

## April Talon

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**From:** Todd Selig  
**Sent:** Monday, February 15, 2021 10:29 AM  
**To:** Pele Harrison  
**Cc:** Richard Reine; April Talon  
**Subject:** FW: Letter regarding Mill Pond Dam future - Pele Harrison  
**Attachments:** Mill Pond Dam Letter (1).pdf

Dear Pele,

Thank you very much for this feedback concerning the Mill Pond Dam on the Oyster River. It is appreciated.

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
He/him/his pronouns

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**From:** Pele Harrison <peleharrison@yahoo.com>  
**Date:** Monday, February 15, 2021 at 10:18 AM  
**To:** April Talon <atalon@ci.durham.nh.us>, Todd Sellig <tsellig@ci.durham.nh.us>, Jennie Berry <jberry@ci.durham.nh.us>, Durham Town Council <council@ci.durham.nh.us>  
**Subject:** Letter regarding Mill Pond Dam future  
**Resent-From:** <council@ci.durham.nh.us>

Please review the attached letter from the Harrison family.  
Thank you so much,  
Pele

Dear Durham Town Council Members,

We write to you regarding the future of the Mill Pond and the Mill Pond Dam. We believe there are many aspects to consider, not least of which are the contents of the VHB study and the direction VHB received leading to the results of the study.

There have been so many compelling letters written in support of stabilizing the dam, we don't believe there is any value in restating what has already been so eloquently laid out. We support the points and questions raised in the letters written by: Dennis Meadows, Peter Stanhope, Coleen Fuerst, Ted Howard, Andrea Bodo, Jeffery Hiller, Janet Mackie, Larry Harris and so many others.

Furthermore the Town Council members are elected officials working on behalf of the town residents. The views and information presented by the TC should be objective and educated, this was not the case in the TC meeting of January 11<sup>th</sup>, 2021. After much input from residents Kitty Marple stated "dredging is part and parcel with the project" (video timestamp 3:07:00), this is incorrect information and misleading on two major aspects – environmental impact and economic impact. The financial considerations have also been misrepresented, as recently as Friday Updates February 12<sup>th</sup>, in that stabilizing the dam is more expensive, again incorrect.

There are so many unanswered questions related to the Mill Pond dam that at minimum the Council should follow-up on these questions, get definitive answers and publish them for the public to have a better, unbiased understanding. Examples of these questions include:

- Why is there a one way fish ladder and not a migration notch such as the one at Wiswall dam? (reference emails between Carden Welsh and Michael Dionne)
- Would removing the dam increase fish migration? 157,024 river herring in 1992 to 4,665 in 2020, would appear there is a larger issue than the Mill Pond dam. (reference email Michael Dionne)
- Would increased water flow from the upper UNH dam improve water quality in the lower portion of the Oyster River?

In closing, after reading the questions presented to VHB by the TC on January 11<sup>th</sup> 2021 and the responses provided by VHB on February 8<sup>th</sup>, 2021 it would appear that few of the counselors read the entire study and some only read the executive summary, included in the *council information package*. With this in mind, how can the Town Council make such a large and EVERLASTING decision without the full scope of information?

Thank you again for your service, consideration and time.

Sincerely in favor of saving the dam,

Sean and Pele Harrison

55 Mill Pond Rd.

## April Talon

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**From:** Todd Selig  
**Sent:** Monday, February 15, 2021 10:31 AM  
**To:** Larry Harris  
**Cc:** April Talon; Richard Reine  
**Subject:** FW: A question about fish migrations - Larry Harris  
**Attachments:** Durham Town Council15 February 2021.docx

Dear Larry,

Thank you very much for this feedback relative to the Mill Pond Dam on the Oyster River. It is appreciated.

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
He/him/his pronouns

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**From:** Larry Harris <Larry.Harris@unh.edu>  
**Date:** Monday, February 15, 2021 at 9:16 AM  
**To:** Durham Town Council <council@ci.durham.nh.us>  
**Subject:** A question about fish migrations  
**Resent-From:** <council@ci.durham.nh.us>

A brief question to add to the discussion about the Mill Pond Dam. Larry G. Harris, 56 Oyster River Rd.

Durham Town Council

15 February 2021

Dear Council Members,

I have already expressed my opinion about the Mill Pond Dam in more than one letter so I will be very brief. After reading the email exchanges between Councilor Welsh and Michael Dionne of New Hampshire Fish and Game concerning fish migrations dated from 12 January through 17 January, one question became very obvious to me. Michael Dionne described how a "migration notch" has been placed at the Wiswall Dam to allow downstream migration of river herring during periods of low flow over the dam. Therefore, the question that has never come up is:

Why has a migration notch never been discussed for adding to the Mill Pond Dam to facilitate downstream migration of both adults in the spring and young of the year later in the summer? As fish runs have declined over the years, it would seem that this fix could help to restore fish runs without dam removal and I would also refer you to the last question in Janet Mackie's email of 14 February.

Thank you.

Larry G. Harris  
56 Oyster River Rd.

## April Talon

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**From:** Todd Selig  
**Sent:** Monday, February 15, 2021 10:36 AM  
**To:** April Talon  
**Cc:** Durham Town Council; Richard Reine  
**Subject:** Re: Excerpt just on Mill Pond Dam - feedback from Joshua Meyrowitz

Thank you, April. I'll copy the members of the Council as well for their information.

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
He/him/his pronouns

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**From:** April Talon <[atalon@ci.durham.nh.us](mailto:atalon@ci.durham.nh.us)>  
**Date:** Monday, February 15, 2021 at 9:31 AM  
**To:** Todd Selig <[tselig@ci.durham.nh.us](mailto:tselig@ci.durham.nh.us)>  
**Subject:** FW: Excerpt just on Mill Pond Dam

April Talon, P.E.  
Town Engineer – Durham, NH  
Durham Public Works  
100 Stone Quarry Drive  
Durham NH 03824  
Office: 603-868-5578  
Cell: 603-343-3100  
Email: [atalon@ci.durham.nh.us](mailto:atalon@ci.durham.nh.us)

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**From:** Meyrowitz, Joshua <[Joshua.Meyrowitz@unh.edu](mailto:Joshua.Meyrowitz@unh.edu)>  
**Sent:** Monday, February 15, 2021 4:26 AM  
**To:** April Talon <[atalon@ci.durham.nh.us](mailto:atalon@ci.durham.nh.us)>  
**Subject:** Excerpt just on Mill Pond Dam

Hi April, If you are indeed still going to post the most recent set of letters, here are excerpts from my longer "Dear Durham Neighbors" update (which you should have also received), but just on the Dam. I haven't seen any other correspondence yet that tries to present all/most of the different arguments in one write-up, as I *try* to do here. Perhaps this will do a little to help citizens deal with what lies ahead. Best, Joshua

## Immediately Upcoming

### <> Feb 15 – Council Deliberations, Mill Pond Dam [future/recomm](#) (not Public Hearing) ([agenda](#))

I have now read all of the citizen letters about the Mill Pond Dam posted [here](#) through Sunday night, as well as most of the other available information. And toward the end of this “update” email, I attempt to present a summary of all the positions and reasoning that I have heard, along with links to everything I can find on the Town website about the issue. (It’s possible that another more recent batch of letters will still be posted on Monday.)

I ran my initial summary by 5 advocates of Dam Removal and 5 advocates of Dam Stabilization, and I suspect none of those people will be thrilled by my attempting to understand the other group’s positions in my summary toward the end of this email.

The few things that I know for certain about the Dam controversy are: 1) There is disagreement even on a number of the basic “facts” about the issue, 2) many people who are often on the same “side” in other Town debates are divided on this one, 3) whatever decision is made by the Council or by a ballot referendum will leave some social scars that could take years or decades to heal, unless some careful “pre-PTSD” work is not done, and 4) that I would not want to be in charge of making the decision of how to move forward! Please watch the Council deliberations with some compassion.

#### **SUMMARY:**

The debate over what to do with Durham’s Mill Pond Dam (and Pond) is so fierce that I’ve had trouble finding “facts” that everyone can agree on to advance understanding.

At the [Jan 11 Council Public Hearing](#) on the dam, thirty people spoke: 20 in favor of saving it in some way and 9 in favor of removal. (The citizen *letter input* appears to be skewed the other way, toward removal, though many of those letters are just a sentence or two.) I spoke at the Council on neither option, but in favor of everyone learning more about everyone’s else’s positions, through posting of all the letters that had been written (now done!) and giving people time to read more deeply and attend informational/debate sessions apart from formal Town meetings. My intent was that whatever is decided either by the Town Council or by a ballot referendum (preferably in my view in March 2022, after more education of the public), there will be some greater understanding by the many, many residents who will, regardless of outcome, find themselves on a “losing side.” One resident recommends (as the most informative on the start of the current dynamic) the 25-minute Town Council discussion from [Nov 26 2018](#), starting at 3:01.

*I think most (though not all) people would agree with the following statements:* The Dam cannot be left as it is. The Dam is deteriorating and could break (causing property damage and a messier “removal” process) and the general trend is to remove dams (even ones in better condition) when they no longer provide power and to restore more “natural environments” for fish runs, boating, and all that nature knows how to do. “Saving” the dam actually means filling it with reinforced concrete so that it does not fall further apart, and then either leaving the pond area alone or dredging it at great expense to restore a real pond (which might need to be done again in 5, 10, or 20 years). That’s the essence of the removal case.

Yet, the Dam is not just any dam. It is historic (eligible for National Register status in 10 categories) and visually iconic (especially given its unique siting as a gateway to the Town in contrast to many other town dams), and the Mill Pond that the dam creates has for over 100 years been a cherished open-air spot for skating and other recreation (including this week!). Moreover, beloved Mendums

Pond, Lake Winnepesaukee, Lake Ossipee, etc. are partly created with dams. Additionally, the location of the Mill Pond was dammed in some way for over 350 years, and a new habitat has developed (for both humans and other animal species) from the current dam and its predecessors. Dam savers say that restoring a pre-dam “natural environment” is no longer even possible. A one writes: “Prior to colonial times there were no invasive species like Buckthorn, runoff from increasing paved areas and water extraction for a growing population.” That’s one summary of the save-the-dam argument.

Adding to the complications, however, is that “pond” has been evolving toward a “meadow,” the water quality is said by most to be very poor (and would improve with dam removal) – and there are multiple toxic chemicals in the sediment (including heavy metals cadmium, chromium and lead), from a mix of natural and probably UNH science labs and power-plant sources that have since improved their treatment of College Brook (aka in the old days as the “College Drain”!). Dredging to restore the pond fully would be *very* expensive (probably in the millions) and NHDES permits to allow it are not that likely (since the idea of dredging is mostly for aesthetic reasons and not for ecological restoration). Dredging would also likely cause problems with these toxic sediments.

Even for those who agree with what I’ve said so far, it gets very contentious after that. A resident scientist reported to me that he discussed the sediment issues with the Town’s consultant, and he reports that “restoring the dam will leave the sediments where they are. Removing the dam will cause 260,000 cu ft of toxic sediments to move. Some will be trucked away and the rest will deposit into the reach below the dam.” But another scientist responded: “I dispute his assumption that all the sediments behind the dam will be mobilized when it is taken out.... Stabilization of the sediments will be part of the restoration/removal plan. The bathymetry [measurement of depth of water] clearly shows the fully formed historic channel which is still intact. The dam will be drawn down and the soils outside of the historic channel will be stabilized as part of the restoration efforts. The vegetation will likely volunteer quickly as we saw happen in 4-6 months when the Littlehale Road flash boards were taken out a few years ago. This will prevent mobilization and sequester the pollutants in place.” In short, it’s not easy to get one set of facts.

With removal, the dam savers say, dozens of “waterfront” homes would be living at mud flats (affecting property values and lifestyles) and since the major dam on the Oyster River is a mile further upstream (the UNH reservoir), the “restored” river from dam removal, although flowing *more* freely, would not flow fully freely, and it would not look anything like the restored Exeter river after its dam removal. That narrowing of the flow appears to be confirmed by Mill Pond [dam-drawdown pictures](#) from 2009 and also, as one dam saver argues, from pictures on p. 5 [here](#) of pictures from one month and one year after removal of the Lisbon, NH, dam.

As further confirmed by the hired consultant at Council discussions, water width and depth would shrink considerably from dam removal, and some current pond areas would be muddy and tidal. Current walking, skating, and cross-country skiing on the impounded frozen water would no longer be possible. Removing the dam, savers argue, will actually *reduce* boating options in the impounded area and might possibly deposit enough sediments near the Town Landing to negatively affect boating there. Yet, some dam removal advocates claim property values could go up, as in this comment: “Frankly, it’s laughable that folks are saying their property values will go down when property values on the tidal rivers and streams all around Durham are far higher than on the Mill Pond impoundment.” Not a lot of agreement, obviously!

A few dam-removal advocates argue that a *portion* of the existing dam could remain (or be nearby) to serve as a historical marker. And another dam-removal advocate highlight the potential for “place-based learning.” She adds: “River restoration would provide limitless opportunities to engage Oyster

River School District students in real-time, community-based learning. The Mill Pond Dam's removal would give the student's a fascinating case study that contains elements of a wide swath of topics covered in and out of the classroom: engineering, social studies, ecology, mathematics, history, art, and geology, among others."

Dam savers argue that the current water level has been holding back *unique* invasive species at the site, and that the tidal (salt) water that would come upstream from dam removal could have other unpleasant consequences, such as foul odors. As one dam saver wrote to me, "The Dam was built on natural falls of the Oyster River used by the Abenaki marking the limits of salt water. It will drain the Mill Pond, forming an unnatural channel for tidal salt water to flow into a narrow channel mixing fresh water bordered by a drastically altered Mill Pond that would become a tidal swamp." Also, if the dam is built on a natural falls, then boating up or down that area would be problematic or impossible.

Yet, dam removal advocates say that the "invasive argument" is misleading. Invasive species, they note, are an area-wide problem, apart from this issue, and that other tidal areas further downstream do not emit unpleasant odors. One scientist advocating removal, for example, wrote to me: "Tidal salt marsh would establish in and adjacent to the restored channel upstream of the dam. One needs to only look at marshes downstream of the dam, or over in the Bunker Creek Marsh along Route 4 to visualize what it would look like (and how it would smell). It is a beautiful highly ecologically productive habitat that can adapt to sea level changes and can be explored and enjoyed by kayak at any high tide."

Removal is supported by the Conservation Commission and opposed by Historic District Commission & Durham Historic Association (see all three recommendations [here](#)). After months of requests by me and other residents to see all the letters submitted, I'm glad to say that they are now posted in several batches [here](#), along with the Dam Feasibility Study documents.

See Consultant [presentation](#), [executive summary](#), & [summary matrix](#) (the latter limited to removal vs. stabilization-with-dredging, while most stabilization advocates argue the inexpensive stabilization can be done on its own without the super-expensive, if even possible, dredging). Also see the consultants answer questions Town Councilors [here](#).

See also the [Foster's](#) article describing how **residents are split on removing or stabilizing Mill Pond Dam**. However, many residents have informed me that this article omits the option that has significant backing: stabilizing the Dam without dredging the Pond, something dam-removal advocates say is not really feasible. The consultants' summary chart (echoed in the Foster's article above) argues that dam removal will be cheapest in both the short and long run, but that is disputed by those who say that the actual cheapest option is to stabilize the dam (filling it with reinforced concrete) and *not* dredging the pond. Dam-removal advocates point to a paradox: the stabilizing method destroys the historic value of the cherished artifact to be "saved." One resident argues that sea-level rise will flood the whole area in any case in a century or two, and we might as well enjoy the skating with dam stabilization while currently living Durham residents walk (and skate) the planet. Both sides claim that there will be grant-funding possibilities to support their preferred outcome. You see the challenge!

Even a skim of the citizen input will give you sympathy for Council Members' and the Town's dilemma!

In short, I think the Town desperately needs some "**pre-post traumatic stress therapy**" about the Dam for the sake of Durham's social fabric in the next few decades. There is a lot of money, emotion – and hearts and minds – at stake. The vastly differing views lead me to hope that there is time for



more forums, apart from official Town meetings, and even time for field trips to related sites, including other Towns, all in advance of a time-specific “final decision.” Perhaps there can be some changing of minds or more understanding of others’ perspectives.

Best, j m  
7 Chesley Drive  
H—868-5090

*Joshua Meyrowitz, Ph.D.*  
*Professor Emeritus*  
*Department of Communication*  
*Horton Social Science Center*  
*University of New Hampshire*  
*Durham NH 03824-2616*  
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[joshua.meyrowitz@unh.edu](mailto:joshua.meyrowitz@unh.edu)  
<https://unh.academia.edu/JoshuaMeyrowitz>

## April Talon

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**From:** Todd Selig  
**Sent:** Monday, February 15, 2021 10:43 AM  
**To:** MaryAnne Chase  
**Cc:** April Talon; Richard Reine  
**Subject:** Re: Mill Pond Dam and Mill Pond - David J. Chase

Dear David,

Thank you very much for this feedback concerning the Mill Pond Dam on the Oyster River.

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
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**From:** MaryAnne Chase <machase111@gmail.com>  
**Date:** Sunday, February 14, 2021 at 3:32 PM  
**To:** Todd Selig <tselig@ci.durham.nh.us>, Wayne Burton <wburton@northshore.edu>, Andrew Corrow <andrew\_corrow@yahoo.com>, Allan Howland <thehowl@comcast.net>, "kittyfmarple@comcast.net" <kittyfmarple@comcast.net>, Common Cause <causenet@commoncause.org>, Dinny Waters <dinnywaters@gmail.com>, Durham Town Council <council@ci.durham.nh.us>  
**Subject:** Mill Pond Dam and Mill Pond

Town of Durham Administrator Selig, Town of Durham Councilors  
Subject: Mill Pond Preservation

My comments below are forwarded with respect to the maintenance and preservation of the Mill Pond Dam. Having grown up in Durham since 1938 when my parents Malcolm and Charlotte Chase, purchased the Stevens Homestead at 177 Durham Point Rd, the Mill Pond was always part of our lives. Skating, picnics, even working at the Peterman Laundry during High School. The Jenkins Mill, which was regrettably lost, made use of the dammed water to power both the grist and a lumber mill. The early dam was of wood construction and the Town thought it important enough to rebuild it when it needed replacing. We are at that point again and it is such an important part of Durham history that we should again repair and preserve it.  
story.

I strongly request that this matter be tabled until further study determines that there are other solutions that will satisfy both historical and ecological interests. Certainly the excellent minds of local citizens, the University of NH and appropriate State Departments can solve this challenge,

David J. Chase  
271 Durham Point Rd.

[chaseco3kw@gmail.com](mailto:chaseco3kw@gmail.com)

## April Talon

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**From:** Todd Selig  
**Sent:** Monday, February 15, 2021 10:45 AM  
**To:** Michael Schidlovsky  
**Cc:** April Talon; Richard Reine  
**Subject:** FW: Letter to Durham Town Council and Town Administrator about Mill Pond Dam Removal - Michael Schidlovsky  
**Attachments:** Letter to Durham Town Council and Town Administrator about Mill Pond Dam Removal.docx

Dear Michael,

Thank you very much for this feedback relative to the future of the Mill Pond Dam on the Oyster River. It is appreciated, and will be considered carefully by members of the Town Council along with other correspondence and feedback received.

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
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**From:** Michael Schidlovsky <[mschidlovsky@comcast.net](mailto:mschidlovsky@comcast.net)>  
**Date:** Sunday, February 14, 2021 at 2:35 PM  
**To:** Durham Town Council <[council@ci.durham.nh.us](mailto:council@ci.durham.nh.us)>, Todd Selig <[tselig@ci.durham.nh.us](mailto:tselig@ci.durham.nh.us)>  
**Cc:** Sally Needell <[sneedelltc@gmail.com](mailto:sneedelltc@gmail.com)>, "Christine J. Soutter" <[csoutter@ci.durham.nh.us](mailto:csoutter@ci.durham.nh.us)>, Michael Behrendt <[mbehrendt@ci.durham.nh.us](mailto:mbehrendt@ci.durham.nh.us)>, "dhacurator@comcast.net" <[dhacurator@comcast.net](mailto:dhacurator@comcast.net)>, Ellen Snyder <[ellensnyder1@gmail.com](mailto:ellensnyder1@gmail.com)>, "krebsma@gmail.com" <[krebsma@gmail.com](mailto:krebsma@gmail.com)>  
**Subject:** Letter to Durham Town Council and Town Administrator about Mill Pond Dam Removal.

Please see attached letter.

Thank you for your consideration,

Michael Schidlovsky

100 Newmarket Rd.

Durham, NH 03824  
603-397-7987  
[mschidlovsky@comcast.net](mailto:mschidlovsky@comcast.net)

To: Durham Town Council, Town Administrator and Interested Parties  
From: Michael Schidlovsky, 100 Newmarket Rd., Durham, NH 03824  
Date: Feb 12, 2021  
Subject: Mill Pond and contemplated dam removal.

Dear Durham Town Council and Interested Parties,

I am writing this letter to express my distress about the possible removal of the Mill Pond Dam and the resulting detrimental impact it will obviously have on the long-established Oyster River/Mill Pond ecosystem. I have lived on this body of water for 34 years and have spent countless days canoeing, bird-watching, fishing, hunting, ice skating, snowshoeing, x-c skiing on the impounded Oyster River and the resulting Pond. I have a very keen and intimate knowledge of this extremely rich ecosystem and the many living flora and fauna that were essentially "invited" by the man-made Pond's creation. Those creatures have thrived while making a safe home for themselves for the past hundreds of years.

After the centuries and a number of various forms of dams built to restrict the Oyster River flow to create a water impoundment (Oyster River/Mill Pond) a robust, healthy, balanced and, very active ecosystem has taken a strong hold behind it. Why would we destroy it? The same people who talk about seasonal/temporary vernal pool protection and how sacred these "micro environments" are to a handful of small reptiles, are now proposing the complete destruction of a much, much larger and mature ecosystem, essentially committing much of the wildlife residents and dependents of the impounded Oyster River/Mill Pond to death. Sounds dramatic? You may not witness it because you don't live on the Pond. I will and I foresee both a very "ugly" process and a result we will *all* regret.

Here are just a few of the most obvious creatures that I see regularly on/in the Pond. The lucky ones may "migrate" and try to find homes but we all know, there are fewer and fewer protected environs available to them as we destroy those too. The remaining and most dependent creatures will not stay alive once the water and pond is gone.

To name a few: River Otters, musk rats, beavers, painted turtles, huge snapping turtles, various fish species, snakes, countless migrating water fowl, swans, etc.. Did you know that the Mill Pond has been an active rookery for the Great Blue Heron? I regularly see Bald Eagles, Osprey and all types of hawks and raptors feeding from the Pond. I also see deer, bobcats, coyotes, foxes, fisher cats and have even had a moose years ago stop to feed in the pond below our house.

I respectfully ask you to look at a map and do some contemplation. The impact of the Dam removal will not only remove the water from the Mill Pond it will drain a much larger body of water than just that. Our beautiful, historic Mill Pond is the centerpiece of our community and the area that most people are familiar with as they see it from their cars or walk the sidewalks of the local neighborhoods. This seems to be the focus of all emotion about the issue of dam removal. Please look beyond that. Look up the "backwater" of the River which is almost a 1 mile long "pond" (and where I live). This is many, many times larger than the Mill Pond itself. There will be a lot of intentional destruction of wildlife, loss of recreation, significant impacts on some shorefront property values and truly a huge loss to the community and future opportunities for the Town, if the dam is removed.

There are many, many reasons for my distress about the possible dam removal. There are also many examples of historically regretful things that we may have done locally as Durham has established itself over the years. Maybe the building of the various Oyster River dams over the years was one of them (then again, Durham may have never been established at all?). But, almost 400 years later, as far as I am concerned, the dam has allowed and encouraged a much greater ecosystem to develop than most Durham residents even realize. What gives us the right to destroy that? I am not ready to accept that responsibility and the consequences. In addition, the possible reasons and purposes for dam removal that I have heard do not substantiate what I would see as a very environmentally arrogant, short-sighted and wrong decision by the Town of Durham. We do have alternatives to removal and I strongly recommend we look for those solutions instead.

Thank you for your time and consideration of my input. Please feel free to reach out to me if you have any questions.

Respectfully,

Mike Schidlovsky

mschidlovsky@comcast.net

## April Talon

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**From:** Todd Selig  
**Sent:** Monday, February 15, 2021 1:58 PM  
**To:** bryan@thefreedomcafe.org  
**Cc:** April Talon; Richard Reine  
**Subject:** Re: Letter Concerning The Mill Pond Dam Hearing - Bryan Bessette

Dear Bryan,

Thank you very much for this feedback concerning the Mill Pond Dam on the Oyster River. I know the members of the Town Council will consider it carefully along with the other correspondence they receive.

All my best,

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
He/him/his pronouns

*Do your part to help stop the spread of Covid-19: Wear a mask around others, avoid close physical contact, monitor your health, wash hands/disinfect!*

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**From:** "kittyfmarple@gmail.com" <kittyfmarple@gmail.com>  
**Date:** Monday, February 15, 2021 at 1:51 PM  
**To:** Jennie Berry <jberry@ci.durham.nh.us>  
**Cc:** Allan Howland <al.howland.13@gmail.com>, Andrew Corrow <andrew\_corrow@yahoo.com>, Carden Welsh <cardentc2@gmail.com>, Dinny Waters <dinny.tod@gmail.com>, 'Jim Lawson' <lawsonje24@comcast.net>, "'kittyfmarple@comcast.net'" <kittyfmarple@comcast.net>, Sally Needell <sneedelltc@gmail.com>, Sally Tobias <Sally.tobias@me.com>, Todd Selig <tselig@ci.durham.nh.us>, Wayne Burton <wburton@northshore.edu>  
**Subject:** Re: Letter Concerning The Mill Pond Dam Hearing

Thank you Jennie

On Feb 15, 2021, at 1:40 PM, Jen Berry <[jberry@ci.durham.nh.us](mailto:jberry@ci.durham.nh.us)> wrote:

Dear Councilors,

For your information.

Jennie--

*Jennie Berry*  
Admin. Assistant  
Town of Durham  
8 Newmarket Road  
Durham, NH 03824  
(603) 868-5571

---

**From:** Bryan Bessette [<mailto:bryan@thefreedomcafe.org>]  
**Sent:** Monday, February 15, 2021 1:37 PM  
**To:** Jen Berry  
**Subject:** Letter Concerning The Mill Pond Dam Hearing

Dear Counselors,

I am writing to express my thoughts on the removal of the Mill Pond Dam. I agree with others who have presented that this decision will benefit the riverine habitat and be a fiscally responsible solution.

As others have shared, removing the dam, will inevitably leave a gap in our community identity and it is to this point that would like to speak.

There is a rich history of folks along the Oyster River utilizing this incredible natural resource to support economic and community development. As we consider removing the dam, I invite you and our community at large to imagine with me a future that provides increased value and benefits for property owners, small businesses and community members; one that furthers the rich history and meaningful enjoyment of the river and Mill Pond area.

As one who spends time on the river and at Old Landing and Mill Pond Parks in every season, I find myself excited about the opportunity we have to increase the accessibility of kayaking, paddle boarding, fishing and other recreational experiences up and down the river. I can imagine a beautiful expanded park along the river with an open community gathering space in the location of the Mill Pond.

I imagine a trail along the river connecting Old Landing Park to Doe Farm via the new pedestrian bridge. Perhaps there could be child friendly exercise stations similar to those available at Tibbetts Field in Madbury at specific locations along the trail. I imagine an open park area at Mill Pond with a pavilion and picnic tables like the one at Three Rivers Park in Lee, creating outdoor space for friends and families to gather and community events to take place. In the winter, this park might be home to an outdoor ice skating rink providing a safe, reliable and free recreational area for youth and neighbors to enjoy. Perhaps the Chili Festival that once took place on the pond could be revived in this new location where gatherings of this size can easily be managed.

I imagine Durham becoming more of a destination where folks stay and play as well as visit, play and patronize our small businesses rather than leaving town for shopping and recreational opportunities elsewhere.

As we consider the removal of the Mill Pond Dam, I believe it is possible for us to preserve the rituals our community loves and also provide a familiar and forward thinking solution that meets the needs of our community and a flourishing ecosystem for years into the future.

Sincerely,  
Bryan Bessette  
Durham Resident & Non-profit Business Director



## April Talon

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**From:** Todd Selig  
**Sent:** Monday, February 15, 2021 4:53 PM  
**To:** April Talon; Richard Reine  
**Subject:** FW: Letter from Sea Run Brook Trout Coalition Re: Mill Pond Dam - Geoffrey Day, Executive Director  
**Attachments:** SRBTC\_LOS\_Oyster\_River\_20210215.doc

Dear April and Rich,

Please include with the public correspondence concerning the Mill Pond Dam on the Oyster River.

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
He/him/his pronouns

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**From:** "gday@searunbrookie.org" <gday@searunbrookie.org>  
**Date:** Monday, February 15, 2021 at 4:25 PM  
**To:** Durham Town Council <council@ci.durham.nh.us>  
**Subject:** SRBTC\_LOS\_Oyster\_River\_20210215.doc  
**Resent-From:** <council@ci.durham.nh.us>

Dear Durham Town Council,

Please find attached my letter of support for the removal of the Oyster River Dam in Durham NH.

Please feel free to reach out to me if I can be of any further help.

Sincerely,

Geoffrey Day

Geoffrey Day  
Executive Director  
Sea Run Brook Trout Coalition  
Newburyport, MA  
[www.searunbrookie.org](http://www.searunbrookie.org)  
landline (978)-255-1811

cell (978) 417-0595



Saving Sea Run Brook Trout

One Stream at a Time

[www.Searunbrookie.org](http://www.Searunbrookie.org)

February 15, 2021

Re: Oyster River Dam

Dear Durham Town Council Members,

The Sea Run Brook Trout Coalition is a nonprofit organization that is dedicated to researching, restoring and preserving sea-run brook trout and the habitat they depend upon. We got our start doing exactly this to help understand and expand several special (and fishable) populations of sea-run brook trout in Southeastern Massachusetts. Key streams that have undergone significant restoration to successfully restore sea-run brook trout include Red Brook (Plymouth/Wareham, MA), and the Quashnet, Coonamessett and the soon-to-be restored Childs River in Falmouth, MA. Each of these were significantly impaired through damming, agricultural use, and mismanagement.

Restoration involved reversing centuries of damage through dam removal, stream restoration, planting and regulatory changes – and yes, one can visit each of these streams and catch one of the abundant sea-run brook trout there. Recently, fish in the 14–16 inch range have been caught and returned, and while the average trout caught is in the 6–8 inch range, many fish that now have access to abundant food resources in the salt water today can grow much larger. Additionally, a genetic study has proven fish in each river were unrelated to area hatchery fish, thus indicating this is truly a wild and native trout – something quite rare anywhere in coastal New England streams excepting Eastern Maine.

By recently visiting the Oyster River Dam and reviewing numerous documents hosted on the Durham Public Works website, my initial assessment indicates the Oyster River system was very likely once the home of vibrant populations of many diadromous fishes, including brook trout, river herring, rainbow smelt, as well as white perch, lamprey, possibly Atlantic salmon, several species of shad, the catadromous American eel and, of course, the brackish water-loving oyster for which it is named.

Durham's hundred-plus foot dam located near head-of-tide has likely extirpated or greatly reduced populations of these species. By doing so, it has reduced the forage base of species like striped bass, bluefish, cod and haddock, which depend on many of these species, both in Great Bay, downstream in the Piscataqua River and in the larger Atlantic Ocean.

Further, the dam creates a disconnection of the natural sediment flow of a river. The natural sediments collected behind the dam cause the lower reaches of the river to be starved of sediments which, for millennia, naturally built up and protected the downstream riverbanks and salt marshes.

It is my opinion that dam removal on the Oyster River will significantly improve both the number of species and the population sizes of native fish found in the headwaters and downstream of the dam.

I – and the broader Coalition – strongly support removal of the Oyster River Dam.

I thank you for this opportunity to speak up on this matter, and the fish will thank you too.

Sincerely,

A handwritten signature in black ink that reads "Geoffrey Day".

Geoffrey Day  
Executive Director

## April Talon

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**From:** Todd Selig  
**Sent:** Monday, February 15, 2021 5:01 PM  
**To:** April Talon; Richard Reine  
**Subject:** FW: Mill Pond Dam removal - Constantine Harris

Dear April and Rich,

Please include with the public file concerning the Mill Pond Dam on the Oyster River.

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
He/him/his pronouns

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**From:** Jennie Berry <[jberry@ci.durham.nh.us](mailto:jberry@ci.durham.nh.us)>  
**Date:** Monday, February 15, 2021 at 2:46 PM  
**To:** Allan Howland <[al.howland.13@gmail.com](mailto:al.howland.13@gmail.com)>, Andrew Corrow <[andrew\\_corrow@yahoo.com](mailto:andrew_corrow@yahoo.com)>, Carden Welsh <[cardentc2@gmail.com](mailto:cardentc2@gmail.com)>, Dinny Waters <[dinny.tod@gmail.com](mailto:dinny.tod@gmail.com)>, 'Jim Lawson' <[lawsonje24@comcast.net](mailto:lawsonje24@comcast.net)>, "'kittyfmarple@comcast.net'" <[kittyfmarple@comcast.net](mailto:kittyfmarple@comcast.net)>, Sally Needell <[sneedelltc@gmail.com](mailto:sneedelltc@gmail.com)>, Sally Tobias <[Sally.tobias@me.com](mailto:Sally.tobias@me.com)>, Todd Selig <[tselig@ci.durham.nh.us](mailto:tselig@ci.durham.nh.us)>, Wayne Burton <[wburton@northshore.edu](mailto:wburton@northshore.edu)>  
**Subject:** FW: Mill Pond Dam removal

Dear Councilors,

For your information.

Jennie--

Jennie Berry  
Admin. Assistant  
Town of Durham  
8 Newmarket Road  
Durham, NH 03824  
(603) 868-5571

-----Original Message-----

From: Constantine Harris [<mailto:constharris@comcast.net>]

Sent: Monday, February 15, 2021 2:41 PM

To: Jen Berry

Subject: Mill Pond Dam removal

Todd Selig and members of the Durham Town Council,

I am opposed to the removal of the Mill Pond Dam for two reasons:

1-It's removal would destroy a central recreational feature of the downtown community and along with it, nesting sites for a variety of ducks, birds, swans, turtles and other marine species that have happily resided there for many generations. An adjacent fish ladder provides fresh water access for certain species of fish to propagate successfully within the Mill Pond. Removal of the dam would cause a complete collapse of this mature ecosystem.

2-As a long term holder of a mooring permit at the Durham Boat Landing, I fear that dam removal will finally destroy what is left of the navigable waterway that has been already compromised by siltation and neglect. If the dam is removed, I expect the wash of mud and debris to bury the entire mooring field, along with it the remaining shallow channel and the young oysters that seem to be making an appearance. This would put and end to this secondary town recreation area and its's delicate intertidal ecosystem.

For these reasons I strongly disagree with the proposal to remove the Mill Pond Dam.

Respectfully,

Constantine Harris

142 Durham Point Road

## April Talon

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**From:** Todd Selig  
**Sent:** Monday, February 15, 2021 5:05 PM  
**To:** April Talon; Richard Reine  
**Subject:** FW: Funding for Dam Removal Projects - Derek Sowers

Dear April and Rich,

Please include this correspondence from Derek Sowers in the public file with respect to the Mill Pond Dam on the Oyster River.

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
He/him/his pronouns

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**From:** "derekowers@hotmail.com" <derekowers@hotmail.com>  
**Date:** Monday, February 15, 2021 at 2:43 PM  
**To:** Durham Town Council <council@ci.durham.nh.us>  
**Subject:** Funding for Dam Removal Projects  
**Resent-From:** <council@ci.durham.nh.us>

Dear Durham Town Council,

Thank you for your deliberation this evening on the Oyster River Dam. I just wanted to relay on one more data point with respect to the relative cost of dam removal as versus repair. Dam removal is clearly the cheapest of the two final alternatives, as made clear in the VHB report. What many folks may not understand however is that the cost to the town for dam removal could easily be much lower than the cost in the report since the project would be a great candidate for environmental restoration grant funding support. For the Sawyer Mill Dam on the Bellamy River (a project that involved the removal of two historic mill dams at a much more complicated site), the dam owner ended up only paying about 30% of the overall project cost. The rest of the project was paid for by restoration grants. Nineteen different grant sources were used to help pay for the restoration. This information is straight from the NH Coastal Program, the agency that managed that dam removal. There is no comparable pool of money available to repair dams. I relay this on to reinforce the economic sanity of dam removal as versus the exorbitant and unnecessary expenditure of over 5 million dollars of taxpayer funds on dam repair and the futile and short-lived dredging of Mill Pond.

Thank you for your public service and leadership making challenging but important decisions.

Best Regards,

Derek Sowers  
32 Oyster River Road

## April Talon

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**From:** Todd Selig  
**Sent:** Tuesday, February 16, 2021 3:26 PM  
**To:** April Talon; Richard Reine  
**Subject:** FW: Thank You - Mill Pond Dam / Removal - Scot Calitri

Dear April and Rich,

Please include this correspondence with the public file relative to the Mill Pond Dam on the Oyster River.

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
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**From:** Scot Calitri <[smcalitri@gmail.com](mailto:smcalitri@gmail.com)>  
**Date:** Tuesday, February 16, 2021 at 1:08 PM  
**To:** Durham Town Council <[council@ci.durham.nh.us](mailto:council@ci.durham.nh.us)>  
**Subject:** Thank You - Mill Pond Dam / Removal  
**Resent-From:** <[council@ci.durham.nh.us](mailto:council@ci.durham.nh.us)>

Hopefully everyone had a long night of sleep after the intense session last night.

Your service to our town, intelligent and insightful questioning, and impartiality is admirable. Please know that what you do is noticed, appreciated and valuable!

As stressful as this is, it is a tremendous opportunity at the same time. You're representing the townspeople and other living organisms while setting precedent in how to handle similar situations in New Hampshire.

Please know that although we get very passionate at times fighting for what we believe (in my case removal), we respect your thought process' and are indebted to your service.

Thank you!

- Scot Calitri



## April Talon

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**From:** Todd Selig  
**Sent:** Wednesday, February 17, 2021 1:58 PM  
**To:** Sean Maxwell; Jen Berry; April Talon  
**Cc:** Durham Town Council; Richard Reine  
**Subject:** Re: Oyster River Restoration - Sean Maxwell

Thank you, Sean. We will share this feedback concerning the future of the Mill Pond Dam on the Oyster River with the members of the Council for their information and consideration. We appreciate your taking the time to write.

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
He/him/his pronouns

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**From:** Sean Maxwell <[seanmax70@gmail.com](mailto:seanmax70@gmail.com)>  
**Date:** Wednesday, February 17, 2021 at 11:00 AM  
**To:** Jennie Berry <[jberry@ci.durham.nh.us](mailto:jberry@ci.durham.nh.us)>, Todd Selig <[tselig@ci.durham.nh.us](mailto:tselig@ci.durham.nh.us)>, April Talon <[atalon@ci.durham.nh.us](mailto:atalon@ci.durham.nh.us)>  
**Subject:** Oyster River Restoration

I am emailing to show my support for a dam removal at Mill Pond in Durham. As someone who is a former resident; an undergraduate and graduate Alum of UNH; who is now a consultant that works for aquatic restoration/public use balance in many different facets- I see the importance of removing this barrier to the connectivity of life. There are many pertinent aspects of the case to remove or at least breach the dam but here are some major points I see as critical:

- This unnatural blockage in the river is prohibited expensive.
- It creates a flood risk.
- It is blocking the natural movement of special concern rainbow smelt, alewife, and blueback herring. Perhaps even sea-run brown and brook trout could establish here.
- Blocking the natural movement of aquatic organisms and ponding the water blocks the passageways to refugia during extreme droughts and other unfavorable aquatic conditions.
- It is blocking the natural transport of sediment that is chipping away at the saltmarshes in the tidal Oyster River and Great Bay.
- It is contributing to the poor water quality in the Great Bay and the Oyster River itself.
- Historical components can be saved at either end of the dam if need be.
- Natural history needs to take priority here.
- Durham needs to follow suit with the many other defunct dams that are being removed- rivers that are being restored. Leaving this dam in is a black mark in the ecological scheme of things.

- The Mill Pond will quickly revegetate but can have plantings and have the channel restored. Consider reusing the removed sediment on the fringes of the Mill Pond site to build up the land, then have plantings (ideally pollinator plants) placed on top. I have had great success with this.

Thank you for your consideration in this matter.

Regards,

Sean

Sean Maxwell  
24 Park Ridge Ave.  
Rye, NH 03870  
603-674-0625

## April Talon

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**From:** Todd Selig  
**Sent:** Thursday, February 18, 2021 9:49 AM  
**Cc:** April Talon; Richard Reine; Andrea Bodo  
**Subject:** FW: Letter or support for Mill Pond Dam - Andrea Bodo  
**Attachments:** TC-letter to save the dam 2021-1.docx

Dear Members of the Council,

Please find attached a very thoughtful letter from Andrea Bodo concerning the Mill Pond Dam on the Oyster River.

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
He/him/his pronouns

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**From:** Andrea Bodo <afbodo@comcast.net>  
**Date:** Thursday, February 18, 2021 at 6:20 AM  
**To:** Daniel Day <rbdan@comcast.net>, Scott Letourneau <sletomd@gmail.com>, Pele Harrison <peleharrison@yahoo.com>, Keith Polk <Keith.Polk@unh.edu>, Thomas Newkirk <Thomas.Newkirk@unh.edu>, Dennis Meadows <latailled@aol.com>, Stephen Burns <burns.sk@gmail.com>, "sgmac@aol.com" <Sgmac@aol.com>, Susanna Nichols <susannanichols@optonline.net>, Daphne Gowland <daphnegowland@yahoo.com>, David Cataneo <David.Cataneo@unh.edu>, "janzalone@comcast.net" <janzalone@comcast.net>, Richard England <Richard.England@unh.edu>, Larry Harris <larry.harris@unh.edu>, Andrea Bodo <afbodo@comcast.net>, Chris Gowland <cjgowland@gmail.com>, "h. heilbronner" <h.heilbronner@comcast.net>, "Mschidlovsky@comcast.net" <Mschidlovsky@comcast.net>, Beth Olshansky <Beth.Olshansky@comcast.net>, Scott Bogle <scottbogle@yahoo.com>, Jim Dreher <jim@durhamboat.com>, Greg Sancoff <sancoffg@aol.com>, schwartz leslie <totographs@comcast.net>, Annmarie Harris <annamie@comcast.net>, Diane Freedman <diane.freedman@unh.edu>, Jeffrey & Tina Hiller <Jeffreyhiller@comcast.net>, Tom Toye <tom@arthurthomasproperties.com>, Joshua Meyrowitz <Prof.Joshua.Meyrowitz@gmail.com>, Jim Munsey <munseysports@aol.com>, Janet Polk <Janet.Polk@unh.edu>, Deb Munsey <debmunsey@aol.com>, Janet Mackie <janet.mackie@comcast.net>, Cindy Cooper <csoffencooper@gmail.com>, Sandy & Roger Evans <evans15@comcast.net>, Doug Worthen <dougworthen@gmail.com>, Suzanne Loder <Sunnysuzy2@yahoo.com>, Coleen Fuerst <cfuerst@durhamboat.com>, Diana Carroll <dianacarrollnh@gmail.com>  
**Cc:** Todd Selig <tselig@ci.durham.nh.us>, April Talon <atalon@ci.durham.nh.us>, Rich Reine <rreine@ci.durham.nh.us>, Carolyn Singer <nhgrantwriter@aol.com>, Nancy Sandberg

<nancy.sandberg@comcast.net>

**Subject:** Letter or support for Mill Pond Dam

February 18, 2021

Dear members of the Durham Town Council,

Everyone has a place that matters to them, but it's not always easy to articulate why that place is so important, especially if that place is threatened. **THE MILL POND EMPOUNDMENT MATTERS.** Not by being simply beautiful, but providing stability in a world that is changing rapidly. The Mill Pond matters to people today but also matters for the future.

It is a memory of who we were and who we are. It gives us the capacity to find meaning in our lives and to envision a future. What is the power of the Mill Pond that underscores the importance of preserving the Mill Pond dam? The Mill Pond empowment is a memory you can touch. Just seeing the Mill Pond brings back a flood of memories for so many people. Watching the throngs of people enjoying the recreation of the Pond and backwaters makes people nostalgic.

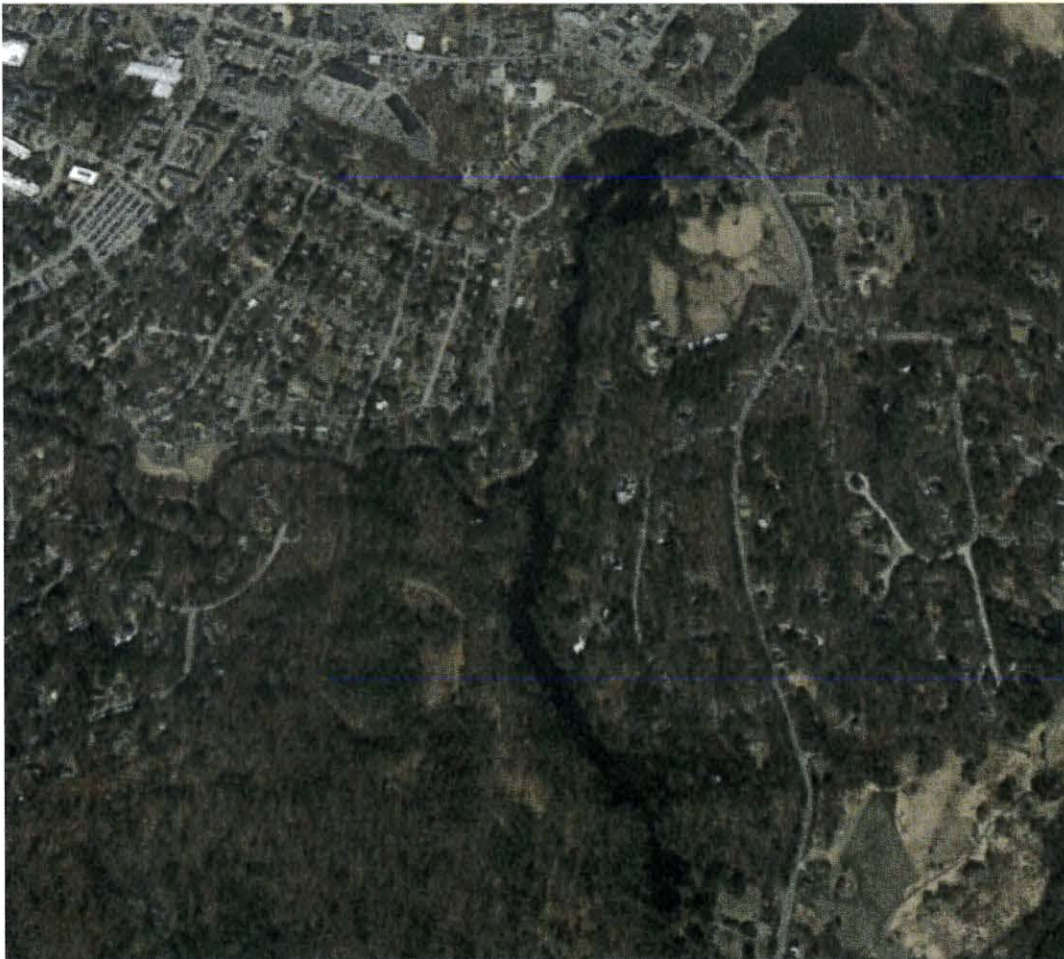
When places like the Mill pond are threatened, lost or destroyed, our identity may be damaged as well. When we lose a place we love, we lose a part of ourselves.

The Mill Pond is a major part of Durham's identity. Beauty may be in the eye of the beholder, but as many have found, the Mill Pond reveals the power of beauty – to inspire, to delight, to uplift. Places of beauty can take us outside of ourselves, to experience both the grandeur of the universe and all that is possible while making us feel a part of it.

History is part of what makes us distinctly human. It explains us. It has the capacity to deepen and enrich our perceptions of ourselves, and of our place in the world.

We must invest in this very important and precious site where people have the greatest capacity to engage with history. **PLEASE VOTE TO SAVE THE MILL POND DAM.**

*This map shows what a **huge** resource we stand to lose!*



Regards,  
Andrea Bodo, 20 Newmarket Rd

## April Talon

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**From:** Harris, Larry <Larry.Harris@unh.edu>  
**Sent:** Monday, February 22, 2021 9:56 AM  
**To:** Durham Town Council  
**Cc:** Michael Behrendt; April Talon; Richard Reine; Karen Edwards  
**Subject:** A letter concerning the dam  
**Attachments:** letter about dam\_V3.docx

Dear Town Councilors,

Attached is a letter concerning issues relating to the Mill Pond Dam. Thank you for considering this. All the best, Larry G. Harris, 56 Oyster River Road.

Dear Town Councilors,

22 February 2021

I appreciate the substantial time and effort you have devoted to the complex issue of the Mill Pond Dam and Pond. It is not an easy decision to make considering the historical role that the dam and pond have played in Durham and continue to play. However, having listened to the entire discussion last Monday evening, I could not help but be concerned about some of the issues raised and opinions expressed by the VHB team and the lack of addressing the role of the watershed in the discussion.

**Invasive species.** If you want to see the future of the exposed areas after dam removal, come look at the little island visible from between 55 and 51 Mill Pond Road. It has been a buckthorn thicket for decades and beating back invasives is a constant battle that never ends. Diane Freedman has a similar islet below her house off of Laurel Lane. Invasive plant species are a major problem and the threat is growing with new pests and pathogens arriving. When Peter Walker referred back to before colonial times he was talking about a time long past since we are in what ecologists are increasingly referring to as the Anthropocene where many of the once dominant plant species are under severe threat (Ash) or decimated (Chestnut and Elm) and new dominants (Buckthorn, Japanese Knotweed and rose) are just waiting for open space to take over. The town would need to budget an additional \$150,000 - \$250,000 to hire a company to remove the invasives for the next 15 to 20 years in the 20+ acres that will be drained and become floodplain.

As I mentioned in an earlier letter, please take the time to view College Brook as it passes below the Plaza parking lot. During the dry periods when there have been drawdowns of the pond, most of the Mill Pond extension and up into the Hammel Brook extension were comparable in size to College Brook and the exposed areas of the pond will be prime habitat for invasive species. In terms of area exposed, read Janet Mackie's email from 14 February citing the description by Lorus Milne of the drawdown in 1974 in order to install the fish ladder.

**Oxygen levels and Cyanobacteria.** Nobody wants to really talk about release of water from the UNH dam during dry periods due to the increasing demand from recent developments (including the student housing complexes and Riverwoods) and the proposed added student housing for the Plaza. Fresh water is one of those global crises that is becoming more critical and Durham has probably already exceeded its ability to supply enough water in a drought. The increase in water withdrawal from the UNH reservoir in 2019 and 2020 provided in the responses by VHB to questions from Councilor Welsh could be related to the new developments. More information on water demand in Durham would be helpful.

Following is a response from Dr. James Haney, Professor in Biological Sciences and an expert on toxic algal blooms, to my inquiry about potential cyanobacterial blooms in the Mill Pond.

*"You raise a good question about the cyanobacteria in the pond. If the decision is to keep the Mill Pond, flushing periodically could be an effective control method."*

Dr. Haney pointed out that an algal bloom is only likely during the dry summer months when water flow is reduced. As Dr. Wilhelm testified in the meeting, water flowing down the portion of the Oyster River prior to entering the pond is well oxygenated and increasing the rate of flow would provide the flushing to reduce the likelihood of an algal bloom. One possible approach to accomplish this would be to increase flow from the UNH Dam, but a second approach could be to open a migration notch periodically. Flowing water would certainly provide increased oxygen,

lower temperatures and less likely cyanobacterial blooms, which are unlikely except during periods of little or no flow. There are dams on the Hammel Brook just beyond Route 108 that also impact water input during dry periods.

**Herring runs.** One of the major arguments for dam removal is restoration of anadromous fish runs, particularly herring and alewives. It is interesting that the fish ladder was installed in the late 70's, but not to support herring. Instead, it was for salmon and NH Fish and Game even stocked juvenile Coho Salmon in the Oyster River in an attempt to establish a run (I caught some of those juveniles behind my house at 56 ORR). Interest in herring came later, but fisheries agencies do not care about the herring. They want them for feeding ground fish in the Gulf of Maine. There is a bait crisis in the lobster fishery and herring are a prime bait, not to mention recreational fisheries that value them as bait. In addition, there will be almost no habitat for American Eels, who spend several years in freshwater, if the pond and backwater are eliminated since they occur throughout the system. VHB suggested that a migration notch would not be practical due to the state of the cement, but a reinforcement of the dam would certainly allow for a notch to be added. According to Michael Dionne, the notch on the Wiswall Dam is only opened when flows go below a certain level, so it has to be managed. A related question should be why a migration notch was not proposed and discussed earlier since the herring runs have been declining for years? A notch would also allow for a flushing as the pond is drawn down unless there is water released from the UNH dam.

**Current ecosystem members.** This summer, Andrea Bodo posted a picture of a large largemouth bass that the son of a renter caught near the dam, this is a species that is doing very well in the pond along with a variety of other warm water fishes, amphibians, reptiles, birds and mammals. Most of those will no longer be supported in the trickle of water left during the warm and dry periods with dam removal. Some herring may run up into the Oyster River above Thompson Lane, but how many juveniles, not to mention American Eels, will be supported during the summer months in that remaining stretch of the Oyster River? Herring juveniles remain in freshwater until late summer so the idea of restoring runs in a reduced stretch of river is highly unlikely.

**A final thought.** Of the two alternatives proposed, but without dredging the pond, both would actually converge on the same result. If the dam is removed, there will be an immediate elimination of the recreational opportunities available on the pond and backwater and they will never be available in the future. If the dam is reinforced and a notch added, then there will be several decades of recreational opportunities and time to explore mitigation strategies. If no additional effort is made at mitigation, then natural succession will take place and the pond will be a narrow channel and "meadow", which is parallel to what dam removal would do but quickly with no recreation potential. In addition, dam removal is proposed to produce a salt marsh rather than the grasses and shrubs that VHB illustrated in their power point presentations. There may be some tidal marsh, but there will also be major sections dominated by invasive species. The slow filling in of the pond and backwater over time will allow for more opportunities to manage invasives. I urge you to chose option 3 with no dredging, which will buy time for further possible solutions and more study.

Respectfully submitted, Larry G. Harris, Emeritus Professor of Biological Sciences, 56 Oyster River Rd.



## April Talon

---

**From:** Sally P Ford <sally.p.ford@gmail.com>  
**Sent:** Monday, February 22, 2021 11:19 AM  
**To:** Todd Selig  
**Cc:** external forward for wburton; external forward for acorow; thehowl@comcast.net; external forward for kmarple; SallyNeedell@gmail.com; 'dinnywaters@gmail.com'; external forward for cwelsh; Todd Selig; Jen Berry; April Talon  
**Subject:** Perseverance and ingenuity

Dear Town Council,

If we can land on Mars, certainly we can figure out a way that we can keep the beautiful dam, restore the Mill Pond, and build a ladder that the fish can go up and down.

We just haven't figured out the solution yet, in large part I think, because we are trying to solve a complex problem with all the other problems this past year has brought us. And trying to do it over Zoom.

I suggest we back off and let the dam do what it does since the beginning of the town and with perseverance and ingenuity figure out satisfactory solutions. Otherwise, what many are proposing sounds like "we had to destroy the town, to save it." And we know how that turned out.

We have for various reasons mangled so much that was beautiful in Durham, let's not add destroying the dam to the list.

Faithfully yours,

Sally Ford

433 Bay Road

## April Talon

---

**From:** Katherine Marple <kittyfmarple@gmail.com>  
**Sent:** Monday, February 22, 2021 11:23 AM  
**To:** Sally P Ford  
**Cc:** Todd Selig; external forward for wburton; external forward for acorrow; thehowl@comcast.net; sallyneedell@gmail.com; dinnywaters@gmail.com; external forward for cwelsh; Todd Selig; Jen Berry; April Talon  
**Subject:** Re: Perseverance and ingenuity

Thank you for providing your perspective on the dam Sally.

Kitty Marple

Sent from my iPhone

On Feb 22, 2021, at 11:18 AM, Sally P Ford <sally.p.ford@gmail.com> wrote:

Dear Town Council,

If we can land on Mars, certainly we can figure out a way that we can keep the beautiful dam, restore the Mill Pond, and build a ladder that the fish can go up and down.

We just haven't figured out the solution yet, in large part I think, because we are trying to solve a complex problem with all the other problems this past year has brought us. And trying to do it over Zoom.

I suggest we back off and let the dam do what it does since the beginning of the town and with perseverance and ingenuity figure out satisfactory solutions. Otherwise, what many are proposing sounds like "we had to destroy the town, to save it." And we know how that turned out.

We have for various reasons mangled so much that was beautiful in Durham, let's not add destroying the dam to the list.

Faithfully yours,

Sally Ford

433 Bay Road

## April Talon

---

**From:** Todd Selig  
**Sent:** Tuesday, February 23, 2021 8:59 AM  
**Cc:** April Talon; Richard Reine  
**Subject:** Fwd: Mill Pond Dam WAIVER from Stephen Burns and Andrea Bodo  
**Attachments:** fullsizeoutput\_8a7c.jpeg; DAM WAIVER 2021.docx

Dear Members of the Council,  
For your general information.  
Todd

Todd Selig  
Durham, NH USA  
Cell: 603.817.0720  
Sent from my iPhone.  
~~ Please pardon typographical errors.

Begin forwarded message:

**From:** Andrea Bodo <afbodo@comcast.net>  
**Date:** February 22, 2021 at 1:49:06 PM EST  
**To:** Durham Town Council <council@ci.durham.nh.us>  
**Cc:** Todd Selig <tselig@ci.durham.nh.us>, Jen Berry <jberry@ci.durham.nh.us>  
**Subject:** [POSSIBLE SPAM] Mill Pond Dam WAIVER from Stephen Burns and Andrea Bodo

February 22, 2021

Dear Durham Town Council,

Andrea and I are prepared to hold the Town of Durham harmless for potential flood damage to our cottage and land arising from the existence of the Mill Pond dam. We understand from the NH Dam Bureau our willingness to accept this risk will enable the NH Dam Bureau to change the classification of the Mill Pond Dam from a Low Hazard dam to a Non-Menace dam.

The non-menace classification means the state considers the dam to pose no menace to life or property in the event of failure. The cellar of our cottage and its lawn was the only property the Dam Bureau considers to be at risk in case of flood. Due to the non-menace classification, the NH Dam Bureau will remove the Mill Pond Dam from its inspection schedule and suspend future action on the letter of deficiency received by the Town of Durham.

We are willing to do this to preserve the Mill Pond and its historic dam for the pleasure of Durham residents and for the preservation of the mature ecosystem of plants, animals and fish presently living in and around the impoundment. It is our intention that this agreement include the waterfront land and cottage adjacent to the dam and that this covenant run with the land forever. The 1740 Winborn Adams house and barn that I own south of the cottage are above the flood line determined by the NH Dam Bureau and thus are not subject to potential flood damage or to this agreement. The hold harmless agreement will be filed at the Registry of Deeds and run forever with the title to the land and cottage adjacent to the dam. However, if the dam no longer impounds the Mill Pond the agreement will be void. We do not want to live next to the shattered remains of the dam.

Sincerely,

Stephen K. Burns and Andrea F. Bodo

Stephen K. Burns and Andrea F. Bodo  
20 Newmarket Road  
Durham, NH 03824

Andrea F. Bodo and Stephen K. Burns of 20 Newmarket Road in Durham, NH 03824 will hold the town harmless for any flood damage that may occur to our cottage at 20 Newmarket Road in Durham, NH 03824 due to the existence of the Oyster River Dam and Mill Pond

---

Stephen K. Burns

---

Date

---

Andrea F. Bodo

---

Date

## April Talon

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**From:** Todd Selig  
**Sent:** Tuesday, February 23, 2021 9:07 AM  
**To:** Anita Mathur  
**Cc:** Richard Reine; April Talon  
**Subject:** Re: Please make a decision about the dam on March 1

Dear Anita,  
Thank you for this feedback.  
Todd

Todd Selig  
Durham, NH USA  
Cell: 603.817.0720  
Sent from my iPhone.  
~~ Please pardon typographical errors.

On Feb 22, 2021, at 7:44 AM, Anita Mathur <anita\_mathur@yahoo.com> wrote:

Dear Town Council,

Please make a decision at your meeting on 3/1 about the dam. We can't afford to wait a whole year for it to be sent to referendum and we want council members who have heard all the evidence to be the ones making the decision.

According to what we heard from April Talon, it is in seriously bad condition and needs to be addressed one way or another immediately. This is also a decisive issue for the town and we need to move forward.

If you choose stabilization, I hope that it is *\*only\** under the condition that there is both adequate funding and *\*secured permits\** for dredging. We really do not want to get into the situation that we spend so much money stabilizing the dam but then the pond turns into a toxic swamp because we can't or won't dredge it. That is unacceptable.

But I hope that you listen to the engineers and consultants and make a confident decision on 3/1 in favor of dam removal/river restoration. If you present the town this decision with clear evidence, confidence and optimism, the townspeople will be able to overcome any disappointment and fear that they have over removal and find the beauty and joy in river restoration.

Not enough information has been publicly presented about the benefits of river restoration. But this can be remedied.

Thank you,  
Anita Mathur  
15 Oyster River Road, Durham

## April Talon

---

**From:** Todd Selig  
**Sent:** Tuesday, February 23, 2021 9:09 AM  
**To:** Toby Clarke  
**Cc:** Durham Town Council; April Talon; Richard Reine  
**Subject:** Re: Mill Pond Dam

Thank you, Toby. I know the members of the Council will appreciate and consider your feedback. Todd

Todd Selig  
Durham, NH USA  
Cell: 603.817.0720  
Sent from my iPhone.  
~~ Please pardon typographical errors.

On Feb 21, 2021, at 9:06 PM, Toby Clarke <tobyclarke@comcast.net> wrote:

Good evening, and thanks once again for your commitment and service to the town.

I am thinking about making a sign that says "Natural rivers are more beautiful than concrete" and posting it on the dam. But hopefully we are not headed towards a battle of signs. After the Friday update narration I am not sure that is the case.

The Mill Pond dam served its purpose in its day but it is time for it to go and let the Oyster River return to its tidal beauty even further upstream. As the removal of 100's of dams throughout the country has proven after a few years of letting nature do its thing the environment is even better. Never mind the economic considerations for the tax payers.

Please vote to remove the dam when the question arises before you all.

Thank you,

Toby Clarke  
6 Ambler Way  
Durham, NH 03824

[tobyclarke@comcast.net](mailto:tobyclarke@comcast.net)

## April Talon

---

**From:** Todd Selig  
**Sent:** Tuesday, February 23, 2021 12:06 PM  
**To:** April Talon; Richard Reine  
**Cc:** Gail Jablonski  
**Subject:** Fwd: Mill pond

Dear April and Rich,  
For your general information.  
Todd

Todd Selig  
Durham, NH USA  
Cell: 603.817.0720  
Sent from my iPhone.  
~~ Please pardon typographical errors.

Begin forwarded message:

**From:** Katherine Marple <kittyfmarple@gmail.com>  
**Date:** February 23, 2021 at 11:59:16 AM EST  
**To:** j churchill <jjbsz@hotmail.com>  
**Cc:** Durham Town Council <council@ci.durham.nh.us>, administrator@ci.durham.us  
**Subject: Re: Mill pond**

Hi John.

Thank you for providing your perspective. It is appreciated.

Kitty

On Feb 23, 2021, at 10:54 AM, j churchill <jjbsz@hotmail.com> wrote:

Dear All;

I feel strongly that the Mill Pond Dam should be removed.

I understand the arguments on both sides, but feel the best solution for the environment and the Town citizens is to remove the dam .

Sincerely;

John Churchill

30 Old Piscataqua Road

Sent from my iPad



## April Talon

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**From:** Todd Selig  
**Sent:** Tuesday, February 23, 2021 12:52 PM  
**To:** April Talon; Richard Reine  
**Cc:** Gail Jablonski  
**Subject:** FW: For your consideration.

Dear April and Rich,

For your information.

Todd

---

**From:** Dudley Dudley <dudleywdudley@gmail.com>  
**Date:** Tuesday, February 23, 2021 at 12:36 PM  
**To:** Durham Town Council <council@ci.durham.nh.us>  
**Subject:** For your consideration.....  
**Resent-From:** <council@ci.durham.nh.us>

Dear Members of the Durham Town Council,

I am writing to you regarding the current proposal to remove the Dam. I recognize that the Council faces a difficult decision, which has occupied a great deal of your time. I know that there are well-intentioned people on both sides of the issue. I ask the Council to support Alternative 3– stabilizing the dam without dredging the pond.

My support for the historic and environmental integrity of our Town goes back 70 years. When I was 12, I accompanied my father on nightly fire-watch patrols that went down Durham Point Road to Newmarket, turned around, returned to Durham – over and over again. The summer was extraordinarily dry and the men of Durham organized themselves into a citizen posse to ensure that Durham Point did not burn. Many years later, as a Legislator, I was active in defeating the proposal of Aristotle Onassis to build the world’s largest oil refinery in our Town. I regard myself as a protector of the amazing estuary that is made up of Little Bay, Great Bay, and the seven rivers that connect to them. I am concerned that the price of an attempt to restore a herring run means the loss of the Dam, the Mill Pond, and the extensive system of backwaters, all of which are defining features of our Town.

In addition to the Dam being an important iconic, historic, and scenic resource along our Scenic Byway, it creates important recreation areas in winter and summer, used not only by children and families who live within walking distance, but also residents who drive from other parts of town to enjoy them. The Dam also supports an existing freshwater ecosystem that would be largely lost with its removal.

I recognize that the decline in water quality and fish is a problem. There is a range of steps that should be carefully considered before a vote is taken. Most importantly, careful consideration should be given to the installation of an aeration system such as the one developed by Ecological Design Pioneer John Todd. Also to be considered is the improvement of conditions through periodic flushing of the pond (through water released from the Oyster River Reservoir) as recommended by UNH Professor of Pond Ecology Dr. Jim Haney. I understand that adding a notch to the dam structure (similar to the one at the Wiswall Dam that can be opened seasonally) can improve downstream travel of juvenile herring. Finally, better planning and land management upstream can reduce nonpoint source pollution. I don't believe these options have been fully explored by the Town.

Given the enormity of this decision, I urge Council members not to rush a vote but rather to explore *all options* before making a final decision. I urge you to *not take the irreversible step* of removing the dam when options exist to maintain the scenic, recreational, historic and aquatic resources it supports.

Respectfully,

Dudley Dudley

25 Woodman Road



This email has been checked for viruses by AVG antivirus software.

[www.avg.com](http://www.avg.com)

## April Talon

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**From:** Todd Selig  
**Sent:** Tuesday, February 23, 2021 3:00 PM  
**To:** April Talon; Richard Reine  
**Subject:** Fwd: Mill Pond Dam ...  
**Attachments:** Admin MFP\_20210223\_135534.pdf

Begin forwarded message:

**From:** Jen Berry <jberry@ci.durham.nh.us>  
**Date:** February 23, 2021 at 1:59:47 PM EST  
**To:** Council  
**Subject:** Mill Pond Dam ...

Dear Councilors,

Please find attached a letter from Hannah Bogle regarding the Mill Pond dam.

Jennie--

Jennie Berry  
Admin. Assistant  
Town of Durham  
8 Newmarket Road  
Durham, NH 03824  
(603) 868-5571

-----Original Message-----

**From:** MFP Sender  
**Sent:** Tuesday, February 23, 2021 1:56 PM  
**To:** Jen Berry  
**Subject:** Scanned image from MX-3071

**Reply to:** Admin MFP <mfp\_sender@ci.durham.nh.us> Device Name: Not Set Device Model: MX-3071  
Location: Not Set

File Format: PDF (Bk Letter Emphasis)  
Resolution: 300dpi x 300dpi

Attached file is scanned image in PDF format.  
Use Acrobat(R)Reader(R) or Adobe(R)Reader(R) of Adobe Systems Incorporated to view the document.  
Adobe(R)Reader(R) can be downloaded from the following URL:  
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<http://www.adobe.com/>

Dear Town Councilors,

RECEIVED  
Town of Durham

2/22/21

FEB 23 2021

I would like to give an ~~opinion~~ ~~on~~ ~~the~~ removal of the Mill Pond dam. First of all I would like to say that I love the environment, and I will usually jump at any opportunity to help it. But in this case, I do not believe that the town should take out the dam. I hear what other people are saying about the Blue-backed Herring and that it would help them migrate but once they get up-stream, they will find very little water in the summer because of the second dam, at the Oyster River Reservoir. Secondly, the Mill Pond and the Hamel Brook are huge recreation areas that many people use whether it is ice skating and skiing in the winter or fishing, canoeing and kayaking in the summer. I have been having lots of fun skating and skiing on the Mill Pond and Hamel Brook this winter and I am really looking forward to canoeing and kayaking there in the summer with my friends and family, but that will all be lost if the dam is taken down. I also know that even though the Mill Pond cannot support Blue-backed Herring as well as it used to, it is a home to many, many more species of fish, birds, plants, mammals and more! I love to walk or bike down to the pond with my friends in the summer and have picnics, but again if the dam is taken down, instead of seeing a beautiful wide river full of growth all I will see will be a tiny little stream that I can step across and probably many invasive plant species that are not good for the environment, and make it hard to reach the water.

used by lots of kids (like my friends and me) year-round  
a natural recreation area that we can walk to.

Thank you for reading this message.

-Hannah J. Bogle, 4 Croghan Lane, age 10

## April Talon

---

**From:** Todd Selig  
**Sent:** Tuesday, February 23, 2021 3:08 PM  
**To:** April Talon; Richard Reine; Gail Jablonski  
**Subject:** Fwd: Mill Pond Dam

**From:** Katherine Marple <kittyfmarple@gmail.com>  
**Date:** February 22, 2021 at 10:41:37 AM EST  
**To:** Judith Churchill <judithchurchill30@gmail.com>  
**Cc:** Durham Town Council <council@ci.durham.nh.us>, Todd Selig <tselig@ci.durham.nh.us>  
**Subject: Re: Mill Pond Dam**

Hi Judy.

Thank you for spending time reviewing the materials the town provided. We appreciate your perspective.

Kitty M

On Feb 22, 2021, at 7:45 AM, Judith Churchill <judithchurchill30@gmail.com> wrote:

Dear Council,

I am in favor of removal of the Mill Pond Dam. I have reviewed the information on the town website for both sides, and believe it is in the best interests of the environment, economics, history and the town.

In time residents along the pond will still have a beautiful river in their backyard, and access to all that river holds. It is the best decision for this time and place. Please remove the Mill Pond Dam.

Sincerely,

Judith Churchill

30 Old Piscataqua Rd

Durham, NH 03824

Judithchurchill30@gmail.com

Sent from my iPad

## April Talon

---

**From:** Todd Selig  
**Sent:** Wednesday, February 24, 2021 3:19 PM  
**To:** April Talon; Richard Reine  
**Subject:** Fwd: Dam

Begin forwarded message:

**From:** "Lewis, James" <James.Lewis@unh.edu>  
**Date:** February 24, 2021 at 1:34:05 PM EST  
**To:** Durham Town Council <council@ci.durham.nh.us>  
**Subject:** Fw: Dam

Greetings:

Thanks to all for the extensive work examining this important and controversial issue. I have reviewed much, though admittedly not all the documentation leading to where we are today, and it strikes me that the most appropriate approach at this point is to proceed with removal of the dam.

I have certainly enjoyed gazing at the dam and Mill Pond while heading toward Newmarket, and through the years have spent many pleasant and sunny hours sitting on the benches alongside the pond itself watching the birds (including the swans), as well as watching pond hockey/skating in the colder months.

Through the years the quality of the pond environment has definitely worsened making it a much less attractive and desirable "landmark" for the town. Reading the documentation also informed me about the deteriorating quality of the water, let alone the dam itself which is in a perilous situation.

Combining this environmental assessment with the financial analysis, leads me to the conclusion that the argument to "save" the dam rests mainly on an emotional appeal that, while certainly of some importance, does not overcome the fact-based argument being made for removal of the dam.

I encourage the town council to vote to remove the dam.

Thank you.

James Lewis  
88 Bucks Hill Rd

## April Talon

---

**From:** Todd Selig  
**Sent:** Wednesday, February 24, 2021 3:20 PM  
**To:** April Talon; Richard Reine  
**Subject:** Fwd: Mill Pond Dam

Begin forwarded message:

**From:** Cynthia Watkins <cynthia.j.watkins@comcast.net>  
**Date:** February 24, 2021 at 11:24:34 AM EST  
**To:** Durham Town Council <council@ci.durham.nh.us>  
**Cc:** administratrator@ci.durham.nh.us  
**Subject:** Mill Pond Dam

Dear Town Council Members,

Maybe it was the picture of Doug Bencks on the last town update that made me think of another beloved historic Durham landmark, the old UNH pool.

The old UNH pool, like the Mill Pond Dam, was truly unique and had historical significance especially since it was a WPA project and many in Durham fought hard to save it

But, in the end, (spoiler alert!) no matter how beloved, there were just too many problems with trying to fix it so Doug Bencks, as UNH's architect, designed a wonderful new pool. It was the right decision, although I was against it at the time.

Like the pool, the Mill Pond Dam has outlived its useful life and should be removed.

I understand the dam can be propped up with the measures suggested in Alternative 3 and many support this option. But shoring up the dam in a way which does not meet NHDES safety regulations does not strike me as a good plan. In addition, relying on the ability to get NHDES and US Army Corp of Engineers permits which 'would be extremely difficult and perhaps impossible' to dredge the Mill Pond to address water quality issues also does not seem like a good plan.

In addition, I do not think the history considered relevant should go to 1913 or even just back to the 1640s, thereby ignoring the indigenous people who lived here before that time. To truly consider and honor the long arc of history, removing the dam would make this site be closer to what it was previously.

Finally, I know this decision is in good hands. The Council has proved time and time again it will make a carefully considered and thoughtful decision in the best interests of Durham. Thank you for your endless hours of service.

Sincerely,



Cynthia Watkins  
88 Bucks Hill Road

## April Talon

---

**From:** Todd Selig  
**Sent:** Wednesday, February 24, 2021 3:30 PM  
**To:** April Talon; Richard Reine  
**Subject:** Fwd: Mill Pond River Restoration

Begin forwarded message:

**From:** Kitri Doherty <kitridoherty@gmail.com>  
**Date:** February 24, 2021 at 3:17:11 PM EST  
**To:** Durham Town Council <council@ci.durham.nh.us>  
**Subject:** **Mill Pond River Restoration**

Hello,

I'd like to formally record my support for the removal of the Mill Pond Dam and restoration of the Oyster River.

Restoring natural habitat for anadromous fish is vital to the greater ecosystem and many businesses surrounding Great Bay. The river restoration will help to bolster the native ecosystem and provide food for many marine predators, mammals and birds.

Engaging in this river restoration project shows our commitment to a healthy ecosystem and wise long term protection of the Great Bay Estuary and tributaries.

Thanks for your consideration.

Best,

Kitri Schaefer

## April Talon

---

**From:** Todd Selig  
**Sent:** Thursday, February 25, 2021 1:16 AM  
**To:** Durham Town Council; April Talon; Richard Reine; Gail Jablonski  
**Subject:** Fwd: Dam Removal Letter for Town Council  
**Attachments:** dam removal letter 2.24.docx

Dear Members of the Council,  
For your general information.  
Todd

Todd Selig  
Durham, NH USA  
Cell: 603.817.0720  
Sent from my iPhone.  
~~ Please pardon typographical errors.

Begin forwarded message:

**From:** Alyson Mueller <alyson.mueller@beangroup.com>  
**Date:** February 24, 2021 at 5:17:02 PM EST  
**To:** Todd Selig <tselig@ci.durham.nh.us>  
**Subject:** Dam Removal Letter for Town Council

Hi Todd  
Hope you are well.  
Please see attached letter  
Regarding the same. Can you kindly forward to the members of the council?  
Thanks so much!  
Alyson

--

Alyson Mueller  
Realtor, Bean Group  
1150 Sagamore Ave  
Portsmouth, NH 03801  
Cell: 603.978.6944  
Office: 800.450.7784 ext. 7452  
[www.alysonmueller.com](http://www.alysonmueller.com)

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This content of this email may not be deemed an offer, counteroffer, or acceptance until paper documents are mutually executed.



2.24.2021

## Dam Removal

Dear Town Councilors,

We are writing in support of removing the dam. While we appreciate the sentimental connection for this community there are several reasons why its removal and river restoration is warranted.

Repairing the dam and the long-term maintenance and associated costs would place an unnecessary economic burden on taxpayers. We are in uncertain economic times and as a community we have already voted to support a new middle school.

We believe it is our community's responsibility to restore the estuary. Durham talks a very good game about its concern for the environment. Why on earth would we not be good stewards of the land and do what we can to help restore the once vibrant and rich waterways in our community. The waterways in Durham are not solely Durham's to enjoy. We have an obligation to our larger environment that flows down river, to the bay and to the world. Thinking solely about the dam seems quite selfish.

As for the historic love of the dam I have heard people make reference to the Indigenous people on NH and what about their history. There is history on these lands and waterways well before we had the dam. To disregard that and their sacrifice seems short sighted.

We'd love to see the health and quality of these waterways return so we can encourage water movement and healthy spawning areas for fish. There are plenty of professionals who have already spoken to you about this matter as well so I won't reiterate all their points.

Removal of this dam is a great opportunity to correct a poor land-use decision and in turn, we could somehow commemorate the settlers who first built the dam to power the mill with a monument while keeping some of the old remnants that don't impede tidal flow.

Finally, let's see if we can come up with some sort of artistic use for the old dam and its parts as a tribute to its history. How wonderful would it be and it would allow us to restore nature and make a tribute to our past.

We appreciate all the time and energy you have spent in research and educating yourselves on this matter.

Best regards,

Alyson & Chris Mueller

## April Talon

---

**From:** Jake Kritzer <jake.kritzer@gmail.com>  
**Sent:** Monday, March 1, 2021 9:08 AM  
**To:** Durham Town Council  
**Cc:** Todd Selig; April Talon; Jen Berry  
**Subject:** Mill Pond Dam  
**Attachments:** J. Kritzer comments on Mill Pond dam 03.01.2021.pdf

Dear Town Council members,

With your indulgence, I offer the attached thoughts on the difficult decision before you in tonight's meeting. In thinking about the path before us as a town, I reached out to Amy Singler at American Rivers for her perspective on what river restoration can mean for a community and how to go about it, given the considerable experience that she and her organization have in navigating these issues. She copied you on her reply, which confirms that this can be an incredibly unique and powerful opportunity for us. My attached comments build on that perspective.

With gratitude,  
Jake

March 1, 2021

Dear Town Council members,

Two weeks ago, you engaged in an incredibly substantive and productive discussion with the VHB dam feasibility study project team. I know that I speak for many people in expressing my appreciation for that discussion. Even as someone who has studied this issue extensively, I learned a great deal from your questions and comments and the project team's responses. More importantly, it gave many people no small measure of confidence that our elected leaders are considering this decision thoughtfully and carefully. Thank you.

That meeting on February 15<sup>th</sup> underscored the inescapable fact that there is really only one viable pathway before us, which is to remove the Mill Pond Dam and restore the lower Oyster River. Those arguments have been made on multiple occasions by myself and many others, so I will not repeat them here. The feasibility study report, pages of public comment, and your dialogue with the project team speak for themselves.

Notably, during your deliberations, the growing clarity about the decision you must make was paired with an undeniable sense of despondency among several of you. There were comments to the effect that we wish we could address the realities we face but still keep the dam, an option that simply does not exist. Restoring the river seems to be seen as a necessary evil, a choice we wish we did not have to make. That is understandable given the passionate and heartfelt pleas you have heard for keeping the dam. I would not want to be in the position of disappointing so many people.

Of course, if we somehow figured out to address the permitting barriers and were willing to accept the heavy fiscal burden, environmental impacts, and safety risks, and thereby keep the dam, many people in town would be just as dejected for everything that we would still lose. Either decision will be met with disappointment and a sense of loss among some of your constituents. Such is often the nature of public policy, as you no doubt know all too well.

However, as you approach tonight's critical decision point, I would like to suggest that you think differently about the choice to restore the river. We have before us an incredibly rare opportunity to rethink and reshape a network of public spaces as part of this restoration. The past has inertia and the decisions by those who came before us too often wall us in today. That is not always a bad thing, for many past decisions were thoughtful and shaped the character of our community in positive ways. But that is certainly not true of every past decision that we live with today, and many that made sense at one point in time do not make sense in the world we live in today.

The case made by those who would like to keep the dam, further illuminated by many of your questions and comments on the February 15<sup>th</sup>, outline a series of benefits provided by the dam that people value, such as connection to our post-colonial history, aesthetics, and recreational opportunities. Those are worthwhile benefits. But what is absolutely critical for you as a Town Council and all of us as a community to bear in mind is that none of those benefits depend on the dam, and its removal enables us to recapture many other benefits.

The public discussion has revealed that the historical and engineering significance of the dam is important to many. So, we can keep a portion in place to show its scale and structure, with signage and other installations on-site and elsewhere in town further telling its story. Recreational opportunities are important, so we can think about riverside trails for walking, snowshoeing, and cross-country skiing, and a floating dock for paddlers like the one in place at Jackson Landing. The sights and sounds of running water are important to many, so we can look for ways to add instream structures to enhance the natural riffle that will return, which could also have habitat value. And so on.

The future will look different, and tides, climate, geology, hydrology, and land-use regulations will all present practical constraints on what we can do. Nevertheless, we have a unique opportunity for the community to collaboratively build and unite around an exciting vision for the next chapter of the lower Oyster River. As you make the difficult decision ahead of you, I urge you to embrace this perspective and convey it to your constituents. What might otherwise be a source of division and discontent can quickly become a powerful opportunity for innovation and unity if we paint the right picture of the path ahead.

Good luck,



Jake Kritzer  
8 Timberbrook Lane  
(617) 869-1336  
[jake.kritzer@gmail.com](mailto:jake.kritzer@gmail.com)

## April Talon

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**From:** Todd Selig  
**Sent:** Monday, March 1, 2021 9:20 AM  
**To:** April Talon; Richard Reine  
**Subject:** FW: Inaccurate statements about Mill Pond

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**From:** "Denis, Clyde" <Clyde.Denis@unh.edu>  
**Date:** Monday, March 1, 2021 at 7:27 AM  
**To:** Durham Town Council <council@ci.durham.nh.us>  
**Cc:** Joshua Meyrowitz <Prof.Joshua.Meyrowitz@gmail.com>  
**Subject:** Inaccurate statements about Mill Pond  
**Resent-From:** <council@ci.durham.nh.us>

To Durham Town Council-

I am writing ahead of today's March 1, 2021 meeting in respect to several inaccurate statements by a Town Council Person at the recent meeting.

1. In one statement, the Council Person mentioned that Mill Pond often does not freeze up over the winter. Since my arrival in early 1983, I can not recall any year when the pond and Oyster River could not be used for winter skating, walking, or cross-country skiing. Perhaps, she was alluding to December conditions, which are often variable. By January/February there is continual or long stretches when winter activity use is available.
2. The same person also mentioned that cross-country skiing of the Oyster River would still be done once the dam is taken down. This is fallacious. As anyone who has done routine cross-country skiing knows, the likely use of a drained Oyster River for skiing would be prohibited by the resultant plant growth.

What makes the current frozen Oyster River so attractive to skiing —as well as snow shoeing, walking, and skating —is its flatness without bumpy and difficult to navigate terrain.

3. The same person suggested that Mill Pond and Oyster River are not used often. Again, this is completely inaccurate. After a recent snowfall, the whole length of Oyster River and its side areas were used by multiple people doing multiple activities — walking, snow shoeing, skating in cleared off areas, and skiing. If this Council Person had ventured onto the pond and walked up part of its length, she would have observed many, many snow marks indicating that these activities had taken place over several days.

Besides, anyone who drives by Mill Pond will routinely notice skaters —from little kids to seasoned hockey players.

Importantly, removing the dam will forever remove this winter activity area for the town. There is no other area centrally located in the town that offers this richness for winter recreation. It has been and is a mecca for the citizens of this town.

Please share this with all of your Council People.

Thanks.

Clyde Denis  
29 Garden Lane



## April Talon

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**From:** Todd Selig  
**Sent:** Monday, March 1, 2021 9:23 AM  
**To:** April Talon; Richard Reine  
**Subject:** FW: Mill Pond Dam - Laura Gilpin

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**From:** Sea Run Charters <Jon@searuncharters.com>  
**Date:** Sunday, February 28, 2021 at 9:11 PM  
**To:** Durham Town Council <council@ci.durham.nh.us>  
**Subject:** Mill Pond Dam  
**Resent-From:** <council@ci.durham.nh.us>

To whom it may concern,  
This email is to show my support for the **removal of Mill Pond Dam**.

I grew up on Faculty, Rd. in Durham, and recall ice skating on Mill pond in the winter and canoeing in the summer. I understand the argument for keeping the damn in place and maintaining the pond.

However, this Dam was erected long before the stewards of this land truly understood the disruptive impact a dam can have on the environment and species that rely on a free-flowing river. It is my strong belief that the time has come to remove this unnatural impediment on the Oyster River.

The dam may be old, and some may see it as a thing of beauty. The river is much older, and there is a far greater beauty in nature that is unrestricted by the hands of man.

“A river seems a magic thing. A magic, moving, living part of the very earth itself.”

- *Laura Gilpin*



Capt. Jon Tregoe  
Sea Run Charters  
**phone:** [603.498.4877](tel:603.498.4877)  
**site:** [www.searuncharters.com](http://www.searuncharters.com)  
**email:** [jon@searuncharters.com](mailto:jon@searuncharters.com)



## April Talon

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**From:** Todd Selig  
**Sent:** Monday, March 1, 2021 9:48 AM  
**To:** April Talon; Richard Reine  
**Subject:** FW: Mill Pond Dam - Dave and Cindy Limauro

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**From:** Limauro <limauro@comcast.net>  
**Date:** Sunday, February 28, 2021 at 3:30 PM  
**To:** Durham Town Council <council@ci.durham.nh.us>  
**Subject:** Mill Pond Dam  
**Resent-From:** <council@ci.durham.nh.us>

Hello,

We would like to express our support for removing the Mill Pond Dam. We have lived in Durham for 30+ years and feel that it is the right decision going forward, financially and environmentally. Thank you for your service to our beautiful town .

Dave and Cindy Limauro

Sent from my iPad

## April Talon

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**From:** Todd Selig  
**Sent:** Monday, March 1, 2021 9:48 AM  
**To:** April Talon; Richard Reine  
**Subject:** FW: Mill Pond Dam - Jake Kritzer  
**Attachments:** J. Kritzer comments on Mill Pond dam 03.01.2021.pdf

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**From:** Jake Kritzer <jake.kritzer@gmail.com>  
**Date:** Monday, March 1, 2021 at 9:08 AM  
**To:** Durham Town Council <council@ci.durham.nh.us>  
**Cc:** Todd Selig <tselig@ci.durham.nh.us>, April Talon <atalon@ci.durham.nh.us>, Jennie Berry <jberry@ci.durham.nh.us>  
**Subject:** Mill Pond Dam

Dear Town Council members,

With your indulgence, I offer the attached thoughts on the difficult decision before you in tonight's meeting. In thinking about the path before us as a town, I reached out to Amy Singler at American Rivers for her perspective on what river restoration can mean for a community and how to go about it, given the considerable experience that she and her organization have in navigating these issues. She copied you on her reply, which confirms that this can be an incredibly unique and powerful opportunity for us. My attached comments build on that perspective.

With gratitude,  
Jake

March 1, 2021

Dear Town Council members,

Two weeks ago, you engaged in an incredibly substantive and productive discussion with the VHB dam feasibility study project team. I know that I speak for many people in expressing my appreciation for that discussion. Even as someone who has studied this issue extensively, I learned a great deal from your questions and comments and the project team's responses. More importantly, it gave many people no small measure of confidence that our elected leaders are considering this decision thoughtfully and carefully. Thank you.

That meeting on February 15<sup>th</sup> underscored the inescapable fact that there is really only one viable pathway before us, which is to remove the Mill Pond Dam and restore the lower Oyster River. Those arguments have been made on multiple occasions by myself and many others, so I will not repeat them here. The feasibility study report, pages of public comment, and your dialogue with the project team speak for themselves.

Notably, during your deliberations, the growing clarity about the decision you must make was paired with an undeniable sense of despondency among several of you. There were comments to the effect that we wish we could address the realities we face but still keep the dam, an option that simply does not exist. Restoring the river seems to be seen as a necessary evil, a choice we wish we did not have to make. That is understandable given the passionate and heartfelt pleas you have heard for keeping the dam. I would not want to be in the position of disappointing so many people.

Of course, if we somehow figured out to address the permitting barriers and were willing to accept the heavy fiscal burden, environmental impacts, and safety risks, and thereby keep the dam, many people in town would be just as dejected for everything that we would still lose. Either decision will be met with disappointment and a sense of loss among some of your constituents. Such is often the nature of public policy, as you no doubt know all too well.

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The future will look different, and tides, climate, geology, hydrology, and land-use regulations will all present practical constraints on what we can do. Nevertheless, we have a unique opportunity for the community to collaboratively build and unite around an exciting vision for the next chapter of the lower Oyster River. As you make the difficult decision ahead of you, I urge you to embrace this perspective and convey it to your constituents. What might otherwise be a source of division and discontent can quickly become a powerful opportunity for innovation and unity if we paint the right picture of the path ahead.

Good luck,



Jake Kritzer  
8 Timberbrook Lane  
(617) 869-1336  
[jake.kritzer@gmail.com](mailto:jake.kritzer@gmail.com)

## April Talon

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**From:** Todd Selig  
**Sent:** Monday, March 1, 2021 9:51 AM  
**To:** April Talon; Richard Reine  
**Subject:** FW: Mill Pond Aeration Solutions - Sandy MacLean  
**Attachments:** Mill Pond Aeration - Letter to TC 28 Feb 2021.pdf

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**From:** Sandy MacLean <smaclean2001@yahoo.com>

**Date:** Sunday, February 28, 2021 at 3:59 PM

**To:** Wayne Burton <wburton@northshore.edu>, Andrew Corrow <andrew\_corrow@yahoo.com>, Allan Howland <thehowl@comcast.net>, 'Jim Lawson' <lawsonje24@comcast.net>, "'kittyfmarple@comcast.net'" <kittyfmarple@comcast.net>, Sally Needell <sallyneedell@gmail.com>, Sally Tobias <Sally.tobias@me.com>, Dinny Waters <dinnywaters@gmail.com>, Carden Welsh <cardentc2@gmail.com>, Durham Town Council <council@ci.durham.nh.us>

**Cc:** April Talon <atalon@ci.durham.nh.us>, Jennie Berry <jberry@ci.durham.nh.us>, Todd Selig <tselig@ci.durham.nh.us>

**Subject:** Fw: Mill Pond Aeration Solutions

To: The Durham Town Council

February 28, 2021

Re: Mill Pond Aeration

Dear Town Councilors,

Some have noticed that the Mill Pond becomes stagnant when river flow is reduced and stopped during the summer and fall. The use of an aeration device for those few months can solve the problem. An aeration device can reduce and reverse the vegetation growth within and around the edges of the pond. Aeration is used for this purpose in ponds at golf courses and parks, and in lakes not fed by underground springs to prevent algal blooms.

Example: Low cost solar-powered aeration kits for up to 4 acres:

[https://www.graystonecreations.com/Solar-Aeration-Kits\\_c\\_601.htm](https://www.graystonecreations.com/Solar-Aeration-Kits_c_601.htm)

Examples of Aeration Devices:

Low fountain – can be operated at night to reduce evaporation



Diffused aeration with no visible fountain



An aspirator transfers oxygen from the surface into the water column through a venturi tube



A mixer creates horizontal circulation to break up stagnant water and keep shorelines open



Thank you for your consideration,

Sandy MacLean  
180 Piscataqua Road



This is an advertisement, but...aeration is effective.

## April Talon

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**From:** Todd Selig  
**Sent:** Monday, March 1, 2021 9:56 AM  
**To:** April Talon; Richard Reine  
**Subject:** FW: Letter via the Durham Dam - Susan Deese

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**From:** susan deese <sdeese13@msn.com>  
**Date:** Sunday, February 28, 2021 at 11:46 AM  
**To:** Durham Town Council <council@ci.durham.nh.us>, Todd Selig <tselig@ci.durham.nh.us>, April Talon <atalon@ci.durham.nh.us>, Jennie Berry <jberry@ci.durham.nh.us>  
**Subject:** Letter via the Durham Dam  
**Resent-From:** <council@ci.durham.nh.us>

Hello Town Councilors::

My husband and I are asking that you read our brief letter (below) when making the decision about whether or not to save the Durham dam.

We are both in strong support of having the town stabilize the dam.

We would like to preserve the current ecosystem. That would also help keep the recreational resources such as ice skating and other river activities that towns people enjoy. It would be a shame to see the river eventually turn into a mere trickle.

We realize there are many variables in the making of this decision. However, in our minds, the above points are very important factors to keep in mind.

Thank you,  
Susan Deese and Louis Piestrak  
35 Garden Lane  
Durham, NH 03824

\*\*\*\*\*

Susan Deese  
35 Garden Lane  
Durham, NH 03824  
603.969.2643



## April Talon

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**From:** Todd Selig  
**Sent:** Monday, March 1, 2021 9:57 AM  
**To:** April Talon; Richard Reine  
**Subject:** FW: Oyster River Restoration - Sean Moriarty

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**From:** sean moriarty <spmoriarty17@yahoo.com>  
**Date:** Friday, February 26, 2021 at 7:03 PM  
**To:** Todd Selig <tselig@ci.durham.nh.us>, Jennie Berry <jberry@ci.durham.nh.us>, April Talon <atalon@ci.durham.nh.us>, Durham Town Council <council@ci.durham.nh.us>  
**Subject:** Re: Oyster River Restoration  
**Resent-From:** <council@ci.durham.nh.us>

Also, just a heads up. We have an online petition going that I'll be sending on Monday morning. Thanks again and have a great weekend!

Sean

[Sent from Yahoo Mail for iPhone](#)

On Friday, February 26, 2021, 11:34 AM, sean moriarty <spmoriarty17@yahoo.com> wrote:

Happy Friday folks!

First and foremost, I wanted to thank you all for your handling of this very important matter. I don't think either side of this debate can complain about the efforts you have all made to get questions answered, provide input and have all of the information that you need to make this important decision. At the end of the day, no matter what happens we're all Durham residents with plenty to be grateful for living in this town.

I'll be brief as I have already written in, I just wanted to provide a list of some of the groups or agencies who have provided support for the dam removal and restoration so you can have it all in one place:

- Koasek Band of the Abenaki
- Cowasuck Band of the Pennacook - Abenaki People
- American Rivers
- NOAA
- American Saltwater Guides Association
- Trout Unlimited
- Native Fish Coalition
- Sea Run Brook Trout Coalition
- Coastal Conservation Association
- Maine Guides Association
- Conservation Law Foundation
- The Nature Conservancy
- Durham Conservation Commission

Also, we have organized a group called the Oyster River Conservation Alliance (ORCA) which has really brought a lot of people together who have a vested interest in this river and our waterways in general. The reason I bring this up is to let you know that we are all hoping to work with the community down the road by providing resources to help educate folks about the species which utilize the river. For example, most don't know that the Oyster River is the only known watershed in NH with a population of the State endangered American brook lamprey. We also have connections with the two indigenous groups mentioned above who have already expressed interest in providing support in educating the community on pre-colonial history along the river.

And because it's Friday I'll end with some levity. Projected sea level rise was brought up at the last meeting and it's something I've dealt with for several coastal permitting projects. I'd encourage you all to check out the "Coastal Viewer" on the 'NH Granite' GIS page, as the projections are pretty eye opening. But regardless, here is me down by Town Landing a couple years ago:).



Thanks again for all your work. This issue is bigger than our political boundaries and will effect generations long after we're gone, so I am hopeful you have all of the information needed to come to a vote on Monday so we can turn the page on this and start the next chapter for the river and the species who depend on it.

Very respectfully, and have a great weekend!

Sean P. Moriarty

## April Talon

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**From:** sean moriarty <spmoriarty17@yahoo.com>  
**Sent:** Monday, March 1, 2021 10:44 AM  
**To:** Todd Selig; Jen Berry; April Talon; Durham Town Council  
**Subject:** Re: Oyster River Restoration

Hope everyone had a great weekend,

As promised, please see the link below to our petition. We're at 307 signatures in just a few short days. Also, I'd encourage those of you on Facebook to visit our 'ORCA' page as there are some great photos, etc.

<http://chng.it/nnkf9ZKJVH>

<http://chng.it/nnkf9ZKJVH>

Thanks again, and good luck tonight!

Sean

[Sent from Yahoo Mail for iPhone](#)

On Friday, February 26, 2021, 11:34 AM, sean moriarty <spmoriarty17@yahoo.com> wrote:

Happy Friday folks!

First and foremost, I wanted to thank you all for your handling of this very important matter. I don't think either side of this debate can complain about the efforts you have all made to get questions answered, provide input and have all of the information that you need to make this important decision. At the end of the day, no matter what happens we're all Durham residents with plenty to be grateful for living in this town.

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Very respectfully, and have a great weekend!

Sean P. Moriarty



## April Talon

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**From:** Todd Selig  
**Sent:** Monday, March 1, 2021 12:31 PM  
**To:** April Talon; Richard Reine  
**Subject:** FW: Carden Welsh's Question about Mill Pond Dam - Janet Mackie  
**Attachments:** Carden Welsh's Question - To TC 1 March 2021.pdf

---

**From:** Janet Mackie <janet.mackie@comcast.net>

**Date:** Monday, March 1, 2021 at 10:39 AM

**To:** Wayne Burton <wburton@northshore.edu>, Andrew Corrow <andrew\_corrow@yahoo.com>, Allan Howland <thehowl@comcast.net>, 'Jim Lawson' <lawsonje24@comcast.net>, "'kittyfmarple@comcast.net'" <kittyfmarple@comcast.net>, Sally Needell <sallyneedell@gmail.com>, Sally Tobias <Sally.tobias@me.com>, Dinny Waters <dinnywaters@gmail.com>, Carden Welsh <cardentc2@gmail.com>, Durham Town Council <council@ci.durham.nh.us>

**Cc:** Jennie Berry <jberry@ci.durham.nh.us>, April Talon <atalon@ci.durham.nh.us>, Todd Selig <tselig@ci.durham.nh.us>

**Subject:** Carden Welsh's Question

To: Durham Town Council

March 1, 2021

Re: Carden Welsh's Unanswered Question

During the last TC meeting Councilor Welsh commented that 20 years ago he remembers the Mill Pond had few plants growing in the water. In contrast, now there are many plants growing in the water around the islands and along the shore. He asked,

What is the reason for the increased amount of plant life in the Mill Pond compared to 20 years ago?

My memory is the same - after my family moved to Durham in 1967, we watched the swans on the pond and in winter skated during the week when Snively was closed. The Mill Pond was clear of vegetation in the 1960s as it was in the 1990s. Here is what happened:

The water supply was the Oyster River since the UNH dam was built in 1935. Due to the increase in resident population and student enrollments, in 1965 the town purchased the Wiswall Dam and water rights as a second water source. UNH constructed the pumphouse and a water main that emptied Lamprey water into the Oyster River a mile upstream from the UNH Water Plant at Oyster River Forest. Starting in 1972, during times of low water, Lamprey water was pumped into the Oyster River. If the Oyster River had not been supplemented with Lamprey water it would have been sucked dry for the past 50 years. At that time annual total water withdrawn was 294 million gallons, of that about 70 million was used by Durham.

By 1984 resident complaints about poor water quality led to a commissioned study that found the UNH Water Plant was being operated near or over capacity on many occasions during the year which affected water quality.

Because the UNH treatment plant was at capacity, Durham decided to develop the Lee well. Durham had acquired the well at no cost from the Army Corps of Engineers 30 years earlier (it had been drilled as a possible source for Pease AFB). Because well water is ground water rather than surface water, it could be treated at the wellhead and released directly into the water distribution system, bypassing the UNH treatment plant, thereby increasing system capacity.

The Lee well went online in 1986 supplying water west of the Field House. New mains were laid and the Lee well was tied into the main system in 1992. By 1998 the Lee well was producing 325,000 gallons per day, or 118,625,000 gallons per year; Durham's full demand on the water system. UNH was using the full capacity of the Oyster River plus supplementary Lamprey River water.

In 1990, the Lamprey River was designated a NH Protected River and in 1996 became a federally designated 'Wild and Scenic' River. Concerns were voiced about the withdrawal of water from the protected Lamprey River during low water flow in the summer and fall. Durham/UNH were monitoring the establishment of new in-stream flow rate rules by State agencies that could restrict use of the protected Lamprey River as a water source. It was determined that half the water pumped from the Lamprey was not used by the water treatment plant, it was 'wasted' (ending up in the Mill Pond). As a compromise, Durham agreed to run a new water main down Mill Road, directly into the UNH treatment plant, thereby reducing 'waste' and cutting Lamprey River withdrawals in half.

The new Lamprey River direct water main became operational in 2002. This eliminated the Lamprey River water that had flowed into the Oyster River during summer and fall for the past 30 years and into the Mill Pond.

By 2004 UNH and Durham had decided that a fourth water source was necessary. The Lamprey River was protected from the water withdrawals needed in August/September when the students returned during the driest months of the year.

It was known from Professor Ballestero's studies ten years earlier that Spruce Hole would yield 400,000 gallons per day, but more studies were done to determine whether water could be pumped into the aquifer from the Lamprey in spring, then withdrawn in the fall, increasing the aquifer yield. The Spruce Hole studies were completed and the Spruce Hole aquifer was brought online in late 2015, its first useful year should have been 2016.

The Oyster River flowed through the Mill Pond fairly continuously until 2002 when the Lamprey water main was installed directly into the UNH Water Plant. From 2002 to the present, the Oyster River has been utilized far beyond its capacity during the summer and fall. When little or no river flows downstream from the UNH dam to the Mill Pond, the pond acquires the characteristics of a lake. It becomes stagnant, swamp plants start growing in the shallows. When river flow resumes in the fall, the Mill Pond once again exhibits the characteristics of a river because the river flows through the pond and over the dam as it does the rest of the year. The water is cool, oxygenated, etc. The next summer and fall there is another stagnant period when vegetation grows in the shallows – this has been happening for the past 20 years. This is why there is more vegetation now than we saw 20 years ago in the Mill Pond.

In 2011 the Oyster River was designated a NH Protected River, like the Lamprey River. But the Oyster River has not been protected, it has been starved, exploited and run dry. Few people knew this was happening because there is water impounded in the Mill Pond so the lack of river is less obvious than it would be without the pond. When the Spruce Hole aquifer came online for 2016 the flow of the Oyster River should have been restored, it was no longer necessary to exploit the Oyster River during the summer and fall. But it was not restored, as April Talon stated at the last TC meeting; during 2017 no water topped the spillway of the UNH dam for 40 days.

The Oyster River has been compared to the Exeter River. The two rivers are very different. On Sunday, February 21<sup>st</sup> it was an unremarkable weather day, cool and sunny with no precipitation. The streamflows of the Oyster River, Exeter River and Lamprey River, measured in cubic feet per second, were recorded on the USGS gauges:

	<u>Cubic feet per second</u>	<u>Watershed square miles</u>
Oyster River	12.1	12.1
Exeter River	76.6	63.5
Lamprey River	203.0	185.0

The fresh water Oyster River is a very small stream; its flow that Sunday was only 15.8% of the Exeter River flow and just 6% of the Lamprey River flow. Though tiny, the Oyster River is an exploited water source that has not been protected. (Water is withdrawn after the streamflow is recorded at the gauge.)


The town needs to understand the actual water flow below the UNH dam for each day of the year. The calculation is simple. Take the daily water cfs (cubic feet per second) recorded at the Oyster River USGS gauge and subtract the water withdrawn by the UNH Water Plant (gallons converted to cfs). This net figure approximates the amount of water that flows over the UNH dam. On days when the river does not top the UNH dam spillway, the cfs is zero because the Oyster River is not flowing downstream of the UNH dam. This daily data and seasonal patterns for the past ten or fifteen years

must be known and understood before any decisions can be made about the future of the Oyster River below the UNH dam.


The three data points are readily available. The UNH Water Plant reports daily withdrawals from each water source to the NH DES. UNH must also report each day when water in their reservoir does not top their dam spillway, and the distance between the spillway crest and the water level of the impoundment. The USGS gauge record for the Oyster River is public information at: <https://waterdata.usgs.gov/nwis/uv?01073000>

Sunday – USGS – Real-time Streamflow Compared to Historical Streamflow for February 21<sup>st</sup>


**USGS 01073000 OYSTER RIVER NEAR DURHAM, NH**









Drainage area:	12.1 mi <sup>2</sup>
Discharge:	12.1 cfs
Stage:	1.41 ft
Adj. stage:	65.99 ft
Date:	2021-02-21 23:30:00
Percentile:	32.75 %
Length of Record:	85 years
Class symbol:	
% normal (median):	75.62 %
% normal (mean):	53.16 %

**USGS 01073587 EXETER RIVER AT HAIGH ROAD, NEAR BRENTWOOD, NH**

Drainage area:	63.5 mi <sup>2</sup>
Discharge:	76.6 cfs
Stage:	4.88 ft
Adj. stage:	64.4 ft
Date:	2021-02-21 23:15:00
Length of Record:	23 years
Class symbol:	
% normal (median):	84.45 %
% normal (mean):	55.00 %

**USGS 01073500 LAMPREY RIVER NEAR NEWMARKET, NH**

Drainage area:	185 mi <sup>2</sup>
Discharge:	203 cfs
Stage:	2.15 ft
Adj. stage:	39.7 ft
Date:	2021-02-21 23:15:00
Flood stage:	8 ft
Percentile:	37.44 %
Length of Record:	85 years
Class symbol:	
% normal (median):	86.75 %
% normal (mean):	66.39 %

Explanation - Percentile classes							
							
Low	<10 Much below normal	10-24 Below normal	25-75 Normal	76-90 Above normal	>90 Much above normal	High	Not-ranked

Thank you for your consideration.

Janet Mackie  
180 Piscataqua Road

## April Talon

---

**From:** Todd Selig  
**Sent:** Monday, March 1, 2021 3:57 PM  
**To:** Durham Town Council; April Talon; Richard Reine  
**Subject:** Comments on Mill Pond Dam - Melissa Paly, Great Bay Waterkeeper  
**Attachments:** 2021-3-1 CLF Comments on Mill Pond Dam.pdf

---

**From:** Melissa Paly <mpaly@clf.org>  
**Date:** Monday, March 1, 2021 at 3:48 PM  
**To:** Jennie Berry <jberry@ci.durham.nh.us>  
**Cc:** Todd Selig <tselig@ci.durham.nh.us>  
**Subject:** Comments on Mill Pond Dam

To Durham Town Councilors,

Please accept the attached comments as you make a challenging decision regarding the future of the Mill Pond Dam. I have also pasted my comments below.

Respectfully,  
Melissa Paly

Durham Town Council  
8 Newmarket Road  
Durham, NH 03824

By electronic transmission via [jberry@ci.durham.nh.us](mailto:jberry@ci.durham.nh.us)

March 1, 2021

Dear Town Councilors:

I have been closely following the Town Council and community's thoughtful and detailed deliberations about the future of the Mill Pond Dam. While I appreciate many residents' strong attachment to the historical and aesthetic values of the dam, I urge you to approve Alternative 5 presented in the VHB Feasibility Study and remove a structure which has, for many years, contributed to water quality and habitat impairments in the Oyster River and to the Great Bay Estuary as a whole.

Certainly, Mill Pond has been an important part of Durham's history, but far more of the region's natural and cultural history predate the dam's construction. For thousands of years before colonial settlement, Native Americans lived on the shores of the Great Bay estuary and harvested its plentiful populations of migratory fish. It is precisely the damming, settlement, paving and polluting of the land and its waterways that have brought the estuary to its current state of ill-health.

As you know, most segments of the Great Bay Estuary are classified as impaired and do not meet state water quality designations. Nitrogen loads are far greater than what would be expected in a healthy estuary, and nearly half of the eelgrass meadows that once carpeted the bay have been lost in recent decades. While many municipalities around the Great Bay watershed – including Durham - have made significant investments in improved sewage treatment and stormwater management, much more needs to be done to drive down pollutant loads from wastewater, non-point, and stormwater sources to create water quality conditions that allow the estuary to recover. Other “natural solutions” such as land conservation, wetlands protection, enhanced vegetated buffers between development and waterways, *and* dam removal are equally important approaches to restoring the estuary’s health.

As many reports and commenters have already submitted, the low dissolved oxygen levels behind the Mill Pond Dam will not be resolved in any long-term fashion by dredging. Given the amount of development in the Oyster River watershed – and despite improved stormwater management - sediment will continue to wash into the Oyster River and settle behind the dam, obligating the town to ongoing maintenance.

While some have argued that the upstream dam at UNH creates another impediment to fish passage, removal of the Mill Pond Dam will restore more than a mile of habitat, which is a significant increase by any measure.

From an economic, ecological, and long-term historical perspective, I urge the Town Council to approve Alternative 5 to remove the Mill Pond Dam.

Thank you for your consideration of these comments.

Sincerely,

Melissa Paly  
Great Bay-Piscataqua Waterkeeper  
Conservation Law Foundation

**Melissa Paly**  
Great Bay – Piscataqua Waterkeeper  
Conservation Law Foundation

400 Little Harbor Road, #1106  
Portsmouth, NH 03801

O: [603-573-9142](tel:603-573-9142)  
C: [603-502-0798](tel:603-502-0798)  
E: [mpaly@clf.org](mailto:mpaly@clf.org)

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For a thriving New England

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F: 603.225.3059  
www.clf.org

Durham Town Council  
8 Newmarket Road  
Durham, NH 03824

By electronic transmission via [jberry@ci.durham.nh.us](mailto:jberry@ci.durham.nh.us)

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conservation law foundation

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From an economic, ecological, and long-term historical perspective, I urge the Town Council to approve Alternative 5 to remove the Mill Pond Dam.

Thank you for your consideration of these comments.

Sincerely,

Melissa Paly  
Great Bay-Piscataqua Waterkeeper  
Conservation Law Foundation

A thin, multi-colored horizontal line is positioned to the right of the signature block.

## April Talon

---

**From:** Todd Selig  
**Sent:** Monday, March 1, 2021 8:53 PM  
**To:** Scott Bogle; Durham Town Council  
**Cc:** April Talon; Richard Reine  
**Subject:** Re: Information from Dr. Tom Lee

Thank you, Scott. This information is appreciated.

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
He/him/his pronouns

*Do your part to help stop the spread of Covid-19: Wear a mask around others, avoid close physical contact, monitor your health, wash hands/disinfect!*

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**From:** Scott Bogle <[scottbogle@yahoo.com](mailto:scottbogle@yahoo.com)>  
**Date:** Monday, March 1, 2021 at 8:43 PM  
**To:** Durham Town Council <[council@ci.durham.nh.us](mailto:council@ci.durham.nh.us)>  
**Subject:** Information from Dr. Tom Lee  
**Resent-From:** <[council@ci.durham.nh.us](mailto:council@ci.durham.nh.us)>

Dear Todd and Council Members,

Thank you for the opportunity to comment this evening. A couple of speakers noted that Dr. Tom Lee, who is retired from the UNH Natural Resources Department, met with a group of residents on February 21st to talk with us about invasive plant species. He indicated that based on his research he was most familiar with glossy buckthorn, so the discussion focused there.

Dr. Lee noted the high potential for buckthorn to spread on the approximately 14 acres of former pond and creek bottom that would be exposed following water drawdown if the dam is removed. He noted that control of buckthorn is possible, though it is labor intensive, expensive and an ongoing process, and most effective before the shrubs get well established.

I do want to make clear that we did not ask him for, and he did not offer, an opinion on removal of the dam. He reviewed my notes from the discussion and his annotated version is attached here.

I appreciate the Council reviewing his actual comments to ensure there is an understanding of what will be needed in terms of a management plan and budgeting for that if the dam is removed. The current VHB cost estimates do not appear to provide for the level of management he indicated would be needed to avoid significant spread.

Thank you, Scott

Scott Bogle  
4 Croghan Lane

## April Talon

---

**From:** Todd Selig  
**Sent:** Monday, March 29, 2021 8:25 AM  
**To:** April Talon; Richard Reine  
**Subject:** FW: (succinct) comment on the Oyster River Dam - Diane Freedman  
**Attachments:** durham'streasure.pdf

Dear April and Rich,

Feedback from Diane Freedman for the public file regarding the Mill Pond Dam on the Oyster River.

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
He/him/his pronouns

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**From:** "Freedman, Diane" <Diane.Freedman@unh.edu>  
**Date:** Sunday, March 28, 2021 at 7:26 PM  
**To:** Durham Town Council <council@ci.durham.nh.us>  
**Subject:** (succinct) comment on the Oyster River Dam  
**Resent-From:** <council@ci.durham.nh.us>

Thank you for your kind attention to this note, which I have prepared to add to your emerging, burgeoning packet.

Most sincerely,

Diane P. Freedman

March 29, 2021

Dear Members of the Town Council,

I have written before, but here's a (fairly succinct) wrap up/reminder of important factors re: decision-making about the Oyster River Dam. With gratitude, as ever, for your time and attention.

The conservation commission was not in fact unanimous in its recommendation for the dam.

Prior conservation commission and Town Councils recommended keeping the dam.

Local scientists or consultants are not unanimous in recommending the dam be removed.

The VHB report (to date) was remiss in not taking stock of historical, recreational, community access and gathering-place aspects of the dam.

In not taking full stock of the extant species reliant on the impounded area.

The report did not refer to years past Council and Conservation Commission and Mill Pond Center Task force deliberations, feedback received from citizens.

The Town did not undertake the dredging it was slated to and had agreed and been approved to do a decade or two ago.

The Town did not utilize and turn the "weedmats" it had committed to three or more decades ago.

The Town has not had an easy time of removal of glossy buckthorn, japanese knotweed, purple loosestrife from various of its properties.

Removal the dam will substitute one supposedly poor environmental circumstance for another with a hypothesized gain for two fish species but no convincing gain or even budget or any more sustainable budget than that for dam retention.

The community has been confused by what a dam with a hazard designation means and some of the support for removal is based on that (a concern for "public safety") when there is no hazard identified as for people, property, rte 108. Moreover, the flood danger to a small portion of an abutter's land was identified only very recently. (And those residents are clearly happy to sign a waiver to state and Town of their rights to sue or expect the dam to be modified to prevent the consequences of a flood.)

The community is largely not fully aware of the length /extent of the empoundment, which is where most of the recreation occurs and where the widest part of the impoundment lies.

VHB did not take sufficiently into consideration the full impoundment and the consequences of dam removal for its ecosystem, animal, plant, human.

The community is not clear on how little a distance the Oyster River goes from where it joins the impoundment and the dam location or of the river being dammed by a very much larger dam upstream.

The toxins in College Brook and the Mill Pond will go into the Great Bay and Ocean if there is no dam. It is only a matter of time. The pond as it is serves as a containment pond, a desirable thing in many ecosystems.

All ponds are subject to eutrophication. There are methods for aerating and adding cooling water to them we have yet to utilize.

**Unusually, our skating-skiing-boating site has a very large public-shore silhouette as well as very many concerned homeowners (and in year-round homes), unlike many of the lakes and ponds in the state.**

If the Town chose it could have a public launch site and/or warming hut for skaters or skiers. In line with its support of new and connecting trails and its enthusiasm for recreational scenic lands, the Town could recognize the efficiency and thrift of caretaking the open space already a part of the Town's jewels.

It could recognize that the dam is not the "problem" and also that the Town proclamation of 2013 about the dam was understood by many to mean the historic dam would be kept so long as it represented an historic, scenic, scenic, community-gathering, and environmentally diverse ecosystem, beyond which a new dam might have to be utilized (the issue was about the existing DAM). Removing the dam will not not "return" us to a pristine situation nor a "free-flowing," "natural" river.

Something more to think about.

Landscapes are palimpsests, laid down in layers over centuries . . . some eras work in pencil and others in indelible ink . . . **its previous character might be discernible but cannot be retrieved.**

-Olivia Laing, *To the River: A Journey Beneath the Surface*

Sincerely,

Diane P. Freedman  
28 Laurel Lane  
dpf@unh.edu

## April Talon

---

**From:** sean moriarty <spmoriarty17@yahoo.com>  
**Sent:** Friday, April 2, 2021 3:31 PM  
**To:** Todd Selig; Durham Town Council; Jen Berry; April Talon  
**Subject:** Oyster River Restoration

Good afternoon all,

I wanted to provide you with a terrific article about the Mill Pond Dam that was just posted on the Indigenous NH website. Please take a moment to read it as the indigenous voice hasn't been well represented in this debate and the article does a great providing their perspective that is backed with facts and citations and I believe is a must read for anyone with a vote on this matter. Link below:

[Mill Pond Dam in Durham, NH – Indigenous New Hampshire \(indigenousoh.com\)](https://indigenousoh.com/mill-pond-dam-in-durham-nh/)

Also, I am hoping we can avoid spending anymore money for this additional study, as this really has gone on long enough. I understand that change is hard and the town wants to make sure EVERY option is looked at, but the experts have already spoken. I am hoping that Fish and Game is on the call and that the Council does ask them questions, as they are the experts when it comes to the species that utilize the river and why their populations are at risk as a result of the impoundment.

Thanks, and have a great weekend!

Sean P. Moriarty  
8 Durham Point Road

Sent from [Mail](#) for Windows 10

## April Talon

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**From:** Todd Selig  
**Sent:** Monday, April 5, 2021 9:05 AM  
**To:** April Talon; Richard Reine  
**Subject:** FW: Oyster River Restoration - feedback from Sean Moriarty

Dear April and Rich,

For the public binder regarding the Mill Pond Dam on the Oyster River.

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
He/him/his pronouns

*Do your part to help stop the spread of Covid-19: Wear a mask around others, avoid close physical contact, monitor your health, wash hands/disinfect!*

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**From:** sean moriarty <[spmoriarty17@yahoo.com](mailto:spmoriarty17@yahoo.com)>  
**Date:** Friday, April 2, 2021 at 3:31 PM  
**To:** Todd Selig <[tselig@ci.durham.nh.us](mailto:tselig@ci.durham.nh.us)>, Durham Town Council <[council@ci.durham.nh.us](mailto:council@ci.durham.nh.us)>, Jennie Berry <[jberry@ci.durham.nh.us](mailto:jberry@ci.durham.nh.us)>, April Talon <[atalon@ci.durham.nh.us](mailto:atalon@ci.durham.nh.us)>  
**Subject:** Oyster River Restoration  
**Resent-From:** <[council@ci.durham.nh.us](mailto:council@ci.durham.nh.us)>

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Thanks, and have a great weekend!

Sean P. Moriarty



# Indigenous New Hampshire

*Reframing New Hampshire's history from an Indigenous perspective*

Menu

**INDIGENOUS NH COLLABORATIVE COLLECTIVE**

**MILL POND DAM IN DURHAM, NH**

THE MILL POND DAM, ON THE OYSTER RIVER IN DURHAM, NEW HAMPSHIRE, IS THE SUBJECT OF CURRENT DEBATE IN THE REGION. THE DAM, WHICH FORMS THE 9.5 ACRE MILL POND (MCMENEMY 2021), WAS CONSTRUCTED IN 1913 "FOR PHILANTHROPIC REASONS" BY A DURHAM RESIDENT, EDITH ONDERDONK, IN HONOR OF HER STEPFATHER (CONLEY 2014). TODAY, MILL POND IS USED FOR RECREATION, INCLUDING FISHING, BOATING, AND ICE HOCKEY (NHDHR 2014). IN 2000, MILL POND DAM WAS INSPECTED BY ENGINEERS WHO NOTED THE DEVELOPMENT OF SEEPAGE, LEAKAGE, AND DETERIORATION. IN 2017, MILL POND DAM WAS FOUND TO BE OUT OF COMPLIANCE WITH NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES (NHDES) DAM SAFETY REQUIREMENTS AND IN 2018 THE TOWN OF DURHAM RECEIVED THEIR MOST RECENT LETTER OF DEFICIENCY RELATED TO MILL POND DAM. A 2020 FEASIBILITY STUDY DEVELOPED FIVE PRELIMINARY OPTIONS TO ADDRESS THE DEFICIENCIES, TWO OF WHICH WERE CHOSEN FOR POSSIBLE ACTION: STABILIZATION OR REMOVAL (VHB 2020).

[REDACTED]



MILL POND DAM PHOTOGRAPH BY ALEXANDRA EVANS (IRELAN 2019).

THE DAM SHOULD NOT BE PRESERVED AT THE EXPENSE OF A HEALTHY RIVER. WE ARE ON THE HOMELANDS OF THE ABENAKI/WABANAKI PEOPLE WHO HAVE ONGOING CULTURAL AND SPIRITUAL CONNECTIONS TO THIS AREA. WE ACKNOWLEDGE THE LAND, THE WATERWAYS AND THE PEOPLE WHO HAVE STEWARDED IT THROUGH THE GENERATIONS. THE DAM IS DESTRUCTIVE TO THE ECOLOGICAL INTEGRITY OF A RIVER THAT HAS BEEN STEWARDED BY INDIGENOUS ANCESTORS FOR THOUSANDS OF YEARS.

AT DURHAM'S JANUARY PUBLIC HEARING, THE RECENT FEASIBILITY STUDY WAS DISCUSSED. COMMENTS WERE HEARD ABOUT THE PROGRESS MADE OVER THE YEARS IN FAVOR OF THE DAM'S REMOVAL. IN A PUBLIC OPINION POLL ABOUT PREFERENCES REGARDING DAM REMOVAL IN NEW HAMPSHIRE, KEY FINDINGS SHOWED THAT A MAJORITY OF RESPONDENTS PREFER TO REMOVE DAMS WHEN THE ALTERNATIVE IS TO KEEP THEM FOR MAINTENANCE OF WATERFRONT PROPERTY VALUES, PRESERVATION OF INDUSTRIAL HISTORY, OR MAINTENANCE OF LAKE OR POND BASED RECREATION (LEUCHANKA ET AL. 2019).

ACCORDING TO JON BROMLEY, AN ENVIRONMENTAL SCIENCE TEACHER AT OYSTER RIVER HIGH SCHOOL IN DURHAM, "THE MILL POND DAM IS ESSENTIALLY CHOKING A VEIN OF GREAT BAY... WE'VE ALTERED THE LANDSCAPE IN A WAY THAT IS OUT OF SYNC WITH THE WAYS NATURE WANTS US TO BEHAVE" (LOVEJOY 2018:9-10). THE DURHAM CONSERVATION COMMISSION HAD PREVIOUSLY VOTED UNANIMOUSLY (7-0) FOR DAM REMOVAL STATING IN PART "WE NEED TO SPEAK FOR THE FLORA AND FAUNA WHO CAN'T SPEAK FOR THEMSELVES AND RECOGNIZE THE RIVER'S HISTORY THAT STARTED WELL BEFORE THE ARRIVAL OF EUROPEANS." FURTHER, THE COMMISSION STATED THAT ALL FISHERIES AND WILDLIFE CONSERVATION GROUPS SUPPORTED REMOVAL IN ORDER TO PRESERVE A HEALTHY ECOSYSTEM CONNECTING THE OYSTER RIVER AND THE GREAT BAY ESTUARY.

THE DAM INCLUDES A FISH LADDER BUILT IN 1974. SCIENTIFIC STUDIES (E.G. SEE WALDMAN 2013) SHOW THAT FISH LADDERS DECREASE FISH RUNS AND ENDANGER THE NATURAL LIFE CYCLES OF THE MANY SPECIES FORMERLY ABUNDANT IN THE OYSTER RIVER, NAMELY, CHAD, ALEWIFE, HERRING AND SALMON. ACCORDING TO KATHLEEN BLAKE, CHAIR OF THE NH COMMISSION ON NATIVE AMERICAN AFFAIRS, AFTER EXETER REMOVED ITS DAM, "THE RIVER IS MUCH MORE BEAUTIFUL TODAY AND HAS RETURNED TO A FULLY FUNCTIONING RIVERINE SYSTEM. FOR EXAMPLE, THE ALEWIVES RETURNED THAT YEAR. WHEN WE RESPECT THE EARTH, WE ARE GIVEN RESPECT IN RETURN." THE NATURE CONSERVANCY STATES THAT WHAT THEY HAVE SEEN WITH DAM REMOVAL IS NOTHING BUT IMPROVEMENT; RIVERS ARE ABLE TO RESTORE AND HEAL.

TO PRESERVE THE DAM WOULD REQUIRE EXTENSIVE REPAIR, INCLUDING MEASURES TO RESTORE THE WATER QUALITY OF THE OYSTER RIVER, WHICH IS ONE OF THE TOWN'S MAIN WATER SOURCES (LOVEJOY 2018:10). REMOVING THE DAM WOULD BE MORE AFFORDABLE THAN RESTORATION (MCMENEMY 2020; MCMENEMY 2021), AND THE COST OF REMOVAL CAN BE MITIGATED BY FEDERAL GRANTS AND OTHER AVAILABLE FUNDING SOURCES (LOVEJOY 2018:10). ADDITIONALLY, THE POTENTIAL DANGERS OF DREDGING UP CHEMICAL TOXINS BURIED IN THE POND'S SEDIMENT CAN BE MITIGATED BY CAREFUL ENGINEERING AND CHEMICAL DISPOSAL AS HAS BEEN ACCOMPLISHED IN 26 STATES.

PROTECTING THE RIVER ALSO INVOLVES RESTORING ITS DEEP AUTHENTIC HISTORY. MILL POND PARK ALSO FEATURES THE ACCOUNT OF THE SO-CALLED

"OYSTER RIVER MASSACRE" THAT RESULTED IN THE MURDER OVER 100 LOCAL EURO-AMERICAN SETTLERS. THE COMMEMORATION OF THIS EVENT ON A STATE HIGHWAY MARKER PERPETUATES HARMFUL RACIAL STEREOTYPES AND PREJUDICES. IN FACT, HISTORICAL RECORDS EXPLAIN THAT THE INDIGENOUS PEOPLE WERE RESPONDING TO COLONISTS WHO HAD BROKEN TREATIES, DESTROYED THEIR FARMING AND HUNTING GROUNDS, STOLEN THEIR LANDS, AND EXTORTED CONTROL OVER THOSE WHO HAD LIVED IN THE REGION FOR THOUSANDS OF YEARS AND HAD TRIED NEGOTIATING THEIR COMPLAINTS IN THE ENGLISH COURTS. WARFARE WAS THEIR LAST RESORT. THIS NARRATIVE NEEDS TO BE HEARD.

WE LOOK FORWARD TO PRESERVING THE PARK'S ECOLOGY AND HISTORY. SUGGESTIONS FOR THE FUTURE INCLUDE A MODEL FISH WEIR, KEEPING THE DAM'S ORIGINAL ABUTMENTS, AND SIGNS NAMING TREES AND SHRUBS IN MANY LANGUAGES, INCLUDING ABENAKI.

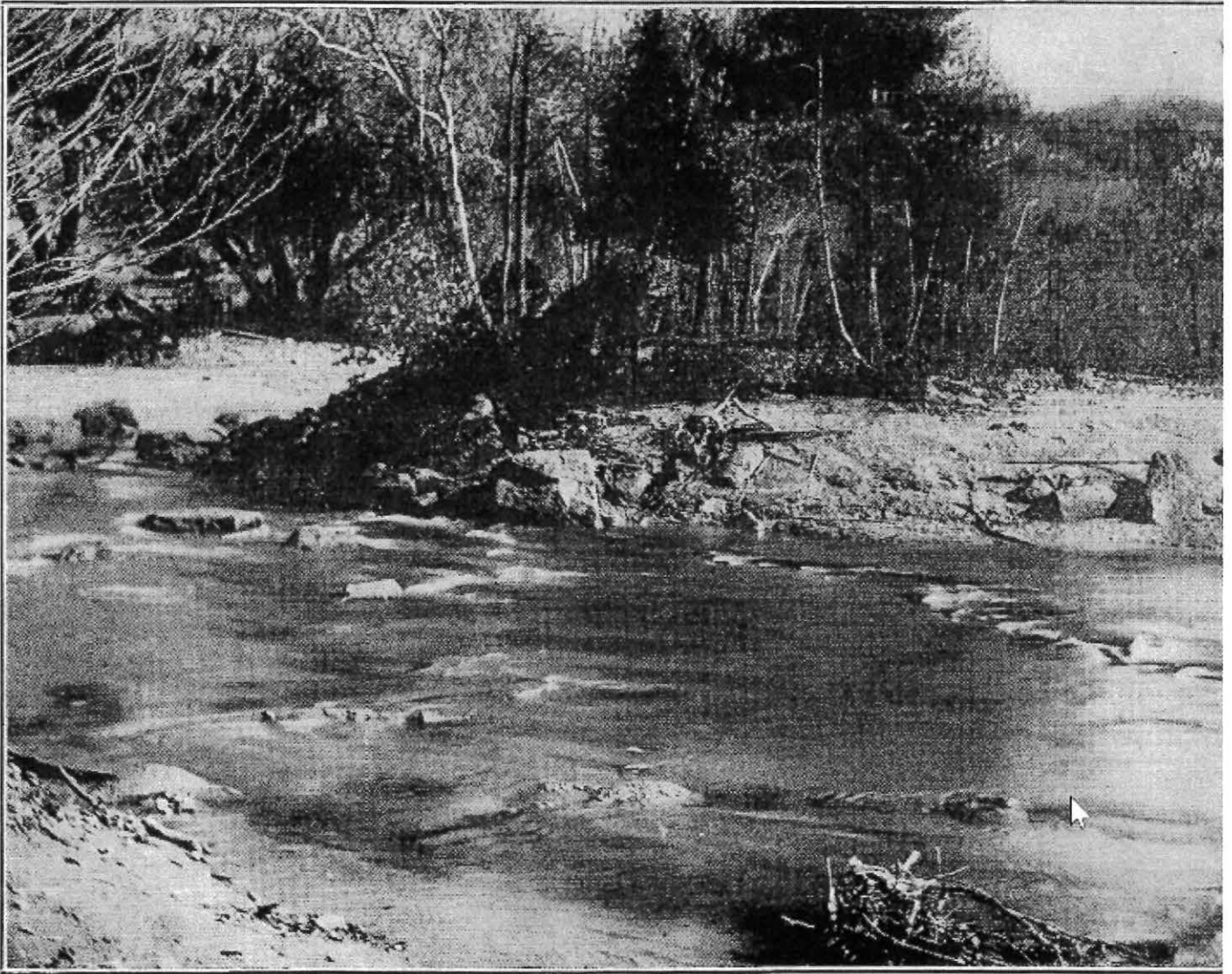


PLATE III. Remains of an old Fish Weir between the small island and the  
EXAMPLE OF AN INDIGENOUS FISH WEIR

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## April Talon

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**From:** Todd Selig  
**Sent:** Monday, April 5, 2021 11:30 AM  
**To:** April Talon; Richard Reine  
**Subject:** FW: Oyster River Dam and Mill Pond project - feedback from Barbara Moriarty

Dear April and Rich,

Please include with the public file relative to the Mill Pond Dam on the Oyster River.

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
He/him/his pronouns

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**From:** Barbara Moriarty <blmoriarty@comcast.net>  
**Date:** Friday, April 2, 2021 at 5:54 PM  
**To:** Durham Town Council <council@ci.durham.nh.us>  
**Cc:** Todd Selig <tselig@ci.durham.nh.us>  
**Subject:** Oyster River Dam and Mill Pond project

II realize this is a late submission, but hope it will be considered.

My husband and I live on Old Landing Road and have been following the discussions about the Oyster River dam removal, and in fact have already sent in an email opinion that the dam should be removed (option 5).

What seems to be somewhat lost - in the attention paid to the effects of dam removal on the Mill Pond and upstream Oyster River - is the benefit dam removal will have on the mitigation of flooding and erosion from high tides (including king tides) and severe storms on the Town Landing.

It is common to have river water from these tides and storms up to the edge of Old Landing Road and enveloping the various picnic tables and parking lot of the Town Landing Park.

Climate change is real, and is progressing at a rapid rate. In fact, Durham is a participant in the ***Climate Remembrance Project*** and has various plaques around town raising public awareness of climate change.

The plaque situated in the Town Landing Park area states: ***Oyster River overtopped Route 108 during an extreme rain event and astrological high tide***; future date May 19, 2034. That is only 13 years away!

The removal of the dam and restoration of the river will give the rising sea level caused by climate changes and higher tides and more severe storms an outlet to flow into up-river rather than being blocked by the dam.

In addition to flooding and erosion, the dam itself and the stagnant impoundment area (Mill Pond) have contributed to the decline of many anadromous fish species that rely on swimming upriver to spawn.

Without these fish, we won't have the resurgence of the Bald Eagle, Great Blue Heron, and Osprey among others, that feed on fish and the small mammals that thrive in a healthy river habitat.

Durham has always been a forward thinking town and has initiated/participated in many ecologically based programs: Bee City, USA; Tree City; Backyard Food Friendly Yards; Community Gardens; Farmer's Market; recycling (and possible compost collection ?). Also, Great Bay Oyster Reef Restoration; and, Wagon Hill Farm with it's Living Shoreline that reduces erosion and and salt-marsh migration due to sea-level rise.

I understand the emotional and historical connection Durham has to the Oyster River Dam and Mill Pond. I have lived in Durham for 57 years and my husband's family has lived in Durham for 5 generations. We have raised a family here and have great memories of skating on the Mill Pond and enjoying the scenic vista the pond and dam provide.

But, the dam is structurally impaired and could fail at any time. Take advantage of the grant funding . Please don't hesitate in making your decision. The history of the dam and Mill Pond can be memorialized in some way.

As mentioned in the February 15 Town Council meeting by Mr. Peter Walker of VHB, the Oyster River Dam removal is unique, in that it is restoring an anadromous fish run, tidal flow, and tidal habitat all in one project, which would make it more viable for grant funding.

Thank you for all your time and effort on this complicated matter. Please do the right thing and make a future thinking decision to remove the dam and let the Oyster River return to it's natural state.

Tom & Barbara Moriarty  
15 Old Landing Road  
Durham, NH



## April Talon

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**From:** Todd Selig  
**Sent:** Friday, April 2, 2021 10:58 AM  
**To:** MaryAnne Chase  
**Cc:** April Talon; Richard Reine  
**Subject:** Re: Mill Pond Dam - feedback from MaryAnne Chase

Dear MaryAnne,

Thank you very much for this feedback concerning the Mill Pond Dam on the Oyster River. I know members of the Council will appreciate having an opportunity to review your thoughts concerning this important topic.

All my best,

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
He/him/his pronouns

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**From:** MaryAnne Chase <machase111@gmail.com>  
**Date:** Friday, April 2, 2021 at 10:18 AM  
**To:** Todd Selig <tselig@ci.durham.nh.us>  
**Subject:** Mill Pond Dam

Dear Members of Durham Town Council, We are writing again as long time citizens and current taxpayers to express our continuing support to retain the Mill Pond Dam and to restore the pond. After review of the scientific studies as well as the historical significance of the dam, it seems that both the dam and the pond need to be retained at least until such time as the overall watershed can be addressed. The elimination of the dam plus the pollution of the College Brook tributary without any mediation would simply contribute to the greater pollution of the Oyster River, Little Bay, Great Bay and the lower Piscataqua. The nitrogen levels are alrHam"s Market. There is much more to the dam and Mill Pond to ber resolved before a rush to remove.

Thank you for your vote to retain and resolve.

eady obvious in the ingrowth on the Pond.

Much evidence of the historical significance of the dam has already been documented and further supports retaining/repairing the dam. The purchase of Wagon Hill Farm was beneficial to all the residents of Durham and , in our opinion, the Mill Pond Area has in the past and can continue to be a benefit to the Town with wint picnicing, skating etc.

So much has been lost over the last 100 years : The Chesley Farm where the Durham market is located, The brick school house next to Emery Farm, the Isabel smart house on main Street

Wa

Wagon Hill was an excellent purchase that has benefited the Town

## April Talon

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**From:** Todd Selig  
**Sent:** Wednesday, March 24, 2021 8:43 AM  
**To:** April Talon; Richard Reine  
**Subject:** FW: Letter for the Town Council re: the dam and beyond 3/21/21 - Diane Freedman  
**Attachments:** March21dam.pdf

Dear April and Rich,

For the public file regarding the Mill Pond Dam on the Oyster River.

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
He/him/his pronouns

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**From:** "Freedman, Diane" <Diane.Freedman@unh.edu>  
**Date:** Tuesday, March 23, 2021 at 9:27 PM  
**To:** Durham Town Council <council@ci.durham.nh.us>  
**Subject:** Letter for the Town Council re: the dam and beyond 3/21/21  
**Resent-From:** <council@ci.durham.nh.us>

March 22, 2021

Dear Members of the Durham Town Council:

I am writing in regards to the vexing question of the Mill Pond (Oyster River) dam.

## **I. Hamel Brook**

First, I would love to invite you all **to walk the upper reaches of the impoundment, the Hamel Brook section**. You can do so either anytime or by directly contacting me. You can enter the public right of way above my property on Laurel Lane, but the easiest or most obvious route would be simply to park along Laurel Lane and walk down my driveway (28 Laurel Lane), then downhill towards the water, then turning right and walking along the trail behind the homes and properties on Laurel Lane and in the direction of the Mill Pond Center and the Mill Pond. But gaze at this Hamill Brook section first. (Dennis Meadows and Suzanne MacDonald are also fine with you turning left and perambulating along their property that actually abuts the brook there).

The trail beside it is all good walking now, but I'd recommend shoes that you don't mind getting perhaps a bit muddy.

I invite you to do this, even if you have done so previously, because each season has its own beauty.

If you recall (or watched on DCAT/video), at the last meeting with the dam on the agenda, Dennis Meadows offered a Powerpoint presentation with the title, "Don't Forget Hamel Brook." I echo his insistence, which he made to remind the community that the water impounded by the current dam includes this very large area and not just the little Oyster River and the Mill Pond.

The upper reaches of the impoundment is where a very large and diverse ecosystem--including of fish such as bass, pickerel, and sunfish--thrives along with otter, mink, muskrat, beaver, fishercat, possum, cormorant, osprey, kingfisher, swallow, phoebe, pileated woodpecker, barred own, barn owl, bat, fox, deer, bear, dragonfly, bullfrog, green frog, leopard frog, painted turtle, snapping turtle--to name only the most visible species . . . and their human neighbors.

The Hamel Brook section is also the largest recreational and freely-accessible community-gathering area of the impoundment, being suitable for skating, skiing, snow-shoeing, winter walking, and light boating, in their respective seasons.

This extensive part of the impoundment would be a mud flat with but a thin ribbon of shallow water wending through it should the dam be removed. There will be no more walking, skating, skiing, boating here, just a glossy buckthorn-thicketed ecological, aesthetic, historic, and recreational scene of devastation.

## **II. The importance of Experiential Knowledge**

I would like to remind you of something I opened with at the recent-most dam-related TC meeting. In responding to a (not-so-nice) accusation that those of us in support of keeping the dam are merely acting in self-interest, I pointed out:

Careful observers and long-time inhabitants know an awful lot about the places they live and love, often much more than outside “experts” or activists. Think of Henry David Thoreau, Concord native, keeper of the most amazing and valuable natural history tables and journals, materials prized by climate scientists today--see Richard Primack’s *Walden Warming: Climate Change Comes to Thoreau’s Woods* and Laura Dassow Wall’s recent biography).

I am an observer, a native informant, if you will. So is Dennis Meadows. So is Larry Harris. And Phyllis Heilbroner. Doug Worthen. David and Leslie Schwartz. Andrea Bodo and Steve Burns. The Town is lucky to have *these* consultants on hand. Several of us are also academic researchers and writers in relevant fields. But do not forget that *experiential* knowledge counts as knowledge, even in academia.

(On the disparagingly nasty count: if we were here to flip houses, we wouldn’t still be living here. No, instead we have each lived here more than three decades, some many more, because we love our “brute neighbors”--see *Walden* for its chapter on Thoreau’s non-human neighbors).

Abutters should not be disparaged and their information discounted. We speak from experiential as well as researched knowledge. It is not the impoundment itself that is the chief problem and removing it is not the chief or best solution

### **III. Alright, already; what it is we can do about the dam and the impoundment?**

1. First, we can stabilize the dam. We can accept and submit to the state, with whatever other necessary papers, the waiver that Andrea Bodo and Steven Burns proffer.

2. We recognize the Mill Pond itself for the containment function it serves (as do similar ponds), as UNH Biology Professor James Haney has suggested. It will prevent movement of the toxins in the sediment (that several experts have suggest would indeed be mobilized if the dam is removed). “Ask what are all the good things the impoundment does,” he urges! He also stated that a good resource management system takes into account the full value the *affected* community has and seeks in the resource.

3. We can recognize the Hamel Brook area upstream of where the “little Oyster River” comes into the larger impoundment and its support of environmental diversity (including use as fish hatchery). According to UNH Natural Resources Professor Tom Lee, the water suppresses a burst into bloom of invasive plant species such as glossy buckthorn. The upper reach is an ongoing place for recreation (boating, *Hans Brinker and the Silver Skates*-type skating, skiing, snow-snowing, winter walking, community gathering, beauty, scenery, art, contemplation, and bridge to community trails. It fosters sustainable plant, animal, and human health; community; and environmental and historical knowledge in young and old.

4. We can see dam removal for its true prospects: we can recognize that without the dam, the Hamel Brook and the Little Oyster River will shrink to mere trickles narrow and shallow much of the year and through increasing demands of water even further upstream. As locals notes from previous drawdowns (see letters from Janet Mackie--especially the 1974 Milne document, Larry Harris, Phyllis Heilbroner), with dam removal there will be few if any pools deep enough for the vaunted and worried-over alewife and blue-backed herring spawn to develop. So removing the dam to help the population will not amount to the hoped-for help.

5. We can acknowledge the thickets of glossy buckthorn that will spring up will make what water there is unvisit-able and invisible, upstream a mudflat. Plus with all the increased tick and mosquito activity (due to standing water and the unbalancing of the currently well-working brakes on those species in the impoundment), who would want to try? The impoundment will no longer be a multi-access-points bridge, skating, skiing, boating byway, treat for sore eyes.

6. We can acknowledge that with the UNH dam on the Oyster, the incursions into and degradation of College Brook, and the ready-to-pounce Glossy Buckthorn, not to mention the sediment in and around the Oyster, there will be no resurrection of the time before time of the Oyster River.

#### **IV. So, if we keep the dam, what can we do to improve water quality and quantity?**

1. We could employ aerators for the Mill Pond to improve water quality (see letter from Sandy MacLean in the file). As it is, late-summer threats discussed at the recent meeting, such as dangerous algae, can be avoided with either more flow at the hottest, driest times or more aeration, or both.

2. We could work with UNH to release more water at key times for feeder fish (e.g., herring) and for cooling or filling at other key times.

3. We could work with UNH to notch its dam or its next dam repair or revision so more water is always flowing or could be made to flow over its dam when water is available.

4. We can open the Town dam a bit (for fish) or a lot (for flushing) at key times.

5. We can notch our dam (over time, there may be a way to do it with the boards if not the structure?).

6. We can truck herring (scooping them into barrels) from below the Town dam to the Mill Pond (and vice versa) at the key time of migration (it's not an extended period). Apparently, this is done all over the world, so why not at such a valued (because historic, iconic, beautiful, the impoundment diversely used and the above Oyster River portions full of fish and animals needing the water it provides) dam site?

As Henry Beston described:

*These alewives of Weymouth come up out of the sea, and from Heaven knows where out*

*of the sea. They run of Weymouth Brook, are stopped by a dam, are fished out in a net, dumped into barrels of water, and carted overland in a truck to Whitman's Pond. . . . each female lays . . . eggs, these drop to the bottom, drift along the mud, and ooze and attach themselves as change directs. The spawning females and males then go over the dam and back out to sea, the herring born in the pond follow them ten months or a year later . . . .* (from *The Outermost House: A Year on Cape Cod*)

7. We can stop or slow the creation of impervious surfaces, especially those closest to Town waters and those that heat up the areas around them. That means saying no to such proposals as a large parking lot on a (to-be denuded) Church Hill, holding firm about buffer zones as to College Brook with any and all plans for Mill Plaza reconstruction. It means also avoiding trucked-in fill, which washes out and/or brings seeds of invasive plants. It means following guidelines for granting (and not granting) building in zones subject to conditional use and working with UNH to follow similar principles, protecting College Brook, protecting the watershed.

8. We can remember that what goes on in the entire watershed, including the amount of water UNH draws from its reservoir needs to be ever in the picture. Since that is not now the case, and we have the situation we have, removing our dam will not yield what is hoped even as it harms everything current and former Durham residents, including UNH alumni, value about the dam and the impoundment as a whole, what even passersby (20,000 plus daily) value about the dam, waterfall, Pond and beyond. It takes away the homes of all the species we see, know, and love now in the 400-year-plus ecosystem, replacing it with a tiny expanse of river and fraction of seacoast herring (maybe) and a whole lot of invasive plants.

**V. What is the worst-case scenario if we do keep the dam?** (Hint: it's also a best case)

1. We spend less money than with removing and "reshaping" (dredging) the "river."

2. We revel in and protect the current diverse ecosystem, watching the otters slide, the minks slink, the frogs yip, the herons stalk, turtles bask, swallows dive at dusk, bats dive in darkness while the owls hoot and hunt.

3. We continue to kayak, watch and write, have skating parties, meet for skiing and trail walks, meet our neighbors down and across the impoundment, who meet their neighbors. We value and newly discover **the free and accessible open space of water and ice**. Together with our children, we play and watch and learn. As Jay Griffith has written:

*When artists have, as children, encountered freedom, they have also experienced an ecstatic knowledge of nature. This is not only about the freedom of the body but the freedom of the mind, for art's first demand is freedom so imagination can circumnavigate the world.* (From *A Country Called Childhood*)

4. All the while, we cut down and otherwise remove glossy buckthorn, loosestrife, and knotweed from shore and emergent islands.

5. We use weedcloth and native plants for control.

6. We have an enormous head start in maintenance and maintenance plan (and greater clarity than we have now, certainly, about the cost) if down the road, we do decide it is time to remove the dam or we go with a maintainable meadow.

7. It's even possible that there will be new, controlled, and permitted ways to safely dredge.

But if we dredge now **for the channel the dam-removal plan requires**, we disrupt a working up-impoundment ecosystem, have several football fields' worth of toxic matter to put somewhere, and, in a vain attempt to "reconstruct" and maintain a land and waterscape of six centuries ago, incur huge monetary and cultural-historical-psychic costs.

## **VI. In Conclusion**

Making such a radical set of changes without considering what is happening upstream (in our impoundment, yes, and well above), is a major mistake, insist J. Haney, T. Lee, and J. Mackie. incur a hugely underestimated "reconstructing" and ecosystem (remember to take into account Any kind of change, repair, or maintenance costs money. But dam stabilization is the least expensive. And as long as what's going upstream is not better than it is, the arguments for removing the dam are just not as strong as those for keeping it, at least for now.

Thank you so much for reading!

With warmest wishes for a thoughtful resolution,

sincerely,

Diane P. Freedman  
28 Laurel Lane  
dpf@unh.edu

Diane P. Freedman  
28 Laurel Lane



## April Talon

---

**From:** Todd Selig  
**Sent:** Monday, March 22, 2021 4:00 PM  
**To:** carol ehlen  
**Subject:** Re: The Durham Dam - following up with Carol Ehlen

Dear Ms. Ehlen,

Thank you very much for your email concerning the petition you were asked to sign. I shall pass your note along to the members of the Town Council for their information and review.

Please enjoy the rest of this beautiful (early) spring afternoon.

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
He/him/his pronouns

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**From:** carol ehlen <cdehlen@gmail.com>  
**Date:** Monday, March 22, 2021 at 3:56 PM  
**To:** Todd Selig <tselig@ci.durham.nh.us>  
**Subject:** The Durham Dam

Dear Mr. Selig,

We have been approached to sign a petition to keep the Durham Dam in place and to repair it. Having researched the recent removal of so many dams in the country, my husband and I can not sign the petition and feel the dam should not be restored. The environmental concerns far outweigh the historical concerns and the benefit to fish, wildlife and water quality are paramount. Secondly, the cost is ridiculous when removal of the dam will do so much for the environment and there is a good chance that State and Federal laws may mandate removal of such dams in the coming years. Thirdly, there are so many more important ways to spend taxpayer dollars.....the new middle school, the new town hall, the list is endless.

Please pass on our concerns to your Town Council as we presume they will be voting on the issue.

Many thanks,  
Carol Ehlen  
12 Deer Meadow Road,  
Durham



## April Talon

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**From:** Todd Selig  
**Sent:** Friday, March 19, 2021 8:46 AM  
**To:** April Talon; Richard Reine  
**Subject:** FW: Omissions in VHB Report  
**Attachments:** Bogle Letter on VHB Report Omissions 3-7-21.pdf; Questions for VHB.pdf

Dear April and Rich,

Attached are Scott Bogle's suggestions for the discussion with VHB.

Todd

Todd I. Selig, Administrator  
Town of Durham, NH  
**a:** 8 Newmarket Rd., Durham, NH 03824 USA  
**t:** 603.868.5571 | **m:** 603.817.0720 | **w:** [www.ci.durham.nh.us](http://www.ci.durham.nh.us)  
He/him/his pronouns

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**From:** Scott Bogle <[scottbogle@yahoo.com](mailto:scottbogle@yahoo.com)>  
**Date:** Sunday, March 7, 2021 at 10:43 PM  
**To:** Durham Town Council <[council@ci.durham.nh.us](mailto:council@ci.durham.nh.us)>  
**Subject:** Omissions in VHB Report  
**Resent-From:** <[council@ci.durham.nh.us](mailto:council@ci.durham.nh.us)>

Dear Todd and Members of the Town Council,

At the Town Council Meeting on 3/1/21 during public comment I suggested that the Council and residents of Durham have not been presented with a full range of data on the pros and cons of dam removal vs. stabilization to support an informed decision. Attached is a memo detailing five areas where the report, executive summary and other communication from the consultant have omitted significant information, given figures without context or framed data in such a way that it obscures key points.

Consciously or unconsciously on the part of the consultant, these choices in presenting data downplay information supporting dam stabilization, downplay adverse effects of dam removal and likely overstate benefits of dam removal.

Also attached is a list of questions for VHB that I hope the Town will include in the supplemental scope of work discussed at the March 1st Council meeting.

Thank you for considering these points and reading the VHB report critically.

Sincerely, Scott

Scott Bogle  
4 Croghan Lane

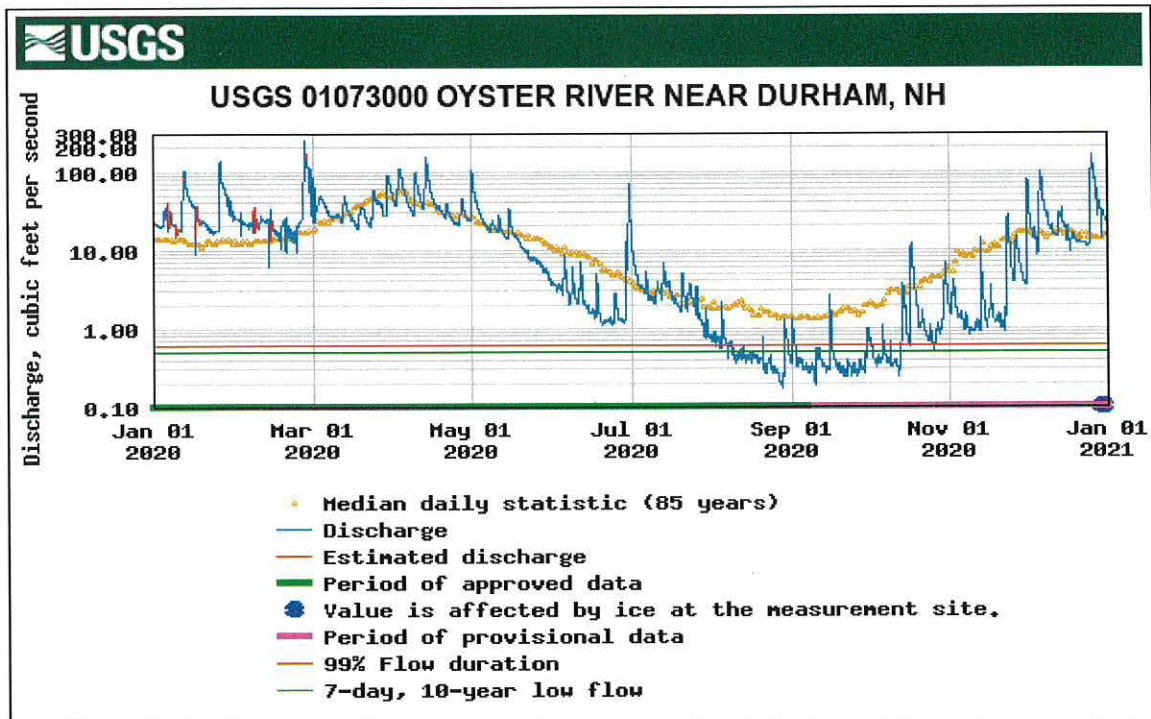


March 7, 2021

Dear Todd and Members of the Town Council,

At the Town Council Meeting on 3/1/21 during public comment I suggested that the Council and residents of Durham have not been presented with a full range of data on the pros and cons of dam removal vs. stabilization to support an informed decision. Below are five examples where the report, executive summary or other communication from the consultant have omitted pertinent information, given figures without context or framed data in such a way that it obscures key points. Consciously or unconsciously on the part of the consultant, these choices in presenting data downplay information supporting dam stabilization, downplay adverse effects of dam removal and likely overstate benefits of dam removal.

1. River Flow Rates & Consequent Channel Following Dam Removal – The hydrological modeling presented in the report is based on a median annual flow rate for the Oyster River of 34 cubic feet/second (cfs). Channel depths and widths presented in the report appear to be based on this flow rate (Tables 3.2-5 through 3.2-12). This annual summary measure is certainly useful, but it masks seasonal highs and lows. The report cites seasonal “fish flow” rates for April-June when adult herring would enter the river, but not summer and fall flow rates reflecting the period when young herring are maturing in the river. According to the USGS water gauge for the Oyster River, located above the UNH/Oyster River Reservoir dam upstream, the median daily discharge rate (the yellow series of dots) for the river through much of July, August and September over the 85 year record for the monitoring site appears to be less than 3 cubic feet/second.



What does this reduced summertime flow rate, about a tenth of the rate used for modeling, mean for width and depth of the channel and its suitability for the range of aquatic life currently in the impoundment or for recreation?

I understand that some additional water volume is added to the river downstream of the monitoring station; but note also that the gauge location above the reservoir dam means these discharge rates do not account for reduction in flow below the dam when UNH is withdrawing water from the reservoir. In citing the annual median but not seasonal lows the VHB report omits information that would be useful for the public and the Council in decision-making.

2. What Does a Successful Herring Run Look Like in Ten Years – A major justification for removal of the dam is restoration of anadromous fish runs. How large a run is expected if the dam is removed? The consultant references the figure of 157,000 herring in 1992, inferring that that is the size of a healthy herring run for the Oyster River. The full report does include the NH Fish and Game Department (NHFG) 43-year count record for shad and herring at the fish ladder at the Mill Pond Dam (Table 3.8-1), though this is not included in the Executive Summary. The report does not put the Oyster River count data in the [context of count data for other much larger rivers in the Piscataqua region](#) that might provide a sense of what to expect from even an ideally restored herring run on the Oyster River.

The herring runs on the Oyster River in 1990-1992 appear to be anomalously high. Staff at the NHFG office in Durham acknowledged on 2/24/21 in a phone call that those numbers were likely not representative of sustainable run size for the river. I asked if they might have been affected by stocking practice at the time, and the staff member noted that while stocking is done currently he did not know the practices during the 1980s and 1990s. If you look at the average run size in the five years before 1990 (53,535) and five years after 1992 (77,787) they are less than half the size of the peak in 1992.

It is also worth putting the Oyster River counts in the context of larger rivers in the region. The two best established runs per the NHFG data are on the Lamprey and the Cocheco. Per the 2/24/21 phone conversation NH Fish and Game is confident enough in the run size on the Lamprey that they move herring from the Lamprey to other rivers to attempt to bolster their runs. Over the last 10 years the herring count on the Lamprey has averaged 62,635, approx. 60% below the 1992 peak figure cited for the Oyster River. [Per USGS gauges the mean of daily mean flow rates for the Lamprey in August over the past 85 years is 78.5 CFS, or about 19 times that of the Oyster River in August of 4.2 cfs.](#) The ten-year average herring count for the Cocheco is 40,519, about 74% lower than the 1992 peak on the Oyster. [Per USGS the mean of daily mean flow rate for August for the Cocheco is 45.3 cfs](#) or about 11 times the flow for the Oyster River. Note these rates are above the Oyster River Reservoir so do not account for reduction in flow from UNH water withdrawal.

In the absence of having an estimate of what success would mean in restoring a herring run on the Oyster River, knowing that the Lamprey River, with 16x-19x the mid-summer flow of the Oyster River, averages herring runs only 40% the size of the reference figure presented in the VHB report would be useful to policy makers and residents in considering benefits of dam removal. It raises the question of how much of an impact even an ideally restored herring run on the Oyster River could

have on Gulf of Maine ground fish or other fisheries which are the ultimate concern of NHFG and the National Marine Fisheries Service in advocating for dam removals for restoration of anadromous fish runs.

3. Water Quality Throughout the Impoundment – The VHB study references sediment sampling data from 27 locations throughout the Mill Pond, the Middle Impoundment (between Milne Sanctuary and Hamel Brook), Hamel Brook and the Oyster River Mainstem. In contrast water quality measurements are presented from only two locations: upstream of the impoundment and immediately behind the Dam, downstream of College Brook which is noted to be the source of significant nutrient inputs to the pond that in turn impact dissolved oxygen. From measurements at this one testing site, assertions are made about oxygen levels for the whole impoundment and its ability to support a desired range of aquatic life. My understanding from the conversation with Dr. Jim Haney on 2/26/21 was that water quality sampling in other locations in Hamel Brook and the Middle Impoundment would be needed to properly understand oxygen levels in those areas and whether they might continue to support the desired broad range of aquatic life even as the Mill Pond sub-area becomes impaired. Is this incorrect?
4. Historic Value and National Register Determination – The full report and executive summary note in multiple places that the dam is listed on the State Register of Historic Places. Nowhere does the report indicate that the dam has been surveyed and determined individually eligible for the National Register of Historic Places. Review under Section 106 of the National Historic Preservation Act applies only to resources listed on or eligible for the National Register, and is unrelated to the State Register. VHB is a large firm with historic resources specialists on staff who know this.

The report also asserts that either dam removal or stabilization will result in a finding of adverse effect to the dam as a historical resource under Section 106. Oddly the Cultural Resources section of the Executive Summary starts by highlighting the adverse impact of structural modification, and only secondarily notes the adverse impact of demolishing the historic resource altogether. This may have led many readers of the report to conclude that either alternative is equally detrimental from a historic resource management standpoint, so perhaps the question of historic impacts is a wash. The dam was determined eligible under both Criterion A, for its importance in the broad history and development of Durham, and under Criterion C for its engineering design. On a phone conversation on 2/24/21, Director of the NH Division of Historic Resources Nadine Miller noted that a change to the design of the concrete structure might impact eligibility under Criterion C (they had not seen the conceptual design), but would not impact the dam's significance under Criterion A. Structurally reinforcing a historic resource and destroying that historic resources are not equal in their adverse effect.

Omitting reference to the National Register level significance of the dam and framing the discussion of adverse effects in a misleading way both downplay the historic and cultural value of the dam and pond to Durham and the town's National Register Historic District.

5. Recreational value – The one-page matrix summarizing VHB findings, posted on the town's website for the dam project, is an important communication tool. It recognizes the low likelihood that much

of the public will read the full 159-page report, and ostensibly summarizes the pros and cons of each alternative. However, the summary omits reference to recreational value of the Pond and impoundment altogether. The impoundment is widely used by residents of three neighborhoods that connect to it by trail or easement (Faculty, Laurel Lane, Foss Farm), and other residents who drive and park on Mill Pond Road and access it from the Milne Sanctuary or the pocket park.

The full report also asserts that following dam removal the river would still be suitable for kayaking and canoeing. This may be true during spring peak flow but seems highly unlikely in warm weather months given the low Jul-Sep water flow rates seen in the USGS discharge data and described by residents familiar with the river.

It may be the case that many residents outside of these neighborhoods are unaware of the full extent of the backwater, just as many residents are unaware of the full extent of Durham's trail system. If the Council ultimately supports dam stabilization I hope that the Parks and Recreation Committee can develop interpretive signage, access improvements and perhaps activities that help more residents enjoy this recreation area.

Thank you for considering these points and reading the VHB report critically. I don't question the validity of the data included in the report. The problem is with data excluded from the report which would provide important context that the Council should consider in decision-making. I've attached a list of questions for VHB to obtain those data that I hope the Town will include in the supplemental scope of work discussed at the March 1<sup>st</sup> Council meeting.

Sincerely,  
Scott Bogle, 4 Croghan Lane

Full URLs to datasets referenced above:

NHFG Multi-River Fish Counts: <https://www.wildlife.state.nh.us/marine/river-herring-shad.html>

USGS water flow data by river (mean of daily mean flows for each day of the year over full data record for each river):

Lamprey: [https://nwis.waterdata.usgs.gov/usa/nwis/dvstat/?site\\_no=01073500&por\\_01073500\\_63999=1266823,00060,63999](https://nwis.waterdata.usgs.gov/usa/nwis/dvstat/?site_no=01073500&por_01073500_63999=1266823,00060,63999)

Oyster: [https://nwis.waterdata.usgs.gov/usa/nwis/dvstat/?site\\_no=01073000&por\\_01073000\\_63971=1266780,00060,63971](https://nwis.waterdata.usgs.gov/usa/nwis/dvstat/?site_no=01073000&por_01073000_63971=1266780,00060,63971)

Coheco: [https://nwis.waterdata.usgs.gov/usa/nwis/dvstat/?site\\_no=01072800&por\\_01072800\\_63964=1266763,00060,63964](https://nwis.waterdata.usgs.gov/usa/nwis/dvstat/?site_no=01072800&por_01072800_63964=1266763,00060,63964)



## **Suggested Questions for VHB as part of Supplemental Work Scope**

The following questions are not addressed in the VHB feasibility study report and seem central to understanding the implications of dam removal in advance of a Town Council vote on dam removal vs. stabilization. I respectfully ask that the Council include these questions as part of the supplemental work scope presented to VHB.

### Four Areas with Key Unanswered Questions:

- 1) Water Quality Management Strategies Beside Dredging & Removal - If the town voted to rehabilitate the dam, what measures short of dredging, individually or in combination, could improve water quality in the impoundment? How much could water quality be improved and in which portions of the impoundment?

#### Specific Questions

- If the town council were to vote to stabilize the dam but not dredge, what would be the best combination of approaches available to improve water quality and slow the process of sedimentation? How much improvement could be achieved?
  - Please update the analysis of the list of In-Pond Management Strategies laid out in the [2014 Durham Pond Management Plan Appendix B](#), developed for VHB and the Town by DK Water Resources. That report did not find oxygen levels to be a problem, so dismissed several measures that may have greater applicability now that oxygen is a problem.
  - Report on the use of pond aeration systems and other in-pond management systems in Brewster MA and other analogous case study ponds with which VHB is familiar, and the applicability (or inapplicability) of pond management strategies used there to the Oyster River Impoundment.
  - On how many days and what days in each of the previous five years has UNH withdrawn water from the Oyster River Reservoir reducing flow over the upper dam? How do these dates compare to the periods of low oxygen in the pond identified in the UNH Water Analysis Systems Group (WASG) data?
  - What if any alternatives exist to summertime withdrawals by UNH from the Oyster River Reservoir? In sheer capacity terms it appears that the Spruce Hole well could replace draws from the Oyster River. What would this require in terms of negotiation between the Town and the University? (This is a question for the town and UNH not VHB)
  - How readily can upstream management efforts related to the MS4 permit have an effect on reducing future impairment to the pond and rest of the impoundment? How large an effect would these have?
- 2) Water Quality in the Upper Impoundment and Habitat Implications – The VHB report included sediment samples from 27 locations in and around the impoundment, while it included only two water sampling locations: one immediately behind the dam (downstream of College Brook) and one upstream of the impoundment near Oyster River Road. To what extent is water quality impaired in the Middle Impoundment (Milne Sanctuary to Hamel Brook) and Hamel Brook Reach sections of the impoundment in comparison to the pond immediately behind the dam?

### Specific Questions

- What are the concentrations of dissolved oxygen in the Middle Impoundment and lower and upper reaches of Hamel Brook to compare to those immediately behind the dam? How if at all do Hamel Brook and the Middle Impoundment differ from the core pond area in their ability to support a broad range of aquatic life? Does UNH WASG have measurements in these areas?
- 3) Realistic Anticipated Scale of Reestablished Anadromous Fish Runs – A significant reason given for removal of the dam is to restore runs of anadromous fish, particularly river herring, rainbow smelt and American eels. The VHB report cited the 1992 peak herring count, but what is a realistic estimate for the size of a sustainable restored herring run in the Oyster River? Other target species?

### Specific Questions

- The feasibility study identifies estimated average water depth and width in the Mill Pond, Middle Impoundment and Hamel Brook under median annual flow conditions following dam removal. Median annual figures do not identify seasonal highs and lows. What are the projected channel widths and depths for each of these three areas during low-flow months of July, August and September? What are projected depths and widths in these months when water withdrawals by UNH mean little to no water is released from the UNH/Oyster River Reservoir?
  - The report cites median annual river flow of 34 cubic feet/second for the Oyster River. The USGS gauge is above the UNH/Oyster River Reservoir dam. What is the flow rate in the River Mainstem channel during low-flow months of July, August and September? What is the flow rate in the Mainstem channel during periods where water withdrawals by UNH mean little or no water is released from the UNH/Oyster River Reservoir? What would be the flow rate of Hamel Brook during July, August and September?
  - The feasibility study projected that the water volume of the impoundment following dam removal will be reduced from 77 acre-feet to 10 acre-feet (a drop of 87%) under median annual flow conditions. What is the projected water volume of the former impoundment area following dam removal during low-flow months of July, August and September? What is the projected water volume of the former impoundment during periods when water withdrawals by UNH mean little to no water is released from the UNH/Oyster River Reservoir?
  - Given both median annual flow rates and anticipated lows for flow, channel depth and width identified above during summer months and water withdrawal periods, and with water volume of the impoundment reduced due to dam removal, please identify several other tidal rivers with approximately those conditions and their average herring runs over the past 10 years.
4. Better Understanding of Invasive Species Management Following Dam Removal

### Specific Questions

- What is the estimated five-year cost to manage spread of buckthorn and other invasive plant species on the approximately 14 acres of pond and brook bottom estimated to be exposed with water drawdown following dam removal?
- Will the Town commit to such a management effort to reduce the likely impact of invasive plant species spread following water drawdown on abutting conservation land and other property owners? (This is a question for the Town not VHB)