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## Mostly Praise, Some Criticism Of River Restoration Project

By BRITTANY FELDOTT Feb 16, 2017

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## **BRITTANY FELDOTT/ENTERPRISE**

Brian Handy of Cataumet, owner of Handy Cranberry Trust, criticizes the Coonamessett River restoration project during a commission meeting on Wednesday night.

A series of presentations on the Coonamessett River restoration project on Wednesday night, February 15, opened up old wounds, as a couple of proponents of cranberry farming in the crowd accused the Falmouth Conservation Commission of bypassing town directives in pursuit of river restoration.

The meeting drew nearly 50 community members, a majority of whom voiced mild-

http://www.capenews.net/falmouth/news/mostly-praise-some-criticism-of-river-restoration-project/art... mannered questions and praise for the \$3.5 million project.

As project engineer Nicholas Nelson presented plans for the river restoration, members of the crowd craned their necks to get a better look at the future landscape of the Coonamessett River.

The project is meant to provide a more habitable environment for native fish species, such as herring, that swim upstream to spawn. Due to years of cranberry farming along the river, the waterway has widened, straightened and slowed, but project engineers plan to force the river into a more sinuous shape by using large logs and tree roots as bank barriers.

The project also requires eliminating barriers to fish passage and the river flow. Phase 1 of the project, which will begin this summer, will remove the lower dam and restore lower bog to river habitat. Phase 2, which is still in the early design stages, will remove middle berm and replace the culvert beneath John Parker Road to restore upper and middle bogs.

Henry J. B. Dick, a senior scientist in geology and geophysics at Woods Hole Oceanographic Institute, spoke against the project, arguing that it had been expanded beyond what Town Meeting and selectmen had originally authorized.

He said Town Meeting previously voted to keep upper and middle bogs in cranberry production. When selectmen gave the conservation commission a grant for the restoration project, he said, they were assured that middle berm would not be removed.

Commissioner Elizabeth H. Gladfelter, project leader, replied that selectmen had asked the conservation commission to look into the Town Meeting votes in 2003 and 2004 regarding the bogs with town counsel Frank K. Duffy Jr.

Upon review, they determined that "the only aspect of those was that there had to be, at some point, a ten-year lease," she said.

In 2008, the town entered into a 10-year lease with Fred C. Bottomley of North Attleboro.

However, in 2013, Mr. Bottomley filed a termination request with the town to end the lease. At the time, he maintained that it was not economically feasible to grow organic cranberries in Falmouth, reporting that the per barrel price for cranberries dropped from \$150 in 2008 to \$35 in 2013. http://www.capenews.net/falmouth/news/mostly-praise-some-criticism-of-river-restoration-project/art...

"He actually did not farm the last two years of his lease, and by the time the selectmen came back to us, the bogs could not go out for farming again," Ms. Gladfelter said on Wednesday.

"All statements are untrue! Every bit of this. Every one of those statements is incorrect," Mr. Dick said in a raised voice. He said that the town had voted to continue cranberry growing, which had nothing to do with a 10-year lease.

Ms. Gladfelter repeated that she had reviewed the votes with Mr. Duffy.

"There have been two stories about what went on with Mr. Duffy. I hope you're accurate, because we are going to file a claim of malfeasance against you to get you removed from the ConCom," Mr. Dick said.

Later during the meeting, Brian S. Handy of Cataumet, owner of Handy Cranberry Trust, lamented that the restoration project did not include any plans for continuing cranberry farming.

He noted that he and other individuals in town had worked with the original Coonamessett River working group to come up with alternative plans that would both promote cranberry farming and restore the river.

"You've thrown away a lot of work by a lot of people," he said, and he criticized the conservation commission for not compromising on land use. "That's disturbing to me, that it seems like we've taken an, I'd say, arrogant attitude that the only good bog is a destroyed one."

Ms. Gladfelter said that while she could appreciate Mr. Handy's history with the project, she stood by the restoration project. She noted that there are still cranberry bogs in the Coonamessett valley, not directly connected to the river.

She added that to have the cranberry bogs directly on the river is "not optimal for either the fishes or the cranberry farming."

"No, I disagree totally," Mr. Handy said, noting that other places had successfully combined cranberry farming and river restoration.

He also accused the commission of ignoring a directive by selectmen in 2014, which he

http://www.capenews.net/falmouth/news/mostly-praise-some-criticism-of-river-restoration-project/art... said required the conservation commission to lease the property.

"That was not the directive; that was not in the letter that came to the conservation commission," Ms. Gladfelter said.

Mr. Handy countered that he had seen it in meeting minutes.

Other community members asked questions about plans for parking on the property, the content of the informational kiosks along the trail, herring migration routes into Flax Creek, how native species would be maintained and the hiking trails along the corridor.

In order to better service a proposed 3.5-mile Coonamessett Greenway Heritage Trail with informational kiosks along the river, Ms. Gladfelter said she has been in discussion with the Department of Public Works and town engineer about the possibility of additional parking in the area.

Parking plans will be included in conceptual design plans for Phase 2 of the project, which are expected to be finished by next spring.

Later in the meeting, Mr. Dick spoke up again, this time taking issue with the engineering of the project and suggested that the restoration team leave the current pattern and gradient of the river, and not remove the lower dam.

"The stream is flowing naturally now, contrary to what everybody's heard in the papers," he said, arguing that it currently flows in a sinuous pattern appropriate for its current velocity.

He said that lower dam currently sits between 15 and 20 feet high, and he worried that deconstructing the dam would greatly increase the stream gradient and increase the speed of the outflowing water.

He said the resulting flow would flush huge amounts of sand out of the riverway into the estuary, which in turn would lead to the collapse of the newly constructed river banks.

Mr. Nelson, a fluvial geomorphologist with Inter-Fluve Incorporated, acknowledged that river restoration projects always lead to changes in the surrounding landscape, and the stream will have more energy than before.

http://www.capenews.net/falmouth/news/mostly-praise-some-criticism-of-river-restoration-project/art... However, he said the lower dam is actually six feet tall and the water only drops a few feet. The engineers also plan to maintain the same elevation by building a riffle, a bed of gravel, where the current dam is.

As they build the channel upstream, he said, they would gradually increase the gradient.

As for the river banks, he said the sediment would naturally move over time, but they didn't expect major shifting because the banks will be built in a stable condition using biodegradable fabric sown with native plant seed.

"It is a careful balance. And I appreciate your background," Mr. Nelson said, but, he added, his company and team of engineers have "been working on river restoration projects specifically for decades" across the country.

This winter, the project team will finalize its permits and prepare bid documents for the construction work, which will be advertised in the spring. Work on the river will start this summer and into the fall.

Also during the meeting, Christopher Neill of the Coonamessett River Trust presented on the "citizen science" that Falmouth volunteers have conducted at the Coonamessett River over the past 11 years.

After years of making observations, Mr. Neill said the trust is in an "excellent position to document changes with the restoration."

The trust, established in 2006, includes over 200 volunteers and 15 organizations.

Since 2007, the trust has taken more than 91,000 hourly measurements of the river flow and has found that it has not been significantly altered by the cessation of cranberry farming. That, however, is expected to change with the restoration project.

Volunteers have also taken water temperatures throughout the year to determine whether the river serves as a viable habitat for cold water fisheries, particularly brook trout. Mr. Neill reported that temperatures range from about 35 to 75 degrees Fahrenheit throughout the year, with the highest temperatures just outside the hospitable range for cold water fisheries. http://www.capenews.net/falmouth/news/mostly-praise-some-criticism-of-river-restoration-project/art... However, volunteers have also identified spots along the river where cooler underground springs seep into the water body, and Mr. Neill said those places may be captured when the river is rerouted. In addition, he noted that when the Quashnet River was restored, its temperatures dropped. Trust members are hopeful of a similar change in the Coonamessett after its restoration.

Trust members also hope the water quality in Coonamessett Pond will improve. Based on the species of insects identified in the area, Mr. Neil said the Environmental Protection Agency water quality rating for the Coonamessett is "poor," compared to the Quashnet and Mashpee rivers which have "excellent" water quality.

In addition to improving water quality, Mr. Neill said the restricting of the river would increase its potential for absorbing nitrogen and other nutrients.

Creating a more sinuous waterway and adding wooded banks and deeper pools, he said, increases "transient storage," areas where water moves more slowly. This allows nitrogen to react biologically with the surrounding debris and be absorbed.

Currently, the Coonamessett River has lower nutrient attenuation rates than the Mashpee and Quashnet rivers, Mr. Neill reported.

"The good news is, if you increase this by a modest amount, you probably gain a lot of nutrient removal," he said.

Volunteers with the trust have also been tracking the herring population in the river and assessing biodiversity in the area by recording existing plant and insect species.

"We're really looking forward to this 'after,' now that we've put in all the effort into the 'before,'" Mr. Neill said.