

MassDEP

Drinking Water Program One Winter Street – 5th Floor; Boston, MA 02108 Program.Director-DWP@mass.gov or 617-292-5770

The Drinking Water Updates can be found on-line at: mass.gov/lists/communication-to-public-water-suppliers

or at the Statehouse Archives at: https://archives.lib.state.ma.us/handle/2452/826119



n Karachiwala Title: Mystic River Path and Mystic Valley Parkway in Fall 3, cropped by Eric Ch

Drinking Water Program Updates

2020-10-09

This week's program director email has these topics of interest:

- 1. MassDEP Covid-19 Information
- 2. EPA COVID-19 Water Sector Survey
- 3. EPA Actions Support Water Utility Resiliency, Advanced Wastewater Monitoring in Response to COVID-19
- 4. New Technology Protocol
- 5. RTCR, Routing Coliform Monitoring, and Populations Greater than 4,900
- 6. Source Water Protection for Transient Non-Community Wells
- 7. Meet Karen Yip, the Drinking Water Program's Summer Intern
- 8. October is Cyber Security Awareness Month
- 9. Treasurer Goldberg Announces Over \$20.8 Million in Grants for 36 Municipal Water Projects
- 10. EPA Announces Public Meeting on Revisions of the Microbial and Disinfection Byproducts Rule
- 11. Resiliency
 - a. Building Resilient Communities and Infrastructure Funding
 - b. Building Municipal Resiliency Training
- 12. Training

MassDEP COVID-19 Information

For all information go to <u>https://www.mass.gov/info-details/covid-19-state-of-emergency</u> Sign-up for the state messaging tool called "AlertsMA" which sends real-time notifications of COVID-19 alerts. To subscribe to these real-time notifications text the keyword **COVIDMA** to **888-777**. After signing up, you will receive short messages and links to information on your cell phone or other mobile device.

Masks and Face Coverings: On May 1, Governor Baker issued an order requiring the use of masks or face coverings in public situations when appropriate social distancing measures are not possible. <u>Order | Guidance</u>

Phase 3, Step 2 (as of October 5, 2020) - Re-opening Massachusetts

Until a treatment or vaccine for COVID-19 is available, life will not return to normal. We each have a collective responsibility to ensure that reopening proceeds smoothly and safely. Everyone must follow public health directives and use common sense to protect yourself, your family, your neighbors, and vulnerable populations across the Commonwealth.

https://www.mass.gov/info-details/reopening-massachusetts

MassDEP Public Water Supply Information

MassDEP is coordinating with the water supply industries, agencies, and organizations to provide information about the impacts of COVID-19 in Massachusetts.

- Recorded weekly meetings with Commissioner Suuberg: <u>Water Suppliers Meetings on COVID-19</u>
- Questions from drinking water operators answered by MassDEP <u>Water Supplier FAQs</u> *Updated 10/5/2020
- <u>Bacteria sampling at outside taps/spigots/hose bibs</u> (PDF 97 KB)
- <u>Bacteria sampling at hydrants using hydrant sampler</u> (PDF 87 KB)
- <u>Mitigating lead and copper levels in facilities after school closure due to COVID-19</u> (PDF 115 KB)
- Emergency Certification for Public Water System Temporary Closure (Non-Operational Status) For Non-Community (TNC/NTNC) public water suppliers (<u>Word 40KB</u>) (<u>PDF 149 KB</u>)
- Drinking Water Operator license Extension Guidance during the public health emergency <u>https://www.mass.gov/info-details/guidance-regarding-the-orders-by-the-governor-</u> extending-certain-occupational-and
- MassDEP Building Flushing Information <u>https://www.mass.gov/doc/massdep-building-flushing-</u> information
- Form to document non-compliance related to COVID <u>https://www.mass.gov/doc/documentation-for-failure-to-comply-with-a-requirement-as-a-result-of-the-covid-19-emergency</u>

- Information on Training for Public Water Suppliers https://www.mass.gov/info-details/drinking-water-training
- Reminder: Please note that during the COVID-19 pandemic that MassDEP staff are generally working
 remotely. MassDEP-DWP cannot guarantee that posted hardcopy submittals will be delivered or
 received as expected. Therefore, we strongly encourage you to use eDEP, if available, for water
 quality monitoring reporting or if you mail in reports to also submit a PDF copy of the report by
 email to Program.Director-DWP@mass.gov. The subject line should include the PWSID, City/Town
 and type of report (e.g. 3035000 Boston Bacteria Report). Continue to mail the official hardcopy to
 the appropriate MassDEP Regional office but indicate on the cover letter or similar enclosure that
 the report(s) was sent in via email and include the date of the email.

MassDEP COVID-19 Conference Calls

MassDEP's Commissioner Suuberg is now holding monthly Zoom conference calls to all operators and interested parties. Here is a link to MassDEP's webpage, where recordings of Commissioner Suuberg's calls with the operators as well as FAQs for both water supply and wastewater are published: <u>https://www.mass.gov/lists/covid-19-information-for-drinking-water-and-wastewater-operators.</u> MassDEP will continue to populate this webpage with other relevant information related to the COVID-19 crisis.

These calls are now on a monthly schedule

The next call with Commissioner Suuberg is scheduled for <u>Tuesday, November 3, 2020 at 2</u> <u>PM.</u> Please email all drinking water questions to MassDEP at <u>program.director-dwp@mass.gov</u>.

Zoom Meeting Information Please download and import the following iCalendar (.ics) files to your calendar system. Weekly: <u>https://zoom.us/meeting/uJEtf-isqzstGhSf_beAtiSdfHxEd-</u> <u>69rQ/ics?icsToken=98tyKuytrjMrHtGVt1z9d7lvW4X-b-HyllZGmaVinhrEFylgZgXeLsdGf-QmAumB</u>

Join Zoom Meeting https://zoom.us/j/550814507

Meeting ID: 550 814 507

One tap mobile +19294362866,,550814507# US (New York) +13126266799,,550814507# US (Chicago)

Dial by your location +1 929 436 2866 US (New York) +1 312 626 6799 US (Chicago) +1 301 715 8592 US +1 346 248 7799 US (Houston) +1 669 900 6833 US (San Jose) +1 253 215 8782 US Meeting ID: 550 814 507 Find your local number: <u>https://zoom.us/u/anAJCjR7G</u>

EPA COVID-19 Information

EPA COVID-19 https://www.epa.gov/coronavirus

EPA COVID-19 Water Sector Survey

On October 1, 2020, the U.S. Environmental Protection Agency (EPA) released a voluntary survey to selected water and waste water systems to help assess the economic and operational challenges faced by the nation's water and wastewater systems as a result of COVID-19.

The survey's objectives are to identify and gauge the severity of the past, current, and expected challenges faced by utilities as a result of the COVID-19 emergency. EPA will be available to provide technical assistance to water and wastewater systems with completing the survey and answering questions. Information concerning how to request assistance will be provided in the survey instructions. EPA will use the survey data to guide the development of technical assistance which could help utilities sustain operations during the pandemic. This effort is not associated with or intended to inform any statutory requirement or regulatory action.

If you are one of the selected systems you would have been emailed directly by EPA. We strongly encourage you complete the survey. For more information on the survey see https://www.epa.gov/ground-water-and-drinking-water/covid-19-water-sector-survey You may also review the attached fact sheet for more information.

EPA Actions Support Water Utility Resiliency, Advanced Wastewater Monitoring in Response to COVID-19

On October 8, 2020, the U.S. Environmental Protection Agency (EPA) highlighted two actions that support the water sector, public health and the environment in response to the COVID-19 public health emergency. First, the agency is working with federal, state, and local partners to develop new and emerging wastewater monitoring technologies that can provide an early indication of COVID-19

infections at the community-level to help inform state and local public health decisions. Second, the agency is continuing its support of the operational and financial resiliency of drinking water and wastewater utilities by releasing a voluntary survey to help assess the challenges faced by these entities as a result of COVID-19.

EPA is using new and emerging technologies to help provide an early indication of COVID-19 infection in communities. EPA researchers are working with the Centers for Disease Control and Prevention (CDC) to develop and evaluate methods for detecting different forms of RNA from SARS-CoV-2, the virus that causes COVID-19. Once developed, researchers will use the methods to quantify the levels detected in untreated wastewater. This research also involves interpreting the data generated by these analytical methods and accurately relating virus levels in wastewater to potential infection trends within the community. This work is being conducted in coordination with CDC, U.S. Department of Health and Human Services, and other federal agencies through the National Sewage Surveillance Interagency Leadership Committee. This research, both in the near term and after full validation, can assist local and state decision-making related to COVID-19.

Ohio Pilot Project

EPA has been working with the State of Ohio to develop a wastewater monitoring plan for SARS-CoV-2 to inform public health decisions. The initial focus of this research was to rapidly assess approaches for detecting SARS-CoV-2 within wastewater. Once the approach was identified, EPA researchers began using it to analyze wastewater samples from treatment plants across southwestern Ohio, including Cincinnati and Dayton. EPA researchers are working with state and local health departments to estimate rates of infection within these communities.

Earlier this month, Ohio began posting the wastewater monitoring results on its public Coronavirus Dashboard for use by the Governor and state health department as an additional metric for determining public health advisory levels. EPA's collaboration with the State of Ohio not only expands the sampling capacity of the wastewater monitoring effort, but increases its effectiveness by informing analytical approaches, facilitating interlaboratory comparisons, and standardizing data reporting approaches across utilities and labs. The efforts of early adopting states, like Ohio, are being used by CDC to develop recommended approaches for a SARS-CoV-2 National Wastewater Surveillance System.

For more information see <u>https://www.epa.gov/newsreleases/epa-actions-support-water-utility-</u> resiliency-advanced-wastewater-monitoring-response

MassDEP Drinking Water Program (DWP) New Technology Protocol

New technology requirements are included in the MA Drinking Water Regulations at 310 CMR 22.04(8) and are intended to ensure that the technology is safe, that public health is protected, that the quality of the drinking water is not compromised, and that there is compliance with the Safe Drinking Water Act.

In accordance with 310 CMR 22.04(8), it is prohibited for a supplier of water to add, install, and use a chemical, additive, treatment device, or equipment without approval from MassDEP.

It is also a goal of the Drinking Water Program to encourage the use of new and innovative technology in order to bring new solutions to old problems or to meet the new demands of emerging contaminants with innovative solutions.

What are the different types of DWP new technology approval?

There are different paths of technology approval depending on the type of technology, how long it has been in use, and if any national validation(s) were obtained.

- Type A- Statewide approval issued to a manufacturer or company indicating that the technology is not limited to a specific location, that is, site–specific
- Type B- Site Specific approval limiting the technology to a single location
- Type C- combination of Type A and B.

There are also special permit conditions and exemption requirements for small systems serving fewer than 500 in population.

How long does it take to approve a new technology?

The length of the approval process depends on the complexity of the technology and whether it was previously approved for some other purpose or location by MassDEP, recognized by a third-party agency, or otherwise approved in two other primacy states, one of which must be a New England state or New York. Some approvals may take as little as one to two weeks. However, unproven technologies may take many months.

Who must file for a new technology approval and how is approval granted?

All applications for statewide New Technology must be filed by the manufacturer, except small systems with populations under 500 persons. The manufacturer files the required permit with the Drinking Water Program in Boston and pays the permit fee. The technology may require piloting as determined by MassDEP. If approved, the applicant is notified and the technology is listed on MassDEP's New Technology List, which is posted at: <u>https://www.mass.gov/doc/list-of-massdep-approved-new-drinking-water-technologies/download.</u>

What permits are required to be filed with MassDEP?

If the New Technology is a coating or chemical additive the applicant must file permit BRP WS 27. If the New Technology is a Point-of-Use device (POU)) or Point-of-Entry (POE), then file BRPWS 31. However, if piloting is required, then permit BRP WS11 must be filed with Boston and permit BRP WS 21 or 22 with the regional office. Below are the web links:

- https://www.mass.gov/how-to/ws-11-12-minor-major-technology-approval
- <u>https://www.mass.gov/how-to/ws-21-approval-to-conduct-pilot-study</u>
- https://www.mass.gov/how-to/ws-22-approval-of-pilot-study-report
- https://www.mass.gov/how-to/ws-27-new-technology-3rd-party-approval

For more information see the following:

- Drinking Water Program Policy 89-01: <u>https://www.mass.gov/files/documents/2016/08/xa/8901.pdf</u>
- Drinking Water Program Policy 90-04: <u>https://www.mass.gov/files/documents/2016/08/on/9004.pdf</u>
- A PowerPoint presentation covering New Technology approvals at: <u>https://www.mass.gov/info-details/drinking-water-training</u>

For questions about the New Technology approval program, contact the Drinking Water Program at: <u>program.directordwp@mass.gov</u> Subject: New Technology/Frank Niles.

RTCR, Routine Coliform Monitoring, and Populations Greater than 4,900

Reminder for Community PWS

Per 310 CMR 22.05 (1)(a) "Each Supplier of Water shall collect total coliform samples at sites which are representative of water throughout the Distribution System, at the entry point to the distribution system, and at storage facilities".

Furthermore (summarized), entry point samples and storage facilities samples shall be collected in addition to the minimum number of samples collected (based on population). Raw water sampling shall be collected on the same day as any one of its required distribution samples.

Per 310 CMR22.05 (1)(a)3.a. "A Supplier of Water shall collect samples at regular time intervals throughout the month, except that a Supplier of Water, whose Public Water System uses only groundwater and serves 4,900 persons or fewer, may collect all required samples on a single day if they are taken from different sampling locations." Please note: this is within the context of routine sampling based on population (see EPA Quick Reference Guide for RTCR attached), since EPA RTCR requirements do not specifically include entry point, storage facilities and raw water sampling.

Please review your Summer (April – September) and Winter (October – March) populations and your bacteriological monitoring practices; adjust monitoring to meet these requirement if you are not already doing so.

Please contact your local regional office if you have any questions regarding your RTCR sampling requirements.

Source Water Protection for Transient Non-Community Wells

It is important to protect your well from potential contamination during flood events. Flood waters often contain potential contaminants such as motor oil, gasoline, animal waste, pesticides, and fertilizers. The effects of contamination from potential contaminants in flood waters may last longer than the flood itself. All transient non-community (TNC) public water systems (PWS) have groundwater wells. It is important to know how you can protect your well as a PWS owner/operator.

A good mitigation strategy for flood contamination begins with proper well construction. This will help you avoid costly post-contamination fixes that could have been addressed before the flood. Here are tips on proper well construction if your well is subject to flooding.

Tips on Proper Well Construction

- Terminate the top of the well casing at least two feet above the 100year flood elevation.
- Install a cover on the casing.
- A welded metal plate or locking threaded cap is the preferred method for capping a well
- Curb the casing at ground level by surrounding it with a watertight sanitary seal that is at least four inches thick and that extends at least two feet in all directions.
- Place grout between the casing and the sides of the bore hole to a depth of at least 10 feet.
- Install a backflow valve in the water line.
- Protect electrical controls from flood water.
- Drill a new well on higher ground, above expected flood levels and known sources of pollution.

It is always a good idea to have a licensed well drilling contractor inspect your well system to recommend potential improvements.



To reduce impacts to your well from flooding, slope soils to shed water away from the well and plant native vegetation. Please see the **attached new fact sheet**, **produced by DWP's volunteer summer intern Karen Yip**, titled *Protect Your Public Water Supply: Plant Green Strips!*

For more information, contact the MassDEP's Drinking Water Program at program.director-<u>dwp@mass.gov</u> or 617-292-5770.

Meet Karen Yip, the Drinking Water Program's Summer Intern

Hi, my name is Karen Yip and I am from Stoneham, Massachusetts and I am a first generation, first-year graduate student obtaining my Master's Degree in Public Health, focusing on Environmental Health Sciences. Before this, I received my Bachelor of Science in Medical and Molecular Biology and Public Health from Massachusetts College of Pharmacy and Health Science.



My passion for environmental health originated during my junior year of my undergraduate studies when I learned about the environmental injustices occurring to many immigrants and low-income families' residences throughout the country. After I learned about these injustices and how many manufacturing companies were polluting the environment, I wanted to be a part of an environmental movement in hopes that my actions will allow further generations, regardless of socioeconomic or immigration status to live a life without worrying about endocrine disrupting chemicals, clean drinking water, and ozone depletion. This became a steppingstone to where I switched paths from biology to public health, a switch from curative to preventative.

Outside of my academics, I enjoy spending my time going to art museums and estate sales, baking cookies, watching international films, tending my plants, reading, and when the weather is nice, I like to go swimming and on an occasional hike.

As part of my volunteer summer internship with DWP, I produced the attached new fact sheet titled *Protect Your Public Water Supply: Plant Green Strips!*

For more information about green strips, contact program.director-dwp@mass.gov or 617-292-5770.

October is Cybersecurity Awareness Month

Check out the latest news on cybersecurity including Information Security vs. Information Technology, as well as five cybersecurity myths at: <u>irontechsecurity.com/latest-news/</u>

You can also now view the Cybersecurity and Infrastructure Security Agency's (CISA) 2020 Cybersummit, which includes a series of webinars each with a different theme that focuses on CISA's mission to "Defend Today, Secure Tomorrow" at: <u>www.cisa.gov/live</u>

Treasurer Goldberg Announces Over \$20.8 Million in Grants for 36 Municipal Water Projects

Funds Will Help Cities and Towns Pay for Improvements to Drinking Water and Wastewater Infrastructure

On 10/8/2020, State Treasurer Deborah Goldberg, Chair of the Massachusetts Clean Water Trust (Trust), announced more than \$20.8 million in loan forgiveness was awarded for 36 projects in 26 communities across the Commonwealth. The loan forgiveness funds are administered on a competitive basis to cities, towns and water utilities most in need of financial assistance to help pay for improvements to drinking water and wastewater infrastructure.

"MassDEP is pleased to partner with the Clean Water Trust and the Treasurer's Office to invest in maintaining critical water infrastructure across the Commonwealth, particularly in communities that are in economically distressed areas," said Massachusetts Department of Environmental Protection (MassDEP) Commissioner Martin Suuberg, who is a member of the Clean Water Trust's Board of Trustees. "This funding helps our communities protect public health and improve the environment for all of our citizens."

The communities or water utilities that earned loan forgiveness are: Auburn Water District, Barnstable, Billerica, Bourne, Bridgewater, Brockton, Chicopee, Eastham, Fall River, Gloucester, Holyoke, Kingston, Lawrence, Leominster, Lynn Water and Sewer Commission, New Bedford, Northampton, Peabody, Pepperell, Quincy, Revere, Saugus, Taunton, West Boylston Water District, West Springfield, and Winthrop.

For more information see <u>https://www.mass.gov/news/treasurer-goldberg-announces-over-208-</u> million-in-grants-for-36-municipal-water-projects

EPA Announces Public Meeting on Revisions of the Microbial and Disinfection Byproduct Rules

Last Friday, EPA announced a virtual stakeholder meeting on revisions of the Microbial and Disinfection Byproducts (MDBP) Rules on October 14-15 to solicit input on further improving public health protection from MDBPs in drinking water. During this meeting, EPA is seeking perspectives and information related to <u>potential regulatory revisions</u> of eight National Primary Drinking Water Regulations (NPDWRs) included in MDBP rules following the <u>Six-Year Review 3</u>. The pre-publication version of a *Federal Register* notice, draft agenda, and registration information can be found on the <u>meeting website</u>. EPA will also provide the public with an opportunity to send written input to EPA in the public docket at <u>www.regulations.gov</u>, Docket ID: EPA-HQ-OW-2020-0486.



Resiliency

Building Resilient Infrastructure and Communities Funding!

FEMA's hazard mitigation Building Resilient Infrastructure and Communities (BRIC) grant program will support communities to undertake hazard mitigation projects reducing the risks from natural hazards. Projects could include infrastructure retrofits, utility or infrastructure protection, drainage projects, floodplain restoration, property acquisitions, flood control projects, and more. Planning and project scoping activities are also eligible under the Capability and Capacity Building (C&CB) category. New information on BRIC and training and webinar opportunities are being added to our website. Check out the NEW! Frequently Asked Questions (FAQ) and BRIC Fact Sheet.

To apply for a BRIC project grant, you must complete a Statement of Interest (SOI) form by October 16, 2020. Statement of Interest (SOI)

Statements of interest are submitted to MEMA by prospective applicants to determine basic eligibility, help to prioritize technical assistance for communities and to initiate access to FEMA GO's Application Portal. To file a Statement of Interest for C&CB/Planning click here: <u>Statement of Interest</u> <u>C&CB/Planning</u>. All Statements of Interest submitted for the FY 2020 grant cycle are due October 16, 2020.

Questions? Contact the MEMA Mitigation Team, mitigation@mass.gov.

Building Municipal Resiliency

EPA Webinar Wednesday, October 14, 2020 1:00 – 2:30 pm ET

This webinar will showcase how nature-based solutions can fit into the resiliency-building efforts of municipalities involved in the Municipal Vulnerability Preparedness program. Speakers will discuss strategies and best practices for planning, implementation and maintenance of nature-based solutions for the benefit of grant recipients, potential applicants, and communities across New England.

For more information and to register click here.

Training When you need training please look at the training calendar located at:

<u>http://www.mass.gov/eea/agencies/massdep/water/drinking/drinking-water-training-class-</u> <u>schedules.html</u> for upcoming trainings. If you need a refresher on recently given trainings, you can review several training videos located at: <u>https://www.youtube.com/playlist?list=PLJn2AKOcYr7lutGJB-UfDKtQPF_o_249m</u>

or click here: **PouTube**

MassDEP is sending this important drinking water information to all PWS responsible persons who are listed on the state database. If you are no longer the correct responsible person for the PWS please reply with the correct contact information. MassDEP needs one responsible contact person from each PWS.

Operators, consultants, and others who are interested in Drinking Water Program updates are encouraged to request to be subscribed to this email list. You may also request to be unsubscribed by replying to this email.

This MassDEP Program Director technical assistance email is funded by the Safe Drinking Water Act Assessment (Section 70) Program. The Assessment is paid by all consumers of public water in Massachusetts and is collected by public water systems. For more information about the Assessment Program, go to

http://www.mass.gov/eea/agencies/massdep/news/advisory-committees/safe-drinking-water-act-assessment-advisorycommittee.html.

EPA COVID-19 Water Sector Survey

Overview: The U.S. Environmental Protection Agency (EPA) is releasing a voluntary survey to help assess the economic and operational challenges faced by the nation's water and wastewater systems as a result of COVID-19.

Survey objectives:

- Identify and gauge the severity of the past, current, and expected future challenges faced by drinking water and wastewater utilities as a result of the COVID-19 national health emergency.
- Collect information that would facilitate planning for a rapid response, if necessary, should there be significant future challenges in the water sector due to COVID-19.

Target Audience: Survey participants will include community water systems and publicly owned wastewater treatment facilities of all sizes, including American Indian and Alaska Native Village utilities.

Survey Distribution: EPA will email an individualized survey hyperlink to a statistically representative sample of several thousand drinking water and wastewater utilities around the country. EPA will work with states and associations to encourage utilities to respond to the survey.

Survey Design: The survey draws a sample from statistical groupings which are based on population served, system type (i.e., drinking water or wastewater), and jurisdiction (i.e., state-regulated, American Indian, and Alaska Native Village utilities). The survey also includes at least one utility from each State and territory to ensure wide geographic representation.

Survey Questions: The survey questions fall into four main categories: supply chain disruptions, workforce issues (including cybersecurity), financial impacts, and analytical concerns. In each section, the questions address the utilities' experiences during two periods of time - January 1, 2020 through present day and expectations for the remainder of the calendar year. EPA estimates the survey will take 45 to 90 minutes to complete, on average.

Estimated Release: October 2020. Recipients will have approximately two weeks to respond.

Additional Information: EPA will be available to provide technical assistance to water and wastewater systems with completing the survey and answering questions. Information concerning how to request assistance will be provided in the survey. EPA will use the survey data to guide the development of technical assistance. This effort is not associated with or intended to inform any statutory requirement or regulatory action.

Questions: Send an email to <u>COVID-19survey@epa.gov</u>

Protect Your Public Water Supply: Plant Green Strips!

What are Green Strips?

Green strips are plantings that can slow down and filter out pollutants in stormwater (rain and snow melt) before they can flow into public drinking water reservoirs or near public drinking water wells. Some communities call these plantings rain gardens.

Examples of Green Strips



From the Rain Garden Program, Royal Oak, Michigan

For more information, contact the Massachusetts Department of Environmental Protection's Drinking Water Program at program.director-dwp@mass.gov.or 617-292-5770.

What Happens if Stormwater Flows Into or Near Public Drinking Water Supplies?

Stormwater may carry fertilizers, pesticides, and pet waste off lawns and chemicals, salt, and bacteria off roadways and other paved surfaces. As it flows, stormwater also picks up soil particles that can act as plant nutrients in water supplies. Under the right conditions of sunlight, higher water temperatures, and shallow water depth, nutrients can cause toxic algae to grow. The algae may interfere with water treatment processes and cause odor and taste problems in the drinking water. In addition, nutrients encourage the growth and spread of invasive (non-native) plants and animals that crowd out beneficial native species.

How Does the Planting of Green Strips Help Protect Public Drinking Water Supplies?

Planting green strips of vegetation can:

- Hold soils in place instead of being carried away in stormwater
- Decrease nutrient loading in bodies of water, thereby reducing algal blooms
- Filter out pollutants in stormwater
- Slow down and cool off stormwater before it flows into or near public water supplies

Ideas for Public Water Suppliers to Encourage Residents and Businesses to Plant Green Strips

- 1. Put a poster display & handouts in the public library and municipal buildings.
 - a. Partner with science & art teachers to design the posters and handouts.
 - b. Work with local businesses to print posters and handouts.
- 2. Partner with a local garden club.
 - a. Learn about local garden club community events.
 - b. Ask garden clubs to conduct outreach to the public about planting green strips.
 - i. What plants are native to Massachusetts?
 - ii. How and where do you plant green strips in your community?
 - c. Identify and apply to grant programs that provide free seeds or plants to the public.
- 3. Plant a Model Green Strip at the Water Department.
 - a. Partner with the local Department of Public Works to plant & maintain a model green strip.

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