



Town of Carlisle

MASSACHUSETTS 01741

COMMUNITY PRESERVATION COMMITTEE

Minutes

Zoom Meeting

Thursday, January 19, 2023 6:00 p.m.

Members Present

Barney Arnold, *Chair, Select Board*, Drew McMorrow, *Recreation Commission member*, Krissy O'Shea, *Historical Commission member*, Sam Rottenberg, *Citizen-at-large*, Christine Johnson-Battista, *Affordable Housing Trust member*, Addie Grady, *Planning Board member*

Member Absent

Helen Young, *Conservation Commission member*

Staff Present

Jennine Blum, *Administrative Assistant*

Others Present

Sylvia Willard, *Conservation Administrator*, Ravi Pathak, *Reporter, Carlisle Mosquito*

6:05 p.m. Drew McMorrow called the meeting to order.

Minutes Approval

Barney Arnold made a motion to approve the December 15, 2022 meeting minutes.

Christine Johnson-Battista seconded the motion.

Roll call vote. Christine Johnson-Battista: Aye, Krissy O'Shea: Aye, Barney Arnold: Aye, Drew McMorrow: Aye. All in favor (4 to 0).

Public Correspondence and Comments

Steve Tobin wrote on behalf of the Carlisle Trails Committee stating their enthusiastic support for the cranberry bog dam project.

Jennine Blum mentioned that the MFC recently received a bid of \$68,000 to fully restore the library wood windows and wondered whether CPA funds might pay for this work. CPC members decided that it was too late for an application, but perhaps if it qualifies for CPA funds, the work could be rolled into the Gleason Library interior renovation project application. This will be discussed at the January 23rd hearing for the library project.

Cranberry Bog Dam #1 Repair Project (presented by Sylvia Willard)

Background. Carlisle no longer has a commercial operation at the cranberry bog as it's no longer feasible financially. While the cranberry bog was designated as commercial agriculture, dam repairs were done as part of Agricultural Exemptions under the Wetland Protections Act. Dam #1 is now under the jurisdiction of the Office of Dam Safety (ODS) and is subject to dam safety rules and regulations including wetlands regulations. Dam #1 is categorized as a low hazard dam and must be inspected every 10 years.

The dam was inspected for the first time in 2015 and was said to be in poor condition. It will be reinspected in 2025. The goal for the Conservation Commission and Cranberry Bog Working Group is to address some of the issues that were raised in the inspection report by Weston and Sampson that was submitted to the ODS.

Description. *(Excerpt from CPA application project summary)* The dam, part of the former cranberry operation, is over 100 years old. It confines a pond extending well into Chelmsford's Cranberry Reservation Conservation Land and is hydrologically connected to the Fiske Street Pond on the western side of the Cranberry Bog, to Heart Pond upstream to the north in Chelmsford beyond Rt. 27 and to ponds downstream in Great Brook Farm State Park.

Project Purpose. Stabilization of the dam to protect the pond, existing wildlife, and access to the extensive public network of trails.

Required work. The work needed to address some of the reported issues include:

- leveling the crest of the dam to no higher than the current highest elevation
- fill holes created by animals such as beaver, muskrat and dogs
- removal of woody vegetation, trees and stumps
- repair undercutting erosion caused by wave action
- install emergency overflow weir
- install boardwalk over the weir for walkers and horseback riders

Filing process and current status. Without the agricultural exemptions, a Wetlands Protection Act filing must be done for any alteration to wetlands or buffer zones. The filing for Dam #1 was funded through CPA at the last town meeting and submitted. This filing was delivered to the Conservation Commission at the end of November 2022. The filing was then submitted to the ODS with an outline of plans to repair the dam.

The ODS didn't accept the plans and requested a more detailed plan that required significant engineering. A new plan was developed by Stamski and McNary and was submitted to the ODS last Friday. A response (approval or additional requests) from the ODS is expected in three to four weeks. The Commission is working on a strict timeline because they would like some of the repairs done before the next inspection in 2025.

Other related filings. Sylvia is in the process of putting together a Notice of Intent for the maintenance plan that's needed for the dam. Last year Sylvia put together a Notice of Intent for controlling phragmites, an invasive plant.

Estimated costs. Prior to receiving the new plans from Stamski and McNary, Sylvia worked with Bill Risso, who previously had been very helpful with the Greenough Dam project, to estimate the

cost of repairing Dam #1. The figure they arrived at in January 2022 was \$300,000. They decided to use this figure as a placeholder in the CPC application, anticipating that the actual cost would be less. The estimated cost from Stamski and McNary is also \$300,000.

The CPC members have asked for specific breakdown of the estimated costs for the next meeting.

Questions asked by CPC members. Responses from Sylvia Willard.

Who repaired the dam when it broke in 2011? How was it paid for?

When the dam broke in 2011, the property was still designated as commercial agriculture. Mark Duffy, the cranberry bog farmer, repaired the dam himself (and paid the costs) as part of the Agricultural Exemptions under the Wetland Protections Act. Those exemptions are now gone.

If the dam fails or the repairs aren't funded, and it's left to further deteriorate, what are the repercussions?

Since it's a significant hazard dam, the ODS would be alarmed. If the desire is to discontinue the dam, you just can't let it go. There's a lot of engineering and permitting that needs to be done because of the upstream and downstream alterations that occur as a result of doing that. A number of residents would be unhappy about the inaccessibility of trails and changes to the pond.

Another unfortunate thing that would happen is that an enormous area of phragmites just upstream in a neighboring town will migrate toward the pond. Another of the three large phragmites populations is on the side of the dam which was the focus of the Notice of Intent filed last year.

If the dam were to break, water would be free flowing and very likely provide less water to a pond in the area.

It sounds like the scale of the repairs aren't to restore it to its prior state so we should expect some degradation over time. This isn't a permanent solution. How many years will this repair last? With more and more significant rain events in the future, to what degree is the work at risk of being washed away?

Dams require a maintenance plan, and one has been submitted in the Chap 253 application. The maintenance plan requires regular mowing along the sides so woody vegetation doesn't get established there.

This project will armor the north side of the dam. There will be a fabric and stone riprap along the side. A stone weir is proposed to accept an overflow should the two cranberry flumes not be able to handle the flood that comes through. It was designed for the 100-year storm. The dam has been in place for 100 years at least and is now being provided a little more area to handle more water.

What about the effects of climate change?

The new plans are designed for 100-year flood elevations. At this point there aren't new standards and guidelines. It hasn't been designed for 100-year flood since it was put in place.

What about bigger floods? How would the design and engineering change if it needed to be double the 100-year event?

This might be addressed by the OSD. They might suggest making the basin bigger. I'll look into this question.

If our committee didn't fund this, what other groups would be pursued for funding?

I have experience with applying for a state grant for the Greenough Dam but it didn't qualify. The state's grant money for dams is intended for those that are infrastructure, coastal or water supply projects – important infrastructure. At this point, I'm not aware of other sources.

Does anybody oppose the project?

No one has verbalized that. Have only heard from people who do support it.

Have there been any informational sessions or public hearings on this project?

Only at the ConsCom public hearings. It has also been mentioned at a Trail Committee meeting.

What if any other sites at the cranberry bog are at risk of failure or potential failure in coming years?

There is a dike that we're watching that is not under ODS jurisdictions. There is a low point that might need some fill at the top. If you walk along crest of the dike, there's a low point referred to informally as the beach area. People over the years have wandered off to go ice skating, fishing, and swimming. I don't think the others have an issue except Curve Street, which itself is considered a dam.

There is a dual cranberry flume right at the culvert under Curve Street and it's considered a significant hazard dam and it gets inspected every 5 years. That is something to watch. If this became a problem situation, it would be funded by the town or Chapter 90. I don't anticipate a problem.

At this point Cranberry Bog Working Group isn't ready to say they don't want the cranberry flumes there anymore. It could happen at some point. The only time the boards were ever put in was to raise the water level temporarily for the cranberry bog harvest – it was temporary. You can't just leave them. It's tricky.

The bog is connected to other towns (Chelmsford and possibly one other town), can something happen upstream that can affect the integrity of the dam?

Yes, possibly. We're in good contact with Chelmsford. Heart Pond, a 90-acre deep pond in Chelmsford, also has a spillway structure in place to raise the level of the pond for the cottages. In the fall they release water to control invasive plants, so they die off in the winter, and to create storage for spring snow run off. In spring they contact Mark Duffy and me in advance so we can monitor the water level and take a board out where needed. There will always need to be someone to do oversight there. Right now, it's Mark. There's a proposal for a Friends of the Bog group of volunteers to help with oversight. It's been approved by the Commission but isn't active yet.

Presuming the ODS approves the plan presented to them and the CPC funded this project, when would work start?

Once we hear from the ODS and they are satisfied with the plan and approved it, the project would be put out to bid. The best time to do this work is midsummer to early fall when the pond upstream is naturally at its lowest. Boards can also be taken out to let some water out at another time of year.

Who is applicant and who will make the presentation?

Conservation commission is the applicant. Drew mentioned that typically the grants agreements spell out what the applicant is responsible for and what the applicant is responsible for if the

applicant defaults, etc. Alex Parra, Conservation Commission Chair, will likely make the presentation.

Eligibility. CPC will need to check with Town Counsel to be clear on whether CPA money can be used for dam repair.

Costs. There were questions about what specifically is included in the \$300,000. The CPC requested to see a clear breakdown of the total estimated cost and what would be paid for by CPA funds and other sources at the next meeting on February 27th.

Warrant deadline. The warrant officially closes on February 28. Placeholders for each project can be requested even if we haven't decided as a committee which projects to recommend for funding. A brief description of each project should be provided, and the articles can be finalized in March.

Presentation preparation. The CPC encouraged the ConsCom to prepare the presentation far enough in advance so there is an opportunity for multiple revisions well before Town meeting. It is also recommended that the CPC have all presentation materials and grant agreements prepared for distribution at Town Meeting for residents to pick up on their way in.

Bids. There was some discussion about the process and requirements that needed to be satisfied to put a project out for bid. The CPC recommended that Sylvia speak with Ryan McLane, Town Administrator, about the process.

CPA categories. Sylvia called attention to the fact that she had checked the open space and historic categories on the application. She wanted to be clear that she was not suggesting that historic funds be used, but wanted to point out that the dam is a historic site. She stated that the Historical Commission has its own projects, and she doesn't want to usurp any of their funds. Drew stated that she was not wrong to check it off because he felt it is unclear whether it would be allowable under open space but might be allowable under the historic category.

Additional next steps.

- Sylvia will provide a brief update at the February 27th meeting.
- Afterwards the CPC members will informally discuss whether it supports the project or whether it supports it with conditions. The conditions should be specified along with any other requests for the applicant.
- In March, a formal vote will be taken on whether or not to recommend the project for CPA funding.
- It was suggested that Alex Parra, Conservation Commission Chair, attend the February meeting if he is planning on making the presentation at Town Meeting.

Application form feedback. Sylvia suggested that the CPA application on the website be made available as a Word document for convenience rather than as a PDF.

Discussion on Master Plan and Community Preservation Plans

Discussion postponed till next meeting.

Update on CPA Fund Balances

Additional funds from the state budget surplus were put in the CPA Trust fund and were allocated at the beginning of the new year. Carlisle received an additional \$41,176. Fund balances will be forward to the members.

Other Business

The question was asked if there had been any other inquiries or if anyone had heard of any possible late applications.

Drew stated that he has been working on the dog park project. The group working on this project has been concerned about costs going up a bit and they might want to come back for more money but haven't decided to do that yet. Aware that the deadline for applications has passed, if an appeal is made, Drew said he would recuse himself.

Next Meeting

Thursday, February 27, 2023, 6:00 p.m.

Adjournment at 7:20 p.m.

A Motion was made to adjourn the meeting by Addie Grady. Barney Arnold seconded.

Roll call vote. Addie Grady: Aye, Johnson-Battista: Aye, Krissy O'Shea: Aye, Sam Rottenberg: Aye, Barney Arnold: Aye, Drew McMorrow: Aye. All in favor (6 to 0).

Documents Submitted

- January 19, 2022 Meeting Agenda
- December 15, 2022 Meeting Minutes
- Carlisle Assessor's 2020 Map 30
- Cranberry Bog Watershed Map
- Weston & Sampson 2015 Report: Assessments & Recommendations
- DRAFT.Plan 5967 WPP2_FF
- Cranberry Bog Dam #1 Chapter 253 Part A Application
- Chapter 253 Part A Determination
- Cranberry Bog Historic Designation
- Trails 2022-02-15 Memo to ConsCom
- Order of Taking Deed
- DRAFT Bog Dam #1 Maintenance Plan
- Costs Know and Unknown and Procedures
- Signed CPC 2023-2024 Cranberry Bog Dam Application