

Fiscal Year 2016 Work Plan



Participants in the 2015 Massachusetts Envirothon pose in front of the Quabbin Reservoir. DCR, and in particular the Office of Watershed Management, has been a long-term sponsor of this annual test of environmental knowledge for high school students. Thirty-one teams participated at the event held on May 14, 2015, which was won by Newton North High School. More information available at <http://www.maenvirothon.org/>. Picture by Diane Petit.

June 2015

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



**Department of Conservation and Recreation
Division of Water Supply Protection
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**Fiscal Year 2016 Work Plan
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**Department of Conservation and Recreation
Division of Water Supply Protection
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FY16 Annual Work Plan Highlights

Fiscal Year 2016 is the third year in the implementation schedule for the *2013 DCR Watershed System Watershed Protection Plan*. Land protection efforts have continued through purchase in fee and of Watershed Preservation Restrictions. Successful implementation of the gull harassment program enables DCR to meet source water quality standards. The Watershed Protection Act provides the ability to review and comment on projects in proximity of critical water resource areas. Comprehensive emergency response planning is kept up to date.

Wachusett/Sudbury Section

- Continue acquisition of critical parcels through fee or Watershed Preservation Restriction. Focus on the Forestry Legacy Quabbin to Wachusett project, including baseline reports.
- Finalize and begin implementation of the system-wide Comprehensive Land Management Plan.
- Continue forestry operations. Active forest lots will be monitored by Foresters and Environmental Quality staff to ensure there are no short-term water quality issues caused by the work. Continue a long-term water quality monitoring study to investigate impact of silviculture on water quality that began in FY14.
- Maintain lands around the Wachusett Reservoir including mowing of dikes to include expanded areas that are maintained per federal and state dam standards but are available for nesting birds as well. Monitor bluff erosion along Wachusett Reservoir and implement recommendation to improve stabilization.
- Continue efforts to manage wildlife in the watershed. Conduct the bird control program and pursue measures to reduce food sources and the overall gull population, such as broadening efforts to eliminate public feeding of gulls and working with wastewater treatment plants. Continue analysis of collected gull fecal samples for the presence of *Cryptosporidium* and other potential pathogens. Continue efforts to identify sources of water contamination using genetic microbial source tracking.
- Continue to maintain Ranger presence to monitor and control public access. Enhance enforcement of rules and regulations through targeted patrols and the use of citations. Issue written warnings and/or non-criminal citations for repeat offenders and serious violations.

- Continue to implement the Wachusett Internal Road Plan, including routine maintenance and continued upgrades to higher priority roads.
- Monitor and maintain major dams in the system, as well as smaller watershed dams.
- Monitor and analyze water quality, including weekly sampling of 19 tributaries for bacteria, turbidity, temperature, and specific conductance. Continue monthly sampling for nutrients and Total Suspended Solids at 10 tributaries. Continue weekly or more frequent sampling of the reservoir for plankton, pH, temperature, and dissolved oxygen. Conduct extensive hydrologic monitoring (stream flow, precipitation, and snow pack) by staff and in cooperation with U.S. Geological Service.
- Continue efforts in concert with MWRA to control aquatic invasive species, including the DASH (Diver Assisted Suction Harvest) removal of invasive plants in the Stillwater basin. Expand monitoring of watershed ponds and streams for presence of aquatic invasive species.
- Complete design for stormwater improvements to the Phase II Direct Discharge projects, including assistance to MassDOT as they prepare to bid construction of the Route 12 Causeway improvements, and design review of Beaman Street Bridge and Route 140 South Bay. Engage in ongoing discussions with MassDOT in efforts to move projects to construction.
- Continue work with MWRA on preparedness for potential railroad spills, including implementing recommendations from Railroad Hazmat Release Tabletop Exercise After Action Report/Improvement Plan. Run a field exercise in the fall testing capabilities for a mock railroad spill.
- Complete several facility projects underway, including security enhancements at facilities, building demolition at Kristoff and Mazzolini sites, upgrades at maintenance garage, and Wilson St Underground Storage Tank (UST) study.

Quabbin/Ware Section

- Continue acquisition of critical parcels through fee or Watershed Preservation Restriction. Continue on Q2W project and Hubbardston Land Swap.
- Finalize and begin implementation of the system-wide *Comprehensive Land Management Plan*.
- Continue forestry operations. Active forest lots will be monitored by Foresters and Environmental Quality staff to ensure there are no short-term water quality issues caused by the work. Continue a long-term water quality monitoring study to investigate impact of silviculture on water quality that began in FY15.

- Maintain lands around the Quabbin Reservoir including mowing and monitoring of dam and dike.
- Continue efforts to manage wildlife in the watershed. Conduct the Quabbin Gull Harassment program. Outside the watershed pursue measures to reduce food sources and the overall gull population, such as broadening efforts to eliminate public feeding of gulls and working with wastewater treatment plants. Continue analysis of collected gull fecal samples for the presence of *Cryptosporidium* and other potential pathogens. Continue efforts to identify sources of water contamination using genetic microbial source tracking.
- Continue to maintain Watershed Ranger presence to monitor and control public access. Enhance enforcement of rules and regulations through targeted patrols and the use of citations.
- Issue written warnings and/or non-criminal citations for repeat offenders and serious violations.
- Monitor and maintain major dams in the system, as well as smaller watershed dams.
- Monitor and analyze water quality, including biweekly sampling of tributaries for bacteria, turbidity, temperature, pH, dissolved oxygen, and specific conductance. Continue biweekly sampling for alkalinity, nutrients and for Environmental Quality Assessments and quarterly sampling for nutrients at core sites. Continue at least monthly sampling of the reservoir for plankton, pH, temperature, dissolved oxygen, specific conductance, bacteria, turbidity, and alkalinity; reservoir sampling for nutrients is completed quarterly. Conduct hydrologic monitoring (monthly groundwater measurements) by staff, in cooperation with U.S. Geological Service.
- Continue efforts in concert with MWRA to control aquatic invasive species including the Possible DASH (Diver Assisted Suction Harvest) removal of invasive plant Brittle weed in O’Laughlin Pond. Continue monitoring of watershed ponds and streams for presence of aquatic invasive species.
- Continue work with MWRA on Quabbin Power, Communication, and Security Improvements Projects (Belchertown, Ware, and Hardwick).
- Complete several Administrative Complex improvements including water/wastewater projects (Admin building and stockroom); paving/drainage improvements on Blue Meadow Road; heating system repairs and maintenance; and masonry and electrical system upgrades.

**Wachusett/Sudbury Operation Section
FY2016 Work Plan**

Key to Abbreviations

Wachusett/Sudbury Staff: A=Administration; CE=Civil Engineers; EQ=Environmental Quality; F=Forestry; GIS-W = Geographic Information Services Wachusett; IS=Interpretive Services; RD=Regional Director, Assistant Regional Director; WM=Watershed Maintenance; WR=Watershed Rangers

Boston/Division Staff: A=Administration and Finance; D= Director; Director's Staff; NR= Natural Resources; GIS=Geographic Information Services; P= Environmental Planning

Task	Task Description	Lead	Additional Staff	Product	Due Date
A. Land Procurement					
1.	Coordinate due diligence and other tasks/services from DCR and private contractors to complete survey, appraisal, title, engineering, and environmental assessments for proposed acquisitions. Negotiate WPR language, purchase prices and conditions of sale with sellers of property.	NR	GIS-W, GIS, P, A	Protected land	4 th Quarter
2.	Develop individual parcel presentation materials and meet with MWRA Board for approval.	NR	P, GIS-W	Protected land	As needed
3.	Convene LAP meetings to review parcels and prioritize land purchases.	NR		LAP Recommendations	As needed
4.	Work with the North Quabbin Regional Landscape Partnership to acquire land and WPRs with a Quabbin to Wachusett (Q2W) Forest Legacy Grant.	NR		Grant documents	Ongoing
5.	Continue to solicit and work with landowners in donating conservation interests in land and assist in advising landowners on the tax incentives available when donating conservation interests.	NR		Ongoing communications	Ongoing
6.	Establish regularly scheduled land/legal meetings to address attorney assignments and project logistics.	NR		Meetings	Ongoing
B. Watershed Preservation Restrictions					
1.	Complete baseline inspections for all new WPRs prior to acquisition or within reasonable time after acquisition using established protocols and modern technologies. Make baseline inspection reports available to appropriate staff	NR		Report	As noted in task
2.	Monitor each WPR every two years; monitor high-priority ones annually.	NR	EQ	Monitoring reports and updated hydrology layer	Ongoing
3.	Post WPR boundaries, as time allows.	NR		Posted boundaries	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
4.	Track changes in land ownership and meet with successor landowners as necessary.	NR		List of landowners and meetings	Ongoing
5.	Write and distribute Watershed Currents, the WPR Landowner newsletter, twice a year.	NR	P	Newsletter	Twice annually
6.	Convene WPR Working Group as needed and confer with legal to respond to enforcement issues and requests to exercise reserved rights.	NR	EQ	Issue resolution and reserved rights decisions	As needed
7.	Maintain an accurate GIS layer and Excel database of WPRs and distribute to appropriate staff.	NR		Excel spreadsheet and GIS layer	Ongoing
8.	Participate in EOEAA-wide stewardship database planning efforts as necessary.	NR		Statewide database	As needed
9.	Continue to implement WPR records procedure with DCR records manager.	NR		Securely stored records	Ongoing
C. Land Management					
1.	Begin implementation of the system-wide Comprehensive Land Management Plan (CLMP).	F	RD, P, EQ, GIS, NR	New comprehensive Land Management Plan	Ongoing
2.	Conduct periodic reviews and monitoring of land management activities to assure compliance and consistency with Land Management Plan.	NR	F, EQ	Review memo	As needed
3.	Prepare summaries of proposed forestry lots.	F	RD	Lot Summaries	4 th Quarter
4.	Review lots to ensure consistency with aspects of the CLMP, including wildlife, forestry objectives, and environmental quality.	NR	EQ, RD	Annual lot reviews, comments	4 th Quarter
5.	Hold public meeting(s) on proposed forestry lots. Accept public comment.	RD	F	Meeting minutes	Spring
6.	Prepare, sell and supervise forest management operations in the Wachusett and Sudbury watersheds consistent with the CLMP.	F	RD	Annual statistics on harvest area, inspection reports	4 th Quarter
7.	Monitor water quality at active logging sites to measure effectiveness of DWSP's Best Management Practices (BMPs).	EQ		Water quality data in Forestry Database	Ongoing
8.	Implement restrictions and recommendations by NHESP for forest management operations in habitat of rare plants or animals.	F	NR	Cutting plans and forestry database	Ongoing
9.	Continue work with DCR Asian Longhorned Beetle Program and USDA to oversee beetle eradication in watershed areas.	F	EQ, RD	Meetings, cutting plans	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
10.	Identify and implement terrestrial invasive management projects. Respond as needed to newly discovered and controllable populations of terrestrial invasive species.	F	NR, EQ, RD	Completed projects	Ongoing
11.	Conduct annual invasive species control on current Wildlife Habitat Incentive Program (WHIP) project.	NR		Contract	4 th Quarter
12.	Inspect all DCR fields with agricultural permits.	F	EQ, RD	Inspection Reports	2 nd Quarter
13.	Monitor rare plants and animal species and/or their habitats.	NR		Reports	Ongoing
14.	Continue boundary line maintenance.	F	CE, RD,	Update GIS layers and encroachment database	Ongoing
15.	Seek to resolve known encroachments. Incorporate newly found encroachments into the process	WR	F, RD	Update encroachment database	Ongoing
16.	Assess all new fee acquisitions to document the existing condition of forests, roads, and boundary markings. Integrate new properties into existing land management and public access programs.	F	CE, WM, WR	Update relevant databases and GIS layers	Ongoing
17.	Pursue final disposition of lands surrounding Framingham Reservoirs 1 and 2.	D	RD, P	Disposed property	Ongoing
18.	Maintain DWSP wildlife fields through regular mowing; keep accurate mowing records.	WM	F	Maintained Fields	Ongoing
19.	Monitor Reservoir bluff erosion	EQ		Report of findings	Ongoing
D. Wildlife Management					
1.	Conduct program of observation and active harassment of gulls, geese, and other waterfowl.	EQ	All available staff	Birds are moved out of control zone.	Ongoing
2.	Implement a pilot full reservoir harassment program to test its effectiveness in preventing birds from roosting on the reservoir.	EQ	NR, all available staff	No birds are allowed to roost on the reservoir	2 nd Quarter
3.	Produce weekly report during active Bird Harassment Program season.	EQ		Weekly report	Ongoing during harassment season
4.	Observe and document the nocturnal roost of gulls on the reservoir weekly during the months of September- March	NR		Data used to guide harassment program	Ongoing during harassment season
5.	Control Canada Geese populations by treating eggs during nesting to prevent hatching.	NR	WM	Annual report	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
6.	Monitor geese activity on the North and South Dikes. Implement control activities as needed including coyote decoys, habitat management practices or harassment to limit goose presence.	NR	EQ, WM	Limited number of geese on dikes	As needed
7.	Monitor area landfills for feeding gulls. Work cooperatively with landfill operators to ensure DEP landfill regulations are being followed.	NR		Field reports	As needed
8.	Monitor waste water treatment plants in Massachusetts that have wires installed to prevent feeding to make sure they function and continue to exclude gulls. Identify other wastewater treatment plants in MA with gulls and work to install wires at those plants.	NR	WM	Controlled treatment plants	As needed
9.	Identify parking lots in MA where food is available and work to prevent feeding through educational signage, interaction and enforcement.	NR		Controlled parking lots	As needed
10.	Investigate using social marketing techniques to influence people feeding gulls.	NR		“No Feeding” PSA; analyze and report on gull feeding survey; produce column for commercial real estate industry magazine	2 nd Quarter; 3 rd Quarter; 1 st Quarter
11.	Work with cities and municipalities in MA to enact regulations to make feeding gulls illegal. Work cooperatively with these communities to educate feeders and/or enforce feeding regulations.	NR		Reduction in feeding of gulls	Ongoing
12.	Continue to identify alternative food sources for gulls in MA and work to eliminate their presence.	NR		Food sources eliminated	As needed
13.	Work with MIT to identify bacteria carried by gulls in central MA.	NR		Publication	Ongoing
14.	Remove beaver and muskrat in the Aquatic Wildlife Pathogen Control Zone and assist with removal of nuisance individuals in other areas when possible. Utilize habitat modifications to discourage the presence of aquatic mammals.	NR	EQ	Field reports, annual summary	4 th Quarter
15.	Analyze all aquatic mammals removed from Pathogen Control Zone for the presence of <i>Giardia</i> and <i>Cryptosporidium</i> by sending stool samples to a private lab for analysis.	NR		Summary report	4 th Quarter
16.	Use genetic markers to assist in identifying contamination sources in water samples.	NR	EQ	Sample identification	Ongoing
17.	Respond to beaver complaints from citizens affected by beaver on DWSP property; provide assistance as time allows.	NR	EQ	Assistance to homeowners	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
18.	Respond to beaver caused flooding issues on DWSP property; assess situation and take appropriate actions.	NR	EQ	Field reports	Ongoing
19.	Respond to problems of burrowing animals on dams and dikes; take appropriate action.	NR	CE, WM	Field report	Ongoing
20.	Continue long-term wildlife resource monitoring program to document wildlife response to forest management.	NR		Data base, report	Ongoing
21.	Research and manage for common loons on DWSP water bodies in Wachusett watershed; provide nesting platforms, capture and sample birds for contaminants.	NR		Annual report	4 th Quarter
22.	Work with DFW to survey for and document breeding bald eagles on the reservoir.	NR		Field report	4 th Quarter
23.	Work with DFW to collect and tag spawning Lake Trout in the reservoir.	EQ		Field report	4 th Quarter
E. Public Access Management					
1.	Tally visitor contact and produce quarterly and annual summary reports. Conduct trend analysis on visitor statistics and rule violations.	WR		Reports	Ongoing
2.	Continue to cooperate with state, environmental, and local police for help with enforcement when required.	WR	RD	Enforcement resolution	Ongoing
3.	Continue to use Agency social media accounts for advertisement of interpretive programs, including general info or emergency info (such as closings).	WR	IS	Press documents	Ongoing
4.	Continue updates and improvements to access points with signs, gates and improved parking areas. Conduct regular inspections of gates and access barriers.	WR	WM, RD	Signs	Ongoing
5.	Continue to implement Wachusett and Sudbury Public Access Plan policies, as necessary	WR	RD	Compliance with DWSP regulations	Ongoing
6.	Continue to conduct “special operations” such as night operations, ATV, and snowmobile operations, as needed.	WR	RD	Compliance with DWSP regulations	Ongoing
7.	Enforce Rules and Regulations of CMR 350 11.09 through the use of citations. Issue written warnings and/or non-criminal citations for repeat offenders and serious violations.	WR		Compliance with DWSP regulations. Update database.	Ongoing
F. Watershed Security					
1.	Maintain an active presence in the watershed. Monitor watershed lands, roadways, and railways for unusual or suspicious activities; provide appropriate response.	WR	RD	Ranger logs	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
2.	Continue ongoing communication and coordination with local, state, and federal emergency responders; coordinate with MWRA on all security issues.	WR	RD	Ranger logs	Ongoing
3.	Continue program of enhancing security infrastructure around Wachusett Reservoir.	RD	CE, WR	Implementation	Ongoing
G. Infrastructure					
1.	Assess Wachusett and Sudbury dams, spillways, and dikes monthly. Forward all significant issues to the Regional Director and the MWRA. Coordinate with MWRA on biannual dam safety inspections for compliance with 302 CMR 10.00.	CE	RD	Inspection logs and reports, summary reports	Monthly
2.	Assess DWSP smaller dams semi-annually and develop maintenance plans.	CE	WM	Plans, summary reports	Monthly
3.	Continue maintenance plans for the improvement of the Wachusett and Sudbury dams and dike structures. Monitor conditions and maintenance activities and revise plans, as necessary.	CE	WM	Inspection reports, summary reports	Ongoing
4.	Implement Wachusett Watershed-wide Road Management Plan.	CE	EQ, GIS-W	Road projects	On-going
5.	Conduct annual inspection/evaluation of Wachusett internal roads, access points, and shoreline; update GIS data layers as needed.	CE		Maps	4 th Quarter
6.	Develop annual plan for internal road repair projects. Conduct projects using in-house staff and resources. Provide oversight to ensure protection of water resources.	CE	RD, F, WM, EQ	Plan	3 rd Quarter
7.	Develop and implement a contract for geotechnical evaluation of the River Road in Clinton. Finalize design then develop permitting and construction phasing schedule for the rehabilitation of River Road in Clinton.	CE	RD, EQ	Report, Plan, schedule	4 th Quarter
8.	Conduct projects using in-house staff and resources. Provide oversight to ensure protection of water resources.	WM	CE, EQ, F	Projects	Ongoing
9.	Design and install stormwater BMPs for new projects and retrofit into existing sites.	CE	EQ	Stormwater treatment BMPs	Ongoing
10.	Oversee regular maintenance of all DWSP BMPs	EQ	CE	Effective stormwater treatment	Ongoing
11.	Implement Road Management Plan for Sudbury watershed internal roads.	CE	EQ	Inspections, projects	4 th Quarter
12.	Provide supervision, coordination, oversight, and technical support or assistance for all engineering, construction, and renovation work in Section.	CE	RD	Inspections, construction and maintenance records	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
13.	Maintain records regarding reservoir and facility construction and maintenance operations.	CE		Miscellaneous records	Ongoing
14.	Implement annual Major Projects including: <ul style="list-style-type: none"> • Security Enhancements at facilities • Finalize Building Demolition at Kristoff and Mazzolini • Upgrades at Maintenance Garage • Wilson St UST study 	RD	CE, WM, EQ	Improvements	4 th Quarter
H. Watershed Protection Act					
1.	Continue implementation of the WsPA. Review and track all WsPA applications. Issue decisions within timeframes as required by the regulations.	EQ	RD, GIS-W, P	WsPA Decisions	Ongoing. Decisions made within timeline set by WsPA.
2.	Convene the Watershed Protection Act Working Group regularly to discuss policy and address specific problems related to the WsPA	P	EQ, RD	Coordination, decisions, meeting minutes	Quarterly
3.	Review permits for watershed towns on a monthly basis with letters sent to property owners of affected parcels.	EQ	RD	Letters to property owners of affected parcels	Ongoing
4.	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.	EQ	RD	Letters to property owners of affected parcels	Ongoing
5.	Review previous files on an ongoing basis, including contact with owners and site visits as needed.	EQ	RD	Follow-up letters	Ongoing
6.	Provide Town Halls with WsPA maps, brochures and applications on a regular basis.	EQ		Inventory of needs and inventory of information that was distributed.	Visit one town per month - each town gets visited twice yearly.
I. Interpretive Services					
1.	Review Interpretive Plan annually and amend as necessary.	IS	WR	Plan revision	Ongoing
2.	Inspect kiosks and brochure boxes quarterly, submit work orders, and update as necessary.	WR	IS, WM	Updates on kiosks at least quarterly	Ongoing
3.	Analyze and update current brochures. Determine need for new brochure topics and develop as needed.	IS	WR, EQ	Brochures	Ongoing
4.	Partner with other organizations on watershed programs	IS	WR	Programs	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
5.	Continue to develop new school programs; conduct quarterly public programs on watershed topics.	IS	WR	Programs	Ongoing
6.	Continue regular programming at Stillwater Farm.	IS	WR	Programs	Ongoing
7.	Continue to provide educational materials and support for Mass Envirothon.	EQ	IS	School programs	Ongoing
8.	Continue education efforts through visitor contacts and formal presentations.	WR	IS, EQ	Programs, visitor contacts	Ongoing
9.	Continue to provide support for outreach and educational projects by purchasing supplies and assisting with marketing programs, as needed.	EQ	IS, WR	List of information will be submitted quarterly.	Quarterly
10.	Publish bi-annual <i>Downstream</i> newsletter.	NR	P, IS, EQ, WR, RD	Newsletter	2 nd Quarter and 4 th Quarter
11.	Maintain and update website.	P	IS, NR, EQ, WR, RD	Website	Ongoing
J. Water Quality and Quantity Monitoring					
1.	Continue weekly sampling of 19 tributaries for bacteria, turbidity, temperature, and specific conductance. Continue monthly sampling for nutrients and TSS at 10 tributaries. Continue weekly or more frequent sampling of the reservoir for plankton, pH, temperature, and dissolved oxygen.	EQ		WQ data entered into Aquarius software	Ongoing
2.	Produce annual water quality summary and sampling plan.	EQ		Annual WQ report by March 15	3 rd Quarter
3.	Monitor stream flow, precipitation, and snow pack; coordinate with USGS.	EQ	CE	Rating curves, EXCEL spreadsheets	Ongoing
4.	Continue to sample storm events monthly at Trout Brook and as needed at three other sites to obtain information on specific storm types and seasons.	EQ		Annual nutrient loading calculations	Ongoing
5.	Continue to work with UMass to use results of reservoir and watershed runoff water quality models to help to make watershed management decisions.	EQ		Data summaries for UMass	Ongoing
6.	Identify and outline system-wide water quality issues. Bring to ResOPs and/or WQSAT for discussion and integrate into water quality modeling work with UMass.	EQ		Issues	2 nd Quarter
7.	Continue to implement long term monitoring in paired sub-basins in order to assess impact of forestry on water quality.	EQ	F	Annual report summarizing data and activities	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
K. Watershed Monitoring and Surveillance					
1.	Continue to review local records and conduct watershed surveillance to identify potential water quality problems. Work with local boards and land owners when problems are identified. Document all work in EQ data base.	EQ		Document actions in EQ database, compliance with regulations	Ongoing
2.	Review and analyze Data Base Records. Where possible, compare with other data (water quality, GIS etc.) to evaluate watershed management programs. .	EQ	GIS-W,	Data, reports	Ongoing
L. Aquatic Invasive Species					
1.	Inspect reservoir, lakes, ponds and tributaries for presence of AIS and make appropriate recommendations for management action.	EQ		Annual summary in water quality report	3 rd Quarter
2.	Assist MWRA with increase removal efforts in the Reservoir.	EQ	RD	Annual summary in water quality report	3 rd Quarter
3.	Monitor, advise, and assist contractor with any necessary removal operations.	EQ	WM	Annual summary in water quality report	3 rd Quarter
4.	Continue education efforts through formal presentations and visitor contacts.	EQ	WR	Annual summary in water quality report	3 rd Quarter
5.	Distribute AIS brochure and implement AIS Educations program .	IS	EQ	Brochure, program	Ongoing
6.	Expand beaver control to remove beavers from areas in the reservoir with ongoing invasive plant management.	NR	EQ	Field reports	Ongoing
7.	Revise the 2010 Aquatic Invasive Species Assessment and Management Plan.	EQ		Final report	4 th Quarter
M. Environmental Quality Assessments					
1.	Finalize Stillwater District EQA and use recommendations to develop tasks for FY17 Work Plan.	EQ		Final report, FY17 work plan tasks	2 nd Quarter
2.	Conduct fieldwork for Worcester District EQA and complete draft report.	EQ		Draft report	4 th Quarter
3.	Document status of agricultural sites, hazardous materials, hazardous waste, spills, Underground Storage Tanks (USTs), and Above-ground Storage Tanks (ASTs).	EQ		Updated spreadsheets	Ongoing
N. Wastewater Management					
1.	Provide plan review and interpretation, if requested, to Boards of Health.	EQ		Plan review, recommendations to boards, applicants	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
2.	Obtain sewer connection information from Holden and West Boylston; add to spreadsheet.	EQ		Updated spreadsheet and GIS datalayer	Ongoing
3.	Continue to provide management support, with the MWRA, of the Rutland-Holden trunk sewer and Rutland Holden Relief trunk sewer. Prepare and submit quarterly bills to the user communities in a timely manner.	CE	RD, D	Quarterly bills, correspondence with towns	Quarterly
4.	Research and provide sewer management information for legal issues regarding the Trunk and Relief sewer lines	CE	RD	Notes, information	Ongoing
5.	Evaluate and manage new trunk line connections. Monitor trunk line for encroachments; resolve any problems.	CE	RD	Permits, regular inspections	Quarterly
O. Stormwater Management					
1.	Complete contract for design of improvements to Causeway	EQ	CE, RD	Design package ready for bid	1 st quarter
2.	Coordinate with MassDOT for construction of Causeway Drainage Improvements starting end of FY 16	EQ	D, RD, CE	Stormwater treatment BMPs	4 th Quarter
3.	Complete consultant contract for design of drainage improvements to Beaman St. Bridge.	EQ	RD, D, CE	Design package ready for bid	2 nd Quarter
4.	Complete consultant contract to design improvements to Rt. 140 along South Bay.	EQ	RD, D	Design package ready for bid	2 nd Quarter
5.	Work with MassDOT to fund Beaman St Bridge and South Bay Project, for construction in FY 17.	D	EQ, RD, CE	Projects moved up on Mass DOT list	4 th Quarter
6.	Continue to work with landowners, towns and DCR staff for better maintenance and performance of watershed BMPs.	EQ	CE, RD	Document actions in SM database	4 th Quarter
7.	Work with watershed towns to ensure compliance with MS4 requirements.	EQ		MS4 permit conditions met	4 th Quarter
8.	Maintain stormwater conveyance structures map, including connections, as needed.	EQ	GIS-W	GIS data layer	Ongoing
9.	Continue regular inspection of all construction sites greater than one acre.	EQ		ESC maintained and working as designed	Ongoing
10.	Finalize assessment of sedimentation in Gates Brook cove with recommendations	EQ	CE, RD	Report	1 st Quarter
11.	Monitor stream bank erosion along Gates Brook.	EQ		Calculate bank erosion rate at 4 cross-sections	4 th Quarter

Task	Task Description	Lead	Additional Staff	Product	Due Date
P. Emergency Response					
1.	Coordinate Emergency Spill Response training with MWRA and local responders.	CE	WR	Trainings	Ongoing
2.	Work with ODS, MWRA and local towns to develop and implement exercise programs for Framingham Reservoirs 1 and 2 to satisfy EAP requirements.	CE	WR	Plan	4th Quarter
3.	Update contact list and information in Comprehensive Emergency Management Plan, EAPs, and other emergency response plans.	CE	WR	Plan	Ongoing
4.	Organize and maintain emergency response supplies and services.	CE	WR	Inventory	Ongoing
5.	Develop and implement Comprehensive Exercise and Evaluation Program to enhance Emergency Response training.	CE	WR	Trainings	4th Quarter
6.	Provide ICS and Emergency Response training to appropriate staff.	CE	WR	Classes	4 th Quarter
7.	Evaluate, monitor and oversee spills 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.	CE	EQ, WR, WM	Contain and cleanup releases	Ongoing
8.	Implement recommendations from Railroad Hazmat release tabletop exercise After Action Report / Improvement Plan including a field exercise in the fall	CE	RD, WR, EQ	Field exercise, training	2 nd Quarter
Q. Support					
1.	Prepare and submit to MWRA and the Water Supply Protection Trust Annual Work Plans, budgets, progress reports, and program goals and objectives. Track Section progress in meeting program goals.	RD	EQ, P, A, D	Completed plans, budgets and reports	Ongoing
2.	Administer the Payment in Lieu of Taxes (PILOT) program.	P	D, A	Payments to watershed communities	4 th Quarter
3.	Continue to support all staff projects and reports by providing GIS maps and training.	GIS-W		Maps, analyses, training	Ongoing
4.	Continue to maintain and regularly update all GIS databases including hydrology, infrastructure, open space, parcels, regulated areas, stormwater structures. Ensure all digital data is current and available to staff.	GIS-W		Databases	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
5.	Continue to use GPS to capture and maintain BMP and MS4 data for EQ and parcel boundaries for Land Acquisition. Coordinate use of GPS equipment and download and process all GPS data.	GIS-W		Digital data	Ongoing
6.	Continue to create parcel maps for Land Acquisition Coordinator meetings with landowners, LAP meetings and MWRA Board.	GIS-W		Maps, analyses	Ongoing
7.	Continue to support municipalities and other partners by providing GIS products and technical support.	GIS-W		Maps, analyses, training	Ongoing
8.	Operate administrative offices, including answering phones, greeting visitors, etc.	A	RD	Weekly payroll, HR forms processing	Ongoing
9.	Provide payroll assistance and personnel services for all Section employees.	A	RD	Account set-up, invoice processing, regular finance reporting	Ongoing
10.	Provide contract administration, financial management, record-keeping, purchasing of goods and services, and other financial support services.	A	RD	Accounting and financial services	Ongoing
11.	Coordinate with EEA IT to provide local MIS support for the Section. Update IT Plan as required addressing technology needs for the coming year.	A	All Sections	Support and troubleshooting services, IT Plan	Ongoing
12.	Administer Logging Permit program, including mailings, bid openings, financial management, database management, permit and key issuance, etc.	A	F	Program administration, annual revenue report, database maintenance	Ongoing
13.	Plan and implement vehicle and equipment purchases and leases.	RD	A, WM	Vehicle purchases and leases	Annual
14.	Inspect, provide regular maintenance, and repair vehicles, boats and other motorized equipment.	WM	RD	Work completion	Ongoing
15.	Provide routine repairs and maintenance to all Wachusett facilities.	WM	RD	Work completion	Ongoing

Due Dates for FY16 Work Plan

1st Quarter: September 30, 2015

2nd Quarter: December 30, 2015

3rd Quarter: March 30, 2016

4th Quarter: June 30, 2016

Quabbin/Ware Operational Section FY2016 Work Plan

Key to Work Unit Abbreviations: ARD = Quabbin Asst. Regional Director; ATS = Administrative and Technical Support; CE = Civil Engineering; D = Division of Water Supply Protection Director; EP = Environmental Planning; EQ = Environmental Quality; F = Forestry; GIS = Boston GIS staff; IS = Interpretive Services; NR = Natural Resources; P = Planning (Boston); RD = Quabbin Regional Director; WM = Watershed Maintenance; WR = Watershed Rangers.

Plan Acronyms: AIS = Aquatic Invasive Species; AST = Above-ground Storage Tank; BLA = Boat Launch Area; BMP = Best Management Practices; BoH = Board of Health; CMP = Conservation Management Practices; CVA = Chicopee Valley Aqueduct; DCAM = Division of Capital Asset Management; DCR = Department of Conservation & Recreation; DEP = Department of Environmental Protection; DFW = Division of Fisheries & Wildlife; DWSP = Division of Water Supply Protection; EOEEA = Executive Office of Energy and Environmental Affairs; EPA = Environmental Protection Agency; EQA = Environmental Quality Assessment; GCP = General Construction Permit; GIS = Geographic Information Systems; GPS = Global Positioning System; IT = Information Technology; NPDES = National Pollution Discharge Elimination System; MOU = DCR/MWRA MOU (April 2004); MWRA = Mass. Water Resources Authority; OWM = Office of Watershed Management; PAMP = Public Access Management Plan; SOP = Standard Operating Procedure; SWPPP = Stormwater Pollution Protection Plan; TIP = Terrestrial Invasive Plant; TIS = Terrestrial Invasive Species; UST = Underground Storage Tank; WPP = Watershed Protection Plan; WPR = Watershed Preservation Restriction; WsPA = Watershed Protection Act.

Task	Task Description	Lead	Additional Staff	Product	Due Date
A. Land Procurement					
1.	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 purchase prices and conditions of sale with sellers of property.	NR	P, GIS	Protected land	4 th Quarter
2.	Complete assessments on all new acquisitions, including descriptions of fire/access roads, bridges, restoration needs, and forest conditions. Integrate these lands into existing land management, public access and other watershed management programs.	F	NR, EQ, WM, CE, EP	Completed assessments	Ongoing
3.	Participate in LAP meetings to prioritize land purchases and provide input into land acquisition decisions in Quabbin and Ware River watersheds.	ARD, RD	EQ, EP, F	Input, advice	Ongoing
4.	Continue working with the North Quabbin Regional Landscape Partnership in pursuing a Quabbin to Wachusett (Q2W) protected land corridor and other land protection opportunities.	NR		Protected land	Ongoing
5.	Continue to solicit and work with landowners in donating conservation interests in land and assist in advising landowners on the tax incentives available when donating conservation interests.	NR		Ongoing communications	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
B. Watershed Preservation Restrictions					
1.	Monitor each WPR every two years; monitor high-priority ones annually.	NR	EQ	28 monitoring reports Updated hydrology layer	Ongoing
2.	Complete baseline inspections for all new WPRs prior to acquisition or within a reasonable time of acquisition using established protocols and modern technologies. Make baseline inspection reports available to appropriate staff.	NR		WPR baseline reports	Ongoing
3.	Work towards resolving issues found with landowners, along with the WPR Working Group.	NR	EQ, F, EP, P	Issue resolution	Ongoing
4.	Post WPR boundaries as time allows.	NR		Posted boundaries	Ongoing
5.	Track changes in landownership and meet with successor landowners as necessary.	NR		List of landowners and meetings	Ongoing
C. Land Management					
1.	Begin implementation of the system-wide Comprehensive Land Management Plan (CLMP).	NR	F, RD, P, EQ, GIS, ARD	Current Plans	Ongoing
2.	Conduct periodic reviews and monitoring of land management activities to assure compliance and consistency with Land Management Plan. 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 of the planned land management activities.	NR	F, EQ	Internal review; Review memos	As needed; 4 th Quarter
3.	Design and begin to implement research and monitoring to verify the effectiveness of the existing statewide and DWSP forestry BMPs/CMPs in protecting the water supply.	NR	F, EQ, ARD	Reports summarizing effectiveness of BMP's.	4 th Quarter
4.	Collect data and maintain datasets, GIS datalayers and related maps on rare and special plant and animal species or communities. Compile and analyze data on forest structure, composition, and regeneration.	NR	F, ATS	Databases	Ongoing
5.	Conduct terrestrial invasive plant species control on current Wildlife Habitat Incentive Program (WHIP) project on the Ware River Watershed.	NR	WM	Contract	4 th Quarter

Task	Task Description	Lead	Additional Staff	Product	Due Date
6.	Prepare lot proposals including data on proposed harvest area, stand data, soils data, cultural resource data, wetlands data, wildlife data, unique features data, and priority habitat data. Proposals also include information on lot layout, landings, stream crossings, wetland crossings, and stonewall crossings. Sub-watershed analysis of past and proposed harvest is also included.	F	ARD	Lot proposals	2 nd Quarter
7.	Layout, mark, tally and show timber sales in accordance with the approved lot proposals. Fill in permit conditions for the sale.	F	ARD	Timber sales	Ongoing
8.	Prepare and file cutting plans in compliance with MGL Chapter 132 (Forest Cutting Practices Act) for each lot.	F	ARD	Approved cutting plans	Ongoing
9.	Prepare and post informational flyers for each harvest detailing harvest area and management objectives.	F	ARD	Informational flyers onsite	Ongoing
10.	Present lot proposals at public meetings each spring and provide public tours of lot proposal areas and past harvests, as requested.	F	ARD	Public presentation and tours	Ongoing
11.	Provide supervision and oversight of all timber harvesting operations on DWSP property to assure compliance with all applicable regulations, approved Best Management Practices/Conservation Management Practices and other contract conditions.	F	NR, ARD, EQ	Supervision and oversight of all Silvicultural operations	Ongoing
12.	Collect regeneration data on past harvest to help monitor effects of silvicultural operations on species composition and age structure. Create photo point for each lot and take pictures annually to help document forest response to harvest.	F	NR	Regeneration database, maps, and photos	Ongoing
13.	Continue to implement a GIS based mapping system of silvicultural operations on the Quabbin and Ware Watersheds. Begin to use LIDAR	F	ATS	GIS datalayer of annual silvicultural operations	Ongoing
14.	Develop, implement, and evaluate a program of expanded water quality monitoring for silvicultural operations. Conduct periodic stream sampling at long-term forestry sites. Modify plan, as needed.	EQ	NR, ARD	Evaluation of options; development of long-term monitoring plan; stream sampling.	FY16
15.	Collect data and maintain GIS datalayers, and related maps on forest structure, composition and regeneration, forest roads, boundary information, stone walls, wetlands and other data to guide the land management program.	F	NR, ATS	Databases, maps	Ongoing
16.	Maintain and mark reservation boundaries, as needed. Document and pursue resolutions of boundary encroachments.	F	WM, NR, WR, CE, ARD, RD	Maintain 7 miles of boundaries; encroachment resolutions	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
17.	Post on DCR website all lot proposals, lot summaries, public presentations, cutting plans, and some pictures of the lot as they change over time.	F	P	Web postings	Ongoing
18.	Implement the non-silvicultural land management portions of the Quabbin and Ware River Land Management Plans (e.g., field and viewshed maintenance; gravel pits management, etc.).	WM	F, NR, ARD	Plan implementation	FY16
19.	Supervise field mowing permits at Ware River to ensure permittees comply with permit conditions.	F		Field mowing in compliance with permit	Ongoing
20.	Administer and supervise maple sugaring permits on Quabbin Reservation.	F	ARD	Compliance with permits	3 rd Quarter
21.	Implement a Terrestrial Invasive Plant Management strategy, including monitoring, inventory and control components, especially in sensitive watershed areas.	NR	F, WM, EQ	Strategy Implementation; Meetings with contractors.	FY16
22.	Provide administrative support for the Logging Permit program, including mailings, bid openings, financial management, database management, permit and key issuance, etc.	F	ARD	Program administration; annual revenue report; database maintenance	Ongoing
D. Wildlife Management					
1.	Observe and document the nocturnal roost of gulls on Quabbin Reservoir weekly during the months of September- March	NR		Data used to inform harassment program	Ongoing during harassment season
2.	Control Canada Geese populations on Quabbin reservation by treating eggs during nesting season to prevent hatching.	NR		Annual report	Ongoing
3.	Monitor area landfills for feeding gulls. Work cooperatively with landfill operators to ensure DEP landfill regulations are being followed.	NR		Field reports	As needed
4.	Monitor wastewater treatment plants in western and central Massachusetts that have wires installed to prevent feeding to make sure they are functioning and continue to exclude gulls. Identify plants without wires that attract gulls and work to install overhead wires.	NR		Controlled treatment plants	As needed
5.	Identify parking lots in western and central Massachusetts where food is available. Work to prevent feeding through educational signage, interaction and enforcement.	NR		Controlled parking lots	As needed

Task	Task Description	Lead	Additional Staff	Product	Due Date
6.	Continue to identify alternative food sources for gulls in western and central Massachusetts; work to eliminate their presence.	NR		Food sources eliminated	As needed
7.	Remove beaver and muskrat in the Aquatic Wildlife Pathogen Control Zone at Quabbin, and assist with removal of nuisance individuals in other areas when possible. Utilize habitat modifications to discourage the presence of aquatic mammals.	NR	EQ	Field reports, annual summary	4 th Quarter
8.	Analyze all aquatic mammals removed from the Pathogen Control Zone at Quabbin Reservoir for the presence of <i>Giardia</i> and <i>Cryptosporidium</i> by sending fecal samples to Cornell University for analysis.	NR		Summary reports	4 th Quarter
9.	Respond to beaver complaints from citizens affected by beaver on DCR property; provide assistance as time allows.	NR	EQ	Assistance to homeowners	Ongoing
10.	Respond to beaver-caused flooding issues on DWSP property; assess situations and take appropriate actions	NR	EQ, WM, ARD	Field reports	Ongoing
11.	Respond to problems of burrowing animals on dams and dikes; report problems and take appropriate action	NR	CE, WM	Field reports	Ongoing
12.	Continue long-term wildlife resource monitoring programs to document wildlife response to forest management.	NR		Database, Reports	Ongoing
13.	Research and manage for common loons on DWSP waterbodies; provide nesting platforms, capture and sample birds for contaminants.	NR		Annual Report	4 th Quarter
14.	Work with DFW to survey for and document breeding bald eagles on Quabbin Reservoir.	NR		Field Report	4 th Quarter
15.	Administer the application, permit, orientation and components of the Quabbin Reservation White-tailed Deer Impact Management Program. Oversee and operate the annual controlled hunts.	RD	WM, IS, ARD, WR	Completed orientations, scouting and hunts	2nd Quarter
16.	Collect and analyze biological data and conduct an annual assessment of the Quabbin Reservation White-tailed Deer Impact Management Program.	NR	WM	Biological data collection; Annual assessment and report	Annual
17.	Monitor the status, and/or assess impacts, of selected wildlife species, including deer, beaver, migratory birds, water birds and vernal pool inhabitants. Coordinate with the Massachusetts Natural Heritage and Endangered Species Program concerning rare species occurrences and protection.	NR	F	Field Notes; reports	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
18.	Continue long-term monitoring and assessment of moose populations and impacts. Work with UMass researchers on the moose telemetry and exclosure studies on the Ware River and Quabbin watersheds.	NR		Project reports	Ongoing
E. Public Access Management					
1.	Continue implementation, oversight, evaluations and updates of the current public access management plans for the Quabbin and the Ware River watersheds.	ARD	EQ, WR, IS, F, RD	Evaluation; oversight; plan implementation	Oversight ongoing; Evaluation June 30
2.	Monitor and enhance compliance with DWSP's public access policies through the Watershed Ranger efforts of public education and enforcement of regulations and policies. Ensure inter-departmental cooperation concerning access and recreational impacts.	WR	IS, EQ, ARD	Field reports; education programs and materials; website; Daily logs	Ongoing
3.	Develop, install, and maintain appropriate signage throughout the watersheds, including trail signs and signs indicating access restrictions. Create watershed boundary signs for popular access points at Ware River watershed. Evaluate feasibility of adding new signage along major roadways entering watersheds.	IS	WM, RD, ARD	Signs produced and posted, as needed	Ongoing
4.	Operate the shoreline and boat fishing program in designated portions of Quabbin Reservoir in a manner that minimizes threats to water quality and that accommodates visitors with accessibility needs. Implement the Quabbin Boat Seal program at the 3 BLAs.	WM	ATS, WR, IS, ARD	6 months of program operation	April – Oct.
5.	Continue to record, analyze and report on data about the BLA operation, including revenues and usage figures.	ATS		Annual report and analysis of BLA usage and revenues.	report due by January 31
6.	Develop and distribute materials to inform visitors of access rules, policies, and general watershed protection information. Update and maintain kiosks and bulletin boards with appropriate visitor information. Construct new kiosks at locations identified in the Quabbin Park Management Plan and at the new Rail Trail bridge near Shaft 8.	IS	EQ, WM	Fact sheets, brochures; kiosk maintenance; new kiosks	As needed
7.	Analyze and mitigate water quality impacts of recreation or other public access activities through regular watershed inspections.	EQ	WM, WR, ARD	Field reports; assessments	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
8.	Operate a portable toilet program based on BLA, Deer hunt and seasonal needs.	WM	ATS	Installation of portable toilets (ADA)	Ongoing, as needed
9.	Provide ongoing support and consultation to DCR's Division of State Parks and Recreation and the Office of Fishing and Boating Access regarding Comet Pond beach and boat ramp operation and management.	WM	WR, RD	Support and consultation	Ongoing, as needed
10.	Coordinate and/or support special programs and events, including Memorial Day services, public meetings, Special Olympics, paraplegic hunts, and Tuesday Tea events.	IS	RD, WR, ARD	Public events	Ongoing
11.	Continue to implement Universal Accessibility projects throughout the Quabbin/Ware Region.	WM	CE	Enhanced accessibility	Ongoing
12.	Collaborate, educate, and monitor issues around the Mass Central Rail Trail (Wachusett Greenways organization).	F	IS, RD		
13.	Continue to control and monitor research and other public access through an internal review process and permit system. Maintain electronic databases for permit issuances.	ATS	WR, IS	Permits issued; databases maintained	Ongoing
14.	Expand use of electronic media to collect and disseminate information.	IS	ATS, EQ, WR		
F. Watershed Security					
1.	Continue regular Ranger patrols to provide watershed security. Provide regular security checks at key access points and MWRA facilities. Use daily logbooks to record all encounters and violations. Produce periodic reports. Provide weekly incident summary email to MWRA.	WR	RD, ARD	Daily patrols; daily logbooks and incident report	Ongoing
2.	Enhance the enforcement of public access regulations through partnership with the EPA, DEP, State Police, Environmental Police and local police departments.	WR	RD, ARD	Enhanced enforcement; partnerships	Ongoing
3.	Inspect, maintain, and monitor gates, barways, and signage throughout the watersheds for security and access control. Install barriers (guardrails, fences) as needed to protect properties and control public access.	WR	CE, WM, RD	Inspection; repairs; installation	Quarterly
4.	Coordinate security monitoring and related activities at high vulnerability locations with MWRA.	RD	WR, ARD		Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
5.	Coordinate with MWRA and consultants on efforts to provide power, security and communication upgrades to the Shaft 12, Quabbin Tower, CVA Intake, Powerhouse and Boat Cove facilities. Provide assistance with site surveys and all land clearing, disturbance and environmental permitting efforts.	RD	R, ARD, WM, CE	Support and consultation	FY16
G. Infrastructure					
1.	Conduct monthly inspections and issue findings on Winsor Dam and spillway and Goodnough Dike. Implement basic maintenance activities as needed. Coordinate with MWRA and consultants on inspections.	CE	WM, RD	Monthly reports filed and sent to MWRA Western Operations.	1 st of Month
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 preparation or updating of Emergency Action Plans. Coordinate with consultants on inspections.	CE	RD	Inspection reports	June or October
3.	Plan for or conduct dam repair work as called for in dam inspection reports. Implement basic maintenance activities as needed.	CE	WM, RD	Dam repair and maintenance	FY16; Ongoing
4.	Evaluate the feasibility of removing unsafe or unnecessary small dams in the Ware River watershed including environmental assessment and ecological impact assessment.	CE	RD, NR, EQ	Assessment reports; dam removals	Ongoing
5.	Participate in quarterly Reservoir Operations meetings with MWRA.	RD,	CE, EQ, ARD	Staff participation	Ongoing
6.	Provide supervision, coordination, oversight and technical support or assistance for all engineering, construction and renovation work in the Quabbin/Ware Region.	CE	RD	Ongoing supervision	Ongoing
7.	Maintain records regarding reservoir and facility construction, and maintenance and repair operations.	CE	IS	Misc. records	Ongoing
8.	Conduct building maintenance activities, including painting, carpentry, cleaning, and other routine maintenance.	WM	ARD, CE	Ongoing maintenance	Ongoing
9.	Conduct periodic inspections of drinking water sources and septic systems at the various Regional office buildings. Assure compliance with applicable state and federal regulations.	CE	EQ, RD	Meeting DEP requirements; Monthly and annual reports	Ongoing
10.	Conduct periodic inspections, maintenance, or oversight of heating systems, fuel pump operations, and fuel deliveries.	CE	WM	Inspections; oversight.	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
11.	Provide surveying and drafting services, maintain records, and respond to in-house and other requests for information related to land ownership, property lines, buildings, and construction projects.	CE	F	Plans, records	Ongoing
12.	Develop specifications, bid packages and contracts for facility and infrastructure projects scheduled for FY16	CE	WM, ARD, RD	Specs, bid packages, contracts	Periodic
13.	Conduct maintenance and management activities in Quabbin Park, including roads, roadsides, parking areas, drainage structures, fields, vistas, and other management activities.	WM		Maintenance and management of Quabbin Park	Ongoing
14.	Continue to conduct routine operational and maintenance activities in the Quabbin Park cemetery, coordinate with local funeral homes and other entities for burials, and provide administrative support services.	WM	CE, ATS; ARD	Cemetery maintenance; burials; record keeping	Ongoing
15.	Conduct maintenance activities on OWM roads, including grading, culvert and ditch maintenance, mowing sides of forest roads, and snowplowing. Continue to collect data on road conditions, culvert locations, etc. Continue to use BMPs in all road maintenance activities.	WM	EQ, CE, ARD	Road maintenance	Ongoing
16.	Complete individual Gravel Management Plans for gravel pits (as needed) on DCR lands in the Quabbin Watershed. Annually review and monitor gravel extraction by towns.	EQ	F, RD, ARD, WM	Individual management plans	Ongoing
H. Watershed Protection Act					
1.	Implement the Watershed Protection Act regulations. Review all WsPA applications, respond in a timely manner, hold official hearings, and track the status of applications and associated projects using a database and GIS data layers. Inspect sites with conditional approval throughout the duration of any activity to ensure compliance. Prosecute violations of the WsPA regulations, as needed. Work with DCR General Counsel on WsPA cases, as appropriate.	EP	P, RD, EQ	Application processing; decision issuance; field work	Ongoing
2.	Continue to review or evaluate public notices and local board agendas and minutes for additional jurisdictional activities.	EP		Local notice review	Ongoing
3.	Attend the quarterly Watershed Protection Act Working Group meetings.	EP	P, RD	Meeting attendance	Quarterly
4.	Maintain a database on WsPA cases and activity.	EP	F	Database maintenance	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
5.	Update existing, or develop new, WsPA related materials, as needed, such as forms, brochures, and guidance document.	P	EP, RD	Brochures, forms, other documents	Ongoing
6.	Educate and interact with local boards in the watersheds about watershed protection regulations. Ensure that local officials have an adequate supply of the current WsPA forms and wall maps, and understand the procedures for referring applicants to the DWSP. Educate realtors, prospective buyers, and local homeowners on WsPA affected lands and agricultural activities (e.g., horse property buyers).	EP	EQ	Education of local boards, homeowners, etc.	Ongoing
7.	Provide direct technical assistance support to local boards and community organizations through contact at meetings and/or through regulatory review processes. Research, develop, and assist communities with development and implementation of planning, zoning, and subdivision control techniques (e.g., Natural Resource Protection Zoning). Coordinate watershed protection related workshops.	EP	EQ	Meetings; technical assistance; drafting of bylaws and regulations; local development project review. Adopted community bylaws and regulations.	Ongoing
8.	Research, write and distribute information, factsheets, reports and/or guidebooks related to watershed protection to watershed communities	EP	EQ, Other work units	Information dissemination	As needed
9.	Continue involvement with statewide efforts to improve the laws and regulations governing land use and development to enhance community planning and watershed protection.	EP		Technical input; meetings in Boston and elsewhere; statutory drafting; development of informational materials; speaking at conferences	Ongoing
I. Interpretive Services					
1.	Implement the Interpretive Services Plan for the Quabbin Watershed. Develop a similar plan for the Ware River watershed	IS	RD	Plan implementation or development	Ongoing
2.	Staff and operate the Visitor Center at Quabbin to educate visitors about watershed management and related topics. Coordinate with visiting groups to provide orientation at the Visitor Center and in Quabbin Park. Maintain records on Visitor Center activities.	IS		Visitor center operation	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
3.	Continue established programs of public education, including school programs and field trips on DWSP properties. Expand outreach efforts in Quabbin Park. Expand the Quabbin Reservoir watershed curriculum using materials developed by MWRA, DEP, EPA, ProjectWild, Project Learning Tree, Project WET, and other appropriate watershed resources. Continue to support watershed school system teachers through in-service workshops and day-long offerings for school groups.	IS		Curriculum; education materials and services	Ongoing
4.	Collaborate with other organizations and watershed communities to reach more diverse audiences. Identify specific groups and their educational needs.	IS	WR	Programs; public contacts	Ongoing
5.	Develop watershed exhibits and portable displays for use in talks and presentations, both in the Quabbin Visitor Center and in watershed communities.	IS	WM	Exhibits and displays	Ongoing
6.	Develop and maintain self-guided interpretive trails focusing on natural resource management and water quality protection; include interpretive signs with information related to watershed protection programs, forest succession, history of the reservoir, wildlife. Utilize outside sources of assistance (e.g., Student Conservation Association) for trail maintenance.	IS	F	Trail improvement; signage; brochures	Ongoing
7.	Maintain and expand the Quabbin Resource Center with materials and educational information on the watershed system, water quality, history and development of the watershed and water supply system, water pollution, and water supply protection and management.	IS		Resource materials	Ongoing
8.	Offer educational programs to visiting groups. Arrange for staff members with particular expertise in a variety of environmental, water resource, wildlife and watershed protection issues to speak, when appropriate, to outside groups and organizations.	IS	Other Work Units	Speakers; educational programs	Ongoing
9.	Continue to gather data, produce and distribute publications and fact sheets on selected topics relative to watershed protection. Update displays at kiosks and bulletin and include maps that clearly show areas for bicycling, hunting, and fishing. Target educational efforts at non-permitted groups.	IS	NR, ATS, P	Data collection; fact sheets; Downstream newsletter; other publications	Ongoing
10.	Improve the educational signage regarding drinking water protection in the Quabbin Visitor Center and in Quabbin Park.	IS	WM	New signs	Ongoing
11.	Provide graphics support to Division staff to increase quality and effectiveness of publications, brochures, and public documents.	IS		Brochures, reports, presentations	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
12.	Contribute to update OWM website with information related to all aspects of watershed protection program.	P	All Work Units	Website updates	Periodic, as needed
13.	Continue to support and participate in the Envirothon, America's leading natural resource education program for high school students.	IS	RD, ATS, WR, ARD	Participation	Ongoing
J. Water Quality and Quantity Monitoring					
1.	Provide environmental oversight for all Regional activities to minimize adverse water quality impacts. Conduct pre-project reviews of all projects and activities within 100' wetland buffers.	EQ	RD, WR, ARD	Field reports; Annual inspection	Periodic;
2.	Review DEP annual requirements for the CVA waiver.	EQ	RD, ARD	Reports to DEP as requested.	Ongoing
3.	Continue routine and non-routine water quality sampling and analysis (including algae and nutrients) in order to track water quality parameters and trends in the reservoir and tributaries. Continue analyses for nutrients and calcium on selected tributaries. Review water quality data and prepare annual report summarizing changes over time. Modify sampling plan as needed. .	EQ	MWRA Lab	Weekly reports; Annual reports; Annual sample collection plans.	Ongoing
4.	Increase inspections and/or monitoring activities in the vicinity of the Shaft 8 Intake Works prior to and during periods of water diversions.	EQ	CE	Increased monitoring	As needed
5.	Monitor plankton in Quabbin Reservoir and selected tributaries.	EQ		Data collection; periodic reports	Ongoing
6.	Continue program to monitor AIS in tributaries and other water bodies. Review and update the AIS monitoring and emergency AIS action plan.	EQ		Reports, Update AIS plan	Ongoing 4 th Quarter
7.	Continue the active harassment of gulls and geese within the Pathogen Control Zone at Quabbin Reservoir, using human presence, boats, pyrotechnics, passive scare devices, and other techniques. Continue to identify and test new harassment techniques. Operate the gull harassment program to meet DEP/EPA filtration waiver requirements.	EQ	RD, ARD, All Work Units	Daily and annual reports; database entries; weekly reports to MWRA	Ongoing
8.	Collect, interpret, and manage data on weather, reservoir elevations, water transfers and releases, and runoff. Share data with MWRA.	CE		Data collection and yield reports; working group	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
9.	Participate in Water Quality Sampling and Analysis Coordination Team (WQ-SAT) meetings. Review and evaluate the DWSP's routine water quality monitoring schedule and make appropriate modifications.	EQ	RD	Updated sample collection schedule	Ongoing
10.	Coordinate water sample analysis and data sharing with MWRA and the Quabbin Water Quality Lab.	EQ	MWRA Lab	Coordination	Ongoing
11.	Keep abreast of emerging contaminants and other potential water quality threats. Investigate further when necessary.	EQ	MWRA	Update information	Ongoing
12.	Conduct short-term water sampling of forest harvesting operations on DWSP lands.	EQ	NR	Inspections and sample collections; database updates.	Ongoing
13.	Continue monthly sediment and nutrient sampling, to monitor the effects of both natural and deliberate disturbances on water quantity and quality in first-order streams.	NR		Data collection	Ongoing
K. Watershed Monitoring and Surveillance					
1.	Use site inspections, environmental quality assessments, local board meetings, and information from Watershed Rangers to identify and mitigate possible violations of state and federal regulations. Monitor progress and pursue enforcement if needed.	EQ	RD, ARD, All Work Units	Regulation enforcement	Ongoing
2.	Conduct routine inspections of the Winsor basin/CVA intake area. Inspect MWRA CVA screen washing when necessary. Report debris and aquatic organisms trapped on screens.	EQ		Routine inspection summaries; database entries	On going Update annual plan 3 rd Quarter
3.	Coordinate with other agencies to exchange information and review of projects in watershed. Check MEPA's <i>Environmental Monitor</i> each month and review, investigate and/or comment on projects when applicable.	EQ	P, All Work Units	Project reviews and written comments	Ongoing
4.	Monitor DEP databases regularly for new 21e information.	EQ		Hazardous waste database; EQA inspections and reports.	Periodic
5.	Review periodic reports on closed landfills in the watersheds. Coordinate with town and/or DEP to review monitoring reports.	EQ		Reports	Periodic
6.	Review and comment on Yearly Operational Plans related to herbicide use. Monitor and inspect no-spray and limited spray zones along Rights-of-Way.	EQ	P	Letter to DFA; brief field reports	Periodic

Task	Task Description	Lead	Additional Staff	Product	Due Date
7.	Work with loggers and Rights-of Way contractors to reduce the risk of introducing invasives into the watersheds.	EQ	F	Meetings with contractors, DCR permit language to prevent TIS	Ongoing
8.	Monitor utility maintenance, repair, or replacement projects on DCR lands for water quality problems.	EQ		Meetings with contractors; permits; SOPs	Ongoing
9.	Continue to identify, map, and monitor locations of agricultural operations that could impact water quality through the EQA process.	EQ	EP	Maps; reports	Ongoing
L. Aquatic Invasive Species					
1.	Conduct education about Aquatic Invasive Species	EQ	IS	Education	FY16
2.	Continue the Quabbin Boat Seal program to minimize the risk of AIS infestation of Quabbin Reservoir. Conduct Cold Weather Decontamination Program. Conduct Boat Inspection Program.	EQ	RD, IS, WR, ARD, WM	Boat Seal tracking, inspections, decontamination, public education.	FY16
3.	Update and maintain a boat seal database.	EQ	RD, ARD	database entries; annual report	4 th quarter
4.	Evaluate and implement options for minimizing risk of AIS infestation throughout the Quabbin and Ware River watersheds.	EQ	RD, IS, WR, ARD	Control programs; Public education	FY16
5.	Implement a program of detection, monitoring and control of invasive aquatic species and other macrophytes in the Quabbin and Ware River watersheds, including education and training of Boat Launch Area attendants and other appropriate staff. Work in conjunction with the DCR Lakes and Ponds, MWRA and MWRA contractors. Evaluate and make changes in program as needed.	EQ	WM, ARD, RD, MWRA	Monitoring program; training	FY16
M. Environmental Quality Assessments (EQAs)					
1.	Complete Environmental Quality Assessments in the Quabbin Reservoir and Ware River watersheds according to a prescribed schedule. Include AIS surveys of lakes, ponds and tributaries in EQAs.	EQ	All Work Units	EQA reports	FY16
2.	Implement recommendations in completed EQAs and oversee, as necessary, remedial actions.	EQ	ARD, RD	Annual Status of Recommendations report	FY16

Task	Task Description	Lead	Additional Staff	Product	Due Date
3.	Update and assess land use/land cover statistics for watershed, sanitary districts, and sub-districts when new GIS coverage is available. Include impervious surface analysis.	ATS	EQ	Updated coverages and analyses	Ongoing
4.	Continue to incorporate wildlife observations (that could affect water quality) into EQA field work.	EQ	NR	Report information to NR	Ongoing
N. Wastewater Management					
1.	Identify potential problem sites or areas through review of local records, water quality data, and other pertinent information.	EQ	EP	EQ file reports; new database	Ongoing
2.	Monitor and enforce the provisions of Title 5 with Boards of Health and the DEP. Maintain a good working relationship with all local Boards of Health and provide technical assistance, when requested, on wastewater management issues. Monitor septic system research.	EQ	EP, CE	EQ file reports	Ongoing
O. Stormwater Management					
1.	Coordinate with DEP on compliance with NPDES CGP regulations in watershed communities. Review applicable stormwater permitting applications (e.g., SWPPP). Advise local boards on stormwater management issues related to construction activities.	EQ	EP, RD, D, ARD	Reviewed applications; Advice as needed; brief annual report.	Ongoing; Annual report by June 30.
2.	Design and implement stormwater BMPs around the reservoir to address erosion and sedimentation due to public access, stormwater runoff, and shoreline erosion. Construct stormwater BMPs on DWSP property in accordance with set priorities. Integrate stormwater management controls into DWSP road paving projects.	CE	WM, EQ, RD	File reports; BMP construction and maintenance	Ongoing
3.	Work with state and local highway to improve stormwater infrastructure in areas where reconstruction is proposed. Improve operation and maintenance practices near the Shaft 8 Intake, Quabbin Reservoir and its tributaries.	EQ	RD	Field reports	Ongoing
4.	Continue to collect data on and update maps on culverts and other stormwater conveyance structures in the Quabbin and Ware River watersheds.	CE	WM, ATS	Database and maps	Ongoing
P. Emergency Response					
1.	Continue to develop and/or update <i>Emergency Response Handbooks</i> for the Quabbin and Ware River watersheds, with up-to-date contact information, emergency procedures and roles/responsibilities.	ATS	RD, ARD, EQ	Emergency Response Handbook; Contact Lists	FY16

Task	Task Description	Lead	Additional Staff	Product	Due Date
2.	Formalize SOPs for spill cleanups and define DCR staff roles in both assessment and cleanup. Work with MWRA to maintain emergency response trailers and/or other spill response supplies and equipment.	EQ		Updated SOPs; Equipment procurement.	FY16
3.	In conjunction with MWRA, provide spill response and/or incident command system (ICS) training to staff, local emergency officials, loggers, and others.	EQ	RD, ARD, WR, WM	Training of staff and local officials	Annual
4.	Install and/or maintain subwatershed or other appropriate signage along the highways around Quabbin Reservoir.	WM	ATS	New signs	Ongoing
5.	Conduct or assist with cleanup operations for any spills that impact or threaten water resources or DWSP property. Work with the appropriate local, state and federal agencies to ensure that the containment, cleanup and mitigation of the spill proceeds in a manner that protects water quality.	EQ	WR, ARD, RD, WM	Emergency response; incident reports	Ongoing
6.	Follow all responses to an accidental or dumping release of hazardous materials with a coordinated monitoring and/or evaluation effort in cooperation with DEP and local officials to ensure that appropriate cleanup and assessment protocols are followed.	EQ	WR, WM	File reports	As needed
7.	Develop and implement Spill Response Plans for all Timber Harvesting operations on DWSP lands.	F	EQ, ARD, RD	Spill Response Plans	Ongoing
8.	Coordinate with State Control, MWRA, MSP, et al. during emergency response situations.	ARD, RD	All Work Units	Coordination	As needed
Q. Support					
1.	Operate administrative offices, including answering phones, greeting visitors, etc.	ATS	IS	Main office operation	Ongoing
2.	Provide payroll and personnel support and services for all Regional employees.	ATS		Payroll reports; maintenance of personnel files	Ongoing
3.	Provide contract administration, financial management, record-keeping, purchasing of goods and services, and other financial support services.	ATS	ARD, WM	Accounting and financial services	Ongoing
4.	Coordinate with EOEEA IT to provide local MIS support for the Quabbin/Ware Region. Develop an IT Plan with input from Regional staff that addresses technology needs for the coming year.	ATS	All Work Units	Support and troubleshooting services; IT Plan	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
5.	Provide overall planning, administrative and supervisory oversight for all Regional activities and programs, including office operations, policy and plan development and implementation, staff assignments, hirings, and other personnel issues.	RD	ARD	Ongoing support and oversight	Ongoing
6.	Provide orientation for new staff and integrate them into existing operations.	All Supervisors		Training and orientation	Ongoing
7.	Participate in staff meetings, discussions and other activities related to the operation of the Region.	All supervisory staff		Participation	Ongoing
8.	Prepare and submit to MWRA and the Water Supply Protection Trust Board Annual Work Plans, budgets, quarterly progress reports and program goals and objectives; track progress in meeting program goals.	ATS	RD, ARD	Completed plans, budgets and reports	Ongoing
9.	Attend meetings, and coordinate Regional activities, with the Division Director, Wachusett/Sudbury Region, MWRA, DEP, watershed advisory committees, watershed communities, EOEEA, research organizations, academic institutions, and other agencies and groups.	RD	ARD, All Work Units	Coordination; correspondence and communication	Ongoing
10.	Continue to evaluate current Regional operations from a sustainability and energy efficiency standpoint and implement appropriate measures to improve those operations. Evaluate and, if appropriate, implement the energy efficiency recommendations from the DCAMM audit of the Ware River field office.	CE	RD, ARD	New initiatives; reports	Ongoing
11.	Provide GIS and GPS services and associated mapping for all Regional plans, reports and projects, as needed. Keep GIS datalayers updated as new information becomes available.	ATS	F, GIS	Maps; datalayer updates; other services	Ongoing
12.	Update digital information, including all new OWM land purchases, Watershed Protection Act maps and parcels, and provide analyses for use in OWM reports and publications.	GIS	P, ATS	Updated maps for all Quabbin communities	Ongoing, as needed
13.	Plan and implement vehicle and equipment purchases.	ARD	ATS, RD	Vehicle purchases; up-to-date records	Annual; Ongoing
14.	Maintain up-to-date records of all vehicles and equipment (in FAMIS and file system).	WM	ATS	Updated records	Ongoing

Task	Task Description	Lead	Additional Staff	Product	Due Date
15.	Conduct truck, boat, and equipment inspections and maintenance as needed, utilizing the Facility Asset Management Information System (FAMIS).	WM	ATS, ARD	Vehicle and equipment maintenance and repair	Ongoing
16.	Maintain vital records collection for former Quabbin valley towns, issue official records and conduct genealogical and historical research upon request. Manage audio-visual collection of the Region including photographs, slides, oral history tapes and media coverage of Regional activities and Quabbin related topics.	IS	RD	Record management	Ongoing
17.	Administer the Payment in Lieu of Taxes (PILOT) program	P		Payments to watershed communities	4 th Quarter
18.	Attend appropriate trainings, workshops and other professional development offerings, with priority on safety training; maintain licensure.	All Work Units		Training	Ongoing
19.	Maintain professional involvement through continued participation in professional organizations, task forces, working groups, conferences and other appropriate opportunities.	All Work Units		Participation and input; professional involvement	Ongoing
20.	Continue to network with other water supply agencies to share watershed management information.	EQ	All Work Units	Information sharing	Ongoing
21.	Develop a Long Range Capital Plan, in conjunction with MWRA.	RD	CE, ARD, MWRA	Long-range plan	FY16

DCR Division of Water Supply Protection
Office of Watershed Management
Office-Wide Responsibilities and Staffing
FY 2016

Section	FY15 FTE	New FY16 FTE	Primary Responsibilities
Management – Director, Natural Resources Section Director	1.9	0	<ul style="list-style-type: none"> ▪ Supervise all OWM Staff (through Senior staff and direct supervision). ▪ Develop program goals and objectives. ▪ Ensure program goals and objectives are met. ▪ Oversee interagency coordination with MWRA. ▪ Coordinate and support programs and policies with other DCR Divisions. ▪ Coordinate and support programs and policies with EEA and other EEA agencies. ▪ Coordinate and support programs and policies with watershed communities and stakeholders. ▪ Consult with Watershed Advisory Committees.
Budget and Administrative Support	4.9	0	<ul style="list-style-type: none"> ▪ Provide personnel and other human resources related support. ▪ Provide budget and finance support. ▪ Provide contract administration support. ▪ Provide office management.
Natural Resources	7.5 +1 Long Term Seasonal (WPR Program)	0	<ul style="list-style-type: none"> ▪ Develop, write, and help implement the Comprehensive Land Management Plan. ▪ Coordinate Land Acquisition Program. ▪ Monitor and enforce Division’s Watershed Preservation Restrictions (WPRs). ▪ Provide wildlife management and mitigation. ▪ Monitor roosting gulls and provide technical support, guidance, and recommendations to gull harassment program. ▪ Develop and distribute <i>Downstream</i> newsletter, Fact Sheets, and provide educational and outreach programming. ▪ Provide research and monitoring to support Natural Resource Management Planning. ▪ Monitoring and manage land based invasive plants.
Program Coordination & Technical Support – Environmental Planning	1	0	<ul style="list-style-type: none"> ▪ Coordinate implementation of Watershed Protection Act (WsPA). ▪ Assist in the development and implementation of Watershed Protection Plans, Public Access Plans, Land Management Plans and other associated plans, policies, and publications. ▪ Support interagency coordination with MWRA. ▪ Coordinate PILOT program with MWRA, DOR and Watershed towns. ▪ Coordinate and support programs and policies with other DCR divisions, EEA and other EEA agencies. ▪ Coordinate DCR DWSP web site.

Section	FY15 FTE	New FY16 FTE	Primary Responsibilities
Program Coordination & Technical Support – GIS	1	0	<ul style="list-style-type: none"> ▪ Coordinate GIS for Office of Watershed Mgt. ▪ Capture, maintain, administrative Spatial Databases. ▪ Integrate Office’s GIS program within EEA system. ▪ Provide data analysis for Office of Watershed Mgt. ▪ Distribute maps and digital information to Watershed Partners.
Total	16.3	0	

* Includes 3 half-time employees and partial FTEs split with DWSP Office of Water Resources.

DCR Division of Water Supply Protection
Office of Watershed Management
Wachusett/Sudbury Section Responsibilities and Staffing
FY 2016

Section	FY15 FTE	New FY16 FTE	Primary Responsibilities
Management -- Regional Director and Assistant Regional Director	2	0	<ul style="list-style-type: none"> ▪ Supervise Staff assigned to Wachusett/Sudbury Section ▪ Develop/Implement Program Goals and Objectives including Watershed Protection Plans and Annual Work Plans ▪ Ensure interagency coordination with MWRA (Reservoir Operations, Water Quality Testing, Consent Order Compliance and Reporting) ▪ Coordinate/Support programs & Policies with other DCR divisions ▪ Coordinate/Support Programs & Policies with EEA/EEA agencies ▪ Coordinate/Support Programs & Policies with watershed communities and stakeholders ▪ Consult with Watershed Advisory Committees, Friends Groups
Administrative Support	6		<ul style="list-style-type: none"> ▪ Maintain payroll, employment and other records ▪ Provide budget, accounting and contract administration support ▪ Assist Regional Director in special projects, as needed ▪ Provide contract administration and database management for forestry program ▪ Implement GIS program in watershed, providing data analysis, maps and digital information
Environmental Quality	11 1 seasonal	0	<ul style="list-style-type: none"> ▪ Conduct multi-year program planning through development of 5 year Watershed Protection Plans ▪ Develop annual work plans and annual progress assessments. ▪ Develop and implement water quality monitoring programs in reservoirs & tributaries ▪ Interpret water quality data for use in decision making ▪ Develop and implement Aquatic Invasive Species Control Plans ▪ Conduct Environmental Quality Assessments of watershed sanitary districts to identify potential pollution sources and develop mitigation measures ▪ Provide technical assistance to local boards ▪ Work with local DPWs to control stormwater through MS4 compliance. ▪ Implement Watershed Protection Act and Regulations ▪ Supervise and implement Wachusett Bird Control Program ▪ Provide assistance for Emergency Response Actions ▪ Collect, monitor, and maintain records on weather/precipitation, reservoir elevations, river discharges and releases, water transfers and watershed yield. Conduct Snow Surveys

Section	FY15 FTE	New FY16 FTE	Primary Responsibilities
Forestry	2	0	<ul style="list-style-type: none"> ▪ Implement forest management plan, including planning, tree marking, timber sale preparation and supervision of logging operations ▪ Oversee and implement hayfield management permits ▪ Conduct various surveys and inventories as needed to provide data to help guide forest management operations ▪ Participate in Asian Longhorned Beetle Program Coordination in watershed ▪ Conduct or participate in other watershed management activities (e.g. boundary maintenance)
Civil Engineering	4 1 seasonal	0	<ul style="list-style-type: none"> ▪ Provide management oversight of DCR-owned sewers, preparing municipal bills and resolving easement issues ▪ Coordinate and maintain records of all surveying required to determine property lines and boundaries, investigate encroachments and maintain records of all agency owned lands including new acquisitions ▪ Develop Road Plan and annual work plan; oversee maintenance of DCR access roads ▪ Conduct monthly inspections of Wachusett Dam, Sudbury Dam and other dams in the Wachusett and Sudbury watersheds; plan and oversee maintenance of dams and dikes ▪ Oversee repairs and renovation projects at facilities in the Wachusett and Sudbury Watersheds ▪ Coordinate emergency response planning, preparedness and operations in the Wachusett and Sudbury Watersheds
Watershed Rangers	9	0	<ul style="list-style-type: none"> ▪ Maintain a positive visual presence in watersheds ▪ Observe activities on watershed lands & waters ▪ Ensure Rules Compliance through education/public interaction ▪ Coordinate enforcement of watershed rules with State/Environmental Police ▪ Conduct or participate in other watershed management activities (e.g. encroachment surveys and resolution) ▪ Assist with Emergency Response Planning and Preparedness and general Watershed Security ▪ Develop and Conduct environment-based public education programs
Interpretive Services	1	0	<ul style="list-style-type: none"> ▪ Develop and conduct watershed system school based programs ▪ Conduct Programs at Stillwater Farm Interpretive Site ▪ Conduct Environmental Education teacher training ▪ Develop and Conduct environment-based public education programs

Section	FY15 FTE	New FY16 FTE	Primary Responsibilities
Watershed Maintenance	33 5 seasonals		<ul style="list-style-type: none"> ▪ Maintain water supply dams ▪ Perform primary land and facility maintenance activities on all watershed lands and resources ▪ Maintain physical security barriers around reservoir and watershed facilities ▪ Control shoreline vegetation and maintain fire roads ▪ Maintain and repair all division equipment (motor vehicles, trucks, boats and heavy Equipment) ▪ Participate in Bird Control Program
Total FTEs	68	0	
Total Seasonals	7		

DCR Division of Water Supply Protection
Office of Watershed Management
Quabbin/Ware River Operational Region Responsibilities and Staffing
FY 2016

Section	FY15 FTE	New FY16 FTE	Primary Responsibilities
Management – Regional Director; Asst. Regional Director	2	0	<ul style="list-style-type: none"> ▪ Supervise staff assigned to Quabbin/Ware River Section and oversee hirings, training, and other personnel-related issues ▪ Develop and implement program goals and objectives, annual work plans and budgets ▪ Oversee policy and plan development and implementation ▪ Oversee day-to-day operations in the Section and supervision of Watershed Maintenance staff ▪ Ensure interagency coordination with MWRA (re: Reservoir Operations, Water Quality Testing, Consent Order Compliance and Reporting) ▪ Coordinate/Support programs & policies with other DCR divisions, EEA and other EEA agencies ▪ Coordinate/Support programs, policies and/or technical assistance with watershed communities and stakeholders ▪ Consult with Watershed Advisory Committees ▪ Oversee fleet management and FAMIS system ▪ Manage Union issues
Administrative & Technical Support	5	0	<ul style="list-style-type: none"> ▪ Coordinate the preparation of quarterly reports and annual work plans and budgets ▪ Administer research access permit and gate key issuances ▪ Process revenues and provide accounting for boat fishing program. ▪ Provide administrative services for cemetery, including deed preparation, funeral scheduling, and marker/monument settings. ▪ Provide GIS and GPS support and services to Regional staff ▪ Provide IT support and other technical assistance to the Region ▪ Assist Regional Director with special projects, as needed ▪ Maintain payroll, employment and related records ▪ Assist employees with benefit questions and applications ▪ Provide budget, accounting and contract administration and support ▪ Provide staffing and operational support for main office ▪ Maintain vehicle files and FAMIS entries

Section	FY15 FTE	New FY16 FTE	Primary Responsibilities
Environmental Quality	9	0	<ul style="list-style-type: none"> ▪ Conduct water quality monitoring in reservoir & tributaries ▪ Maintain and analyze water quality data to monitor the health of the watershed and reservoirs, and prepare periodic reports ▪ Conduct Environmental Quality Assessments (“Sanitary Surveys”) ▪ Develop and implement aquatic invasive species control programs ▪ Identify pollution sources and seek mitigation ▪ Implement and oversee the Quabbin gull harassment program ▪ Provide environmental oversight for all Section activities that could impact water quality ▪ Assist with the design and implementation of water quality research conducted by the University of Massachusetts ▪ Provide technical review of proposed projects, as necessary ▪ Provide technical assistance to watershed communities and organizations regarding water quality issues ▪ Assist with public education efforts aimed at enhancing water quality protection on watershed lands ▪ Assist with WsPA administration, as necessary ▪ Assist with development and implementation of Watershed Protection Plans, Public Access Plans, and Land Management Plans ▪ Assist with Emergency Response ▪ Monitor streamflow, pathogens, algae, stormwater flows and macrophytes ▪ Monitor environmental compliance in building (e.g., drinking water testing) ▪ Assist with interagency coordination and information exchange with MWRA, DEP, MHD, other DCR divisions, EEA and other EEA agencies and NYC DEP
Environmental Planning	1	0	<ul style="list-style-type: none"> ▪ Administer WsPA on Quabbin and Ware River watersheds. ▪ Provide technical assistance to town boards and commissions in watershed communities ▪ Research or develop technical tools and/or written materials on regulatory implementation, land use planning and other watershed protection topics ▪ Coordinate with other agencies and local boards to enhance the development and enforcement of environmental protection regulations on watershed lands

Section	FY15 FTE	New FY16 FTE	Primary Responsibilities
Forestry	7	0	<ul style="list-style-type: none"> ▪ Implement forest management plan, including planning, tree marking, timber sale preparation and supervision of logging operations ▪ Conduct regeneration surveys and continuous forest inventories (CFI) to provide data to help guide forest management operations ▪ Oversee field maintenance contracts, and the purchase and planting of tree seedlings and other nursery stock ▪ Assist with development of the Quabbin and Ware River Land Management Plans ▪ Implement invasive plant control programs ▪ Coordinate with other state and federal agencies regarding forestry and other land management operations ▪ Assist with public education programs related to watershed management ▪ Conduct or participate in other watershed management activities (e.g., boundary maintenance, encroachment issues) ▪ Provide administrative and revenue processing functions
Civil Engineering	4 + 1 LTS	0	<ul style="list-style-type: none"> ▪ Collect, monitor and maintain records on weather/precipitation, reservoir elevations, river discharges and releases, water transfers and watershed yield. ▪ Conduct Snow Survey and calculate runoff potential in Quabbin Watershed ▪ Conduct monthly inspections of Winsor Dam, Goodnough Dike and other dams in the Quabbin & Ware River watersheds; take necessary Piezometer readings when appropriate and maintain records ▪ Conduct inspections and maintain records on all buildings and bridges in the Quabbin & Ware River Watersheds ▪ Coordinate and maintain records of all surveying required to determine property lines and boundaries; investigate encroachments and maintain records of all agency owned lands including new acquisitions; provide assistance to private surveyors requesting historic surveying data on agency lands ▪ Provide technical support and engineering assistance to other Quabbin units ▪ Maintain all historical records consisting of the construction of dams, roads, bridges and buildings in the Quabbin & Ware River Watersheds ▪ Assist in Cemetery operation and maintenance including drafting burial plot plans, locating burial lots, maintaining records and facility maintenance and repair ▪ Maintain, operate or oversee administration complex boiler system, fuel deliveries and weekly fuel tank inspections ▪ Oversee and maintain Photovoltaic Systems at Quabbin Fishing Areas

Section	FY15 FTE	New FY16 FTE	Primary Responsibilities
Watershed Rangers	7 + 3 LTSs	0	<ul style="list-style-type: none"> ▪ Maintain a positive visual presence in watersheds ▪ Monitor public activities on watershed lands & waters ▪ Ensure Rules Compliance through education/public interaction/signage ▪ Coordinate enforcement of watershed rules with State/Environmental Police ▪ Assist with Emergency Response planning and preparedness ▪ Maintain Spill Response trailers ▪ Provide Emergency Response and general watershed security ▪ Maintain records of violations and public interactions
Interpretive Services	3 + 1 LTS	0	<ul style="list-style-type: none"> ▪ Develop and conduct watershed based programs, displays and curricula for visitors & school groups ▪ Maintain and operate the Quabbin Visitors Center ▪ Participate in other EOEA Environmental Education programs (e.g., Envirothon) ▪ Serve as press liaison for Section activities and events, in conjunction with DCR and EOEA public information offices ▪ Organize special events (e.g., Memorial Day services) ▪ Maintain vital records collection for the 4 disincorporated Quabbin towns, and issue official records upon request; Assist visitors with genealogical research. ▪ Manage and issue access permit requests for groups, special events, former residents and short-term research projects ▪ Administer Quabbin controlled deer hunt application process, including data entry, database management, and orientations ▪ Maintain recorded telephone information on access, programs and watershed management activities ▪ Serve as liaison with other organizations, including Friends of Quabbin, Swift River Valley Historical Society, Valley Environmental Education Collaborative, Massachusetts Drinking Water Education Partnership, and Envirothon steering committee. ▪ Develop informational materials on Quabbin fishing program, access issues and management activities ▪ Provide graphics and other support to other Section programs for the development of brochures, publications and presentations ▪ Maintain audio-visual collection for Quabbin Section, including photographs, slides and oral history tapes

Section	FY15 FTE	New FY16 FTE	Primary Responsibilities
Watershed Maintenance	30 + 15 LTS + 3 STS	0	<ul style="list-style-type: none"> ▪ Perform primary maintenance activities on watershed lands, roads, facilities and other resources ▪ Maintain physical security around reservoir and watershed facilities ▪ Maintain roads, gates, barways, drainage structures, signs and other access controls ▪ Maintain and repair all division equipment (motor vehicles, trucks, boats and heavy Equipment) ▪ Provide staffing for the Gull Harassment and Controlled Deerhunt programs ▪ Maintain Quabbin Park ▪ Operate and maintain Quabbin Park Cemetery ▪ Operate and maintain the 3 Boat Launch Areas at Quabbin Reservoir
Total FTEs	68	0	
Total Seasonals	23		

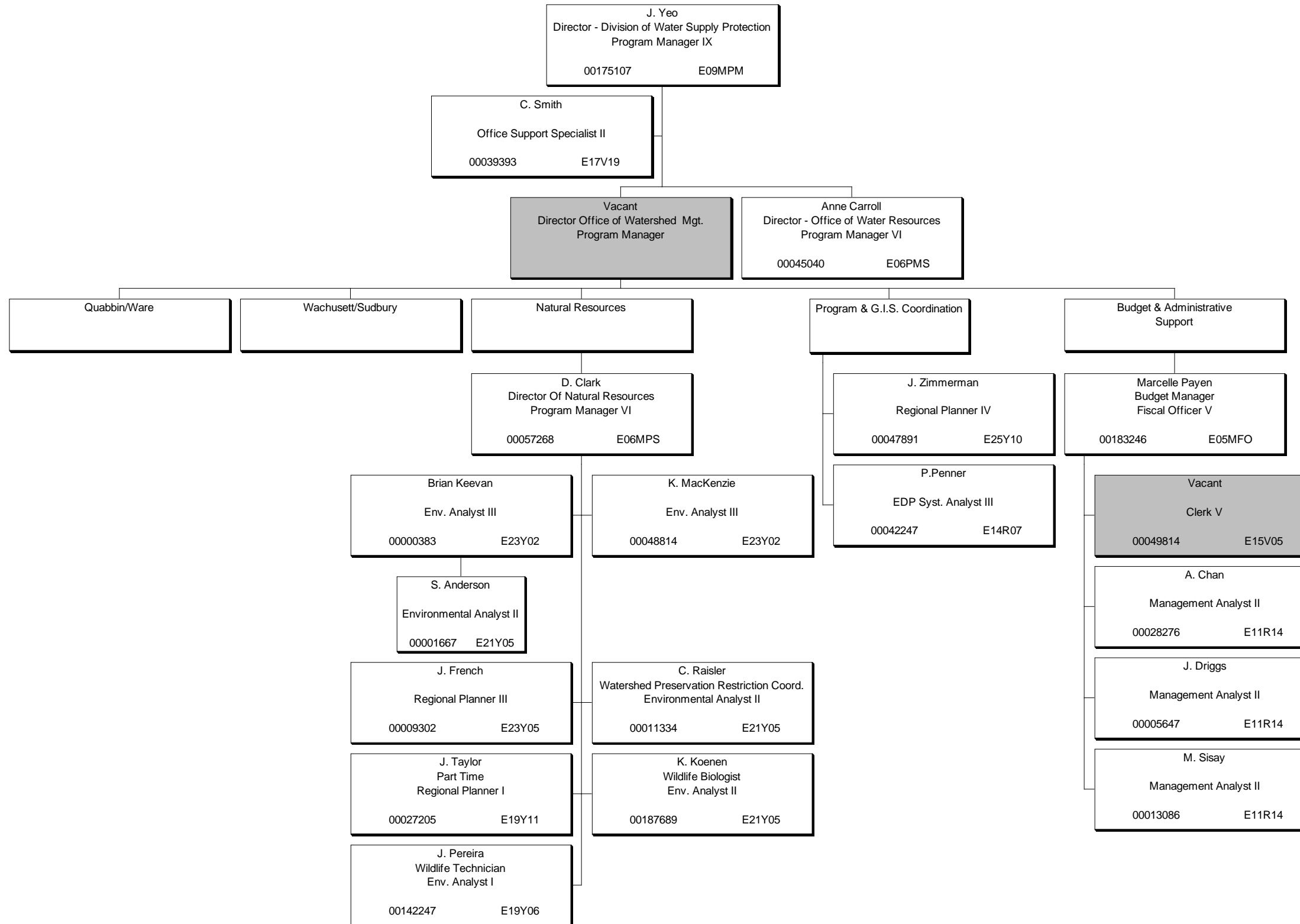
LTS = Long-term Seasonal
STS = Short-term Seasonal



Department of Conservation and Recreation

Division of Water Supply Protection

Office of Watershed Management

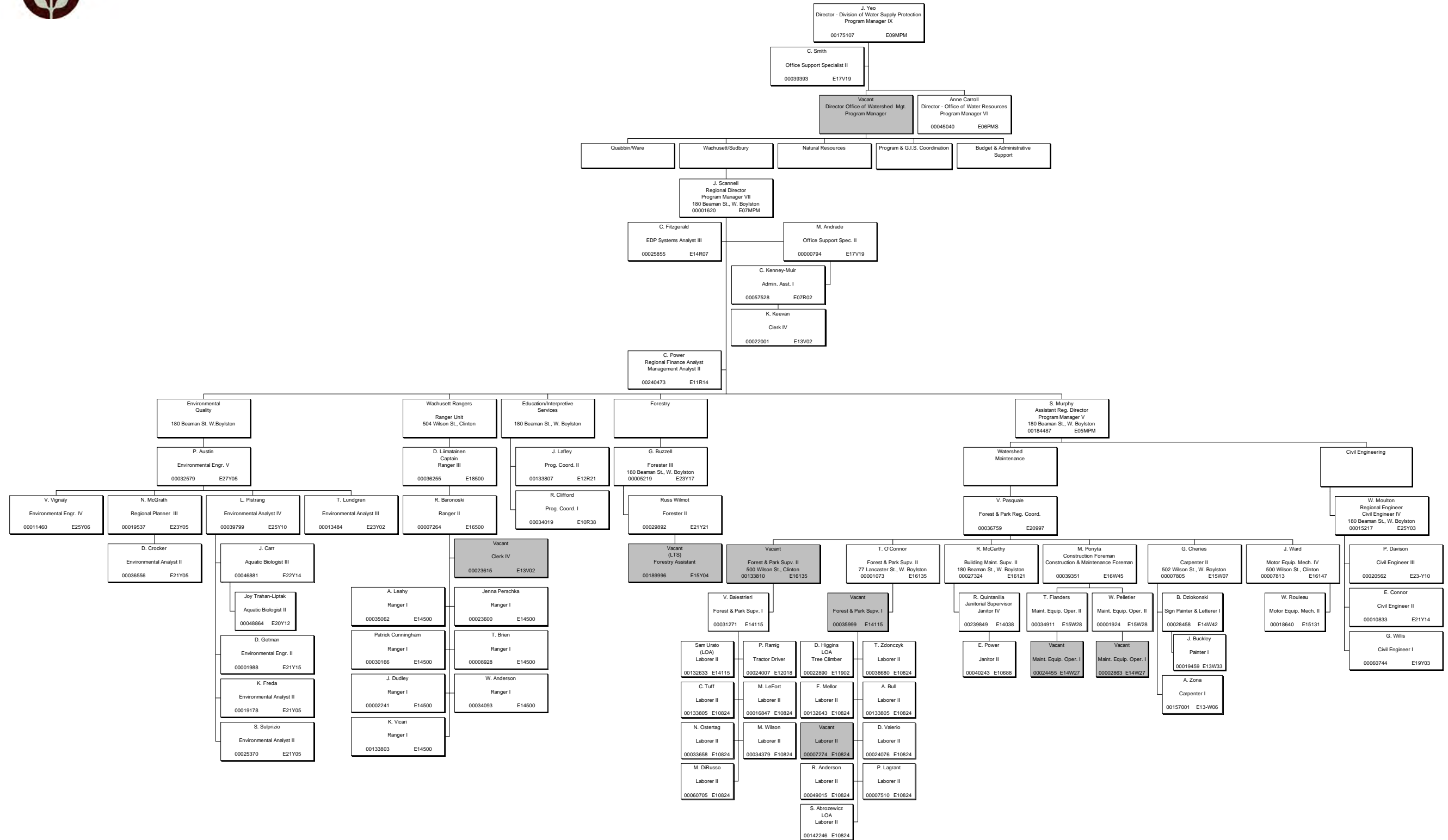




Department of Conservation and Recreation

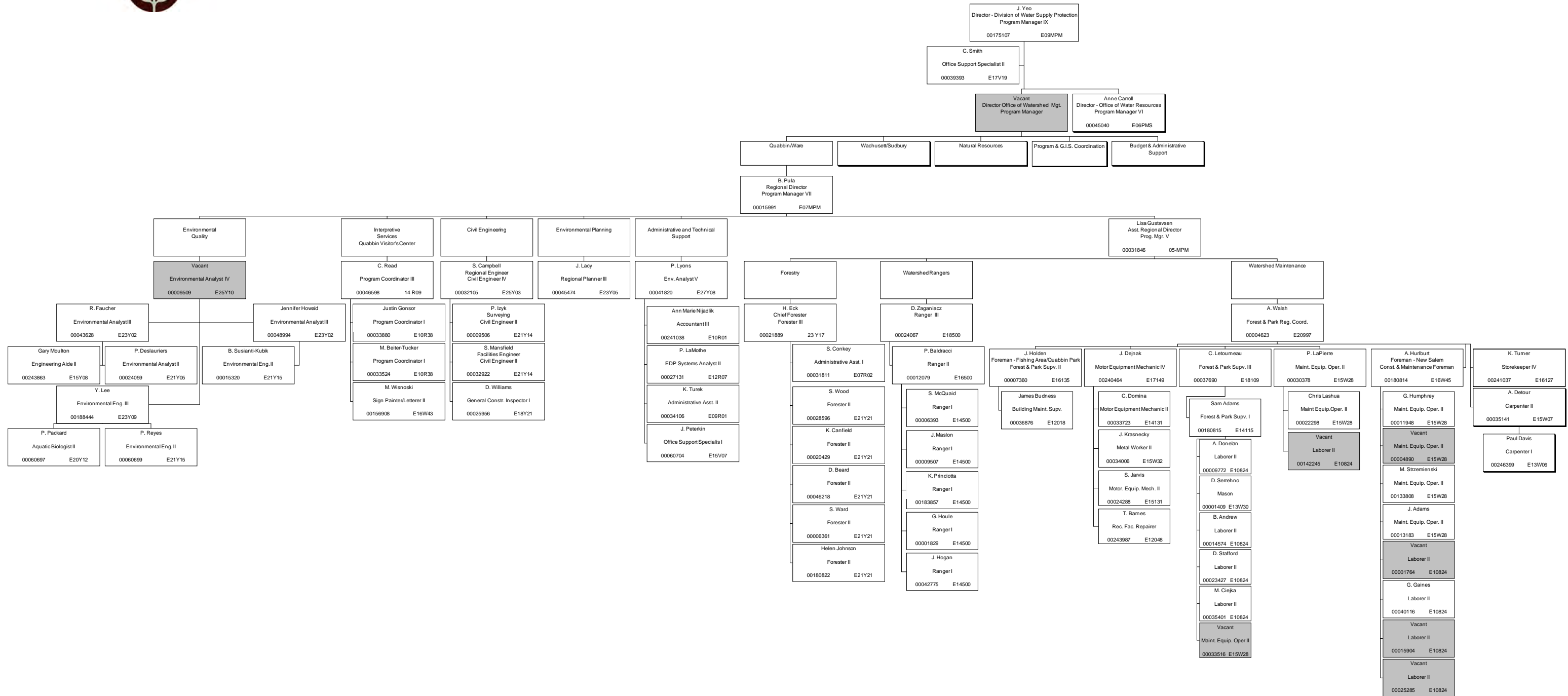
Division of Water Supply Protection

Wachusett





Department of Conservation and Recreation Division of Water Supply Protection Quabbin



**WATER SUPPLY PROTECTION TRUST
Expenditures and Revenues Report
FY16 Work Plan Budget**

		FY16	
		Projected	% of Total
A. Revenues			
OWM Revenues			
	Hydro + Transmission	\$590,000	3.9%
	Forestry	\$125,000	0.8%
	Fishing & Recreation	\$240,000	1.6%
	Misc.	\$50,000	0.3%
	OWM Revenues Subtotal	\$1,005,000	6.6%
	MWRA Payments to Trust *	\$14,187,400	93.4%
	Total Revenues	\$15,192,400	100.0%
B. Expenditures			
AA	Personnel	\$9,420,000	62.0%
BB	Employee Expenses	\$14,300	0.1%
CC	Contracted Services	\$92,000	0.6%
DD	Pensions/Insurance	\$2,951,500	19.4%
EE	Admin Expenses	\$94,700	0.6%
FF	Facility Operational Supplies	\$164,000	1.1%
GG	Energy Costs	\$372,000	2.4%
HH	Consultant Contracts	\$238,000	1.6%
JJ	Operational Services	\$51,000	0.3%
KK	Equipment	\$465,000	3.1%
LL	Leases, Rentals	\$98,000	0.6%
NN	Construction Improvements	\$969,500	6.4%
PP	Grants to Public Entities	\$0	0.0%
TT	Specials Payments	\$124,500	0.8%
UU	IT Expenses	\$137,900	0.9%
	Total Expenditures	\$15,192,400	

* not accounting for FY15 roll-over, which is credited

DCR Division of Water Supply Protection
Office of Watershed Management

Budget Fiscal Year	2016	Final Approved June 2015			
Appropriation	28300100				
Object Class	Object	Object Name	FY2014 Final	FY2015 Final	FY2016 Final Draft
AA	A01	Salaries:Inclusive	8,650,000	8,764,500	9,180,000
	A06	Stand-By Pay			
	A07	Shift Differential Pay	20,000	20,000	20,000
	A08	Overtime Pay	180,000	180,000	175,000
	A10	Holiday Pay	2,000	10,000	10,000
	A12	Sick-Leave Buy Back	15,000	15,000	15,000
	A13	Vacation-In-Lieu	20,000	20,000	20,000
AA Total			8,887,000	9,009,500	9,420,000
BB	B01	Out Of State Travel - Inclusive	1,750	1,750	1,750
	B02	In-State Travel	15,000	10,000	7,500
	B03	Overtime Meals		10	
	B05	Conference, Trng & Reg, Membership Dues, Licensing Fees	3,500	3,500	3,500
	B10	Exigent Job-Related Expenses	500	500	500
	B11	Employer Refund of Non-Tax Benefits		50	50
	B91	Employee Reimbursement Accounts Payable	2,000	2,000	1,000
BB Total			22,750	17,810	14,300
CC	C04	Contracted Seasonal Employees	88,400	92,000	92,000
	C22	Engineering, Research & Scientific Services			
	C98	Reimb Travel/Other Expenses CC Special Contract/Employee			
CC Total			88,400	92,000	92,000
DD	D09	Non Fringe Benefits Reimbursement (Payroll Tax)	119,372	144,714	156,940
	D09	Fringe Benefits Reimbursement	2,277,609	2,395,533	2,684,560
	D15	Worker's Comp Chargeback	100,000	100,000	100,000
	D21	Health Ins Costs of Employ/Leave in Excess of 1 Yr Chgback	10,000	10,000	10,000
DD Total			2,506,981	2,650,247	2,951,500
EE	E01	Office & Administrative Supplies	13,000	12,000	10,000
	E02	Printing Expenses & Supplies	10,000	11,000	11,000
	E04	Central Reprographics Chargeback	500	500	500
	E06	Postage	4,000	5,000	5,000
	E12	Subscriptions, Memberships & Licensing Fees	4,000	4,000	4,000
	E13	Advertising Expenses	1,000	500	500
	E14	Exhibits/Displays	1,000	1,000	1,000
	E15	Office Tap Water Treatment	500	700	700
	E19	Fees, Fines, Licenses, Permits & Chargebacks	26,000	25,000	25,000
	E20	Motor Vehicle Chargeback	18,000	31,000	24,000
	E22	Temp Use Space/Confer-Incidental Includes Reservation Fees	1,000	1,000	1,000
	E32	Tort Claims Liab Mgnt Reduc Fd	10,000	10,000	
	E53	S&J: Non-reportable to claimant, sole payee			10,000
	E75	Advances - Administrative Expenses	300	-	-
	EE2	Conference, Training and Registration Fees	2,000	2,000	2,000
EE Total			91,300	103,700	94,700
FF	F01	Food, Beverages, & Preservation	400	500	500
	F03	Laundry and Cleaning Supplies			
	F05	Laboratory Supplies	1,500	1,500	1,500
	F06	Medical & Surgical Supplies	500	1,000	1,000
	F08	Toiletries and Personal Supplies			
	F09	Clothing & Footwear	25,000	22,500	22,500
	F11	Laundry & Cleaning Supplies	7,000	8,000	8,000
	F13	Live Animals & Related Supplies	1,000	3,000	2,000
	F16	Library and Teaching Supplies and Materials	500	500	500
	F18	Recreation, Religious & Social Supplies & Materials	21,000	15,000	15,000
	F21	Navigational & Nautical Supplies	32,000	25,000	20,000
	F22	Municipal Taxes	-		
	F24	Motor Vehicle Maintenance & Repair Parts	90,000	95,000	90,000
	F27	Law Enforcement & Security Supplies	3,500	3,000	3,000
FF Total			182,400	175,000	164,000
GG	G03	Electricity	18,000	18,000	18,000
	G05	Fuel For Vehicles	266,000	270,000	203,000
	G06	Fuel For Buildings	176,000	176,000	144,000
	G08	Sewage Disposal & Water	9,000	7,000	6,000
	G11	Natural Gas	2,000	1,000	1,000
	GG1	Natural Gas Supply			
GG Total			471,000	472,000	372,000
HH	H05	Arbitrators/Mediators/Dispute Resolution Services			
	H09	Attorneys/Legal Services	5,500	5,500	5,500
	H23	Program Coordinators	-	-	-
	HH1	Financial Services	60,000	60,000	50,000
	HH2	Engineering, Research & Scientific Services			
		Umass - Water Quality and Spill Response Modeling	120,000	120,000	120,000
		NY EQ Study			
		Moose impact study (UMass)	15,000	15,000	15,000
		Biodiversity Research Inst (loon capture and banding)	8,500	8,500	10,000
		Boise State Univ (gull study - data analysis)	5,000	3,000	-
		CLS America Inc (gull study - data collection)	5,000	4,000	-
		Cornell Univ (fecal sampling)	1,000	1,000	5,000
		new forestry research	7,500	7,500	7,500
		South Meadow Pond Hydrilla Control Project	28,200	28,200	20,000
	HH4	Health and Safety Services	16,000	16,000	5,000
HH Total			271,700	268,700	238,000

DCR Division of Water Supply Protection
Office of Watershed Management

Budget Fiscal Year	2016	Final Approved June 2015			
Appropriation	28300100				
Object Class	Object	Object Name	FY2014 Final	FY2015 Final	FY2016 Final Draft
JJ	J21	Hazardous Waste Removal Services			
	J27	Laundry Services	5,000	6,000	6,000
	J33	Photographic & Micrographic Services	500	500	500
	J44	Surveyors	28,000	24,000	24,000
	J50	Instructors/Lecturers/Trainers	500	500	500
	JJ1	Legal Support Services	17,000	20,000	20,000
	JJ2	Auxiliary Services			
JJ Total			51,000	51,000	51,000
KK	K02	Educational Equipment	500		
	K03	Facility Equipment	80,000	60,000	55,000
	K04	Motorized Vehicle Equipment	210,000	190,000	190,000
	K05	Office Equipment	4,000	4,000	4,000
	K07	Office Furnishings	4,500	4,000	4,000
	K10	Law Enforcement & Security Supplies	1,000	2,000	2,000
	K11	Heavy Equipment	45,000	210,000	210,000
KK Total			345,000	470,000	465,000
LL	L23	Facility Equipment Rental or Lease	30,000	22,000	22,000
	L24	Motorized Vehicle Equipment Rental or Lease	300		
	L25	Office Equipment Rental or Lease	1,800	3,000	3,000
	L26	Printing/Photocopy & Micrographics Equip Rent/Lease	3,800	6,000	6,000
	L31	Heavy Equipment Rental or Lease	5,000	5,000	5,000
	L42	Educational Equipment Maintenance & Repair			
	L43	Facility Equipment Maintenance & Repair			
	L44	Motorized Vehicle Equipment Maintenance & Repair	48,000	45,000	30,000
	L45	Office Equipment Maintenance and Repair	1,000	1,000	1,000
	L46	Print, Photocopying & Micrograph Equipment Maint/Repair	3,000	1,000	1,000
	L51	Heavy Equipment Maintenance/Repair	54,000	50,000	26,000
	L63	Programmatic Equipment Maintenance and Repair	4,500	4,000	4,000
LL Total			151,400	137,000	98,000
NN	N15	Building/Vertical Structure Construction	30,000	20,000	20,000
	N16	Maj Construction, Maj Renovation, Bldg Alteration, Land Imp	227,000	210,000	195,000
	N17	Major Building Maintenance and Land Improvements	5,000		
	N18	Initial Furnishings & Equipment Purchases			
	N19	Land Acquisition and Eminent Domain			
	N22	Highway Horizontal/Lateral Maintenance and Improvements	375,000	200,000	200,000
	N23	Highway Horizontal/Lateral Maintenance Materials	8,000	110,000	110,000
	N41	State Park & Recreation Facilities Construction			
	N50	Non-Major Facility Infrastructure Maintenance & Repair	30,000	50,000	50,000
	N52	Facility Infrastructure Maint & Repair Tools & Supplies	80,000	80,000	80,000
	N60	Lawn and Grounds Equipment Maint & Repair	2,000	2,000	2,000
	N61	Lawn and Grounds Equipment	20,000	60,000	60,000
	N64	Garden Expenses, Tools and Supplies	12,000	14,000	14,000
	N71	Exterminators/Integrated Pest Management	1,000	4,000	4,000
	N72	Hazardous Waste Removal Services	30,000	35,000	35,000
	N73	Non-Hazardous Waste Removal Services	12,000	32,000	32,000
	N74	Snow Removal&Groundskeeping Svcs (inc. haz. tree removal)	25,000	20,000	17,500
	N98	Reimbursement for Travel/Other Expense Infrastructure Projects			
	NN1	Engineering, Research and Scientific Services	190,000	170,000	150,000
NN Total			1,047,000	1,007,000	969,500
PP	P01	Grants to Public Entities	-	-	-
PP Total			-	-	-
TT	T04	Payments & Refunds (USGS gages)	130,000	135,000	124,500
TT Total			130,000	135,000	124,500
UU	U01	Telecommunications Services Data	11,000	15,000	5,000
	U02	Telecommunications Services - Voice	52,000	45,000	45,000
	U03	Software and Information Technology (IT) Licenses	3,000	34,500	10,000
	U04	Information Technology Chargeback	-	1,500	1,500
	U05	Information Tech (IT) Professionals	-	-	3,400
	U07	Information Tech (IT) Equipment Purchase	45,000	40,000	40,000
		North Star (gull telemetry equip)			
		Microwave Telemetry			
	U09	Information Technology (IT) Equip Rental Or Lease	30,300	31,000	31,000
	U10	Information Tech (IT) Equipment Maintenance & Repair	4,000	2,000	2,000
UU Total			145,300	169,000	137,900
Grand Total			14,391,231	14,757,957	15,192,400

FY15 Projection is as of early December 2014, based on encumbrances and known projects. AA spending is based on detailed pay-period by pay-period anal

**DCR Division of Water Supply Protection
Office of Watershed Management
FY16 Major Projects Spending Plan**

	Start	End	FY14	FY15	FY16	Comments
Wachusett-Sudbury Watershed Projects						
Abandoned Structures Demolition Project						
This project is intended to include demolition work on the 77 Lancaster Street Lean-To, Mazzolini barn and final Kristoff Buildings						
Lead Paint and Asbestos Removal			\$25,000	\$35,000		N72
Demolition and Disposal	April-05	June-15	\$50,000	\$145,000	\$110,000	N16
Required Dam Maintenance						
This project consists of work on the Reservoir 1 and 2 dams that was identified in the Phase 2 reports including						
	July-11	June-14	\$35,000	\$60,000	\$60,000	NN1 -
Wachusett Hazardous Tree Removal						
This project will include the removal of hazardous trees that threaten public roadways or structures.						
	July-07	June-14	\$25,000	\$10,000	\$10,000	N74
Wachusett Direct Discharge Study/Remediation						
This project will address direct stormwater and possible road spill runoff in the Wachusett Reservoir at multiple locations. FY 2014 work will continue design for the Phase II work.						
Design (phase 2)	July-11	June-15	\$166,000	\$90,000	\$100,000	NN1
Heavy Equipment Replacement						
Funds are to upgrade vehicles and heavy equipment used to construct and maintain forest roads and other facilities in the watershed. Needs for FY16 include a new tractor and pick-up truck replacements.						
Heavy Equipment purchases (trucks)				\$190,000	\$190,000	K04
Heavy Equipment purchases (tractor)	September-05	June-15	\$80,000	\$45,000	\$45,000	N52
River Road Clinton						
This project will be geotechnical evaluation of River Road in Clinton						
	July-14	June-15			\$30,000	Geotech
Gravel Road Reconstruction						
This project will purchase gravel for ongoing re-construction of major roadways around the reservoir.						
	July-09	June-15	\$20,000	\$15,000	\$20,000	N22
UST conversion Study						
This project will include investigations for removing underground fuel and heating oil tanks at 500 Wilson Street Clinton						
	July-15	June-16			\$50,000	
Maintenance Garage Upgrades						
This project will include masonry repairs and window replacement at the maintenance garage						
	July-15	June-16			\$50,000	
Security Work						
This project will include hardening facilities with new fences and gates						
	July-14	June-16			\$30,000	
Wachusett Total KK					\$190,000	
Wachusett Total NN					\$505,000	
Wachusett Total					\$695,000	

	Start	End	FY14	FY15	FY16	Comments
Quabbin-Ware Watershed Projects						
Administration Building General Renovations						
General heating system, electrical, sprinkler and masonry repairs.	July-13	June-16	\$60,867	\$55,000	\$45,000	N17/N50 - FY2015 work is ongoing.
QAB Security and Door Improvements	Jan-15	June-15		\$15,000		N50 - FY2015 To be scheduled.
Regulatory Compliance Projects						
Admin Bldg PWS Upgrades and Investigations - Leak abatement and repairs.	July-14	June-16		\$46,000	\$25,000	N50 - FY2015 work is ongoing.
Admin Bldg Boiler Rm Floor Drain Elimination and Compliance	Jan-15	June-16			\$50,000	N50
Septic System Compliance Work (QAB/Stockroom)	January-16	June-16			\$15,000	N50
Dams/Dike Maintenance and Repair						
Winsor Dam/Goodnough Dike Maintenance Work and small dam repairs/removal	July-14	June-16	\$21,889	\$29,575		In-house staff time directed as available. Crack sealing completed in Fall 2014.
Infrastructure Improvements						
Roadway and drainage improvements inside of Quabbin Park	July-13	June-16	\$179,889	\$152,675	\$150,000	N22 - Paving work in FY16 from Ranger Station to Stockroom area
Boat Cove lighting and security upgrades	Jan-16	June-16			\$20,000	N50
Mechanic garage upgrade and improvements	Jul-14	June-16		\$8,750		N22 - New pad for garage lift completed (Nov 2014)
Boat Launch Area I Phase I & II Construction of New Pier	Jul-15	June-16	\$9,252		\$7,500	N21
Other Facility Improvements						
BMCC Clean Energy Grant Project - Thermal and Hot Water Heat Pump Installations and energy efficiency upgrades	March-15	June-16		\$15,000	\$5,000	N50 - FY15 work is pending.
General facility upgrades and repairs at DCR WSP satellite facilities including above ground oil storage tank replacements, heating system upgrades, and general repairs.	July-13	June-16	\$23,977	\$5,000	\$5,500	N50 - FY15 work to be scheduled.
Heavy Equipment - KK Major Project						
Funds are to upgrade vehicles and heavy equipment used to construct and maintain forest roads and other facilities in the watershed. Needs for FY16 include a new dozer or skid steer and pick-up truck replacements and an additional boat for program operations and rescue.						
Heavy Equipment purchases (trucks)	July-13	June-16	\$166,966	\$185,000	\$45,000	K04 - FY15 One vehicle purchase is pending
Heavy Equipment purchases (dozer or skid steer)	Jul-15	June-16			\$100,000	K11
Heavy Equipment purchases (boat)	Jul-15	June-16			\$60,000	K04
Other Replacement Equipment						
Rental Boats	July-15	June-16			\$10,000	K03
Boat Motor	July-13	June-16	\$33,614	\$18,363	\$16,000	K04
Water Data Loggers	March-15	June-16		\$10,000	\$10,000	K03 - FY15 purchase is pending
Garage Lift	July-14	June-15		\$11,500		K03
Quabbin Total KK					\$241,000	
Quabbin Total NN					\$323,000	
Quabbin Total					\$564,000	
System-Wide Totals						
Total KK					\$431,000	
Total NN					\$828,000	
Total					\$1,259,000	

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

FY16 Proposed Watershed Land Acquisitions

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

- A forested watershed provides the best quality water.
- The purchase of undeveloped lands protects water sources from development, which can alter vegetation and drainage, and add impervious areas that move pollutants quickly towards streams.
- The purchase of vegetated buffers provides natural "treatment" or protection to lessen water quality impacts of future development.
- The purchase of problem properties effectively halts the problem of activity or use, and ensures proper clean-up or re-vegetation of the site.

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

- Rate favorably on the Wachusett Watershed Land Acquisition Model Map.
- Are situated within the primary (West Branch Swift) and secondary (Hop Brook, Fever Brook) Quabbin Priority Zones.
- Are determined important for an administrative and/or strategic purpose (agency access, boundary consolidation, prevention of assemblage threat).

Additional priority is given to landowners with holdings meeting the above criteria and who are willing to consider the placement of a Watershed Protection Restriction on their land in place of a fee transfer. Accordingly, the "Land List" remains fluid as proposed projects are brought before the Land Acquisition Panel (LAP) for approval to proceed with due diligence. All proposed acquisitions are subsequently approved by the MWRA Board of Directors.

The projected budget for watershed land acquisition in FY16 is estimated to be \$1.5 million.

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

Actual and Projected Revenue FY12-16

Category	FY12 Actual	FY13 Actual	FY14 Actual	FY15 Projected	FY16 Projected
Hydroelectric Power / Transmission Lines	\$569,378	\$645,650	\$696,989	\$600,000	\$590,000
Fishing and Recreation	\$255,241	\$223,594	\$205,216	\$260,000	\$240,000
Forestry	\$42,549	\$32,321	\$48,961	\$125,000	\$125,000
Miscellaneous (Interment fees, rents)	\$21,404	\$12,539	\$64,506	\$15,000	\$50,000
TOTAL	\$888,572	\$914,104	\$1,015,672	\$1,000,000	\$1,005,000

Projected FY15 revenue is based on actuals through November 2014 and assumptions about hydroelectric, fishing and forestry for last seven months of fiscal year.

Projected FY16 revenue is based on hydroelectric history/fluctuations, new watershed forestry projects, and fishing program history. Actual reservoir transfers and hydroelectric contract price fluctuations will determine real hydro revenue. Fishing program revenue depends greatly on weather conditions during peak weeks and weekends. Forestry revenue will depend on market conditions and when contractors decide to start projects.

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

FY16 Payments in Lieu of Taxes Estimate

Payments in Lieu of Taxes (PILOT), required under MGL c.59 s.5G, are based upon the valuation set every four years by the Department of Revenue (DOR) and the local commercial tax rate. The law dictates that the payment can never be less than the previous year. The law also requires that during the four years in-between the DOR's revaluations, the law also requires the use of a "redetermination" formula to derive the land valuation the year after the local revaluation. The land value is calculated upon the tax rate the year of the local revaluation and the PILOT the year before the local revaluation.

The FY15 PILOT was \$7,966,612 million. This figure is a 1.4% increase from the FY14 PILOT paid of \$7,860,046. Several towns' tax rates did not grow as much as in recent years, so this increase was slightly lower than the estimated 3% potential increase stated in the FY15 Work Plan.

Estimates for FY16 PILOT take into consideration the seven towns that will have gone through a local revaluation in FY15, thus requiring the redetermination formula $((2014 \text{ PILOT} / 2015 \text{ Tax Rate}) * 1000)$ in FY16. All except one will see their valuation increase, gaining back any loss they suffered from the DOR 2013 revaluation, adding back \$21 million total valuation. The amount of increase in payments 21 towns will receive depends on their tax rate in FY16; whatever percentage it may be higher than FY15 will be how much their PILOT increases (in other words, if their tax rate goes up 3%, PILOT will go up 3%; if it goes down then the hold harmless provision maintain their payment). Utilizing a generic estimated increase of 5% to all towns' tax rates from FY15 to FY16, **estimated FY16 PILOT will increase approximately 4% to \$8.3 million.**

Department of Conservation and Recreation Office of Watershed Management

FY15 Payments in Lieu of Taxes

May 2015 Final

Community	Local Revaluation Year	2013 DOR Property Valuation	FY13 Tax Rate	FY14 Tax Rate	PILOT FY2013	FY14 PILOT	FY15 Property Valuation	FY15 Tax Rate	FY15 Min. PILOT Due	FY15 PILOT	Increase	% Increase	Hold Harmless
Barre	2016	9,506,900	\$15.34	\$16.06	\$167,003	\$167,003	9,506,900	\$18.64	\$177,209	\$177,208.62	\$10,206	6%	\$0
Belchertown	2015	11,598,400	\$17.11	\$17.72	\$252,696	\$252,696	11,598,400	\$17.89	\$207,495	\$252,695.66	\$0	0%	\$45,200
Belchertown - Annexed Lands	2015	1,491,400	\$17.11	\$17.72	\$49,763	\$49,763	1,491,400	\$17.89	\$26,681	\$49,762.80	\$0	0%	\$23,082
Berlin	2014	\$1,804,700	\$21.06	\$23.91	\$46,426	\$46,426	\$1,941,695	\$23.91	\$46,426	\$46,425.93	\$0	0%	\$0
Boylston	2014	\$29,168,700	\$17.20	\$17.39	\$595,254	\$595,254	\$34,229,679	\$17.41	\$595,939	\$595,938.71	\$685	0.1%	\$0
Clinton	2016	\$6,489,300	\$29.18	\$30.19	\$189,352	\$195,912	\$6,489,300	\$31.24	\$202,726	\$202,725.73	\$6,814	3%	\$0
Framingham	2015	\$4,993,300	\$39.98	\$40.92	\$261,931	\$261,931	\$4,993,300	\$38.99	\$194,689	\$261,930.91	\$0	0%	\$67,242
Hardwick	2016	\$7,281,200	\$13.94	\$15.82	\$115,744	\$115,744	\$7,281,200	\$15.90	\$115,771	\$115,771.08	\$27	0.02%	\$0
Hardwick - Annexed Lands	2016	\$36,900	\$13.94	\$15.82	\$928	\$928	\$36,900	\$15.90	\$587	\$927.88	\$0	0%	\$341
Holden	2014	\$30,321,600	\$17.37	\$17.75	\$900,838	\$900,838	\$50,751,411	\$18.12	\$919,616	\$919,615.57	\$18,778	2%	\$0
Hubbardston	2016	\$18,954,300	\$13.64	\$14.52	\$318,970	\$318,970	\$18,954,300	\$14.92	\$282,798	\$318,969.72	\$0	0%	\$36,172
Leominster	2015	\$142,400	\$17.96	\$18.89	\$8,561	\$8,561	\$142,400	\$19.44	\$2,768	\$8,560.78	\$0	0%	\$5,793
Ludlow	2015	\$197,900	\$17.17	\$17.22	\$9,820	\$9,820	\$197,900	\$17.29	\$3,422	\$9,819.80	\$0	0%	\$6,398
Marlborough	2016	\$1,367,000	\$28.46	\$28.22	\$109,727	\$109,727	\$1,367,000	\$27.43	\$37,497	\$109,727.19	\$0	0%	\$72,230
New Salem	2016	\$22,639,000	\$18.74	\$19.66	\$428,340	\$445,083	\$22,639,000	\$20.10	\$455,044	\$455,043.90	\$9,961	2%	\$0
New Salem - Annexed Lands	2016	\$8,769,200	\$18.74	\$19.66	\$164,335	\$172,402	\$8,769,200	\$20.10	\$176,261	\$176,260.92	\$3,858	2%	\$0
Northborough	2016	\$5,855,800	\$16.11	\$16.59	\$102,158	\$102,158	\$5,855,800	\$16.73	\$97,968	\$102,157.94	\$0	0%	\$4,190
Oakham	2014	\$8,930,200	\$12.38	\$12.96	\$121,417	\$121,417	\$9,368,581	\$13.68	\$128,162	\$128,162.19	\$6,745	6%	\$0
Orange	2014	\$125,500	\$18.80	\$18.80	\$3,791	\$3,791	\$201,635	\$20.77	\$4,188	\$4,187.95	\$397	10%	\$0
Pelham	2015	\$11,306,000	\$20.03	\$20.40	\$331,392	\$331,392	\$11,306,000	\$20.79	\$235,052	\$331,391.61	\$0	0%	\$96,340
Pelham - Annexed Lands	2015	\$813,200	\$20.03	\$20.40	\$37,342	\$37,342	\$813,200	\$20.79	\$16,906	\$37,342.22	\$0	0%	\$20,436
Petersham	2016	\$10,036,800	\$16.18	\$15.93	\$296,722	\$296,722	\$10,036,800	\$16.99	\$170,525	\$296,721.61	\$0	0%	\$126,196
Petersham - Annexed Lands	2016	\$5,291,700	\$16.18	\$15.93	\$203,306	\$203,306	\$5,291,700	\$16.99	\$89,906	\$203,305.78	\$0	0%	\$113,400
Phillipston	2016	\$171,600	\$15.56	\$16.29	\$11,913	\$11,913	\$171,600	\$15.70	\$2,694	\$11,912.74	\$0	0%	\$9,219
Princeton	2016	\$13,562,700	\$17.50	\$17.24	\$255,315	\$255,315	\$13,562,700	\$17.30	\$234,635	\$255,314.61	\$0	0%	\$20,680
Rutland	2014	\$30,734,100	\$16.66	\$17.11	\$458,918	\$525,860	\$26,821,624	\$17.65	\$473,402	\$525,860.45	\$0	0%	\$52,459
Shutesbury	2015	\$6,056,800	\$20.27	\$20.60	\$283,212	\$283,212	\$6,056,800	\$21.53	\$130,403	\$283,211.76	\$0	0%	\$152,809
Southborough	2016	\$14,119,400	\$16.54	\$16.18	\$284,149	\$284,149	\$14,119,400	\$16.02	\$226,193	\$284,148.93	\$0	0%	\$57,956
Sterling	2016	\$40,938,300	\$16.35	\$16.93	\$587,714	\$693,085	\$40,938,300	\$17.29	\$707,823	\$707,823.21	\$14,738	2%	\$0
Templeton	2016	\$48,900	\$14.12	\$14.12	\$1,082	\$1,082	\$48,900	\$16.64	\$814	\$1,082.18	\$0	0%	\$268
Ware	2015	\$9,795,000	\$16.94	\$18.31	\$182,840	\$182,840	\$9,795,000	\$19.65	\$192,472	\$192,471.75	\$9,632	5%	\$0
Ware - Annexed Lands	2015	\$6,388,500	\$16.94	\$18.31	\$158,544	\$158,544	\$6,388,500	\$19.65	\$125,534	\$158,544.02	\$0	0%	\$33,010
Wendell	2016	\$1,255,300	\$17.71	\$19.18	\$22,895	\$24,077	\$1,255,300	\$18.96	\$23,800	\$24,076.65	\$0	0%	\$276
West Boylston	2014	\$18,595,600	\$17.45	\$17.66	\$642,130	\$642,130	\$36,360,723	\$18.34	\$666,856	\$666,855.65	\$24,725	4%	\$0
Westborough	2016	\$2,626,000	\$18.97	\$19.29	\$48,788	\$50,656	\$2,626,000	\$18.59	\$48,817	\$50,655.54	\$0	0%	\$1,838
TOTAL		\$341,413,600			\$7,653,312	\$7,860,046				\$7,966,611.98	\$106,566	1.4%	\$945,535

NOTES:

1. MA Department of Revenue (DOR), per MGL c. 58, revalues all State Owned Land (SOL) every four years. DOR determines a valuation based upon what each agency owns that is legally reimbursable by either the legislature through municipal aid or by DCR/MWRA through the watershed PILOT program. DOR must complete these revaluations by June with a subsequent short period for appeals; any issue not resolved in this appeal period then goes to the Appellate Tax Board. Watershed PILOT utilizes the DOR revaluation figure in the subsequent fiscal year from the year they are determined. In other words, the 2013 SOL Revaluation was utilized starting in FY2014. The next SOL Revaluation is set for January 1, 2017, which will be effective in FY18.
2. Watershed PILOT, per MGL c. 59 s.5G, is determined by multiplying the DOR valuation by the local commercial tax rate. There are two important provisions that subsequently impact these calculations and payments: Hold Harmless and Redetermination.
3. "Hold Harmless" is a provision in the legislation that requires any payment never to be less than the previous year's payment. Therefore, if either valuations or tax rates drop, the municipality is guaranteed a consistent payment.
4. The "Redetermination Formula" is a provision in the legislation that requires the municipal valuation to be calculated based on a formula the year after a local revaluation. Local revaluations occur every three years and do not necessarily align with the DOR's quadrennial SOL revaluation. Therefore, in the years between the SOL revaluations, if a town has a local revaluation, then a specified formula must be used to derive the valuation for PILOT calculations. This "redetermination formula" takes the PILOT amount from the year before the local revaluation and divides it by the local tax rate from the year of the local revaluation multiplied by 1,000. If a local revaluation occurred in 2014, then for FY15, the valuation is: (2013 PILOT/2014 Tax Rate)*1000.