

# OLVER ASSOCIATES INC.

ENVIRONMENTAL ENGINEERS

January 31, 2023

Shawn Blodgett, Town Manager  
Castine Town Office  
PO Box 204  
Castine, Maine 04421

Dear Shawn:

As you know, we have been collecting monthly samples for PFAS from the Castine Wastewater Treatment Facility effluent since November of 2022. We are enclosing all of the reports to date and a summary below of all of the Town's results. We will update this letter every quarter to provide additional results to you. At the present time, the Department of Environmental Protection (DEP) does not have a PFAS limitation. As you are aware, the current drinking water limitation is 20 ng/l (nanograms per liter or parts per trillion (ppt)). We have discussed the testing results in general with the DEP who indicated that the results are variable across the state and some effluent samples are lower and some are higher than the Town's results. The range of PFAS that the DEP has seen is in the low teens up to the thousands measured in ng/l. The average that they have to-date across the state from the select facilities monitored is around 57 ng/l. The measurement of PFAS includes the combination of six compounds out of the twenty-eight measured. These compounds are considered more of a concern and in the future, EPA may drop this down to only two compounds (PFOA and PFOS). We expect that this sampling will eventually lead to an effluent water quality standard, but at this time we do not have any insight to what this level will be. Below are the results of the six compounds considered and the Total PFAS as a sum reported in ng/l or ppt that the DEP is currently looking to evaluate until the end of 2023 in the Towns that they are currently sampling.

DATE	PFHpA	PFHxS	PFOA	PFNA	PFOS	PFDA	PFAS, ppt
10/13/22	4.44	0.696	10.4	2.89	4.17	0.352	22.9
11/28/22	15.3	0.846	21.7	3.43	3.02	0.502	39.0
12/13/22	11.7	1.19	23.3	2.56	2.71	ND	41.5
01/13/22	11.9	1.12	27.0	5.44	3.20	0.92	49.6
To-date Average	<b>10.8</b>	<b>0.96</b>	<b>20.6</b>	<b>3.58</b>	<b>3.28</b>	<b>0.59</b>	<b>38.2</b>

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Mr. Shawn Blodgett, Town Manager

January 31, 2023

Page 2

The average of the effluent data collected to-date is 38.2 ng/l based on the four samples that we have. Note that there will be more changes coming for Towns, how this sampling is conducted and what the data means. At this point, the data with an average of 38.2 ng/l appears to be lower than the state's current average of around 57 ng/l.

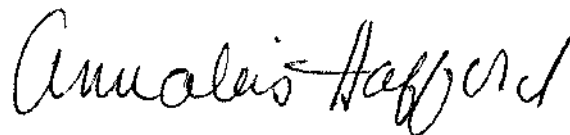
The DEP has been requiring PFAS sampling in sludge and at the same time we want to summarize the yearly testing that has been conducted to-date. The sludge data is measured on a by weight basis and is reported below in mg/kg.

DATE	PFBS, mg/kg	PFOS, mg/kg	PFOA, mg/kg
2019	0.0036	0.019	0.0053
2020	0.012	0.039	0.027
2021	0.033	0.110	0.046
2022	ND	0.0125	0.0794
Average	<b>0.0162</b>	<b>0.0451</b>	<b>0.0694</b>
Screening Limits	<b>1.90</b>	<b>0.0052</b>	<b>0.0025</b>

The above data shows that the levels of these compounds varies to some degree and has been below the screening limit for PFBS but above the levels for PFOS and PFOA. These levels are very common based on other data we have seen. The Town does not land apply their biosolids but Casella Organics requires this testing to be done annually. At the present time all the sludge generated in the State of Maine are disposed at a secure landfill.

This process will be evolving over the next few years and we will update you as we obtain additional data.

Very truly yours,



Annaleis Hafford P.E, Vice President  
Senior Process Engineer