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SUPPLEMENTAL INFORMATION PROVIDED BY STATE AGENCIES

ACRONYMS AND ABBREVIATIONS

A2LA	American Association for Laboratory Accreditation
CAES	Connecticut Agricultural Experiment Station
CFSAN	Centers for Food Safety and Applied Nutrition
CGS	Connecticut General Statutes
DABA	Department of Agriculture Bureau of Aquaculture
DOAG	Department of Agriculture
DEEP	Department of Energy and Environmental Protection
DPH	Department of Public Health
DWS	Drinking Water Section
DWSRF	Drinking Water State Revolving Fund
EHS	Environmental Health Section
FDA	U.S. Food and Drug Administration
GCSL	Gulf Coast Seafood Laboratory
GIS	Geographic information system
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
LHD	Local health department
NSSP	National Shellfish Sanitation Program
PFAS	Per- and polyfluoroalkyl substances
PHL	Public Health Laboratory
PWP	Private Well Program
PWS	Public water system
PURA	Public Utilities Regulatory Authority
RCSA	Regulations of Connecticut State Agencies
SOP	Standard operating procedure
STEAP	Small Town Economic Assistance Program
UCMR3	Third Unregulated Contaminant Monitoring Rule
UCONN	University of Connecticut
USDA	U.S. Department of Agriculture
USHUD	U.S. Department of Housing and Urban Development

DEPARTMENT OF PUBLIC HEALTH DRINKING WATER SECTION (DWS)

Proactive approaches to protecting public health are the cornerstone of <u>Connecticut public</u> <u>drinking water laws</u> and policies. The following laws are being used as a part of the Department of Public Health (DPH) Drinking Water Section (DWS)'s per- and polyfluoroalkyl substances (PFAS) strategy:

- Connecticut is the only state in the nation that does not allow sewage discharges upstream of public drinking water surface supplies pursuant to <u>Connecticut General Statutes (CGS)</u> <u>22a-417</u>. This statute provides Connecticut residents consuming public drinking water with a protective barrier from contaminants that are typically found in wastewater.
- Connecticut requires all public water systems that serve over 1,000 individuals to prepare a plan pursuant to CGS 25-32d. The contents of the plan are set forth in the Regulations of Connecticut State Agencies (RCSA) Section 25-32d-1 through 6. Each individual water supply plan contains <u>"an evaluation of source protection measures." Circular Letter 2018-20</u> was sent to public drinking water systems that serve over 1,000 individuals requiring these public water systems to update their inventory of land use activities to include potential PFAS generators. The DWS worked with a subcommittee of the <u>CT Section of the American Water Works Association</u> to develop a spreadsheet for use by all of the public water systems subject to this statutory requirement. This spreadsheet was distributed to all applicable public water systems through <u>Circular Letter 2019-03</u>.
- Public drinking water systems that utilize surface water supplies must annually inspect all the properties within the public drinking water supply watersheds pursuant to <u>RCSA</u> <u>Section 19-13-B102(b)</u> and report to the DWS on their inspection results. The goal of these inspections is to identify violations of the Public Health Code and work with the appropriate authority to ensure that appropriate measures are implemented to protect public health. New for the 2019 inspection cycle, the public water systems will have identified potential PFAS generators and inspected them.

The DWS is using its authority under <u>CGS 16-262m</u> and <u>CGS 25-32</u> to require new public drinking water source applicants to test sources of supply for the presence of the six PFAS tested as part of the Third Unregulated Contaminant Monitoring Rule (UCMR3) and provide analysis results to DPH prior to DPH approval of the use of new public drinking water sources of supply. The DPH notified all public water systems and local directors of health of this requirement through <u>Circular Letter 2018-19</u>. The State of Connecticut's Drinking Water State Revolving Fund (DWSRF) is a viable source of funding for public water systems (PWSs) to offset the costs associated with the installation of a water treatment system to address PFAS-contaminated sources of supply, or utilization of alternative potable drinking water sources. The DWSRF program provides long-term below market rate loans to community, and non-profit non-community public water systems to finance necessary infrastructure improvement projects. Loans have interest rates at approximately half the market rates with repayment terms that can be extended up to 20 years.

Certain projects may be eligible for Federal subsidization and/or State grant-in-aid as detailed annually in the Intended Use Plan. Any available state grant-in-aid funding is provided through the <u>Public Water System Improvement Program</u>.

The DWSRF program supports and recognizes strong infrastructure sustainability programs that emphasize prevention as a tool for ensuring long term safe and affordable drinking water to Connecticut's residents. The program also places an emphasis on providing loans to small water systems and communities most in need. PWSs which serve fewer than 10,000 persons are strongly encouraged to apply. Although PWSs of all sizes can take advantage of the program's benefits.

The DWSRF also has a Small Loan Program which offers streamlined procedures for PWSs to receive funding for projects that cost less \$100,000 and do not involve construction activities, such as construction of new facilities, renovation of existing buildings, demolition or site work.

As mentioned in the Action Plan, the DWSRF is adding incentives for projects in which the primary purpose of which is to provide proactive measures to eliminate, reduce or treat unregulated contaminants, such as PFAS, that have been determined by the DPH Commissioner to present an unacceptable public health risk, or are listed in the EPA's Unregulated Contaminant Monitoring Rule.

For more information on the DWSRF, and how to apply for financial assistance, please check the DWSRF website at <u>https://portal.ct.gov/DPH/Drinking-Water/DWS/Drinking-Water-State-Revolving-Fund-Program</u>, or contact the DWSRF program at 860-509-7333.

Some other potential sources of funding that can be considered include the Small Town Economic Assistance Program (STEAP), US Department of Agriculture (USDA), and the US Department of Housing and Urban Development (USHUD).

CT PUBLIC HEALTH LABORATORY (PHL)

The CT Public Health Laboratory (PHL) has been investigating the feasibility of bringing analysis of selected PFAS in drinking water to the laboratory. The CT PHL reached out to other state public health laboratories and private labs that have this testing capability in order to better understand the complexities and issues associated with this testing. One major consideration is where this testing best fits into our current laboratory design and how much space and special configuration will be needed to the current laboratory space. The large number of possible cross contaminants makes the location of the preparation, extraction and instrumental analysis of the drinking water a critical consideration. If it is decided to bring this testing to the CT PHL, a segregated clean room will need to be configured utilizing available expansion space at the lab.

DEPARTMENT OF PUBLIC HEALTH PRIVATE WELL PROGRAM (PWP)

The Private Well Program (PWP), a unit within the DPH Environmental Health Section (EHS), routinely provides technical assistance to a variety of stakeholders including private well users, local health departments (LHDs), the Department of Energy and Environmental Protection

(DEEP), and the private well work force. The PWP also creates and maintains educational materials for CT private well users and the private well work force.

The <u>Private Well Contamination Coordination Protocol</u> was created by the PWP with extensive input from and in collaboration with the CT DEEP Remediation Division and CT Association of Directors of Health. The protocol, finalized in September 2017, provides generic responses that the CT DPH EHS, CT DEEP, and CT local health departments can implement when elevated levels of man-made or naturally occurring contaminants are discovered in an area with private wells. PFAS are covered under the "man-made contaminants" section of the protocol. The The PWP will continue to maintain, use, and promote the protocol.

The PWP is working toward development of a state-wide geographic information system (GIS) private well database which would assist in identifying the location of private wells that may be impacted from nearby potential PFAS pollution sources. When new contamination is identified, the database should make it easier to identify private wells that could be impacted by the contamination and communicate with potentially impacted property owners so that well testing can be arranged and/or risk communication information can be provided.

The private well GIS database can be developed using existing GIS layers showing locations of public water system services areas and municipality GIS layers showing locations of property parcels. Parcels not located immediately adjacent to a road where a community public water system is located can be assumed to be supplied by a private well. Parcels immediately adjacent to a road where public water is located can be assumed to be supplied by the community public water system, but will require further review and verification by the community public water system to determine whether they are connected. Parcels determined to not be supplied by the community public water system will be listed as supplied by a private well. Completing this exercise for all 169 Connecticut towns will identify whether developed parcels are supplied by public water or a private well. Once this GIS layer is created, its maintenance and upkeep will be determined based on available resources and future needs.

DEPARTMENT OF AGRICULTURE BUREAU OF AQUACULTURE (DABA): SHELLFISH PROGRAM MANAGEMENT RELATED TO PFAS

The Connecticut Department of Agriculture (DOAG) Bureau of Aquaculture (DABA) is the lead agency for the regulation of molluscan shellfish and aquaculture for the State. The regulation of molluscan shellfish falls under regulations of the National Shellfish Sanitation Program (NSSP), the Federal/State cooperative program overseen by the U. S. Food and Drug Administration (FDA). Shellfish producing states are required to establish a program to protect the public health of consumers by assuring the sale or distribution of shellfish from safe sources and assuring shellfish have not been adulterated during cultivating, harvesting, processing, shipping, or handling.

Molluscan shellfish, such as oyster, clams, and mussels are filter feeding organisms that pump large quantities of water through their bodies. During this process, molluscan shellfish can concentrate microorganisms, toxigenic micro-algae and poisonous or deleterious substances from the environment is present. As required by the NSSP, a shellfish growing area must be placed in the prohibited classification when the sanitary survey or marine biotoxin surveillance program indicates that fecal material, pathogenic microorganisms, poisonous or deleterious substances, marine biotoxin, or radionuclides have the potential to impact the growing area. The NSSP Model Ordinance also requires that a growing area for which there is no sanitary survey be placed in the prohibited classification as a precautionary measure. Taking shellstock from a prohibited area for any human food purpose is not allowed.

In Connecticut, water bodies that have a history of contamination, or are currently exposed to contaminants through a direct industrial or wastewater discharge, are classified as Prohibited and are unlikely to pose a significant route of human exposure to PFAS compounds. There may be isolated situations whereby a potential source of PFAS compounds is identified through sanitary survey as having the potential to impact shellfish growing areas. These potential sources are in the process of being identified by DABA environmental analyst staff and growing areas will be prioritized for shellfish tissue testing for PFAS compounds as resources and analytical capabilities are developed, as per Strategic Focus 1 - Protect the Health of Connecticut's Citizens: Minimizing Environmental Exposure to PFAS:

Strategic Focus 1, Item 11: Identify, prioritize, and evaluate other potential sources of PFAS exposure to humans, including but not limited to fish, shellfish, dairy, other agricultural products, and food service ware.

In addition to the appropriate classification of water bodies suspected to be impacted by PFAS, an action plan will be developed that includes procedures for emergency response following a release of PFAS compounds into an area that is open for the harvest of shellfish. The DABA has procedures in place that include notification by DEEP in case of any type of release that has the potential to impact shellfish growing areas. DABA staff are on call 24 hours a day to take immediate action to close shellfish growing areas in case of this type of emergency. The DABA works with municipalities and DEEP Environmental Conservation Officers to implement emergency closures in order to prevent the harvest of contaminated shellfish.

It is critical that the DABA have the resources to allow shellfish specialists to act quickly following a PFAS release. Closures may be implemented immediately following a PFAS release, however a strategy for assessing impacts to shellfish will be required to reopen areas following an event. The development of in-state analytical capabilities through state partner agencies and/or university laboratories [DPH, the Connecticut Agricultural Experiment Station (CAES), and the University of Connecticut (UCONN), etc.] will be necessary to ensure the ability of DABA staff to respond in a timely manner following an event.

The DABA works closely with the FDA, the federal agency that oversees state shellfish programs. The FDA Centers for Food Safety and Applied Nutrition (CFSAN) operates the Gulf Coast Seafood Laboratory (GCSL), the agency that provides analytical services in support of seafood commodities, including shellfish. In case of an emergency event, the DABA may request testing services and guidance from the CFSAN and GCSL.

Response to a PFAS release that impacts open shellfish harvest areas will require the implementation of an emergency action plan:

- 1) The DABA is notified of a PFAS release by the DEEP Emergency Response Unit;
- 2) Shellfish growing areas are closed to commercial and recreational harvest through the existing emergency closure procedures;
- 3) DABA staff would require the assistance of DEEP Emergency Response to assess the extent of the impact of a release according to the nature and volume of the release and the recovery of materials following a spill, and the hydrographic characteristics of the impacted areas;
- 4) The DABA would request analytical assistance from in-state laboratories to initiate a testing of shellfish tissues;

The DABA would request consultation with DPH toxicologists in order to assess potential human health impacts related to the PFAS spill.

CONNECTICUT AGRICULTURAL EXPERIMENT STATION (CAES)

CAES is currently ISO (International Organization for Standardization)/IEC (International Electrotechnical Commission) 17025:2017 accredited (pesticide, aflatoxin, and metal analysis in food/feed) by the American Association for Laboratory Accreditation (A2LA) and our scope could be expanded to include PFAS in matrices such as environmental solids (water, soil, sediment, sludge/biosolids, compost), food (including produce, prepared foods, seafood, animal feeds), and air (puff plugs from high volume air samples). We will work with other state agencies to determine analytical needs, then focus on developing standard operating procedures (SOPs) for each matrix and establishing levels of uncertainty in our measurements for method validation purposes. Importantly, standard methods do not exist for most of these matrices and significant time is needed for method investigation/development and validation. This is not the case for water, where testing can begin in the next month or so. There is a clear need for staged testing and funding, but if testing were to begin on some of these other matrices in 1-2 years, method development work needs to begin now. This would all be conducted under CAES's existing accredited quality management system and would undergo review by an independent external auditor (A2LA). Our SOPs would be based on methods put out by other states for conducting similar analyses and methods from the scientific literature. CAES has experience in this type of method validation and has previously completed it for the analysis of pesticides, heavy metals and aflatoxins in foods and feeds as part of state and FDA programs. Implementation and accreditation of these methods for PFAS analysis in environmental solids, food and air would require additional staff, as well as a yearly budget for supplies, accreditation fees, and instrument maintenance.

PUBLIC UTILITIES REGULATORY AUTHORITY (PURA)

The Public Utilities Regulatory Authority (PURA) has regulatory authority over the ten public service companies that provide water to fifty or more consumers and will support the DPH by ensuring that those water companies are being proactive and responsive to health requirements proposed by the DPH. PURA will carefully assess any potential financial impacts related to PFAS which may affect those regulated utilities.