclusion in EQAs. Connected with animal control officer in Athol (no recent livestock counts available).
L. Aquatic Invasive Species		
2	Continue program to monitor AIS in the Reservoir.	AIS monitoring program for 2023 includes conducting macrophyte surveys and zooplankton monitoring. Fourteen sites have been selected for the macrophyte surveys, including BLAs, Pottapaug Pond, and O'Loughlin Pond. Field Maps and Quick Capture will be used for data collection. The macrophyte surveys started in May 2023 and are ongoing. Zooplankton monitoring for AIS started in June 2023 and oblique tows will be conducted every other month. No invasive zooplankton species have been observed so far.
4	Continue the Quabbin Boat Seal program to minimize the risk of AIS infestation of Quabbin Reservoir.	12 Warm Weather Decontamination events have been completed this quarter, with 4 remaining in the CY2023 (July-September). One reserve date (5/4/23) was opened because of equipment failure. Contractor boat for intake building masonry work was decontaminated. Database is up to date. Between 4/13/2023-7/11/2023, 78 appointments were taken. Database is up to date. Approximately 3,483 boats were sealed this Quarter; 723 at BLA1, 1,336 at BLA2, and 1424 at BLA3. Final data entry and QAQC is complete for FY 2022 boat seal data. The final numbers were reported in the 2022 BLA fishing report. In CY 2022, approximately 8,108 boats were sealed across the 3 BLAs: 2,041 at BLA1, 2,766 at BLA2, and 3,301 at BLA3.
6	Conduct public education in coordination with DCR Lakes and Ponds and MWRA.	Rangers actively educate the public on decontamination processes to comply with the AIS self-cert program at Comet and Long Pond. Self-certification forms are kept stocked during the boating season. Enforcement of seasonal PFD requirements.
M. Wastewater Management		
1	Identify potential problem sites or areas through review of local records, water quality data, and other pertinent information.	Staff reviewed numerous data sources to identify problem sites and complete EQA reports in Fever Brook and Burnshirt Canesto & Natty Sanitary Districts.
N. Stormwater Management		
2	Monitor stormwater management in the watersheds.	Continued monitoring potential stormwater issues through field investigations and use of aerial imagery.
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.	DWSP Emergency Response for MWRA/MSP-Marine Unit and C7/Watershed Rangers was updated and distributed this quarter.
3	In conjunction with MWRA, coordinate spill response and/or incident command system (ICS) training to staff.	Rangers completed Terrestrial Spill Training, Small Boat Operator Training, River/Small Waterbody Spill Training, and Wildland Fire Fighting Refresher. Emergency contact information updated via email. Ranger Captain and Lieutenants also met with MEMA dispatchers in Framingham to discuss protocols and other pertinent information. The boom trailer, stored outside of the hangar, has been replaced with a new trailer - purchased by MWRA. No other activity this quarter.
5	Develop and implement spill response plans for all timber harvesting operations on DWSP lands.	Foresters created two new spill plans this quarter.
P. Support		

Task #	Task Description	Quarterly Progress
3	Provide contract administration and related procurement	Established new five-year contract for the purchase of rental boats for the fishing areas. Published Request for Response for Ready-Mix Concrete contract. No responses received. Working in conjunction with other regions/sections, completed the following additional major procurements; new contract for the purchase of bicycles parts, supplies, and service, purchase of roadway materials, and purchase of land maintenance equipment.
4	Keep records and assist in purchasing of goods and services.	Requisitions through COMMBUYS by the Storekeeper IV, from 4/3/23 to 7/30/23, have been \$21,111.98 for section purchases in FY23.
9	Plan and implement vehicle and equipment purchases in coordination with WA.	Heavy equipment purchases took the place of passenger vehicles this FY. Two sizable pieces of equipment were acquired - mini-excavator and 6-wheeled dump truck this quarter. Inquires were made to OSD regarding EV Passenger Vehicle orders submitted in Q3.
	Conduct annual assessment and recommendations	FY23 assessments of Quabbin fleet completed. Recommendations for replacements and "Right Sizing" have been completed.FY24 Request Workbooks submitted.
10	Conduct truck, boat, and equipment inspections and maintenance as needed, utilizing Fleetwave.	FY23 monthly inspections are completed. Maintenance and repairs are completed keeping the fleet operating. BLA outboards have been serviced at all (3) areas.
11	Administer the Payment in Lieu of Taxes (PILOT) program	Completed all PILOT obligations for FY2023.Total FY23 PILOT is \$8,479,324.48. Total amount paid to Quabbin towns was \$2,920,964, or 34% of total; the amount of that Quabbin total paid to five towns as "Annexed Lands" was \$662,153, which is 23% of the Quabbin total or 8% of total PILOT. The amount paid to Ware River towns was \$1,066,310, or 13% of total PILOT.
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.	New CGP database and management tools completed and in-use by EQ staff. Worked with EQ staff on development of "One Vision" a new Dashboard that brings all newly developed databases together into one place. This allows EQ staff to visualize WsPA, EQ, CGP, Ag and Sewer/Septic databases on one map. A series of filters and an address search allow staff to easily see what is going on at or around any parcel; links at the bottom of the One Vision dashboard allow staff to easily access any of the other management hubs. Quabbin EQ staff will begin using this new suite of tools starting July 1. Phase 1 of the new Hunting Map development is completed; this name was changed from Sportsman Map as that seemed too gender-specific. This new map will release on July 1. Phase 2 development of a Fishing Map will start up in this fall. A slight modification was made to the Pool Vehicle Reservation system to allow Jussara to easily update existing reservations. Worked with Taylor to make final changes to a QuickCapture data collection project that will allow Quabbin Aquatic Biologists quickly and efficiently collect information/location on AIS species during reservoir and pond surveys. Data collected is written to a database already used by Wachusett staff.
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.	All layers relating to the new Hunting Map were added into the Data Inventory and shared with staff via the Data Store group in ArcGIS Online. These layers were also updated a number of times. The new 2023 WsPA Affected Parcel and Potentially Affected Parcel layers were created, published to AGOL and added to the WsPA public viewer. Worked with Paula D and Craig to get the MDC Manhole layer updated in AGOL.
15	Provide staff with training in desktop, mobile and online GIS applications.	A series of 4 ArcGIS Pro trainings were offered to staff each week in June. Trainings were recorded and training documents are available to staff via the DWSP-GIS Team. A new workflow document that reviews ways Arcade can be used to customize maps and apps in ArcGIS Online was created and added to the DWSP-GIS Team as a new resource for staff.
21	Budget development, maintenance, monitoring, and forecasting (e.g., Operating, Capital when available, Major Projects, other)	Monitored the budget through monthly reporting of Budget vs. Encumbered and Spent, Encumbrance Balance, and Project Status Reporting. Met monthly with the Major Projects Working Group to monitor project status and spending. Regularly updated RD and DRD on operating budget versus spending to make adjustments in purchasing in accordance with need, product/service availability, and unexpended funds. Monitored fuel consumption and pricing on an ongoing basis due to price volatility in the markets and consumption changes.
22	Begin developing the new 5-year Watershed Protection Plan.	Draft sent to MWRA for review on 4/4/2023. MWRA's comments were integrated into final draft, which was submitted to MassDEP on 5/8/2023. DEP sent back their comments on 5/26/2023; concerns were relatively minor, focusing on a few formatting issues, typos, and some policy clarifications. The summary of their review was, "Overall, the organization and content of the plan is really good, an improvement from the last plan. The update provides DCR staff, the public and others with a very useful history and current status of reservoir operations and watershed programs and is very reader friendly. The five-year action plan is impressive and the incorporation of climate change information throughout the watershed programs is excellent." Completed Plan, integrating DEP's comments and enhancing the layout with pictures and pull quotes, was submitted to DEP for approval on 6/26/2023.

Summary of Wachusett Watershed Ranger Interactions

4th Quarter FY2023

Visitor Contacts: 6,212

Violations: 462

Parking Tickets: 14

313 CMR 11.09	CONDENSED CMRs	# of Violations
<i>Wachusett</i>		
2a1	Entrance/Exit only through gates or designated areas.	0
2a2	Allowed on Watershed land 1 hour before sunrise to 1 hour after sunset	18
2a3	No powered boats except in designated areas.	0
2a4	No acts which may pollute the water system. No litter thrown or left. Must use sanitary facility.	0
2a5	All acts injuring the property are prohibited. No person shall injure, deface, destroy remove or carry off any property, including historic artifacts and natural materials. No removal of gravel, topsoil, stones, boulders or other material. No building or constructing any object or structure on property. Collection of berries and mushrooms is allowed for personal use only.	4
2a6	No cooking or fires.	5
2a7	No wading or swimming in reservoir except wading while using boots to launch boats in designated areas.	84
2a8	No wading or swimming in Tributary or Surface Waters, except in designated areas.	5
2a9	No organized sport activities.	0
2a10	Division and employees of are not responsible for damage to or loss of property sustained by fishermen, or for any loss of life which may be incurred in connection with public use of the reservoirs and watershed system	0
2a11	No profanity or other disorderly conduct offensive to general public. No possession or drinking alcoholic beverages	16
2a12	No Motorized Vehicles. No recreational vehicles, except snowmobiles in designated areas. Motor vehicle parking in designated areas only. Operators of motor vehicles shall obey all regulatory signage unless otherwise directed. No willfully obstructing the free passage of vehicles or persons within the system.	7
2a13	No animals, except for horses and dogs at Ware River designated areas.	115
2a14	Bicycles, skis and other non-motorized transportation permitted in designated areas only.	15
2a15	No landing aircraft or causing to descend except in an emergency.	0
2a16	No parades, games, fairs, bazaars, carnivals, fishing derbies, gifts or solicitation for raising funds without written approval.	0
2a17	No lotteries, raffles, gambling or games of chance. No possession of machinery for the former.	0
2a18	No groups of more than 25 people without written permit.	0
2a19	No engaging in business, sale or display of goods or wares without written permit.	0
2a20	No commercial signs or advertising.	0

313 CMR 11.09	CONDENSED CMRs	# of Violations
2a21	No persons (unless authorized by law, license, or permit) shall have possession of or discharge any weapon, firearm, fireworks or other explosive on or within the watershed system except at times and areas designated. All forms of target shooting are prohibited.	1
2a22	No hunting, shooting, or trapping animals except at designated times and areas.	0
2a23	All persons within the watershed system shall obey the lawful directions of regulatory signs, police officers, DCR Rangers, or persons in charge, or of Federal or Commonwealth wardens or enforcement officers.	101
2a24	Any part of the watershed lands may be closed for the public access at any time by the commissioner.	44
2a25	The possession of all types of metal detectors or similar devices is prohibited on all of the Watershed System property.	0
2d1	Persons in compliance with Commonwealth Fish and Game Laws and Regulations will be allowed to fish from shore of Wachusett Reservoir in areas designated by the commission or its designee.	47
2d2	Boating is prohibited in Wachusett Reservoir.	0
2d3	Fishing from the shoreline of the Reservoir shall be allowed only during a season designated by the Commission or its designee.	0
2d4	Any violation of 313 CMR 11.09 will be deemed sufficient cause for revocation of fishing privileges for not less than one year	0
<i>Sudbury</i>		
2e1	Persons in compliance with Commonwealth Fish and Game Laws and Regulations will be allowed to fish from shore of Sudbury Reservoir in areas designated by the commission or its designee.	0
2e2	Boating is prohibited on Sudbury Reservoir.	0
TOTAL VIOLATIONS		462

Summary of Quabbin Watershed Ranger Interactions

4th Quarter FY2023

Visitor Contacts: 5,152

Total Violations: 32

Parking Tickets: 0

313 CMR 11.09	CONDENSED CMRs	Verbal Warnings
1a	No Taking/Diverting Water.	0
1b1	No construction, filling, dredging, altering land w/out provisions to prevent erosion.	0
1b2	No construction, establishing, maintaining agricultural facilities or animal manure without adequate provision to prevent manure/other pollutants from entering Waters of Watershed System.	0
1b3	No engaging in any other activity that could degrade water quality.	0
1c	No person's property condition should result in discharge of any Pollutants into waters of Watershed system.	0
1d	Records of board of health or health agent concerning Watershed open to inspection by DCR/DEP.	0
1e	Person's causing incident/situation threatening pollutants to watershed shall notify DCR/DEP.	0
2a1	Entrance/Exit only through gates or designated areas.	0
2a2	Allowed on Watershed land 1 hour before sunrise to 1 hour after sunset (with permitted night fishing exception).	0
2a3	No powered boats except in designated areas.	0
2a4	No acts which may pollute the water system. No litter thrown or left. Must use sanitary facilities.	0
2a5	All acts injuring the property are prohibited. No person shall injure, deface, destroy remove or carry off any property, including historic artifacts and natural materials. No removal of gravel, topsoil, stones, boulders, or other material. No building or constructing any object or structure on property.	0
2a6	No cooking or fires.	0
2a7	No wading or swimming in reservoir except wading while using boots to launch boats in designated BLAs.	0
2a8	No wading or swimming in Tributary or Surface Waters, except in designated areas.	0
2a9	No organized sport activities except by written permission.	0
2a10	DCR/DWSP and employees are not responsible for damage to property, injury, or loss of life sustained by fishermen while using the reservoirs within the watershed system	2
2a11	Breach of peace, profanity or other disorderly conduct offensive to general public. No possession or drinking alcoholic beverages	0
2a12	No Motorized Vehicles. No recreational vehicles, except snowmobiles in designated areas. Motor vehicle parking in designated areas only. Operators of motor vehicles shall obey all regulatory signage unless otherwise directed. No willfully obstructing the free passage of vehicles or persons within the system.	0
2a13	No animals, except for horses and dogs at Ware River designated areas.	23

313 CMR 11.09	CONDENSED CMRs	Verbal Warnings
2a14	Bicycles, skis and other non motorized transportation permitted in designated areas only.	1
2a15	No person shall bring land or cause to descend any aircraft within the Watershed except in an emergency.	0
2a16	No parades, games, fairs, bazaars, carnivals, fishing derbies, gifts or solicitation for raising funds without written approval.	0
2a17	No lotteries, raffles, gambling or games of chance. No possession of machinery, instruments or equipment for the former.	0
2a18	No groups of more than 25 people without written permit.	0
2a19	No engaging in business, sale or display of goods or wares without written permit.	0
2a20	No commercial signs or advertising.	0
2a21	No persons (unless authorized by law, license, or permit) shall have possession of or discharge any weapon, firearm, fireworks or other explosive on or within the watershed system except at times and areas designated. No target shooting.	0
2a22	No hunting, shooting, or trapping animals except at designated times and areas.	0
2a23	All persons within the watershed system shall obey the lawful directions of regulatory signs, police officers, DCR Rangers, or persons in charge or of Federal or Commonwealth wardens or enforcement officers.	2
2a24	Any part of the watershed lands may be closed for the public access at any time to protect the lands and waters.	0
2a25	The possession of all types of metal detectors or similar devices is prohibited on all of the Watershed property.	0
<i>Special Regulations for Quabbin</i>		
2b1	Persons in compliance with Commonwealth Fish and Game Laws and Regulations will be allowed to fish from shore in areas designated by the Commission or its designee. A valid state fishing or sporting license is required by any person renting or launching a boat at any commission facility subject to 313 CMR 11.09. Reasonable fees for the use of boats, for rental of outboard motors for fishing purposes, or use of Commission facilities including parking and boat ramps, may be charged by the Commission.	4
2b2	Persons permitted to fish from boats shall at all times be responsible for the sanitary conditions of the boat. Persons under 16 years of age must be accompanied by a person possessing a valid fishing license in order to boat on Quabbin Reservoir.	0
2b3	Only boats of a minimum length of 12 feet, and of a type considered safe by the Commission representative in charge, shall be used. No inboard motors, collapsible boats, sailboats, pontoon boats, square stern canoes, or similar craft will be permitted in the water except in areas designated for boating by the Commission or its designee. Outboard motors shall have a rating of not more than ½ the BIA or OBC rated horsepower for the boat and shall not exceed 20 horsepower, except that outboard motors for Commission boats less than 14 feet six inches shall not exceed 10 horsepower. Boats less than 14 feet shall be limited to 3 occupants, and boats of that length and in excess thereof may be licensed to carry 4 occupants. No boats shall carry more than 4 occupants. Canoes and Jon boats of a minimum of 12 feet, and a type considered safe by the Commission representative in charge, shall be used only in areas designated for boating by the Commission on	0

313 CMR 11.09	CONDENSED CMRs	Verbal Warnings
	Pottapaug Pond above the regulating dam and at Gate 31 above the regulating dam. Canoes less than 16 feet and Jon boats less than 14 feet six inches in length will be limited to 2 occupants, and canoes and Jon boats in excess thereof may be licensed to carry 3 occupants. All boats must be in compliance with current Commonwealth Boating Laws. All boats must be clean and contain no refuse of any kind. Commission personal shall have the right to inspect all private boats launched at Commonwealth facilities and may deny access in order to protect water quality or safety of occupants. Chock blocks must be used on vehicles when removing boats from the reservoir.	
2b4	No person shall operate a motor boat at a speed other than responsible and proper or in such a manner as to annoy or endanger the occupants of other boats.	0
2b5	All privately owned boats, motors and other equipment must be removed from the property of the Commission each day.	0
2b6	Boats shall not leave the mooring areas before dawn and must at the time posted at each mooring area. The beaching of boats at any point except at the designated mooring and landing areas is strictly prohibited except in cases of extreme emergency.	0
2b7	Any violation of 350 CMR 11.09 can result in loss of fishing privileges for not less than one year	0
<i>Special Regulations for Ware River</i>		
2c1	WRW Fishing Designated Areas	0
2c2	WRW PWR Boats/PWR Canoes Prohibited	0
2c3	WRW Boat Motor Restrictions	0
2c4	WRW Revocation of Fishing License	0
TOTAL VIOLATIONS		32

Summary of Ware River Watershed Ranger Interactions

4th Quarter FY2023

Visitor Contacts: 2,008

Total Violations: 114

Parking Tickets: 1

313 CMR 11.09	CONDENSED CMRs	Verbal Warnings
1a	No Taking/Diverting Water.	0
1b1	No construction, filling, dredging, altering land w/out provisions to prevent erosion.	0
1b2	No construction, establishing, maintaining agricultural facilities or animal manure without adequate provision to prevent manure/other pollutants from entering Waters of Watershed System.	0
1b3	No engaging in any other activity that could degrade water quality.	0
1c	No person's property condition should result in discharge of any Pollutants into waters of Watershed system.	0
1d	Records of board of health or health agent concerning Watershed open to inspection by DCR/DEP.	0
1e	Person's causing incident/situation threatening pollutants to watershed shall notify DCR/DEP.	0
2a1	Entrance/Exit only through gates or designated areas.	0
2a2	Allowed on Watershed land 1 hour before sunrise to 1 hour after sunset (with permitted night fishing exception).	0
2a3	No powered boats except in designated areas.	0
2a4	No acts which may pollute the water system. No litter thrown or left. Must use sanitary facilities.	24
2a5	All acts injuring the property are prohibited. No person shall injure, deface, destroy remove or carry off any property, including historic artifacts and natural materials. No removal of gravel, topsoil, stones, boulders, or other material. No building or constructing any object or structure on property.	14
2a6	No cooking or fires.	12
2a7	No wading or swimming in reservoir except wading while using boots to launch boats in designated BLAs.	6
2a8	No wading or swimming in Tributary or Surface Waters, except in designated areas.	13
2a9	No organized sport activities except by written permission.	0
2a10	DCR/DWSP and employees are not responsible for damage to property, injury, or loss of life sustained by fishermen while using the reservoirs within the watershed system	0
2a11	Breach of peace, profanity or other disorderly conduct offensive to general public. No possession or drinking alcoholic beverages	14
2a12	No Motorized Vehicles. No recreational vehicles, except snowmobiles in designated areas. Motor vehicle parking in designated areas only. Operators of motor vehicles shall obey all regulatory signage unless otherwise directed. No willfully obstructing the free passage of vehicles or persons within the system.	11
2a13	No animals, except for horses and dogs at Ware River designated areas.	5

313 CMR 11.09	CONDENSED CMRs	Verbal Warnings
2a14	Bicycles, skis and other non motorized transportation permitted in designated areas only.	0
2a15	No person shall bring land or cause to descend any aircraft within the Watershed except in an emergency.	2
2a16	No parades, games, fairs, bazaars, carnivals, fishing derbies, gifts or solicitation for raising funds without written approval.	0
2a17	No lotteries, raffles, gambling or games of chance. No possession of machinery, instruments or equipment for the former.	0
2a18	No groups of more than 25 people without written permit.	0
2a19	No engaging in business, sale or display of goods or wares without written permit.	0
2a20	No commercial signs or advertising.	0
2a21	No persons (unless authorized by law, license, or permit) shall have possession of or discharge any weapon, firearm, fireworks or other explosive on or within the watershed system except at times and areas designated. No target shooting.	3
2a22	No hunting, shooting, or trapping animals except at designated times and areas.	0
2a23	All persons within the watershed system shall obey the lawful directions of regulatory signs, police officers, DCR Rangers, or persons in charge or of Federal or Commonwealth wardens or enforcement officers.	2
2a24	Any part of the watershed lands may be closed for the public access at any time to protect the lands and waters.	0
2a25	The possession of all types of metal detectors or similar devices is prohibited on all of the Watershed property.	0
<i>Special Regulations for Quabbin</i>		
2b1	Persons in compliance with Commonwealth Fish and Game Laws and Regulations will be allowed to fish from shore in areas designated by the Commission or its designee. A valid state fishing or sporting license is required by any person renting or launching a boat at any commission facility subject to 313 CMR 11.09. Reasonable fees for the use of boats, for rental of outboard motors for fishing purposes, or use of Commission facilities including parking and boat ramps, may be charged by the Commission.	7
2b2	Persons permitted to fish from boats shall at all times be responsible for the sanitary conditions of the boat. Persons under 16 years of age must be accompanied by a person possessing a valid fishing license in order to boat on Quabbin Reservoir.	0
2b3	Only boats of a minimum length of 12 feet, and of a type considered safe by the Commission representative in charge, shall be used. No inboard motors, collapsible boats, sailboats, pontoon boats, square stern canoes, or similar craft will be permitted in the water except in areas designated for boating by the Commission or its designee. Outboard motors shall have a rating of not more than ½ the BIA or OBC rated horsepower for the boat and shall not exceed 20 horsepower, except that outboard motors for Commission boats less than 14 feet six inches shall not exceed 10 horsepower. Boats less than 14 feet shall be limited to 3 occupants, and boats of that length and in excess thereof may be licensed to carry 4 occupants. No boats shall carry more than 4 occupants. Canoes and Jon boats of a minimum of 12 feet, and a type considered safe by the Commission representative in charge, shall be used only in areas designated for boating by the Commission on	1

313 CMR 11.09	CONDENSED CMRs	Verbal Warnings
	Pottapaug Pond above the regulating dam and at Gate 31 above the regulating dam. Canoes less than 16 feet and Jon boats less than 14 feet six inches in length will be limited to 2 occupants, and canoes and Jon boats in excess thereof may be licensed to carry 3 occupants. All boats must be in compliance with current Commonwealth Boating Laws. All boats must be clean and contain no refuse of any kind. Commission personal shall have the right to inspect all private boats launched at Commonwealth facilities and may deny access in order to protect water quality or safety of occupants. Chock blocks must be used on vehicles when removing boats from the reservoir.	
2b4	No person shall operate a motor boat at a speed other than responsible and proper or in such a manner as to annoy or endanger the occupants of other boats.	0
2b5	All privately owned boats, motors and other equipment must be removed from the property of the Commission each day.	0
2b6	Boats shall not leave the mooring areas before dawn and must at the time posted at each mooring area. The beaching of boats at any point except at the designated mooring and landing areas is strictly prohibited except in cases of extreme emergency.	0
2b7	Any violation of 350 CMR 11.09 can result in loss of fishing privileges for not less than one year	0
<i>Special Regulations for Ware River</i>		
2c1	WRW Fishing Designated Areas	0
2c2	WRW PWR Boats/PWR Canoes Prohibited	0
2c3	WRW Boat Motor Restrictions	0
2c4	WRW Revocation of Fishing License	0
TOTAL VIOLATIONS		114

Summary of Wachusett Watershed Ranger Interactions

4th Quarter FY2023

Visitor Contacts: 6,212

Violations: 462

Parking Tickets: 14

313 CMR 11.09	CONDENSED CMRs	# of Violations
<i>Wachusett</i>		
2a1	Entrance/Exit only through gates or designated areas.	0
2a2	Allowed on Watershed land 1 hour before sunrise to 1 hour after sunset	18
2a3	No powered boats except in designated areas.	0
2a4	No acts which may pollute the water system. No litter thrown or left. Must use sanitary facility.	0
2a5	All acts injuring the property are prohibited. No person shall injure, deface, destroy remove or carry off any property, including historic artifacts and natural materials. No removal of gravel, topsoil, stones, boulders or other material. No building or constructing any object or structure on property. Collection of berries and mushrooms is allowed for personal use only.	4
2a6	No cooking or fires.	5
2a7	No wading or swimming in reservoir except wading while using boots to launch boats in designated areas.	84
2a8	No wading or swimming in Tributary or Surface Waters, except in designated areas.	5
2a9	No organized sport activities.	0
2a10	Division and employees of are not responsible for damage to or loss of property sustained by fishermen, or for any loss of life which may be incurred in connection with public use of the reservoirs and watershed system	0
2a11	No profanity or other disorderly conduct offensive to general public. No possession or drinking alcoholic beverages	16
2a12	No Motorized Vehicles. No recreational vehicles, except snowmobiles in designated areas. Motor vehicle parking in designated areas only. Operators of motor vehicles shall obey all regulatory signage unless otherwise directed. No willfully obstructing the free passage of vehicles or persons within the system.	7
2a13	No animals, except for horses and dogs at Ware River designated areas.	115
2a14	Bicycles, skis and other non-motorized transportation permitted in designated areas only.	15
2a15	No landing aircraft or causing to descend except in an emergency.	0
2a16	No parades, games, fairs, bazaars, carnivals, fishing derbies, gifts or solicitation for raising funds without written approval.	0
2a17	No lotteries, raffles, gambling or games of chance. No possession of machinery for the former.	0
2a18	No groups of more than 25 people without written permit.	0
2a19	No engaging in business, sale or display of goods or wares without written permit.	0
2a20	No commercial signs or advertising.	0

313 CMR 11.09	CONDENSED CMRs	# of Violations
2a21	No persons (unless authorized by law, license, or permit) shall have possession of or discharge any weapon, firearm, fireworks or other explosive on or within the watershed system except at times and areas designated. All forms of target shooting are prohibited.	1
2a22	No hunting, shooting, or trapping animals except at designated times and areas.	0
2a23	All persons within the watershed system shall obey the lawful directions of regulatory signs, police officers, DCR Rangers, or persons in charge, or of Federal or Commonwealth wardens or enforcement officers.	101
2a24	Any part of the watershed lands may be closed for the public access at any time by the commissioner.	44
2a25	The possession of all types of metal detectors or similar devices is prohibited on all of the Watershed System property.	0
2d1	Persons in compliance with Commonwealth Fish and Game Laws and Regulations will be allowed to fish from shore of Wachusett Reservoir in areas designated by the commission or its designee.	47
2d2	Boating is prohibited in Wachusett Reservoir.	0
2d3	Fishing from the shoreline of the Reservoir shall be allowed only during a season designated by the Commission or its designee.	0
2d4	Any violation of 313 CMR 11.09 will be deemed sufficient cause for revocation of fishing privileges for not less than one year	0
<i>Sudbury</i>		
2e1	Persons in compliance with Commonwealth Fish and Game Laws and Regulations will be allowed to fish from shore of Sudbury Reservoir in areas designated by the commission or its designee.	0
2e2	Boating is prohibited on Sudbury Reservoir.	0
TOTAL VIOLATIONS		462

Summary of Quabbin Watershed Ranger Interactions

4th Quarter FY2023

Visitor Contacts: 5,152

Total Violations: 32

Parking Tickets: 0

313 CMR 11.09	CONDENSED CMRs	Verbal Warnings
1a	No Taking/Diverting Water.	0
1b1	No construction, filling, dredging, altering land w/out provisions to prevent erosion.	0
1b2	No construction, establishing, maintaining agricultural facilities or animal manure without adequate provision to prevent manure/other pollutants from entering Waters of Watershed System.	0
1b3	No engaging in any other activity that could degrade water quality.	0
1c	No person's property condition should result in discharge of any Pollutants into waters of Watershed system.	0
1d	Records of board of health or health agent concerning Watershed open to inspection by DCR/DEP.	0
1e	Person's causing incident/situation threatening pollutants to watershed shall notify DCR/DEP.	0
2a1	Entrance/Exit only through gates or designated areas.	0
2a2	Allowed on Watershed land 1 hour before sunrise to 1 hour after sunset (with permitted night fishing exception).	0
2a3	No powered boats except in designated areas.	0
2a4	No acts which may pollute the water system. No litter thrown or left. Must use sanitary facilities.	0
2a5	All acts injuring the property are prohibited. No person shall injure, deface, destroy remove or carry off any property, including historic artifacts and natural materials. No removal of gravel, topsoil, stones, boulders, or other material. No building or constructing any object or structure on property.	0
2a6	No cooking or fires.	0
2a7	No wading or swimming in reservoir except wading while using boots to launch boats in designated BLAs.	0
2a8	No wading or swimming in Tributary or Surface Waters, except in designated areas.	0
2a9	No organized sport activities except by written permission.	0
2a10	DCR/DWSP and employees are not responsible for damage to property, injury, or loss of life sustained by fishermen while using the reservoirs within the watershed system	2
2a11	Breach of peace, profanity or other disorderly conduct offensive to general public. No possession or drinking alcoholic beverages	0
2a12	No Motorized Vehicles. No recreational vehicles, except snowmobiles in designated areas. Motor vehicle parking in designated areas only. Operators of motor vehicles shall obey all regulatory signage unless otherwise directed. No willfully obstructing the free passage of vehicles or persons within the system.	0
2a13	No animals, except for horses and dogs at Ware River designated areas.	23

313 CMR 11.09	CONDENSED CMRs	Verbal Warnings
2a14	Bicycles, skis and other non motorized transportation permitted in designated areas only.	1
2a15	No person shall bring land or cause to descend any aircraft within the Watershed except in an emergency.	0
2a16	No parades, games, fairs, bazaars, carnivals, fishing derbies, gifts or solicitation for raising funds without written approval.	0
2a17	No lotteries, raffles, gambling or games of chance. No possession of machinery, instruments or equipment for the former.	0
2a18	No groups of more than 25 people without written permit.	0
2a19	No engaging in business, sale or display of goods or wares without written permit.	0
2a20	No commercial signs or advertising.	0
2a21	No persons (unless authorized by law, license, or permit) shall have possession of or discharge any weapon, firearm, fireworks or other explosive on or within the watershed system except at times and areas designated. No target shooting.	0
2a22	No hunting, shooting, or trapping animals except at designated times and areas.	0
2a23	All persons within the watershed system shall obey the lawful directions of regulatory signs, police officers, DCR Rangers, or persons in charge or of Federal or Commonwealth wardens or enforcement officers.	2
2a24	Any part of the watershed lands may be closed for the public access at any time to protect the lands and waters.	0
2a25	The possession of all types of metal detectors or similar devices is prohibited on all of the Watershed property.	0
<i>Special Regulations for Quabbin</i>		
2b1	Persons in compliance with Commonwealth Fish and Game Laws and Regulations will be allowed to fish from shore in areas designated by the Commission or its designee. A valid state fishing or sporting license is required by any person renting or launching a boat at any commission facility subject to 313 CMR 11.09. Reasonable fees for the use of boats, for rental of outboard motors for fishing purposes, or use of Commission facilities including parking and boat ramps, may be charged by the Commission.	4
2b2	Persons permitted to fish from boats shall at all times be responsible for the sanitary conditions of the boat. Persons under 16 years of age must be accompanied by a person possessing a valid fishing license in order to boat on Quabbin Reservoir.	0
2b3	Only boats of a minimum length of 12 feet, and of a type considered safe by the Commission representative in charge, shall be used. No inboard motors, collapsible boats, sailboats, pontoon boats, square stern canoes, or similar craft will be permitted in the water except in areas designated for boating by the Commission or its designee. Outboard motors shall have a rating of not more than ½ the BIA or OBC rated horsepower for the boat and shall not exceed 20 horsepower, except that outboard motors for Commission boats less than 14 feet six inches shall not exceed 10 horsepower. Boats less than 14 feet shall be limited to 3 occupants, and boats of that length and in excess thereof may be licensed to carry 4 occupants. No boats shall carry more than 4 occupants. Canoes and Jon boats of a minimum of 12 feet, and a type considered safe by the Commission representative in charge, shall be used only in areas designated for boating by the Commission on	0

313 CMR 11.09	CONDENSED CMRs	Verbal Warnings
	Pottapaug Pond above the regulating dam and at Gate 31 above the regulating dam. Canoes less than 16 feet and Jon boats less than 14 feet six inches in length will be limited to 2 occupants, and canoes and Jon boats in excess thereof may be licensed to carry 3 occupants. All boats must be in compliance with current Commonwealth Boating Laws. All boats must be clean and contain no refuse of any kind. Commission personal shall have the right to inspect all private boats launched at Commonwealth facilities and may deny access in order to protect water quality or safety of occupants. Chock blocks must be used on vehicles when removing boats from the reservoir.	
2b4	No person shall operate a motor boat at a speed other than responsible and proper or in such a manner as to annoy or endanger the occupants of other boats.	0
2b5	All privately owned boats, motors and other equipment must be removed from the property of the Commission each day.	0
2b6	Boats shall not leave the mooring areas before dawn and must at the time posted at each mooring area. The beaching of boats at any point except at the designated mooring and landing areas is strictly prohibited except in cases of extreme emergency.	0
2b7	Any violation of 350 CMR 11.09 can result in loss of fishing privileges for not less than one year	0
<i>Special Regulations for Ware River</i>		
2c1	WRW Fishing Designated Areas	0
2c2	WRW PWR Boats/PWR Canoes Prohibited	0
2c3	WRW Boat Motor Restrictions	0
2c4	WRW Revocation of Fishing License	0
TOTAL VIOLATIONS		32

Summary of Ware River Watershed Ranger Interactions

4th Quarter FY2023

Visitor Contacts: 2,008

Total Violations: 114

Parking Tickets: 1

313 CMR 11.09	CONDENSED CMRs	Verbal Warnings
1a	No Taking/Diverting Water.	0
1b1	No construction, filling, dredging, altering land w/out provisions to prevent erosion.	0
1b2	No construction, establishing, maintaining agricultural facilities or animal manure without adequate provision to prevent manure/other pollutants from entering Waters of Watershed System.	0
1b3	No engaging in any other activity that could degrade water quality.	0
1c	No person's property condition should result in discharge of any Pollutants into waters of Watershed system.	0
1d	Records of board of health or health agent concerning Watershed open to inspection by DCR/DEP.	0
1e	Person's causing incident/situation threatening pollutants to watershed shall notify DCR/DEP.	0
2a1	Entrance/Exit only through gates or designated areas.	0
2a2	Allowed on Watershed land 1 hour before sunrise to 1 hour after sunset (with permitted night fishing exception).	0
2a3	No powered boats except in designated areas.	0
2a4	No acts which may pollute the water system. No litter thrown or left. Must use sanitary facilities.	24
2a5	All acts injuring the property are prohibited. No person shall injure, deface, destroy remove or carry off any property, including historic artifacts and natural materials. No removal of gravel, topsoil, stones, boulders, or other material. No building or constructing any object or structure on property.	14
2a6	No cooking or fires.	12
2a7	No wading or swimming in reservoir except wading while using boots to launch boats in designated BLAs.	6
2a8	No wading or swimming in Tributary or Surface Waters, except in designated areas.	13
2a9	No organized sport activities except by written permission.	0
2a10	DCR/DWSP and employees are not responsible for damage to property, injury, or loss of life sustained by fishermen while using the reservoirs within the watershed system	0
2a11	Breach of peace, profanity or other disorderly conduct offensive to general public. No possession or drinking alcoholic beverages	14
2a12	No Motorized Vehicles. No recreational vehicles, except snowmobiles in designated areas. Motor vehicle parking in designated areas only. Operators of motor vehicles shall obey all regulatory signage unless otherwise directed. No willfully obstructing the free passage of vehicles or persons within the system.	11
2a13	No animals, except for horses and dogs at Ware River designated areas.	5

313 CMR 11.09	CONDENSED CMRs	Verbal Warnings
2a14	Bicycles, skis and other non motorized transportation permitted in designated areas only.	0
2a15	No person shall bring land or cause to descend any aircraft within the Watershed except in an emergency.	2
2a16	No parades, games, fairs, bazaars, carnivals, fishing derbies, gifts or solicitation for raising funds without written approval.	0
2a17	No lotteries, raffles, gambling or games of chance. No possession of machinery, instruments or equipment for the former.	0
2a18	No groups of more than 25 people without written permit.	0
2a19	No engaging in business, sale or display of goods or wares without written permit.	0
2a20	No commercial signs or advertising.	0
2a21	No persons (unless authorized by law, license, or permit) shall have possession of or discharge any weapon, firearm, fireworks or other explosive on or within the watershed system except at times and areas designated. No target shooting.	3
2a22	No hunting, shooting, or trapping animals except at designated times and areas.	0
2a23	All persons within the watershed system shall obey the lawful directions of regulatory signs, police officers, DCR Rangers, or persons in charge or of Federal or Commonwealth wardens or enforcement officers.	2
2a24	Any part of the watershed lands may be closed for the public access at any time to protect the lands and waters.	0
2a25	The possession of all types of metal detectors or similar devices is prohibited on all of the Watershed property.	0
<i>Special Regulations for Quabbin</i>		
2b1	Persons in compliance with Commonwealth Fish and Game Laws and Regulations will be allowed to fish from shore in areas designated by the Commission or its designee. A valid state fishing or sporting license is required by any person renting or launching a boat at any commission facility subject to 313 CMR 11.09. Reasonable fees for the use of boats, for rental of outboard motors for fishing purposes, or use of Commission facilities including parking and boat ramps, may be charged by the Commission.	7
2b2	Persons permitted to fish from boats shall at all times be responsible for the sanitary conditions of the boat. Persons under 16 years of age must be accompanied by a person possessing a valid fishing license in order to boat on Quabbin Reservoir.	0
2b3	Only boats of a minimum length of 12 feet, and of a type considered safe by the Commission representative in charge, shall be used. No inboard motors, collapsible boats, sailboats, pontoon boats, square stern canoes, or similar craft will be permitted in the water except in areas designated for boating by the Commission or its designee. Outboard motors shall have a rating of not more than ½ the BIA or OBC rated horsepower for the boat and shall not exceed 20 horsepower, except that outboard motors for Commission boats less than 14 feet six inches shall not exceed 10 horsepower. Boats less than 14 feet shall be limited to 3 occupants, and boats of that length and in excess thereof may be licensed to carry 4 occupants. No boats shall carry more than 4 occupants. Canoes and Jon boats of a minimum of 12 feet, and a type considered safe by the Commission representative in charge, shall be used only in areas designated for boating by the Commission on	1

313 CMR 11.09	CONDENSED CMRs	Verbal Warnings
	Pottapaug Pond above the regulating dam and at Gate 31 above the regulating dam. Canoes less than 16 feet and Jon boats less than 14 feet six inches in length will be limited to 2 occupants, and canoes and Jon boats in excess thereof may be licensed to carry 3 occupants. All boats must be in compliance with current Commonwealth Boating Laws. All boats must be clean and contain no refuse of any kind. Commission personal shall have the right to inspect all private boats launched at Commonwealth facilities and may deny access in order to protect water quality or safety of occupants. Chock blocks must be used on vehicles when removing boats from the reservoir.	
2b4	No person shall operate a motor boat at a speed other than responsible and proper or in such a manner as to annoy or endanger the occupants of other boats.	0
2b5	All privately owned boats, motors and other equipment must be removed from the property of the Commission each day.	0
2b6	Boats shall not leave the mooring areas before dawn and must at the time posted at each mooring area. The beaching of boats at any point except at the designated mooring and landing areas is strictly prohibited except in cases of extreme emergency.	0
2b7	Any violation of 350 CMR 11.09 can result in loss of fishing privileges for not less than one year	0
<i>Special Regulations for Ware River</i>		
2c1	WRW Fishing Designated Areas	0
2c2	WRW PWR Boats/PWR Canoes Prohibited	0
2c3	WRW Boat Motor Restrictions	0
2c4	WRW Revocation of Fishing License	0
TOTAL VIOLATIONS		114