State of New Hampshire

GENERAL COURT

CONCORD

MEMORANDUM

DATE: November 1, 2018

TO: Honorable Chris Sununu, Governor
Honorable Gene Chandler, Speaker of the House
Honorable Chuck W. Morse, President of the Senate
Honorable Paul C. Smith, House Clerk
Honorable Tammy L. Wright, Senate Clerk
Michael York, State Librarian

FROM: Representative Charles McMahon, Chairman

SUBJECT: Second Interim Report of the Commission on the Seacoast Cancer Cluster Investigation
RSA 126-A:74 (HB 484, Chapter 197:2, Laws of 2017)

Pursuant to RSA 126-A:74 (HB 484, Chapter 197:2, Laws of 2017), enclosed please find the Second Interim Report of the Commission on the Seacoast Cancer Cluster.

If you have any questions or comments regarding this report, please do not hesitate to contact me.

I would like to thank those members of the commission who were instrumental in this study. I would also like to acknowledge all those who testified before the commission and assisted the commission in our study.

Enclosures

cc: Members of the Commission

Second Interim Report

Commission on the Seacoast Cancer Cluster
RSA 126-A:74 (HB 484, Chapter 197:2, Laws of 2017)

November 1, 2018

Commission Charge and Study Purpose:

(1) Develop a common understanding of the key definitions and concepts of cancer clusters and environmental investigation.

(2) Review the progress made by state and federal agencies and their partners.

(3) Delineate the potential roles and responsibilities for municipalities, state agencies, and their partners.

(4) Provide informed communication about the cancer cluster investigation to their constituencies.

(5) Calibrate and utilize the Seacoast New Hampshire Groundwater Availability Study developed by the United States Geological Survey in 2003 to assess localized groundwater flow and contaminant migration from sites selected by the commission.

Process and Procedures:

The committee organized on September 26, 2017 and elected Representative Charles McMahon as Chair. The Chair appointed Janet Stevens as commission clerk.

The committee met twelve times throughout the study period. Meeting minutes are attached with more in depth information (Appendix C).

Commission Membership:

Charles McMahon - House member appointed by the Speaker (Chair)
Philip Bean - House member appointed by the Speaker
Martin Bove - House member appointed by the Speaker
Mindi Messmer - House member appointed by the House Minority Leader
Patrick Long - House member appointed by the House Minority Leader
Martha Fuller Clark - Senate
Daniel Innis - Senate
Benjamin Chan - NH DHHS
Michael Wimsatt - NH DES
Kim McNamara - City of Portsmouth, NH
Robert Renny Cushing - Town of Hampton, NH
Thomas Sherman - Town of Rye, NH
Janet Stevens - Resident of the seacoast appointed by the Governor
Julie Tucker - Resident of the seacoast appointed by the Governor
Wendy Stanley Jones - Resident of the seacoast appointed by the Governor
Jim Murphy - US EPA
Thomas Mack - NH Chapter of the US Geological Survey
James Zuckerman – Town of New Castle, NH

Documents Reviewed by the Commission:

- Summary of the Rhabdomyosarcoma (RMS) and Pleuropulmonary Blastoma (PPB) Cancer Cluster Investigation – DHHS, DPHS Powerpoint May 11, 2017
- Investigation of Rhabdomyosarcoma (RMS) Cases in the Rye Area: Surveillance Report Update
- May 10, 2017 – DHHS, DPHS
- Pediatric Seacoast Cancer Cluster Investigation: A Summary of Investigation Findings as of April 30, 2017 – DHHS, DPHS
- Cancer Incidence in the 5-town Seacoast Area, 2005-2014 – DHHS, DPHS
- Protocol for a Case Investigation of a Cluster of Pediatric Rhabdomyosarcoma and Pleuropulmonary Blastoma New Hampshire, 2016 – DHHS, DPHS
- 10 Things to know about the RMS Investigation – DHHS, DPHS
- Investigation of Rhabdomyosarcoma (RMS) Case in the Rye Area, February 2, 2016 – DHHS, DPHS
- EPA Coakley Landfill Site Documents and Data – CLG, EPA (EPA Superfund Site Document Archive)
- Governor's Task Force on the Seacoast Cancer Cluster: Final Report September, 2017
- Investigating Suspected Cancer clusters and Responding to Community Concerns: Guidelines from CDC and the Council of State and Territorial Epidemiologists – CDC
- Coakley Landfill Update, November 2, 2017 – EPA, NHDES
- Aqueous Film Forming Foam (AFFF) Report to Congress, October 2017 – Department of Defense
- NHDES Letter of March 2, 2017 re: Coakley Landfill Superfund Site – Perfluorinated Chemicals (PFCs) in Berry's Brook
- July 14, 2017 Inter-Department Communication re: Perfluorinated compounds (PFCs) in Berry's Brook
- John P. Giesy, et al. "Aquatic Toxicology of Perfluorinated Chemicals" in *Reviews of Environmental Toxicology* edited by D.M. Whitacre, 2010. Pg. 1-47.
- Coakley #2 Surface Water Sampling Summary for Lab #1641267 – Conservation Law Foundation
- USEPA-Great Lakes Restoration Initiative Project: Final Report May 28, 2015 – Michigan Department of Community Health
- Coakley Landfill Update, November 8, 2017 (Powerpoint) – EPA and NHDES
- NHDES Coakley Landfill Site Documents and Data (NHDES OneStop Document Archive)
- NHDES Letter of July 7, 2017 re: Coakley Landfill Superfund Site
- Town of Hampton Concerns Regarding Future Efforts at the Coakley Landfill – Dr. Thomas Ballestero
- Rye EPA Surface Water Impaired Status Map (2008) – EPA
- New Jersey PFNA Maximum Contaminant Level Rule
- New Jersey PFAO MCL Appendix A
- Jason Schreiber, "Millions at stake in landfill battle," Seacoast Online. Posted July 24, 1998, Updated December 15, 2010.
- Coakley Landfill Update, January 9, 2018 – EPA, NHDES
- Coakley Landfill Superfund Site Five-Year Review, January 2018 – EPA
- Letter of January 18, 2018 re: Request for a Bedrock Investigation – EPA
- Bethlehem Landfill Response to Public Comment – NHDES
- 1989 Coakley Landfill Draft Feasibility Study - CLG
- Dr. Ballestero Testimony - December 1, 2017
- Fish Tissue Sampling Response Letter - March 8, 2018 - CLG
- Bedrock Work Plan - March 21, 2018 - CLG
- Coakley Landfill Background 1972 to 2016 – EPA, NHDES

- CLG Messmer Response
- Revised CES Inc., Bedrock Study Draft Work Plan - May 31, 2018
- Response to CLG Fish Tissue Workplan, Final - June 12, 2018
- Response to Draft Fish Tissue Field Sampling Work Plan, Berry's Brook, June 12, 2018 – EPA
- Annie Snider, "White House, EPA headed off chemical pollution study," Politico, May 14, 2018
- EPA Response to Revised CES Inc., Bedrock Study Draft Work Plan
- ATSDR Toxicological Profile for Perfluoroalkyls: Draft for Public Comment - June 2018
- Geographic Variation in Pediatric Cancer Incidence: United States, 2003-2014 – CDC
- Human Health Effects of Drinking Water Exposures to Per- and Polyfluoroalkyl Substances (PFAS) at Pease International Tradeport - ATSDR
- PFAS ToxFAQs
- CES Inc. Letter re: Results of Storm Water Sampling – August 14, 2018
- EPA response to CES Inc. Letter re: Results of Storm Water Sampling – August 17, 2018
- Notice of Decision – Mindi Messmer, et al v. Coakley Landfill Group, et al
- EPA letter re: May 31, 2018 Revised Draft Deep Bedrock Investigation Work Plan – July 17, 2018
- NH DES letter re: Groundwater Management Permit Sampling Modification Request – September 14, 2018
- NH DES letter re: Split sample results for private well at 368 Breakfast Hill Road, R-3 – October 5, 2018
- NH DES letter re: 1, 4 Dioxane, 339 Breakfast Hill Rd., Greenland NH – September 16, 2013
- Summit Environmental Consultants letter re: Well R-3 Water Quality Sampling Results – April 4, 2013
- Statement by Dr. Thomas P. Ballestero for Seacoast Cancer Cluster Commission meeting October 10th, 2018
- US EPA and NH DES Community Update: Coakley Landfill Superfund Site – October 9, 2018
- NH DHHS, Division of Public Health: Building Environmental Health and Chronic Disease Capacity Resource Request
- EPA Technical Fact Sheet – 1, 4-Dioxane
- EPA response to Dr. Ballestero Testimony of October 10, 2018

Recommendations:

As the Commission has confronted difficult issues of environmental contamination and concerns of public health impacts on the Seacoast, it has become clear that local problems have broader implications. It is the Commission's conclusion that:

- justified concerns about the public health impact of environmental contaminants are not unique to the Seacoast
- thoughtful recommendations for the improvement in the State's capacity to conduct environmental monitoring and public health protection will benefit the entire New Hampshire community
- the known flow of contamination offsite from Coakley Landfill requires immediate remediation.

To that end the Commission has worked with the NH Division of Public Health Services and the NH Department of Environmental Services to craft proposals for judicious investments in personnel and equipment. These investments will allow the Division of Public Health Services to establish a more centralized and flexible environmental health program which can better partner with local and private resources, and more nimbly respond to a variety of emerging threats and concerns, including the water quality concerns which the commission has studied and discussed at length.

A detailed summary is attached to this report as Appendix A. Briefly summarized, the request includes resources for:

- A **State Public Health Toxicologist** with the expertise to work with community members and healthcare providers on the subject of chemical/toxic exposures, their potential health impacts, and ways to address health concerns.
- An **Environmental Health Coordinator** responsible for managing environmental health funding, projects, and staff.
- An **Environmental Health Promotion Advisor** responsible for implementing health promotion and disease prevention strategies using the best available science on preventing chronic disease, with a focus on reducing disparities
  A five person **Surveillance, Investigation and Response Unit** to aggregate and analyze data to understand disease patterns and risk factors, including geographic links between exposures and health outcomes, to work with local health officers and to engage impacted communities.
- A **Water Quality Analyst and a Clinical Analyst** to increase the State's Public Health Lab's in-house capacity for testing and analysis of emerging biological and chemical contaminants. Additionally the resource request includes a **Liquid Chromatography/Mass Spectrometer** which will allow the Public Health Labs to conduct test for PFAS in water on the parts-per-trillion level.
- A **State Public Health Veterinarian** to provide subject area expertise, intervention techniques and prevention strategies relative to and vectors of disease transmittal to humans.

In consultation with the Commission, the Department of Environmental Services developed a supplemental resource request for an **Environmental Health Liaison** (Appendix B) to coordinate data sharing between the agencies, and to assist the Department of Health and Human Services in interpreting environmental data, assessing environmental exposures, and designing/implementing any necessary environmental monitoring.

The Commission strongly urges the Governor and General Court to give this recommendation their attentive consideration and firm support in the 2019-2020 session.

While supplemental State resources are urgently needed, the work of federal partners, and Federal funding of State work, are essential to the environmental health elements currently in place. Accordingly, the Commission recommends that legislation be introduced in the next session requiring DHHS and DES to evaluate, assess and report to the Health and Human Services Oversight Committee and the Governor any changes to Federal policy, funding or programs which increase the risk to New Hampshire citizens and their environment.

The commission recognizes that there may be need for legislation to ensure immediate remediation of known offsite contamination.

Finally, to facilitate transparency and communication in the commission's work, it recommends legislation to add a representative of the Coakley Landfill Group to the commission.

Next Steps:

Over the next two years the commission intends to consult with local, state and federal partners, and to facilitate communication surrounding, the ongoing environmental surveillance and public health response to the seacoast cancer cluster. In its final report in 2020 its goal will be to generate definite findings and recommendations in keeping with its legislative charge.

Attached Appendices

Appendix A: DPHS Legislative Resource Request

Appendix B: Supplemental NHDES Legislative Resource Request

Appendix C: Commission Minutes

Appendix A:
Division of Public Health Services
Legislative Resource Request

STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH SERVICES

Jeffrey A. Meyers
Commissioner

Lisa M. Morris
Director

29 HAZEN DRIVE, CONCORD, NH 03301
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Building Environmental Health and Chronic Disease Capacity
Legislative Resource Request

Background:
Environmental health is a branch of public health that explores how factors in the natural, built, and social realms impact human health. Environmental health is a focus area of many programs within the New Hampshire Department of Health and Human Services' Division of Public Health Services (DPHS) as well as the New Hampshire Department of Environmental Services. However, the work is decentralized and lacks state-level coordination.

DPHS' work is largely funded by federal grants, which are prescriptive and focused on federal priorities. This makes it difficult to shift resources or respond to community concerns as new environmental health issues emerge. Furthermore, there is no single entity responsible for coordinating environmental health efforts within DPHS.

Current environmental health initiatives within DPHS focus on the following priority areas:

a) Chronic Diseases: surveillance, prevention, and control using evidence-based strategies
b) Environmental Public Health Tracking: integration and analysis of environmental health data
c) Healthy Homes: lead poisoning, housing standards, radiological health, and asthma control
d) Public Health Laboratories (PHL): water and food quality testing, radio-analytical chemistry testing, and biomonitoring
e) Infectious Diseases: prevention of zoonotic and vector-borne diseases

Purpose:
The NH DPHS is working to establish a more centralized environmental health program within DPHS that builds upon our current capacity and allows flexibility to investigate and respond to new and emerging community concerns or environmental health issues; this will require additional state funding.

Request:
There are five key functions that are critical to a fully functional environmental health program: (1) coordination, (2) health promotion, (3) surveillance, investigation, and response, (4) laboratory capacity, (5) state public health veterinarian. We specifically request funds to support the following positions:

1. ***Environmental Health Coordinator***
This person will be responsible for managing environmental health funding, projects, and staff. This will include coordinating environmental health initiatives across DPHS in order to ensure alignment of programs and objectives, supervise staff, coordinate with key internal and external partners, administer funding, and develop an overall plan of action to address the environmental health needs of the state.

2. ***Environmental Health Promotion Advisor***
This person will be responsible for implementing health promotion and disease prevention strategies using the best available science on preventing chronic disease, with a focus on reducing disparities.

3. Surveillance, Investigation, and Response Unit

a) ***Epidemiologist/Data Analyst***
This person will work with environmental and chronic disease epidemiologists to conduct routine analysis of environmental health data including environmental exposures and relevant health outcomes. This position will be responsible for aggregating and analyzing data to understand disease patterns and risk factors.

b) ***Geospatial Analyst***
This person will work with environmental and chronic disease epidemiologists, but will have specific expertise in geospatial analysis of datasets linking environmental exposures and health outcomes. This position will evaluate spatial patterns and correlations between environmental exposures and health outcomes.

c) ***Environmental Health Data Integration Specialist***
This person will focus on integrating data systems within DPHS and with DES. This will include expanding our data visualization capabilities to better display and communicate environmental exposure and health outcome data.

d) ***Health Officer Liaison***
This person will engage with local Health Officers across the State and provide technical support directly to towns, coordinate trainings, maintain an online Health Officer Manual, assist with the enforcement of sanitation laws, and manage collaboration via a peer List Serve.

e) ***Community Engagement and Risk Communication Specialist***
This person will focus on community outreach, engagement, and communication in response to community concerns about environmental issues. They will help to develop necessary communication materials and coordinate communication across agencies and communities.

4. *Laboratory* Capacity

a) ***Water Quality Analyst***
This person will work in the PHL and perform testing for chemical contaminants in environmental samples, including water. This position will allow the NH PHL to bring testing for new agents online and be validated quickly, as well as assist in the identification of novel emerging contaminants unique to New Hampshire. This position will allow the NH PHL to offer more timely and reliable testing services instead of relying on contract laboratories.

b) ***Clinical Analyst***
This person will work in the PHL and perform testing for microbiological and chemical contaminants in clinical samples. This position will allow the NH PHL to offer more timely and reliable testing services instead of relying on contract laboratories.

5. *State Public Health Veterinarian*
This person will provide subject matter expertise in zoonotic diseases, which are diseases that are transmitted from animals to humans. Because many environmental issues impact infectious disease transmission, this person will help to lead our "One Health" approach to integrate environmental, animal/veterinary, and human health issues. This includes animal transmitted diseases and vector-borne diseases such as tick- and mosquito-borne diseases, which are impacted by the environment.

Summary:
Additional support and staffing resources are needed in order for NH DPHS to build a more flexible and centralized environmental health program. With the assistance of the Legislature, we plan to expand successful programs in order to better respond to state priorities and community concerns. Funding needs are not limited to personnel; additional resources such as equipment are also necessary. Further budget details can be provided as necessary.

New Hampshire
Division of Public Health Services
Environmental Health Resource Request

Legislative Resource Request for Building Environmental Health and Chronic Disease Capacity

Personnel and Other Recurring Resource Needs

Priority	Position and Other Resource Requests	Classification	Salary	Benefits	Total
1	Epidemiologist/Data Analyst	Program Planner III	56,238	42,179	98,417
1	Environmental Health Coordinator	Administrator I	63,999	47,999	111,998
1	Risk Communication Specialist	Program Specialist IV	58,676	44,007	102,682
1	Water Quality Laboratory Analyst*	Lab Scientist III	47,229	35,422	82,651
1	Water Laboratory Supplies (annual expense)				25,000
Sub-Total					**$420,748**
2	Geospatial Analyst	Program Planner III	56,238	42,179	98,417
2	Health Officer Liaison	Program Planner III	56,238	42,179	98,417
2	Clinical Laboratory Analyst	Tox III / Micro III	61,308	45,981	107,289
2	Clinical Laboratory Supplies (annual expense)				50,000
Sub-Total					**$354,122**
3	Environmental Health Data Integration Specialist	Senior Management Analyst	61,308	45,981	107,289
3	Environmental Health Promotion Advisor	Health Promotion Advisor	53,898	40,424	94,322
3	State Public Health Veterinarian	Unclassified	80,000	60,000	140,000
Sub-Total					**$341,611**
Total					**$1,116,480**

Additional One-Time Costs

Priority	Resource Request	Total
1	Infrastructure Costs and Office Supplies (per-person)	$12,000/person
1	Liquid Chromatography/Mass Spectrometer (one-time cost)*	$500,000

* The LC/MS instrument request goes with the Water Quality Laboratory Analyst. In order for a new Water Lab analyst to do work on PFAS, they need this dedicated instrument to test those chemicals in water at parts per trillion (ppt) levels. However, without this instrument, the Water Quality Laboratory Analyst can still test for other non-PFAS chemicals.

New Hampshire
Division of Public Health Services
Environmental Health Resource Request

Addendum to Original Request:

During discussion of the NH Department of Health and Human Services, Division of Public Health Services (DPHS) "Legislative Resource Request" at the HB 484 Commission meeting on Wednesday 10/24/18, members of the legislative commission proposed adding a position within NH DPHS whose job it would be to serve as a subject matter expert around chemical/toxic exposures and their potential health impacts. This person would have the capacity and expertise to work with the community members and healthcare providers to inform and educate about potential health impacts and recommend ways to address health concerns. NH DPHS has envisioned this position being a toxicologist, and has already created a position using federal funding, which is why it wasn't listed in the original resource request. However, the sustainability of the federal funding source is unclear. This position would ideally be a person with toxicology expertise and knowledge or experience in human medicine and healthcare. This person would work collaboratively with the DES toxicologist and our partners at the Northern New England Poison Center (NNEPC) who have been supporting NH DPHS to date.

State Public Health Toxicologist:

Priority	Position Proposal	Classification	Salary	Benefits	Total
1	State Public Health Toxicologist	Toxicologist V	$94,868	$71,151	$166,019

Appendix B:
NH Department of Environmental Services
Supplemental Legislative Resource Request

The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner

October 31, 2018

The Honorable Charles McMahon
Chair, Commission on the Seacoast Cancer Cluster Investigation
Legislative Office Building, Room 205
Concord, NH 03301

RE: NHDES Supplemental Resource Request

Dear Chairman McMahon,

As requested during the most recent meeting of the Commission on the Seacoast Cancer Cluster Investigation, I am writing to provide an estimate of the additional NHDES personnel resources that would be required to address the Commission's desire for a more centralized and flexible environmental health program. The document entitled "Building Environmental Health and Chronic Disease Capacity – Legislative Resource Request," submitted by Dr. Benjamin Chan on behalf of DHHS during our meeting on October 24th, outlines a comprehensive strategy to accomplish this.

It is NHDES's assessment that, in addition to the DHHS positions outlined in its proposal, one additional position in NHDES would be required to serve as a liaison to DHHS; to coordinate data sharing between the agencies; and to assist DHHS in interpreting environmental data, assessing environmental exposures, and designing/implementing any necessary environmental monitoring. In keeping with the format of the DHHS proposal, entered below is the relevant position information and estimated minimum salary and benefits costs:

Position Proposal	Classification	Salary	Benefits	Total
Environmental Health Liaison	Environmentalist IV	$55,556	$29,768	$85,324

Should you have any questions or need additional information, please feel free to contact me at 271-1997, or via email at Michael.Wimsatt@des.nh.gov

Respectfully submitted,

Michael J. Wimsatt, Director
Waste Management Division

cc: DC Bates, Committee Researcher

Appendix C:
Commission Meeting Minutes