

TOWN OF YARMOUTH

200 Main Street
Yarmouth, Maine
04096

Phone: (207) 846-9036

Fax: (207)846-2403

Nathaniel J. Tupper
Town Manager

Email: ntupper@yarmouth.me.us

To: Yarmouth Town Council
Fr: Nathaniel Tupper, Town Manager
Re: Response to inquiry of the RRCT regarding dam responsibilities
Dt: February 5, 2016

Attached you will find correspondences from Alan Stearns on behalf of the Royal River Conservation Trust. The RRCT sets forth its concerns and interests, pledges its cooperation and assistance, and raises several issues related to the health of the river, municipal obligations, and asks that the Town state its position on any obligations it may have relative to fish passage and water quality. They are reasonable questions intended, I believe, to refocus our public attention on what we might, should, or must do to improve and protect that natural resource other than dam removal which is no longer an option being considered by the Town. It asks, in paraphrase, "If not dam removal, then what plans and steps will be taken to improve habitat conditions, fish passage, water quality, and meet legal or permit obligations?"

The purpose of this memorandum to you is triggered by those inquiries. At the end, I will need to know how much town resources (legal/technical, engineering, research, management) time and expense I should invest in engaging assistance to provide a full response, if any. I will offer herein my own understandings and operational assumptions and positions to you and RRCT as a starting place---but these understandings are "gleanings" rather than thoroughly and independently researched determinations. They reflect what I think, not what I know. The Town Council may wish to engage professional assistance to dig deeper and confirm or correct these understandings, but I cannot commission such work or public expense without a Town Council authorization and appropriation. I am aware that there are possibilities for private, non-profit or non-municipal funding assistance to investigate options (other than dam removal) that could improve habitat, water quality and fish passage, but I have not pursued any such sources absent some indication of Town Council support and encouragement for me to do so.

I will focus first on the question of any legal or permit responsibilities that the Town may have relative to the dams and to fish passage. (I will leave all matters of any ethical/moral, community leadership, or inherent environmental stewardship for you and the community to determine separately). My short answer is that the Town does not carry any legal or permit obligations relative to fish passage. The installation of the fish ladders at both Bridge St and Elm St dams was by and for the Maine Department of Marine Resources (circa 1974, I believe). The Town provided the State the legal (title) rights to install the fish ladders attached to the Town-owned dams. In building the ladders the State assumed the EXCLUSIVE right and obligation to maintain them. While I am certain that DMR would today permit and encourage the Town to assume maintenance duties and obligations and, in fact, the Town has historically performed some such tasks on a voluntary basis*, it is clear to me that the legal foundation of the fish passes did not include any municipal obligation relative to maintenance or repair.

*Most recently, the town crews removed, repaired and replaced the control gate at the top of the fish ladder on the westerly bank so that flows over/through the fish pass can be increased during the migratory season, and the water level behind the dam (and thus the hydraulic flow through the penstock) maximized when the fish ladder is not in use. Unfortunately, the design, location, and condition of the fish ladder itself does not permit or encourage fish passage even when the gate valve is properly operated.

In 1984 the Town Council entered into a "lease" agreement with the owner of the Sparhawk Mill which allowed for private investment in a hydroelectric generation facility in the mill, powered by water brought in by a penstock (large pipe) attached to the east end of the dam. The mill owner sought and received authority for the hydroelectric facility through an "Exempt Filing" by the Federal Energy Regulatory Commission (FERC). An Exempt status is very much akin to a "Permit By Rule" status under Maine DEP rule wherein a full formal permit process is not required (in this case because of the small size/capacity of the generating facility) but for which a permit is issued with both standard conditions and any special conditions imposed by the permit in response to other agency comments and concerns. In this instance, the US Fish and Wildlife Service recommended that the licensee (Sparhawk Mill) be required to maintain certain minimum flows over the dam and through the existing fish ladders in order to assure that there would be enough remaining natural flows to support habitat and fish migration. Those minimum flows were set at 50 cubic feet per second during most of the year (which is approximately the entire natural flow during August low-flow periods) and 70 cubic feet per second (CFS) during the spring and fall fish migration periods. There were other conditions relative to screens and gates to divert fish away from the hydroelectric system both at the

headworks (dam) and tailrace (outlet below the mill). Additionally, the US Fish and Wildlife Service and FERC provided for on-going jurisdiction and the right to modify or add to the terms and conditions depending on actual outcomes and fish passage impacts. I have no knowledge if USFWS and/or FERC ever reviewed or modified the terms of that permit or if they performed any post-construction studies of the actual impacts of the hydroelectric facility. I find no record in the town files to suggest that they have, but I have not inquired into or inspected FERC files on the matter. I find nothing in the lease, and nothing in the FERC Exemption filing to impose an obligation on the Town of Yarmouth relative to the fish passage or flow maintenance obligations, or any other obligations.

The 1984 Agreement with the Sparhawk Mill did cite the obligation of the hydro operator to maintain the minimum flow level, and on numerous occasions the Town has alerted the hydro operator where it was apparent that those flows were not being allowed. In all cases the operator responded (usually within 24-48 hours) by closing down the flow through the penstock and thereby increasing the natural flows. The Town does not have equipment or capacity to actually and accurately measure flow, so this has been an “eyeball” approach that seems to work reasonably well. The mill owner installed some automated flow management equipment (circa 2012) to optimize the hydroelectric production and allow desktop response when alerted that the natural flows appear inadequate. This has improved response times to low flow conditions, but has not prevented them from occurring. I don’t know the status, reliability or condition of that equipment today in the hands of a new owner (since July 2014).

In my report to the Town Council delivered in September, 2015 I noted that I anticipated at least two different groups had an interest in continuing discussions related to many of the issues other than dam removal that may impact fish migration concerns. First there was one or more group(s) focused specifically on the river habitat, water quality, and fish passage issue who I anticipated may continue to pursue that agenda without the Town as an active partner. That group included representatives of The Nature Conservancy working with others including, perhaps, RRCT, Maine Rivers, and various others. I note that does appear to be happening.

I also disclosed in the September 2015 report that that a private investor was hoping to engage the Town of Yarmouth and the owner of the Sparhawk Mill in a discussion of a new lease and renewed investments in hydroelectric generation from the dam. At that time I was not released to provide the name, but that has subsequently changed. Chris Swartley of Progression Energy continues to investigate that option and express an interest. The Town Council has been given a briefing on the circumstance of lease performance obligations with the current owner of the Sparhawk Mill, and I am engaged in work seeking to correct the

performance issues or terminate the lease. New investment in the hydroelectric facility need not exclude work and considerations to improve fish passage.

As a part of its general safety concerns, and in recognition of special risks and potential liabilities for personal injuries to members of the public who may climb on or over the dams, the Town does provide three areas of maintenance not imposed by any permit, law or regulation.

1. We perform periodic engineering inspections of the dams (about once every 3-5 years) to have an independent structural engineer observe the dam structural conditions and alert the town to any failures, movement, settlement, cracking or leaking that might be addressed to prevent or arrest further deterioration, movement, or risk of failure. These inspections are primarily visual and precautionary only. The Town funds these inspections from time to time from a capital reserve set up for that purpose and funded with an annual contribution of \$1000, and
2. We perform health and safety inspections in the same manner as for any town properties, wherein an effort is made to observe and correct conditions such as broken fences, trash or debris accumulation, missing signage, vandalism, or other such conditions that might be corrected to provide a more attractive, safe, and clean condition for the public. These inspections are a routine part of our landowner responsibilities in the same manner we inspect parks and playgrounds, picnic tables and shelters, parking and launch facilities and town buildings open to the public, and
3. When alerted to large trees or limbs that have moved downriver and become lodged on or near the dams, we have arranged for crews to cut up and/or remove them before they may be released downstream in a future high flow condition and potentially cause damage or interference with marine interests. We don't see this as an obligation, but an opportunity to be of assistance. As the work often requires crane work, it is expensive and is not undertaken on a regular basis but has been episodic only.

As a very cursory response to the point of inquiry dealing with water quality and upstream erosion, culvert size or failure and similar concerns, I will offer to follow up with a more detailed answer in the future as needed. I will offer in summary fashion only that the Town has enormous responsibilities and obligations in this area and has and continues to invest very heavily to meet its various obligations in this regard. As part of the urbanized area of Greater Portland (officially since the 2000 Census) the Town of Yarmouth has many obligations under the Clean Water Act to manage stormwater and urban run-off pollution issues to the waters of the State (including the Royal River). These federal requirements are collectively referred to as the MS4s (Municipal Separated Storm Sewer System) obligations and

are backed by 6 Strategic practices or Management Controls. I will refer you to the Town Engineer and the Town's annual report to the Maine DEP on our work in this area for more detailed understanding; but in summary form the MS4 obligations have us deal with:

1. Public Outreach and Education
2. Public Involvement and Participation
3. Illicit Discharge and Detection Elimination
4. Construction Site Run-Off Control
5. Post Construction Stormwater Management
6. Pollution Prevention/Good Housekeeping for Town Operations

Of course the Town also spends well over \$1MM/year for wastewater collection and treatment which is a program driven in large part by water quality and health concerns. The Town has an active Shellfish Conservation program with focus on identification and correction of pollution from septic systems and non-point pollution sources. Yarmouth has been an active player in land conservation and has expended large amounts of public funds to acquire, preserve and protect open spaces in the Royal River watershed; and we maintain active partnerships and collaborations with RRCT itself for the maintenance and stewardship of those lands. And, the Town has adopted various land use development standards that allow and encourage development designs that protect and preserve open spaces, including lands such as wetland areas, that filter, preserve and protect not only the on-site habitat areas, but also have a cumulative effect of helping with water quality, run-off management and connected habitat corridors. Yarmouth can and should be proud of the high value and concerted efforts and investments it makes to protect and improve the Royal River and other waters of the Town. No doubt, more can be done, including specific actions to improve fish migration past the two dams.

Most towns in the Royal River watershed are NOT in the federally designated "urban area" and therefore are not considered "MS4" towns subject to the same stormwater run-off management regulations. To the extent that Yarmouth can model, encourage and support our upstream neighbors to adopt and implement soil conservation measures and erosion control activities in developments, farming, gravel road maintenance, roadway culvert design and maintenance, and similar measures, we may be able to stem the flow of siltation that is suspended in the river and settles out in the harbor for later dredging. These are issues largely outside the control of the Town of Yarmouth, but we can be instrumental in nudging those who share access to the Royal River to work regionally on these issues with us.

I think the Town Council should welcome the inquiry and the implicit invitation to work in collaboration with RRCT and others to find ways to improve the health of the river, restore fish passage and general habitat conditions. These are the very

messages I heard the Town Council members articulate at the time when a decision was made to end Town consideration of dam removal: "Although not dam removal, we are open to exploring and pursuing other, less divisive, ways to improve the natural resource conditions." I would answer the immediate question posed in Alan Stearns' letter with "Although not compelled by law, permit or contract, what might we do together to make things better?"

To come full circle, if the Town Council wants more formal and expert research to confirm or correct my thinking set out above, I think a clear directive and appropriation of funds (or authorization to seek private funds) would be required. I am not making that as a request or recommendation, rather I am only pointing to the process I think would be necessary if the Council desires more research.

Sincerely,



Nathaniel J. Tupper
Yarmouth Town Manager

CC: Alan Stearns, RRCT

Nat Tupper

From: Alan Stearns <alan@rrct.org>
Sent: Monday, February 01, 2016 2:51 PM
To: Nat Tupper
Subject: Fish passage request for information: Bridge Street Dam

Nat Tupper
Town Manager
Town of Yarmouth

Dear Nat:

I write to follow up on yours and my recent very brief discussion.

The Board of Directors of the Royal River Conservation Trust (RRCT) remains firmly committed to the three goals expressed in our September correspondence (below) to the Yarmouth Town Council. With other individuals and organizations, we are scoping long-term approaches and coalitions to revitalize the ecology and health of the river. RRCT remains equally committed to the economic future of Yarmouth harbor and its businesses and jobs. Our commitment to good public process is emphatic, informing our pace and ecological expectations – we will be proactive seeking collaboration, teamwork, science, and mitigation of risk. We will soon reach out to marinas to share what we know, and what we'd like to know, and what we'd like to learn and decide together. RRCT plans to convene a "State of the River" panel at a forum this fall, to allow all voices from all perspectives to share recent professional analysis and observations.

We have made a mistake in recent years by narrowly examining harbor siltation in the context only of the dams. After recent storm events, we have noted upriver washouts and dramatic siltation due to poor road construction, undersized culverts, evolving hydrology, and other factors. RRCT and other folks at the table working on river restoration are today even more focused on technical assistance, financial support, and riparian protections in upstream municipalities. These mitigation efforts will directly benefit Yarmouth harbor and its economic interests.

Despite disappointing recent Council votes, we continue to focus our attention especially on the opportunities presented at the Bridge Street dam. Last week I forwarded to you 1985 FERC and 1984 USFWS documents relating to the terms and conditions of Sparhawk Mill's (Bridge Street dam's) hydropower operation. I write today to request the Town's assessment of the Town's obligations, practices, results, and plans, as owner of the Bridge Street Dam, to ensure that there is functional fish passage at this site. I also request the Town's assessment of the obligations and results of other interested parties and agencies (DMR, USFWS) with regard to fish passage at this site. I note that as of May 1985 there was a run of anadromous alewives. As an organization and as a community for the past decade we have all been consciously lax regarding attention to fish passage, because of active town-led discussions on Bridge Street dam removal. Recent Town Council actions make this lax approach increasingly of concern.

Noting either potential redevelopment or ongoing practices of hydropower generation at Bridge Street, the town's plans and obligations might be governed by FERC and other jurisdictions, but also should be guided by proactive policy decisions (above and beyond FERC) by the Town as dam owner at both Bridge Street and East Elm Street.

RRCT asks for the Town of Yarmouth's commitment to open and transparent discussions on fish passage goals and standards for both town-owned dams. Shielding fish passage discussions and documents under the umbrella of business negotiations would frustrate this goal.

Sincerely,

Alan Stearns



Alan Stearns, Executive Director
Royal River Conservation Trust
P.O. Box 90, 325 Main Street | Yarmouth, ME 04096
www.RRCT.org | Alan@RRCT.org | (207) 215-8315 (c); (207) 847-9399 (desk)

----- Forwarded message -----

From: **Alan Stearns** <alan@rrct.org>

Date: Thu, Sep 17, 2015 at 8:45 AM

Subject: A healthy and vibrant Royal River (Yarmouth Town Council)

To: jmacleod@yarmouth.me.us, akittredge@yarmouth.me.us, rbates@yarmouth.me.us,

TBickford_Hamrock@yarmouth.me.us, pthompson@yarmouth.me.us, rwaeldner@yarmouth.me.us, David

Craig <dcraig@yarmouth.me.us>

Cc: Nat Tupper <ntupper@yarmouth.me.us>

Dear Chairman Bates & Members of the Council:

For four years, the Royal River Conservation Trust has worked alongside the Town Council, town staff, and town-convened work groups exploring options to enhance the vibrancy and resiliency of the Royal River. Consistently we have recognized the role of Yarmouth's stretch of the Royal River contributing toward potentially enhanced fisheries and recreation in upstream towns, and toward the health of Casco Bay. Businesses thrive in Yarmouth harbor because boaters celebrate the health of Casco Bay. Residents and harvesters need not fear toxics, and rally for clean water in the bay. Consistently we have helped with collection and analysis of good information, and we have helped facilitate robust public conversations on options for the future of the Royal River.

Following recent Town Council workshops indicating a distinct shift in policy direction, the Board of Directors of the Royal River Conservation Trust had the opportunity earlier this week to discuss the issue at length. Unanimously, those present voted to retain a focus on three goals.

First, fish should be able to pass through Yarmouth. In all scenarios of dam maintenance, dam investment, or dam removal, the dam owner should guarantee improved and robust fish passage. We owe that to current and future generations of Maine people. We owe that to upriver towns, and to

Casco Bay. The dam owner has a role. An avoidance of action will not allow us to reach this goal. We offer our continued collaboration.

Second, we should have good information on toxics. Unknown scenarios and fears – noting seemingly low-risk findings to date -- can routinely be addressed by more sampling and good information. Downstream neighbors, riverfront investors, and residents and harvesters along the river will benefit from best-possible information. We offer our continued collaboration.

Third, we all benefit from public education and public discussion, and open and transparent decision-making. We have consistently maintained that the quality of the decision-making process is as important as the decision itself, since we collectively gain nothing in the long run by divisive decisions. Moving forward over many years, we plan to continue to engage the public in the many decisions we all face regarding the future health and vitality of the Royal River, inviting informed voices as we seek best-possible information, new synergies, and strongest-possible communities. We offer our continued collaboration.

Thank you for your hard work. Please accept my apologies that I will be unable to join you this evening.

Sincerely,

Alan Steams



Alan Steams, Executive Director
Royal River Conservation Trust
P.O. Box 90, 325 Main Street | Yarmouth, ME 04096
www.RRCT.org | Alan@RRCT.org | (207) 215-8315 (c); (207) 847-9399 (desk)