Excerpts from Approved Minutes of the KKW Board of Trustees:

November 30, 2016

Other Business -- Stone Ridge Farm, Kennebunk - The Superintendent explained that the District has a conservation easement over this property that is across the River from the Kennebunk River Well. Recently, the District was notified (by the State) that results from the USEPA-mandated UCMR (Unregulated Contaminant Monitoring Rule) revealed trace amounts of PFOS and PFOA (perfluoroalkyl substances) detected in the Kennebunk River well water. These chemicals are found in many products including waterproofing agents and fire protection equipment. Upon further testing of the area's monitoring wells, it has become apparent that the PFOS and PFOA were coming from the Stoneridge Farm property. The Superintendent noted that he had contacted Mr. Stone and informed him that the tests performed on his property indicated that the level near his domestic well was higher than the health advisory of 70 PPT (parts per trillion). The USDA has since joined the investigation since the farm's cattle produce milk that is sold to consumers. The Superintendent indicated that the likely remedy to removing the trace of chemicals would be with the use of an activated carbon filter. The monitoring wells that are not located on the Stone property did not reveal any presence of the chemicals.

December 29, 2016

Other Business -- Stone Ridge Farm, Arundel – Upon inquiry, the Superintendent reported that there are no new tests results to report. Monthly testing is being conducted on the Kennebunk River well and two wells on the Stone Ridge Farm property. The District will continue to closely work with the Drinking Water Program and USDA on this issue.

January 25, 2017

Kennebunk River Well -- The Superintendent reported that there is no new information to report regarding the contamination of the nearby Stoneridge Farm's water supply with PFCs. He provided an overview of a study that will soon be conducted by District staff. The pilot study is being designed to determine the effectiveness of granular activated carbon to remove the PFCs and to help determine the cost to implement full scale treatment of the Kennebunk River Well supply should it be needed. Monthly testing will continue on the Kennebunk River Well and two monitoring wells on the Stoneridge Farm property. The District will continue to work closely with the Drinking Water Program, the DEP and the USDA on this issue.

February 22, 2017

Kennebunk River Well -- The Superintendent provided an update and an outline of a study that will determine the effectiveness of granular activated carbon to remove the trace amounts of perfluorinated compounds (PFCs) in the Kennebunk River well supply. The study will also help determine the cost to implement full scale treatment of the Kennebunk River well if necessary. He reported that as a precautionary measure the Kennebunk River well was shut down yesterday. The District is working closely with the Drinking Water Program, the Department of Environmental Protection and the U.S. Department of Agriculture as they review the scope and potential remediation of the contamination. The Superintendent will be meeting with DEP staff in Augusta tomorrow. The topic of PFC contamination is becoming a nationwide issue, including the recent discovery of PFCs in the City of Portsmouth's water wells at the former Pease Air Force base.

March 29, 2017

Kennebunk River Well -- The Superintendent reported that the monitoring wells near the Kennebunk River Well adjacent to the Stone Farm continue to be studied to track any increase/decrease in the level of perfluorinated compounds (PFCs). The District continues to work closely with the Drinking Water Program and the Department of Environmental Protection as they review the scope and potential remediation of the PFC contamination. A simple pilot study to determine the effectiveness of one brand of granular activated carbon to remove the PFCs is currently underway. Another pilot study that will commence in the near future will utilize several different granular activated carbon products to more accurately determine how much life can be expected from each carbon product. The District is applying for a matching grant (of up to $10,000) to undertake the second study.

April 27, 2017

Kennebunk River Well -- The Superintendent reported that the monitoring wells near the Kennebunk River Well continue to be studied to track the level of perfluorinated compounds (PFCs). The initial pilot study to determine the effectiveness of one brand of granular activated carbon (GAC) has been completed and did not yield the desired outcome. A second small pilot will begin once another type of GAC is delivered. The District was awarded a $10,000 matching grant to undertake a third (more comprehensive) pilot study that will evaluate several different GAC products. The District continues to work closely with the Maine Drinking Water Program and the Maine Department of Environmental Protection on various areas of interest and toward determining the possible source(s) and magnitude of the PFC contamination. A full scale treatment facility may be necessary once the pilot studies are concluded.

May 31, 2017

Kennebunk River Well -- The Superintendent reported that the second PFC removal pilot test will commence soon. It will be comprised of twin carbon filters (one with iron removal and one without). The third (more intensive) pilot test by Evoqua Water Technologies will start in July. He explained the pilot process and reminded the Board that it will be partially (50%) funded with a $10,000 matching grant the District received from the Drinking Water Program. The District is still working with the DEP

and the Drinking Water Program on the local PFC issue. The DEP Phase 2 report regarding the magnitude of the local contamination and its potential sources has not yet been issued.

June 29, 2017

Kennebunk River Well -- The Superintendent reported that the second PFC removal pilot test with TIGG is underway. It is comprised of twin carbon filters (one with iron removal and one without). The third (more intensive) pilot test by Evoqua Water Technologies will start in July. The District is still routinely communicating with the EPA and DEP on the issue. The DEP has not yet published their Phase 2 report on their investigation into the local PFC issue.

July 26, 2017

Kennebunk River Well -- The Facilities Manager confirmed that the third pilot test (for the removal of PFCs) being undertaken by Evoqua Water Technologies began today. The Superintendent briefly described the system, which is comprised of four filter tubes of different types of granular activated carbon. The purpose is to compare the effectiveness of each type and determine how long each type will last.

The Superintendent reported that he will be meeting with DEP and DWP staff tomorrow to discuss the status of the PFC issue. He outlined some of his goals for the meeting, which included seeking innovative funding to assist with ongoing testing and possibly a treatment facility if necessary. Upon inquiry, the Superintendent stated that the DEP has not yet published their Phase 2 report on their investigation into the local PFC issue.

August 30, 2017

Kennebunk River Well -- The Superintendent reported that results of the third pilot test (for the removal of PFCs) being undertaken by Evoqua Water Technologies showed that some PFCs are getting through the filters, as a likely result of the filter media depth being too shallow. A re-starting of the pilot test is now being planned, with an increase in the depth of the filter media. He elaborated on the measures that are being taken at former Pease AF Base in Portsmouth NH to resolve the PFC water contamination issue and the federal assistance that will fund its remediation.

September 27, 2017

Kennebunk River Well -- The Superintendent reported that Evoqua Water Technologies re-started the PFC removal pilot test earlier this week, with the depth of the granulated activated carbon (GAC) filter media being increased to three feet. It would be desirable to perform a full-scale pilot test with the most effective GAC media prior to undertaking the construction of a permanent treatment facility. At the Superintendent's request, Evoqua provided a cost estimate (approximately $200,000 per year) for the rental of a full scale (700gpm) trailer-mounted filtration unit. Another option being investigated is to utilize the three existing stainless steel water tanks from the Wire Road facility for the development of a full-scale pilot (and possibly a permanent) gravity-fed filtration system for the Kennebunk River Well at a significantly lower cost than what was originally anticipated.

October 25, 2017

Kennebunk River Well -- The Superintendent reported that Evoqua Water Technologies re-started the PFC (PFAS) removal pilot test earlier this week, with the depth of the granulated activated carbon (GAC) filter media being increased to three feet. As previously reported, consideration is being given to utilizing existing District equipment for a full-scale (gravity) pilot test in 2018. An analysis is currently underway to study the pros and cons of a pressure versus gravity filtration system.

The Superintendent noted that the Winter 2018 newsletter will highlight the ongoing PFAS issue. The MWUA Annual Meeting in February will also provide a technical session on the PFAS issue, describing our experience and addressing the overall issue in Maine and around the country. The Maine Drinking Water Program should have the results of a recently conducted PFAS study of certain lower tier (1,000 to 10,000 population served) water utilities in the next few weeks.

November 29, 2017

Kennebunk River Well -- The Superintendent provided an update of the on-going pilot studies to remove PFASs using granulated activated carbon (GAC) filters. A new gravity-fed pilot using two different GAC products is being implemented along with the previously reported pressure filtration pilot. He noted that there have not been any recent reports or news from the DEP or EPA relating to this issue. He confirmed that the MWUA Annual Convention in February will feature a technical session on our PFC issue. In addition to the Superintendent, the scheduled speakers will include representatives from EPA Region 1 (Boston), the Maine Drinking Water Program, a scientist from Evoqua Water Technologies and the lead environmental attorney from Bernstein Shur.

December 28, 2017

Kennebunk River Well -- The Superintendent provided an update on the PFAS issue and on-going pilot studies to remove PFAS using granulated activated carbon (GAC).

He elaborated on how the dialogue on PFAS is now being held on a national level, with an increase in news reports about several contaminated sites throughout the country. The Superintendent's lead article in the upcoming 2018 Winter newsletter will introduce the PFAS issue to customers. A draft of the article will be sent to Trustees prior to publication. He discussed how the District's case is different than many of the cases being discovered, due to the proactive approach the District has taken, as the PFAS level at the well was below the federal Health Advisory guideline and the well was taken off line as a precaution.

Several of the pilot filters have some amount of PFAS breakthrough to date, but the Superintendent is optimistic that the District will succeed with a GAC removal process that will allow for the eventual placement of this groundwater source back in service.