

**River Advisory Committee
April 19, 2018**

1. Convene the Meeting:

Chairman Richard Huber convened the meeting at 3:00 pm in the Nowak Room of the Exeter Town office building. Other members present were: Rod Bourdon, Jill Robinson, Lionel Ingram, Terrie Harman, Virginia Raub, Selectboard representative Don Clement and Town Engineer Paul Vlasich.

2. Approval of March 15, 2018 minutes.

The Chair had several grammatical corrections and passed them on to the recording secretary. With no other changes, Mr. Clement moved to approve minutes as amended; seconded by Mr. Bourdon. Motion passed unanimously.

3. Update on Various River Issues

Mr. Vlasich reported the required Section 106 projects are nearing completion. Department of Public Works (DPW) will be working in the library hanging the photo posters and the etched glass viewing panel. The outdoor sign for Founder's Park is on order but has not arrived for installation.

Concluding his report on river issues, he noted he does have a semi-annual report on the \$10,000 NOAA grant that is due by the end of April.

Mr. Ingram asked if we were okay with the fish flow process; the facility of the fish migrating upstream. Mr. Vlasich felt we were as there are a number of years that the river bed needs to be monitored for stability to facilitate the passage. As for actual fish count, NH Fish and Game will be collecting that data.

4. Presentation of the Pickpocket Dam Breach analysis

Mr. Vlasich recounted the NH Dam Bureau asked the Town to prepare a breach analysis for the Pickpocket Dam. With the work complete and submitted to NH Dam Bureau he asked two of the VHB consultants that worked on the report to come to this meeting and discuss the analysis and the Bureau's response.

Mr. Jake San Antonio and Mr. Dave Cloutier distributed a printed hand out to accompany their prepared PowerPoint presentation.

Mr. San Antonio began noting the locale of the Pickpocket Dam is upstream of the former Great Dam on the Exeter River. Proceeding to provide project background, he stated that following a planned inspection of the Pickpocket Dam in March of 2011, the Town received a Letter of Deficiency from NHDES with the requirement to prepare and submit a breach analysis. VHB initially completed the analysis in December 2016 but felt the need to verify elevations of several structures downstream. Following the verifications they submitted their report to the Town in December 2017. NHDES Dam Bureau received the report in January 2018 and responded in March 2018 with a determination letter reclassifying the Dam from a Low Hazard dam to a High Hazard dam.

Mr. Cloutier continued noting Exeter already had a high class river analysis model developed for the Great Dam removal project. VHB extended that model upstream to include the Pickpocket Dam and its impoundment area. Also used in their study were high resolution topographic images and they supplemented the images with the FEMA effective Flood Insurance study model.

Continuing, he outlined other models used in the analysis incorporating current rainfall data into the models. Conferring with NHDES helped determine the parameters of what needed to be included in the study. Rain models for variable weather conditions were developed i.e. 100 year storms with different weather conditions. Even with the use of high resolution data, the actual building elevations could not be determined. When structures were suspected of possibly flooding at the first floor level VHB did a field survey to verify the elevations. There were two structures on Kingston Road where the Exeter River comes across the road that were identified. Also off of Linden St. four structures were identified on Camelot Drive and Sir Lancelot Drive. These are manufactured homes and not affixed to foundations but flood flows would most likely impact the bases of the structures. Based on the survey and DES standards that state if there is a dam breach and there is a threat to people or property, it requires that the classification be increased.

Speaking on the slide outlining the changes associated in High-vs- Low Classification Mr. Cloutier noted there is an increase in the annual dam registration fee and the safety inspection schedule goes from every 6 years to every 2 years. There are also requirements of having the dam fulfill 50-year flood experiences to 250% of 100-yr flood or In Flow Design Flood (IDF) standards and the preparation of an Emergency Action Plan (EAP). These are major issues for the Town to address.

What is of concern is the earthen embankments on either side of river/dam that are not protected and with a large amount of water going over the spillway the embankments will scour and begin washing away creating the potential for a breach.

In any event, the Dam must be improved, replaced, or removed to meet the new requirements.

He also outlined the components of an EAP using data already developed, developing a list of EAP holders, contact info, roles and responsibilities of Town and State personnel. There will be the need to develop preventive actions and local evacuations procedures. And lastly, there would be a final distribution and public notice to residents.

He did list possible options for reducing the risk of a breach and its impacts. Because there are not a large number of homes downstream and upstream that would be impacted, there is the possibility of working with EPA on a remedy/approval. All this will take time and presently DES has not set a schedule for implementation but cautioned the ruling can't be ignored.

Next step should be a feasibility study, similar to what was done for the Great Dam project, to go into detail what is needed to meet the discharge requirements. Again, varying options will be evaluated; looking at the impact to residences up and downstream, on recreation, wildlife and water supply. Also a search for funding from the different federal and State agencies should be scoped out.

Mr. Clement asked if there was a definition of dam breach. Mr. Cloutier replied there was and it varies on type of dam, but if any portion of the dam fails and releases the impounded water that is considered a dam breach. Pursuing, Mr. Clement asked if it meant structural failure. He was told "yes" and different dam components are termed "structural" i.e. the earthen sides getting washed out is also considered a dam breach.

Mr. Clement, with Town funding in mind, asked what the next step is; a feasibility study? Any dollar amounts projected? He sees the need for some figures for budgeting.

Mr. Vlasich answered there are different scenarios and the next step will ultimately depend on what the Dam Bureau wants. With the Great Dam Removal feasibility study it was about \$230,000 and probably, in his estimation, would not be much less taking in account all the different scenarios.

Mr. Huber noted that with the Great Dam removal project, this committee (then the River Study Committee) played a role as a working group in reviewing the feasibility study and also informing the public on the findings and holding public informational meetings to gain input and dispense current findings. He would anticipate doing so with this project. Was that a correct assumption? Mr. Vlasich agreed.

Mr. Clement said the Board just heard about this finding in the past weeks and there has been no discussion among the members on how they wished to proceed. Again, it would be a capital project and that requires monies.

Mr. Ingram spoke of concerns and issues when dealing with the Great Dam and working with DES to come to a mutually agreed solution. But knowing that we have to do something about this, we start the process. He feels we have a good relationship with DES and that will be of benefit as the project moves forward.

5. Presentation of the FEMA Letter of Map Revision (LOMR) status

Mr. Vlasich re-introduced Mr. San Antonio and Mr. Cloutier of VHB who prepared the revised mapping for the Federal Emergency Management Agency (FEMA) and the National Flood Insurance Program (NFIP).

A prepared handout was given to the members to accompany their presentation. Mr. San Antonio reviewed the project background stating the NFIP requires documenting the change in floodplain elevations/extents within 6 months following dam removal. The flood map update process is termed Letter of Map Revision (LOMR). LOMR amends the official effective NFIP flood maps that delineate flood zones. And these flood zones determine who is required to purchase flood insurance.

Mr. Cloutier proceeded to provide more details on the study and the ensuing results. He noted the current FEMA maps were almost 40 years old and FEMA was also in the process of revising the data county-wide to include both the Exeter and Little River. VHB task was to try to tie in their work with FEMA's workings. It was necessary to develop new hydrological models using updated flood flows. What was a 100 year storm some 40 years ago has changed based on acquired data and now must incorporate the new rainfall data. He verified it was a complex process and FEMA is very specific in their requirements when making updates. Noted changes need stamps and any physical changes i.e. new bridges require certification. As a tributary, the Little River is influenced by the Exeter River and thus both rivers needed to be included in the updated model.

After preparing the models and maps, a submission packet following FEMA's requirements was prepared by VHB. After receiving the packet, FEMA conducted a technical review of the application and additional information was then asked of the applicant. In February 2018 the review was complete and then followed a 90-day deadline for public notification. That deadline is projected out to be May 9, 2018. If deadlines are not met, the application becomes null and void and must start over if they wish to continue. The timeline suggests FEMA will issue LOMR by summer of 2018 and by fall of 2018 LOMR will become effective after a 90-day appeal period. When the countywide Preliminary Flood Insurance Study (FIS) map revision is complete it will incorporate the revised mapping from the LOMR.

Although not required by FEMA, there will be a public informational meeting for those property owners receiving notification letters to help them understand what the changes mean and how they apply to their properties. VHB is presently working with the Town on such a presentation. The meeting will include clarification of language contained in those letters, explanation of flood risk assessments, full sized maps locating properties within the flood plain and more on the flood insurance policies.

Slides displayed showed flood elevation changes, areas taken out of the flood plain as well as some structures that will now be included as a result of better topographic data.

The final slide was an example of the enlarged maps to be shown at the public meeting allowing for identification of roadways, structures and final delineation of flood plain based on the revised definition of a 100 year storm.

Mr. Vlasich stated the public information meeting is set for Thursday, May 10 at 7:00pm in the auditorium of the Exeter High School. A presentation similar to what was shown at this meeting will be presented followed by stations with maps allowing individuals to zoom in on specific area/properties. He noted approximately two hundred fifty two (252) parcels are affected; forty (40) lots have been removed from the flood plain while seventeen (17) have been added.

6. Planning for the May 26th event related to the Exeter Dam Removal Documentary

Mr. Bob Glowacky, Executive Producer for Exeter TV, returned to this group for an update on the upcoming Alewife Film Festival set for Saturday, May 26th at the Forum inside the Phelps Academy Center on Tan Lane. He is planning a variety of environmental and conservation themed films of varying length and subject matter for viewing. The last film shown that evening will be the documentary he is producing on the Great Dam removal process. Following that film will be a panel discussion with representatives of agencies, committees and departments that worked on the process over the years. Although not all extended an invitation have confirmed there will be representatives from NOAA, Exeter Historical Society, Exeter departments and NHDES.

Discussion ensued if the event should be free and open to the public, admission charged or have a voluntary suggested donation perhaps designated for a specific event or project. Although no definitive decision was made the general consensus was to not charge admission. When the flyers and links are finalized Mr. Glowacky will forward to the Chair to be shared.

7. Report on the meeting held by NHDES in Concord on 3/29/18 regarding the HYSR Company's QPPQ Transform Method to be applied to modeling stream flow

Mr. Huber reported he was able to attend this meeting in Concord as announced at the March meeting. He offered a synopsis of the presentation by noting there is a transform method known as QPPQ that provides a method of generating a quantity of time series of stream flows at ungauged (river/stream) sites. The lecturer developed this model in 1994 and NHDES is presently in contract with his company to use the model to estimate daily streamflow time series at ungauged sites.

His presentation and a more detailed explanation may be viewed at <https://www4.des.state.nh.us/blogs/https://www4.des.state.nh.us/blogs/rmac/wp-content/uploads/HYSR-QPPQ-Presentation-3-29-2018.pdf/wp-content/uploads/HYSR-QPPQ-Presentation-3-29-2018.pdf>.

Mr. Huber found the presentation complex but interesting. The VHB consultants in the audience felt he did pretty well grasping the basics of the model.

The Exeter River has two gauges; one being the Haigh Road gauge near Brentwood and a more recently installed gauge in Sandown. There has been no date set for Exeter to receive their instream model.

8. Notice of vacancies in the membership of the River Advisory Committee

Mr. Huber noted there are at present two seats to be filled on this committee. He urged any resident in the viewing audience with any interest in being a part of the group to contact the Town Office or download the Volunteer application from Town website.

9. Other business

The upcoming Fish Migration Day programs at Founders Park and Pickpocket Dam on Saturday April 28 were announced.

Next meeting is May 17, 2018 at 3 pm

With no further business, Mr. Ingram motioned to adjourn; seconded by Mr. Clement.
Meeting adjourned at 4:36 pm.

Respectfully submitted,

Virginia Raub