



Massachusetts Department of Fish and Game

Division of Ecological Restoration

Invested in Nature and Community

Ebb & Flow

George N. Peterson Jr., Commissioner
Tim Purinton, Director

Spring 2017
<http://www.mass.gov/der>

Welcome

Greetings, restoration friends and colleagues:

As a state agency, the Division of Ecological Restoration (DER) considers the cities and towns of Massachusetts our close relatives, if not immediate family. Town hall officials often initiate river restoration projects such as in Andover, where Bob Douglas, Conservation Commission Director, recognized that the removal of two dams on the Shawsheen River would link a river trail, reduce flooding, and spur downtown redevelopment.

In the same vein, our culvert replacement work is targeted to assist Departments of Public Works. DER's new Culvert Replacement Municipal Assistance Grant Program is a state-wide grant opportunity to help cities and towns replace degraded and undersized culverts to restore rivers (details are described below).

Finally, Muddy Creek restoration partners are sharing an important engineering and excellence award. The American Council of Engineering Companies of Massachusetts recently presented CDR Maguire, Inc., DER, and the Towns of Harwich and Chatham with a silver award of excellence for a new bridge that enables natural tidal flow to return to the marshes of Muddy Creek, improving water quality and enhancing ecosystem health.

Our working relationship with our cities and towns is often the most rewarding and we look forward to continuing to extend a helping hand to our cities and towns.

See you on the water.

Tim Purinton, Director

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Restoration Resources

Culvert Replacement Municipal Assistance Grant Program

DER is excited to announce the Culvert Replacement Municipal Assistance Grant Program, a state-wide grant opportunity to help municipalities replace degraded and undersized culverts. Pending the approval of DER's capital budget, the DER will award up to \$750,000 to municipalities for the next fiscal year (July 1, 2017-June 30, 2018) for culvert replacement projects anticipated to meet the MA Stream Crossing Standards.

The Culvert Replacement Municipal Assistance Grant Program will accept proposals for replacement of municipally owned culverts that cross freshwater streams in areas with high ecological value. All Massachusetts municipalities are eligible to apply. Ideally, the Public Works/Highway Director or the municipal staff responsible for managing and maintaining culvert infrastructure will be the point of contact during the project. This grant opportunity will support one or more of the following project phases: field data collection and technical analyses, design, permitting, and construction.

Upon award, proposed work must be completed by June 30, 2018. Typical awards will range from \$25,000 to \$200,000. Matching funds are not required; however, projects are expected to meet the MA Stream Crossing Standards. Stay tuned for the grant announcement, which will be shared widely and available on COMMBUYS (www.commbuys.com) this spring.

DER provides state-wide assistance to communities interested in replacing degraded and/or undersized road-stream crossings with better designed culverts or bridges that meet improved ecological and storm resiliency criteria. One objective of the program is to develop tools and approaches to help local road managers carry out efficient and cost-effective field data collection, structure selection, design, permitting, and construction of replacement culverts. Local road managers interested in replacing a culvert are encouraged to contact Tim Chorey, timothy.chorey@state.ma.us for assistance early in the project's development.

Massachusetts Shapes National Dam Removal Policy

Beth Lambert

In March of 2016, the White House Council on Environmental Quality (CEQ) contacted DER to identify and remove road blocks to dam removal at the federal level. The White CEQ's role is to advance presidential environmental priorities through coordination among federal agencies at the leadership level. The plight of communities and dams owners around the country had triggered national attention, and the CEQ wanted to know how it could use its role to make dam removal

faster and easier. Throughout 2016, CEQ staff continued to check back with DER to get feedback on problems, Massachusetts regulatory approaches, and to get specific project examples to use as case studies for federal agency discussion.

As a result of input from DER and others, the CEQ advanced a range of initiatives, from blogs to policy clarifications. At least two of these initiatives will have long term benefits for dam removal practitioners and owners of aging dams.

- The U.S. Army Corps of Engineers revised the Nationwide Permits (NWP) for 2017 to create a new NWP 53 for the Removal of Low-Head Dams, authorizing the removal of low-head dams for river restoration and public safety. The NWP reduces the burden to remove obsolete dams by streamlining the permit authorization process. Drawing directly on language pioneered by the MA Department of Environmental Protection, the Corps added a provision stating that compensatory mitigation is not required for dam removal because dam removals result in a net increase in the river/stream resource functions and services. The NWP went into effect on March 19, 2017. While the NWP is not relevant to Massachusetts, which has its own General Permit, it will be of great benefit for dam owners and communities across the country.

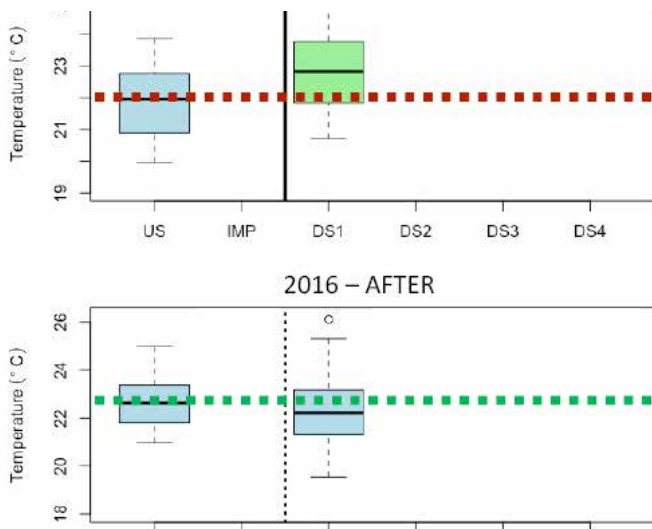
- In December 2016, EPA's Office of Water issued a two-page document of Frequently Asked Questions (FAQs) and answers about the removal of obsolete dams. EPA issued the FAQs to clarify dam removal-related regulations, policies, and funding opportunities through EPA and EPA-funded state program. The FAQs are available on the EPA website and you can read a brief summary in the Ebb&Flow Resource section.

DER and UMass Amherst Partner to Study the Effects of Dams and Dam Removal on Water Quality

Kris Houle

One of the most frequently-cited benefits of small dam removal is improved water quality. However, few studies have actually examined this. To fill the knowledge gap, DER partnered with Dr. Allison Roy with University of Massachusetts, Amherst and her student Peter Zaidel to study the effects of dams and dam removal.

Dr. Roy is studying how dam removals affect river and streams water temperature, dissolved oxygen, and macroinvertebrates. Dams increase water depths and slow down the flow of rivers resulting in increased temperatures and less dissolved oxygen. Macroinvertebrate communities tend to be less diverse in dam impoundments compared to natural systems. Overall these changes result in degraded water quality. To date, Dr. Roy's team has collected water quality data at 12 small dam sites around Massachusetts, including one completed dam removal. They have found that small dams can have significant impacts on water



Temperature reads at Turner Dam before and after removal

temperature and dissolved oxygen in the impoundment itself and those impacts may be transferred downstream.

Five of 12 study dams have now been removed. This summer, Dr. Roy will continue collecting data to document the effects of dam removal. Early results show that removing dams improves water quality. For example, the Millie Turner Dam (Pepperell) was removed in 2015 and one year later; this site showed a complete recovery of temperature and dissolved oxygen.

Project Updates

Ready, Set, Go! Third Herring Brook Restoration is Ready for Spring (Hanover)

Last December, as the holidays loomed on our calendars and our to-do lists threatened to burst at the seams, a construction crew was racing against the clock to finish 2016's last dam removal. The Tack Factory Dam was the first impediment from the sea on Third Herring Brook, the border between Hanover and Norwell. With no fish ladder, this dam blocked all herring as they headed up the brook from the North River. The historic dam once powered a tack and pin factory; long abandoned it was a maintenance burden and liability to its owner, the non-profit Cardinal Cushing Centers.

The North and South Rivers Watershed Association was among the first to recognize the enormous benefits the

removal of the Tack Factory Dam could have. As early as 2001, NSRWA was working with the Cardinal Cushing Centers and DER to begin a dialogue with the community about removing the dam. This initial effort stalled out as the owner focused on more pressing financial needs, but over those years, the dam continued to disintegrate under the effects of time and climate change.

Finally, in 2011, funding for a feasibility study from the Conservation Law Foundation and the National Oceanic and Atmospheric Administration (NOAA) breathed new life into the dream of re-connecting Third Herring Brook to the sea. In 2012, NSRWA secured Priority Project status from DER for the entire Third Herring Brook which includes not just the Tack Factory Dam removal, but also efforts to remove other barriers on the brook and to monitor and restore flows. Third Herring Brook suffers from reduced summertime flows as rapid suburbanization means more demand for water from Hanover and Norwell's groundwater supplies.

In late 2014, the first dam was removed from Third Herring Brook. This one owned by the South Shore YMCA at Mill Pond. DER and NSRWA helped secure permits and funding for the work, then helped oversee construction. Only a few miles away, this project provided an excellent example of what to expect from the upcoming removal of the Tack Factory Dam.

As 2016 drew to a close, the workers from SumCo finished the removal of the Tack Factory Dam, graded the site and buttoned it up for winter. Over the following weeks and fluctuating winter temperatures, the stream flows carved through the sediments and sculpted the banks, moving boulders and logs to suit its new flow path. As spring thaws out Third Herring Brook for good, all members of the project team are eagerly awaiting the "pop" of native plants across the project site. And while the Tack Factory site begins to undergo its post-restoration rebirth, NSRWA, NOAA, and DER have already secured funding for investigations into the removal of the Peterson's Pond Dam upstream.



Impoundment behind Tack Factory Pond before removal (left), after removal in January (middle) and in March (right)

As the Snow Falls, So Do Two Dams on the Shawsheen River (Andover)

For generations, the Shawsheen River was the economic heart of Andover. A number of mills dotted the river producing goods including textiles, metal tools, and wood products. As of the late 1900's, only three dams remained on the mainstem of the Shawsheen, one of the biggest tributaries to the Merrimack River. And as the 21st century dawned, the Town of Andover and local advocates shifted their attentions back to the Shawsheen, this time as an environmental amenity, rather than an industrial resource.

In 2009, DER accepted the restoration of the Shawsheen River as a Priority Project. Working with the Town, local non-profits, and federal funders, the project team began design and permitting for the removal of the two lower dams. The Balmoral Dam is located just upstream of Haverhill Street. It was constructed as a visual amenity for factory workers living in the area with a bowling green and other features nearby. Despite its short stature, the dam was a complete barrier to in-migrating herring and other fish. The Marland Place Dam, just a mile upstream was built to power factories on both sides of the river at Stevens Street. By 2009, the dam was in disrepair and a growing burden to its owner. With no fish ladder, removal of the aging dam was the only feasible way to restore fish passage and ecological functions.

In late 2016, dam removal became a reality with funding

support from the dam owners, state partners, and grant funds from the Hurricane Sandy Coastal Resiliency program. The contracts for both dam removals was won by SumCo Eco Contracting of Salem. With DER and partner support, the Town of Andover managed the contract for the removal of the Balmoral Dam and Atria Senior Living managed the contract for the Marland Place Dam removal.

The project teams met weekly to keep in close coordination as the fickle New England weather kept things interesting at both sites. The fluctuations in temperature made for erratic river flows that were more of a logistical challenge than the occasional snowstorm. As with all dam removal projects, having committed owners, skilled contractors, and technical input from agency veterans made the process as smooth as could be expected. And as spring crept in, the work at both sites was complete with only planting and cleanup remaining. SumCo will be working to install native plantings at both sites this spring. The project partners will be coordinating with the owners to install interpretive plaques to honor the history at both dam sites.

About 6 miles of river habitat is now open to herring and other fish returning to the Shawsheen River this spring. Several eager local observers have been trained to count herring at key locations when they begin to show up. The channel and banks at both sites will also be monitored for a number of years to confirm the results of this historic restoration.



*Top Balmoral Dam, before and after removal
Bottom Marland Place Dam prior to dam removal and after removal*





Undersized culverts (left) prior to being replaced with new bridge (right)

Muddy Creek Restoration Receives Engineering Award and Long-term Monitoring of Salt Marsh Recovery Begins

On March 15, DER and partners received the prestigious 2017 Silver Award from the American Council of Engineering Companies of Massachusetts for outstanding professional design excellence for the Muddy Creek Restoration Bridge Project. The design for Muddy Creek was completed by CDR Maguire, Inc. of Milton, MA/ Providence, RI and construction was carried out by MAS Building and Bridge of Norfolk, MA. The project was a multi-year collaborative effort among the Towns of Chatham and Harwich, DER, the Pleasant Bay Alliance, the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, and others. As bridge owner, MassDOT provided project review and technical assistance.

Completed in May of 2016, the Muddy Creek project involved removal of two undersized stone culverts and an earthen dike under state Route 28 at the boundary of Chatham and Harwich, and construction of a 94-foot single span concrete bridge which allows unrestricted tidal flow. Muddy Creek is a 55 acre tidal river and wetland complex within the Pleasant Bay estuarine system on the eastern shore of Cape Cod. Prior to restoration, tidal flow was severely restricted in Muddy Creek for over 100 years by the small culverts and earthen dike. Construction of the new bridge has re-established natural tidal flow, restoring primary ecological processes that will shape and sustain this coastal wetland. Muddy Creek is now returning from a degraded brackish wetland to a fully functional tidal wetland, benefiting native salt marsh plant species, fish and shellfish populations, water quality, and natural sediment transport. Additionally, the Muddy Creek project was designed to improve community flood resiliency, reduce potential damage to public and private infrastructure during

completed in December 2016 by Applied Coastal Research and Engineering. Results indicated that the inlet to Muddy Creek is continuing to respond to the new tidal conditions, and the position of the channel is stable, as anticipated. Upstream of the new bridge, mean tide range has expanded significantly from 0.5 feet pre-restoration to 2.3 feet post-restoration! Given this exciting change, project partners look forward to glimpsing the potential beginnings of vegetation change in summer 2017.

Old Mill Dam Removal on the Charles River (Bellingham)

Over the past several months, dam removal activities have been completed on the Charles River in Bellingham. Heavy equipment was used to slowly dismantle the old dam, remove polluted sediment, and contour the new channel and floodplain through the work area. The site work was completed by RC&D, Inc., with design and field oversight by the engineering firm Pare Corporation.

Congratulations to the Town of Bellingham for improving river health and eliminating future liability associated with aging infrastructure. Thanks as well to the Charles River Watershed Association (CWRA) for technical assistance along the way. DER was pleased to provide technical support to the Town and partners on this Priority Project for river restoration.

Approximately \$500,000 in funding support (grant and low-interest loan) was secured by the Town from the Executive Office of Energy and Environmental Affairs, Massachusetts Dam and Seawall Repair and Removal Fund. The Town funded the remainder of the project. Work at the site will continue this spring with road drainage improvements and the installation of a stormwater treatment system along

the river. Look for the site to green up soon with warmer weather.

You can read more about this project in some recent news articles:

- Bellingham sets the Charles River free, December 2016. Telegram
- Old Mill Dam in Bellingham to be removed, December 2016. The Boston Globe
- In Bellingham, the Charles River now flows more freely, March 2017. CWRA blog



Old Mill Dam Removal, before and after removal



For more information, please contact DER project manager Alex Hackman (617-626-1548, alex.hackman@state.ma.us).

Streamflow releases lead to improved ecological conditions during 2016 drought (Pittsfield)

DER has been working with multiple partners in Pittsfield to improve streamflow downstream of dams on recreational lakes. Dam and lake management can result in alteration of natural streamflow patterns which can negatively impact aquatic ecosystems, including reductions in the

abundance and diversity of macroinvertebrates. Starting in 2013, the City of Pittsfield began implementing new dam management practices at Onota Lake based on a guidance document prepared by DER and project partners. The new management practices seek to maintain recreational lake levels while improving streamflow and ecosystem health in the Lake's outlet stream, Pecks Brook.

Since new dam management has been implemented, DER and partners have been monitoring the Brook to evaluate improvements. Streamflow has greatly improved with periods of no flow eliminated and rapid changes in flow due to dam management minimized. Summer flows within target range have also been achieved, even in 2016 under severe drought conditions. The target range was established in the guidance document and represents ideal flow for a stream in the summer.

Macroinvertebrate communities in the Brook have also started to rebound. Monitoring in 2016 shows that total macroinvertebrate community metric scores in Pecks Brook have nearly doubled since implementation began in 2013 (Figure 1) while habitat assessment scores have remained the same.

Additionally, the biological condition of Pecks Brook has improved from moderately impacted to slightly impacted between 2013 and 2016. Levels of impact are in comparison to the reference stream, Cone Brook a natural flowing, unencumbered stream. In contrast, 2016

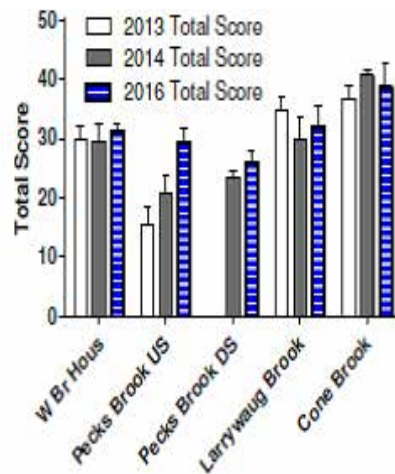


Figure 1 Total scores for macroinvertebrate community multimetric analysis at stream sites assessed in 2016. (Cone Brook is included as a reference site). Pecks Brook shows the largest increase in total scores from 2013-2016 while other states stayed at similar levels over the same time period.

macroinvertebrate metric scores at all other sites remained similar to those measured in previous years while habitat assessment scores generally decreased due to low summertime flows caused by the drought.

These results are encouraging and help illustrate how streamflow releases can lead to improved aquatic ecosystem health. We hope to build on these encouraging results as we work to restore and maintain healthy streamflows.

Three DER Priority Projects receive NOAA Coastal Ecosystem Resiliency Funds

Three DER Priority Projects have been awarded \$1,068,481 in federal funds for coastal ecosystem resiliency. The projects will be funded through Coastal Ecosystem Resiliency Grants, administered by NOAA Fisheries, which is dedicated to the development of healthy and sustainable coastal ecosystems through habitat restoration.

“Americans who live on the coast face enormous risks when Mother Nature strikes; however, it is natural infrastructure--wetlands, marshes, floodplains, and coral reefs--that often serve as our best defense,” said Eileen Sobeck, former head of NOAA Fisheries. “The selected projects will restore our natural barriers and help keep people, communities, and businesses safe.”

Satucket River Restoration Project, Carver Cotton Gin Dam Removal (East Bridgewater)

The Carver Cotton Gin Dam jeopardizes an upstream bridge and is the first dam from the ocean with no fish

passage on the Satucket River. The Department of Fish and Game, Division of Ecological Restoration, The Nature Conservancy and partners will remove this dam. NOAA Funding: \$212,871

Bound Brook Restoration Project, Hunters Pond Dam Removal (Scituate)

The Town of Scituate, in partnership with the Division of Ecological Restoration and the U.S. Fish and Wildlife Service, will remove the Hunters Pond Dam. Removal will open up approximately five miles of riverine corridor and restore tidal flow to Hunters Pond, floodplain function, and improve water quality in Bound Brook.

NOAA Funding: \$192,566

Parkers River Tidal Restoration Project (Yarmouth)

The Town of Yarmouth and the Division of Ecological Restoration are leading a federal, state, and local partnership to replace a degraded and undersized state bridge on Route 28. This restoration project will reduce damage to infrastructure by allowing storm surge to flow more rapidly out of the estuary following major storm events. The project will also improve fish passage, salt marsh growth and improve the overall health of the Parkers River estuary by reducing nitrogen loads.

NOAA Funding: \$663,044

These projects will directly build resilience of coastal ecosystems and communities by removing dams and reconnecting rivers to floodplains and tides to wetlands.



Top: Hunters Pond Dam. Bottom Left: Cotton Gin Dam on Satucket River. Bottom Right: Undersized Bridge over Parkers River.

Restoration Resources

Events/Trainings

Massachusetts Road-Stream Crossings Survey Trainings

Road-stream crossings (culverts and bridges) can be barriers to the movement of fish and wildlife. DER provides training to local, watershed and regional groups in the North Atlantic Aquatic Connectivity Collaborative (NAACC) protocols to assess and determine the location and extent of barriers to help prioritize replacements in communities. We are setting up several trainings for the spring across Massachusetts - if you are interested in a training please contact Carrie Banks, DER's and NAACC's Massachusetts State Continuity Survey Coordinator, at 413-579-3015 or carrie.banks@state.ma.us. Trainings are offered from May-September 2017. Future dates as well as additional information on training can be found on DER's website.

Westfield Wild & Scenic River Weekends, April-September

The Westfield Wild & Scenic Committee is offering free events from April through September.

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|--------------------|--|
| April 30 10am-2pm | Vernal Pool Plunge – Learn to identify and certify vernal pools |
| May 6 10am-2pm | Spring along the River – Discover the beauty of the river corridor in spring with a naturalist and river expert. |
| May 7 | Reading the Forest Landscape – lecture and walk (space is limited) |
| June 17 10am-3pm | Highland Footpath – Explore part of a proposed community trail network |
| July 29 & August 5 | Underwater River Snorkel -A 2-day training for diving in and learning how to observe the underwater world (space is limited) |
| Sept 16 9am-2pm | 4th Annual Watershed Blitz – walk segments of the East Branch Trail with river specialist and naturalists |

Visit the Westfield Wild & Scenic Committee's website for more information and details on how to register.

Nashua River "Wild & Scenic" Study

Join the Nashua River "Wild & Scenic River" Study Committee on Thursday, April 27, 2017, from 7:00 to 9:00 p.m., at the NRWA River Resource Center, 592 Main Street (Rt.119) in Groton, MA for a general public information sharing session, with an opportunity for input.

The Study Committee was formed after the U.S. Congress passed legislation authorizing the National Park Service to commence a study of sections of the Nashua, Squannacook, and Nissitissit Rivers to determine if they are eligible and suitable for designation as part of the federal Wild and Scenic Partnership River Program. The Study is expected to be about a three year process, and is voluntarily undertaken by the towns of Ayer, Dunstable, Groton, Harvard, Lancaster, Pepperell, Shirley, and Townsend.

At the April 27th event, findings to date will be reported, and the views of attendees will be solicited. RSVP to the April 27th event - contact Al Futterman, NRWA Land Programs and Outreach Director, at (978) 448-0299, or ALF@NashuaRiverWatershed.org. Walk-ins are welcome but RSVP encouraged!

For more information, please see the newly-created Study Committee website: www.WildandScenicNashuaRivers.org.

Join NSRWA for a Tack Factory Dam Removal Ribbon Cutting Ceremony

Celebrate the restoration of 8.4 miles of the Third Herring Brook now that the Tack Factory Dam has been removed. There will be a brief presentation and then a walk to the dam removal site. Wednesday, April 26 3:00-4:30pm at the Church Hill United Methodist Church, Fellowship Center Hall (11 Church Street, Norwell, MA). Please RSVP to Sara Grady by Friday, April 21 if you are interested in attending.

Count River Herring in the Shawsheen River

With the removal of the Marland Place and Balmoral dams on the Shawsheen River in Andover, expectation is that river herring - Alewife (*Alosa pseudoharengus*) and Blueback Herring (*Alosa aestivalis*) - will find their way back to their historic spawning grounds on this Merrimack tributary. Volunteer to count herring this April and May. At least 9 people are needed each day for 4 to 6 weeks to take 10-minute shifts observing the river and recording the results. Find available time slots and sign.

This effort has been organized by the Merrimack River Watershed Council, the Andover Conservation Commissioner, the Shawsheen Greenway and Jon Honea of Emerson College.

MassWildlife Earth Week Trout Stocking Events

Celebrate Earth Week with the Division of Fisheries and Wildlife (MassWildlife) by participating in a trout stocking event at locations across the state. MassWildlife invites the public to meet a stocking truck, watch (and maybe help) put trout into the water for future fishing opportunities. Dress for the weather as the fish will be stocked rain or shine! Timing for the stocking truck's arrival is approximate as there can be unforeseen delays at other stocking locations. Nearly 500,000 hatchery-raised brook, brown, rainbow and tiger trout will be stocked this spring for anglers to catch, keep or release.

Stocking Event Information

April 21, 10 AM

Plymouth, Long Pond—Meet at Boat Ramp off West Long Pond Road. (DFG Commissioner Peterson will be in attendance.) Tiger Trout and broodstock (very large) Brook and Brown Trout will be stocked from the Sandwich Hatchery.

April 21, 11 AM

Plymouth, Little Pond—Meet at Morton Park Ramp, off Summer Street in Morton Park. Tiger Trout and broodstock (very large) Brook and Brown Trout will be stocked from the Sandwich Hatchery.

April 21, 11 AM

Holland, Hamilton Reservoir— Meet at Hamilton Reservoir Fisherman's Landing, Leno Road, Holland. (<https://goo.gl/maps/vxGb9tQvb1o>) Brown Trout from the Sunderland Hatchery will be stocked.

April 21, Noon

Hopkinton, Hopkinton Reservoir – Meet at Hopkinton Reservoir Boat Ramp at Hopkinton State Park off Route 85. Parking fee waived. Staff will be stocking Brook Trout and Brown Trout from the Bitzer Hatchery in Montague.

April 21, 1:30 PM

Pittsfield, Onota Lake – Meet at Burbank Park off Valentine Street. Rainbow Trout from the McLaughlin Hatchery in Belchertown will be stocked.

Grants

MassDEP Section 319 Nonpoint Source Pollution Competitive Grants Program

This grant program is for implementation of projects that address the prevention, control, and abatement of nonpoint source (NPS) pollution. In general, eligible projects must: implement measures that address the prevention, control, and abatement of NPS pollution; target the major

source(s) of nonpoint source pollution within a watershed/ subwatershed; contain an appropriate method for evaluating the project results; and must address activities that are identified in the Massachusetts NPS Management Plan. The RFR provides further information on applying and eligibility. Proposals will be due on June 2, 2017.

Fuller Foundation

The Fuller Foundation is a family foundation that supports non-profit agencies which improve the quality of life for people, animals and the environment. Its geographic focus area is predominately the Greater Boston area (communities inside Route 128) and the immediate seacoast area of New Hampshire. Organizations seeking funding should read the application procedures. There are two application deadlines each year: January 15 and June 15.

Parks and Conservation Grants

EEA's Division of Conservation Services (DCS) is seeking applications for the FY 2018 Parkland Acquisitions and Renovations for Communities (PARC), Local Acquisitions for Natural Diversity (LAND), and Conservation Partnership grants. PARC grants help communities acquire parkland, develop new parks, and renovate existing parks. LAND grants provide funds to municipal conservation commissions to purchase conservation land and conservation restrictions. Conservation Partnership grants provide funds to nonprofit organizations for land acquisitions. PARC and LAND grant applications are due by July 12. Conservation Partnership applications are due by July 17.

Massachusetts Executive Office of Energy and Environmental Affairs (EEA) Certified Municipal Vulnerability Preparedness Provider Training Opportunity

EEA is seeking individuals and organizations wishing to become certified Municipal Vulnerability Preparedness (MVP) providers through participation in a 1 day training session, sponsored by EEA. Certification through this no-cost training opportunity will enable vendors and individuals to be eligible to enter into contracts with communities who have been awarded an MVP grant. Deadline for applications is April 21, 2017. Eligibility and application information is found in COMMBUYS. More information on the MVP program will be released in April.

Environmental License Plates

The Massachusetts Environmental Trust (MET) provides funding to many river, wetland and other water resources protection and restoration projects throughout the Commonwealth. A major source of MET's funding comes from the sale of environmental license plates. Getting an

environmental plate is easy and can be done on-line by clicking here, or in person at your local Registry of Motor Vehicles office.

Articles

[A Tool for Assessing Ecosystem Recovery: The 5-Star Recovery System in Action](#)

The Society for Ecological Restoration (SER) recently announced a tool that can be used for assessing and ranking a restoration site's degree of recovery over time. The 5-Star Recovery System tool utilizes a 5-star scale that represents a cumulative gradient from very low to very high similarity to a reference ecosystem.

[EPA Clarifies Policies and Funding for Removal of Obsolete Dams](#)

In December 2016, EPA's Office of Water issued a two-page document of Frequently Asked Questions (FAQs) and answers to clarify dam removal-related regulations, policies, and funding opportunities. As interest in dam removal has increased, proponents and project partners have increasingly asked federal agencies for clarification regarding the federal regulatory framework for dam removal.

Federal agency staff themselves are often unsure how to consider habitat and wetland change that occurs with dam removal under federal wetland regulations. And, states have sought clarification on how best to incorporate dams and dam removal into state water quality programs – for example, states' lists of impaired waters developed under

Section 303(d) of the Clean Water Act.

The FAQs go a long way towards answering these questions and many others. Key points include the following:

- Dams fragment and degrade the ecology of rivers;
- Dams can cause impacts on water quality both in and downstream from the impoundment;
- The presence of a dam can affect the ability of the water body to meet state water quality standards;
- EPA recommends that states and tribes identify waters as impaired on their Integrated Reports where dams adversely impact water quality causing water quality criteria or designated uses to not be met;
- Dam removal does not require a water quality standards variance under state water quality regulations;
- Clean Water Act Section 319 grants issued to states, territories, and tribes may be used for dam removal provided the project is consistent with the state's Nonpoint Source Management Program Plan and the state's application rules and process;
- Dam removal projects may be eligible for support through EPA's Five Star Grant Program provided the project meets the criteria of the program;
- Dam removal has multiple benefits, including ecological, social, economic, and safety benefits.

Commonwealth of Massachusetts

Charles D. Baker, Governor
Karyn E. Polito, Lieutenant Governor
Matthew A. Beaton, Secretary
Executive Office of Energy & Environmental Affairs
George N. Peterson, Jr., Commissioner
Department of Fish & Game
Mary-Lee King, Deputy Commissioner
Department of Fish & Game

DER Boston Office

251 Causeway St. Suite 400
Boston, MA 02114
(617) 626-1540

DER Westfield Office

544 Western Avenue
Westfield MA 01086

Division of Ecological Restoration

Tim Purinton
Director

Hunt Durey
Deputy Director

Eileen Goldberg
Assistant Director

Carrie Banks
Stream Team & Wild & Scenic
Westfield River Coordinator

Timothy Chorey
Stream Continuity Specialist

Michelle Craddock
Watershed Ecologist

Cindy Delpapa
Riverways Program Manager

Kristen Ferry
Habitat Restoration Specialist

Eric Ford
Restoration Specialist

Alex Hackman
Project Manager

Kris Houle
Ecological Restoration
Specialist

Georgeann Keer
Project Manager

Beth Lambert
Aquatic Habitat Restoration
Program Manager

Megan Sampson
Program Administrator

Nick Wildman
Restoration Specialist