



Helping to Preserve Our Quality of Life on Cape Cod

March 29, 2018

Director of Rights-of-Way Programs
Massachusetts State Pesticide Bureau
251 Causeway Street, Suite 500
Boston, Ma 02114 - 215

Dear Clayton Edwards,

Enclosed are copies of letters of opposition from Cape Cod towns and towns on Martha's Vineyard, and are written by various boards, committees, commissions, department heads or chief executives showing their rigorous opposition against Eversource, Eastern Energy, MA's continued use of herbicides along power line rights-of-way to maintain vegetation over growth.

Also enclosed are documents from large, credible organizations, as well as, concerned citizens and scientists writing against the VMP. These letters represent only a small number of letters of opposition to the continued use of herbicides on Cape Cod and Martha's Vineyard that have been submitted to the ROW Division of MDAR. Additionally, two public hearings were held on Cape Cod, one in Sandwich and one in Chatham during which close to fifty persons rose to speak passionately in opposition before MDAR ROW staff of the VMP use of herbicides.

These letters and reports emphatically concludes that no town on the Cape or Martha's Vineyard wants this plan to occur again because it lists the continued use of herbicides.

You might wonder why there is so much opposition to this, perhaps the principal one is protection of our drinking water supplies. In many places where the long and winding Eversource ROW runs the depth to Cape's Sole Source Aquifer is five feet, and many municipal wells draw water from groundwater supplies 15 to 20 feet in depth, the Cape's unique glacial sandy soils allow for a very rapid transmission of toxins through the sandy soil to ground water. Further, much of the ROW path is through well watersheds, recharge areas, wetlands and near surface water bodies.

On behalf of the residents of the Cape and Martha's Vineyard, please have removed any use of Herbicides from the Eversource Energy, Eastern MA submitted VMP 2018.

Thank you for doing this. It is our land, it is where we live, and we don't want more toxins above ... or possibly in our aquifer.

Best,

Laura Kelley
President of POCCA Cape Cod
295 Massasoit Road
North Eastham, MA 02651





COMMONWEALTH OF MASSACHUSETTS
THE GENERAL COURT
STATE HOUSE, BOSTON 02133-1053

Commissioner John Lebeaux
Massachusetts Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston, Massachusetts 02114-2151

Clayton Edwards
Director of Rights-of-Way Programs
Massachusetts State Pesticide Bureau
251 Causeway Street, Suite 500
Boston, Massachusetts 02114-2151

Re: Eversource 2018 Yearly Operational Plan for Cape Cod and Martha's Vineyard

March 29, 2018

Dear Commissioner Lebeaux and Mr. Edwards,

We would like to thank you for taking time this year to hold two public hearings on Eversource's 2018 Yearly Operational Plan (YOP) for Cape Cod and Martha's Vineyard. Our constituents remain very concerned about the use of herbicides for vegetation management along Eversource's transmission lines. As you know from the hearings, many attendees called for a moratorium on the use of herbicides until further research is completed on the possible long-term effect on humans and our unique environment.

We fully support an extended moratorium on spraying herbicides in Barnstable and Dukes Counties. We are writing in opposition of Eversource's 2018 Yearly Operational Plan for Cape Cod and Martha's Vineyard on behalf of our constituents, in the interest of public health, and concern for the environmental vitality of our coastal region.

Cape Cod and Martha's Vineyard are designated by the U.S. Environmental Protection Agency (EPA) as sole source aquifers. Each aquifer is the principle source of clean drinking water for their respectable region. Due to their highly permeable soil, both aquifers are "extremely susceptible" to contamination from multiple land uses, including run-off from roads and yards. Contamination of either aquifer by herbicides used by Eversource would be difficult or impossible to reverse.

Eversource's 2018 YOP for Cape Cod and Martha's Vineyard includes several various chemicals that are scheduled to be used together to manage vegetation within the right-of-ways. Given the uncertainty regarding the safety of certain herbicides, along with the severity and irrevocability of the consequences in the event of aquifer contamination, we believe it is sensible to curtail the potential for preventable harms in the interest of public health and ecological stewardship. It is for

these reasons that we advocate placing a moratorium on the use of herbicides in Eversource's 2018 YOP.

Every town on Cape Cod has passed a resolution requesting a no-spray agreement with Eversource. Unfortunately, Eversource has failed to enter into any such agreement. The majority of towns on Martha's Vineyard are also against Eversource spraying as part of their vegetation management plans. Cape Cod and Martha's Vineyard communities remain committed to minimizing impacts that threaten the long-term health of the region and seek to achieve an amiable solution for all parties.

While we recognize the importance and necessity to adequately maintain utility lines and structures, we ask that Eversource employ alternative means of vegetation management that does not include using herbicides.

Cape Cod and Martha's Vineyard residents depend on their natural resources for continued vitality and economic success of their communities. Without clean drinking water and oceans, the entire Commonwealth will be affected by the damage to our southeastern coastal region.

Thank you for your consideration of our comments on this critical issue.

Sincerely,



Julian Cyr
State Senator
Cape & Islands



Dylan Fernandes
State Representative
Barnstable, Dukes, Nantucket Counties



Sarah K. Peake
State Representative
Fourth Barnstable District

CC:

*William Hayes, Senior Transmission Arborist
Eversource Energy, Eastern MA
Vegetation Management
One NSTAR Way, SB-370
Westwood, MA 02090-9230*

*Secretary Matt Beaton Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114*



Helping to Preserve Our Quality of Life on Cape Cod

March 22, 2018

Dear Clayton Edwards of MDAR:

I am Laura Kelley, of North Eastham. President of POCCA, Protect Our Cape Cod Aquifer. I write against the VMP as it is written because it lists the use of Herbicides to maintain vegetation along ROW power lines on Cape Cod and Martha's Vineyard for the next five (5) years.

I realize you as a state agency are looking for scientific facts to base any changes on the VMP plan. So I give you one: Regulations say Eversource is not allowed to use herbicides closer than 50 feet to a private well - that is written for horizontal protection. My concern for the application of herbicides isn't just horizontal proximity to wells, but consideration should be made vertically also - as in depth to drinkable water.

According to the attached map by USGS and cited from MassGIS, we have 6 lenses on Cape Cod and 5 are drinkable. (see attached map). Along ROW power lines throughout Cape Cod, the depth to drinkable water from surface level is on average 20 feet or less along ROW power lines. Does this mean Eversource has been violating their own written regulations for the past 5 years? Eversource had the forethought to protect within 50 feet of private wells, but that is NOT sufficient enough to protect the wells because wells draw from lenses and lenses are less than 50 feet from ground level. So this means the VMP is not written according to the unique make-up of Cape Cod's hydrology and soil content so I am against the VMP as it is written now and request the use of herbicides be removed for vegetation management. How else can your regulations be written to depth to drinkable water? Gravity is vertical not horizontal.

Cape Cod's soils are comprised mostly of sand. According to the Barnstable County Soil Survey Document Book of 1993, a liquid can travel 22 inches an hour in our sandy soil here. This is a study by the US Department of Agriculture soil conservation service.

I ask our state MDAR to step up and do the right thing according to the fragile, unique environment we rely on every day here -vs- federal EPA standards that allow herbicides above aquifers.

August 2, 2016 from The Boston Globe - relevant article quotes (see link below):

"In some parts of Cape Cod, ground water travels a foot a day, and in many places the water table sits less than 10 feet below the surface. Whatever gets dumped on the ground could contaminate water within a couple of weeks."



~ also in the same Boston Globe article:

"I think what concerns me most is the mixture — that there's not just one chemical, that we're getting a mixture that we don't really understand," says Julia Brody, executive director and senior scientist at the Silent Spring Institute. "And that's a reason why federal guidelines may be inadequate, because they're taking the chemicals one at a time, but that's not how they show up in your glass of water."

~ and lastly from the same article in The Boston Globe:

Industry is not the only, or even the biggest, threat to Cape Cod's water. There's also storm runoff and excess fertilizer to worry about, household detergents, encroaching saltwater, spilled gasoline, and — the latest controversy — herbicides sprayed by Eversource to control vegetation under power lines.

<https://www.bostonglobe.com/magazine/2016/08/02/cape-cod-big-drinking-water-problem/Q17CHGAXFoYGJzWeaK7YNP/story.html>

Thanks to the POCCA team's efforts, every Cape Cod and MV town Board of Selectmen over the past few years wrote documents stating they don't want the VMP as it is written with the use of herbicides to occur in their town. Then MDAR overrides their wishes, how does that make us feel? When MDAR says it's because the wrong department wrote to them, that the Board of Health has more standing over the selectmen, how does that make us feel? When MDAR says that the EPA allows herbicides so they are safe, that it is up to we the people show them harm: harmed people or harmed/contaminated wells, why do we wait to become harmed in order for MDAR to not allow herbicide use by Eversource this way? The point is to prevent harm to our wells and or ourselves, shouldn't the onus be on MDAR to do testing on our sandy soils with mixtures of herbicides instead of waiting for harm to be the motivator to change regulations?

When 28 other countries have banned or are banning glyphosate and our own state department doesn't look out for our best interest, how does that make us feel?

That means our state agency MDAR is waiting for us to prove we are harmed. Well that is just not good enough for me. The whole point of creating any town board is to protect the well being of their residents. MDAR are not listening to the will of the people and town governments. You MDAR are at fault and are not listening to the fact that now 17 towns don't want the VMP because it lists the use of herbicides this way by Eversource. If our wells become contaminated will Eversource be held accountable? Will you MDAR? Or will we be left to clean up the mess when we didn't want it all along.

In 2013, Eversource used 2,065 gallons of herbicides on ROW on Cape Cod.
In 2014, Eversource used 2,103 gallons of herbicides on ROW on Cape Cod.
Eversource stated they would be using less herbicides over time, they have not proven that.

Considering Eversource has completed a mass-clear cutting throughout Cape and MV, then applied herbicides for the last 5 years to keep vegetation down, there is no threat to our electricity due to vegetation over growth along ROW. Eversource has eliminated any major growth and concern.

Why does Eversource continue to want to use more herbicides when the same outcome can occur with selective hand pruning at this point? Seeds from trees will always occur blowing in the winds, so maintenance will always be needed. Will Herbicides always be used?

Eversource is the number one largest user of herbicides on Cape's sandy soil. Cumulatively, home owners and businesses use more but singly, Eversource uses the most.



We are trying to have the forethought to prevent the below from happening again on Cape Cod and MV, this is why we ask MDAR to not approve the VMP as it reads now:

In Eastham physical and mental harm to people occurred due to contaminated wells ~

September 9, 2016: Water contaminated due to emerging contaminants from transfer station:

"The judgment for Lisa and Steve Colley was filed in December and is one of three lawsuits in connection with neighborhoods around the town dump where wells were tainted. Two other lawsuits brought by property owners with well water that tested high for contaminants possibly leaching from the town's former landfill are still pending in Barnstable Superior Court."

<http://www.capecodtimes.com/news/20160909/family-receives-400k-in-eastham-water-case>

October 31, 2015 - quote from the article below:

"Before the testing in 2012, "all the plaintiffs consumed contaminated drinking water and suffered personal injury and emotional distress together with physical symptoms as the direct and proximate result of the town's failure to exercise reasonable and responsible care in operation, closure and monitoring" of the landfill and the groundwater, the lawsuit says."

<http://www.capecodtimes.com/article/20151031/NEWS/151039924>

This is our home, this is our time here, we all can do better for next generations to enjoy

resources longer. It is up to you MDAR to do the right thing, to err on the side of caution, to listen to Cape and MV towns and residents and prohibit the VMP as it is currently written. Amend the VMP by removing 'with the use of Herbicides' before approving this plan for the next 5 years: 2018 - 2022. Thank you.

~ President, Laura Kelley of POCCA Cape Cod ~ North Eastham, Ma ~ March 22, 2018

Cape Cod and Martha's Vineyard

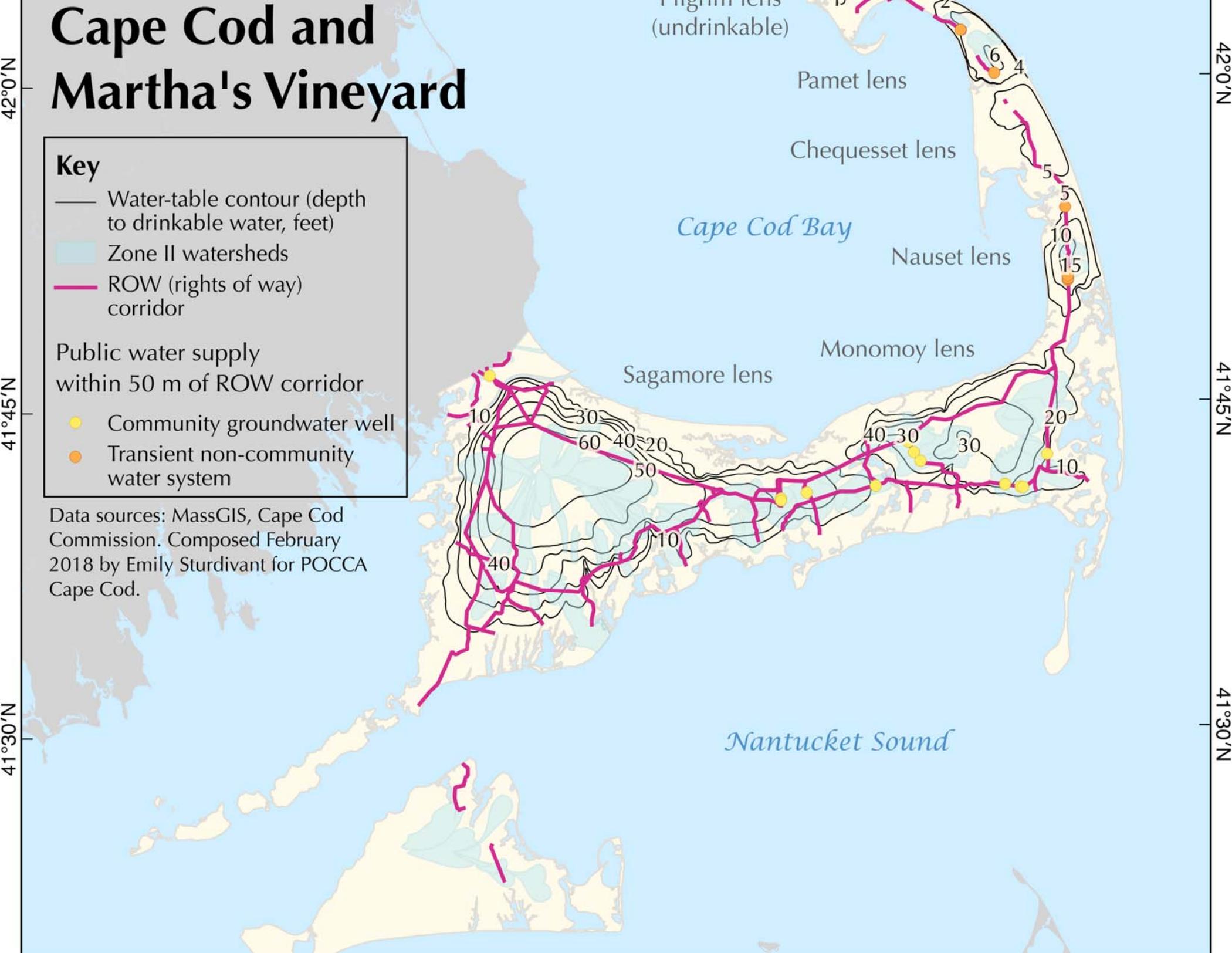
Key

- Water-table contour (depth to drinkable water, feet)
- Zone II watersheds
- ROW (rights of way) corridor

Public water supply within 50 m of ROW corridor

- Community groundwater well
- Transient non-community water system

Data sources: MassGIS, Cape Cod Commission. Composed February 2018 by Emily Sturdivant for POCCA Cape Cod.





March 28, 2018

Rights of Way Coordinator
Massachusetts Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston, MA 02114

Re: Eversource Energy's Five-Year Vegetative Management Plan for Cape Cod

Dear Rights of Way Coordinator:

The proposed use of herbicides for rights-of-way management by Eversource on Cape Cod raises concerns about exposures among people and animals passing through sprayed areas and about groundwater contamination. Since all Cape residents rely on the Cape's sole source aquifer for public and private drinking water supplies, protecting groundwater quality is a public health priority. The Cape's unconfined sand and gravel aquifer allows relatively fast movement of groundwater, with less potential for breakdown or sorption of contaminants.

Several herbicides included in the vegetative management plan, or their degradation products, can be persistent in soils and have the potential to leach into groundwater and reach surface water from runoff.^{1,2} Beyond the potential for herbicides to migrate into groundwater and surface water, the application of herbicides to rights-of-way raises concerns about other routes of exposure. People and animals may be exposed through direct contact with sprayed areas or herbicides drifting into adjacent areas of land. Furthermore, chemicals that get tracked into homes can be more persistent indoors than outside. Silent Spring Institute household exposure studies showed that DDT and other legacy pesticides persisted longer inside people's homes than outdoors, even decades after they had been banned.³ Less is known about exposures to current herbicides.

The active and "inert" ingredients of herbicide formulations raise multiple health concerns. Undisclosed "inerts" or "other ingredients" make up between 40 and 75 percent of the herbicide formulations proposed for use on Cape Cod, and prior studies have shown that herbicide formulations can be much more toxic than their "active" constituents alone.^{4,5} Triclopyr and triclopyr BEE, active ingredients in herbicides commonly used in rights-of-way-management have shown to increase mammary tumors in rodents and exhibit estrogenic activity.^{6,7} While the potential carcinogenicity of glyphosate remains controversial, there is strong evidence that glyphosate-based formulations can damage DNA in humans,

¹ US EPA. 2006. Reregistration Eligibility Decision for Imazapyr.

² US EPA. 1998. Reregistration Eligibility Decision for Triclopyr.

³ Rudel RA et al. 2003. Phthalates, alkylphenols, pesticides, polybrominated diphenyl ethers, and other endocrine-disrupting compounds in indoor air and dust. *Environ Sci Technol.* **37**:4543-53.

⁴ Martini CN et al. 2016. Glyphosate-based herbicides with different adjuvants are more potent inhibitors of 3T3-L1 fibroblast proliferation and differentiation to adipocytes than glyphosate alone *Comp. Clin. Pathol.* **25**:607.

⁵ Mesnage et al., 2013. Ethoxylated adjuvants of glyphosate-based herbicides are active principles of human cell toxicity *Toxicology*, 313:122-128

⁶ US EPA. 1998. Reregistration Eligibility Decision for Triclopyr.

⁷ USEPA. 2015. ToxCast & Tox21 Summary Files from invitrodb_v2. Retrieved from <http://www2.epa.gov/chemical-research/toxicity-forecaster-toxcastm-data> on February, 28th 2018. Data released October 2015.

rodents and various fish species, and is classified as a probable human carcinogen by the World Health Organization.⁸ More recent reports suggest that glyphosate has endocrine disrupting properties and the potential adverse health effects of this activity are not yet well understood.^{9,10} Glyphosate and triclopyr are common components of tank mixtures used in vegetation management plans, yet there remains a major knowledge gap on the adverse health effects, such as endocrine disruption, of herbicide mixtures.

In addition to human health concerns, herbicides may have ecological effects. Evidence suggests that herbicide use is likely a contributing factor in the decline of the eastern North American monarch butterfly population, which relies on milkweed plants for food.¹¹ The diminishing monarch butterfly population illustrates just one of many possible unintended consequences of herbicide use.

We also want to clarify the scope of our drinking water research and explain why our results do not support the conclusion that herbicide spraying will not affect drinking water sources. Results of our studies on public and private drinking water wells have previously been cited by an NStar spokesman,¹² and more recently by MDAR Environmental Chemist Hotze Wijnja, at a meeting in Sandwich, as evidence that spraying herbicides in power line rights-of-way will not reach Cape Cod groundwater. As we stated in a letter to the *Sandwich Broadside*¹³ in December 2010 and an editorial to the *Cape Cod Times*¹⁴ in November 2013, the results of this study cannot be considered evidence that herbicide use is safe.

Our studies of public and private drinking water wells were primarily designed to measure concentrations of chemicals associated with wastewater, mostly from septic systems, in Cape Cod drinking water. We did not design these studies to evaluate possible impacts of herbicide spraying in rights-of-way areas. In our 2010 study¹⁵ of 20 public drinking water wells on Cape Cod, we tested for five herbicides, including just one—triclopyr—that is among the five herbicides proposed for use by Eversource. In our 2011 study¹⁶ of 20 Cape Cod private wells, we tested for eight herbicides, including four of the herbicides in the VMP. The samples we tested did not contain detectable levels of the herbicides that we included in our studies. However, the results of these two studies are of limited relevance to Eversource vegetation management plan for several reasons. First, we did not specifically select drinking water wells close to power line rights-of-way, so the wells we tested were not necessarily those most likely to be impacted. Second, our private well samples were collected almost a year after the beginning of NStar's voluntary moratorium on spraying, meaning that we would have been unlikely to detect recently applied herbicides. Third, the detection limits for some of the herbicides were relatively high, so we would have been unlikely to detect low levels of contamination. Finally, we did not include all of the proposed herbicides, nor the undisclosed "inert" ingredients in pesticide formulations that also raise health concerns.

⁸ International Agency for Research on Cancer. 2015. Volume 112: Some organophosphate insecticides and herbicides: tetrachlorvinphos, parathion, malathion, diazinon and glyphosate. IARC Working Group. Lyon; 3–10. IARC Monogr Eval Carcinog Risk Chem Hum.

⁹ Mesnage, R., A. Phedonos, et al. 2017. Evaluation of estrogen receptor alpha activation by glyphosate-based herbicide constituents. *Food Chem. Toxicol* **108**: 30-42.

¹⁰ Thongprakaisang et al., 2013. Glyphosate induces human breast cancer cells growth via estrogen receptors *Food Chem. Toxicol.*, 59:129-136

¹¹ Pleasants J and KS Oberhauser. 2013. Milkweed loss in agricultural fields because of herbicide use: Effect on the monarch butterfly population. *Insect Conserv. Divers.* **6**: 135–144

¹² McCall A. "Cape environmental groups fight NStar plan." *Sandwich Broadsider*. December 4, 2010. Available from: <http://www.wickedlocal.com/yarmouth/topstories/x893569487/Cape-environmental-groups-fight-NStar-plan>.

¹³ Schaidler L and C Osimo. "NStar Use of Herbicides Raises Concerns For Public Health." *Sandwich Broadsider*. December 15, 2010. Available from: <http://www.wickedlocal.com/sandwich/news/x319810221/Laurel-Schaidler-and-Cheryl-Osimo-Newton-NStar-Use-of-Herbicides-Raises-Concerns-For-Public-Health>.

¹⁴ Schaidler L and C Osimo. "NStar herbicide use raises concerns." *Cape Cod Times*. November 25, 2013. Available from <http://www.capecodonline.com/apps/pbcs.dll/article?AID=/20131125/OPINION/311250305/0/SEARCH>.

¹⁵ Schaidler LA et al. 2014. Pharmaceuticals, perfluorosurfactants, and other organic wastewater compounds in public drinking water wells in a shallow sand and gravel aquifer. *Sci Tot Environ.* **468-469**:384–93.

¹⁶ Schaidler LA et al., *Emerging Contaminants in Cape Cod Private Drinking Water Wells*. 2011, Silent Spring Institute: Newton, MA.

Eversource can add to its green commitment and protect the health of Cape residents by minimizing herbicide use as a part of its integrated vegetation management plan for rights-of-way maintenance.

Sincerely,

A handwritten signature in cursive script, appearing to read "Laurel A. Schaidt".

Laurel Schaidt, Ph.D.
Research Scientist, Silent Spring Institute

A handwritten signature in cursive script, appearing to read "Cheryl Osimo".

Cheryl Osimo
Cape Cod Outreach Coordinator and Co-Founder, Silent Spring Institute
Executive Director, Massachusetts Breast Cancer Coalition

Edward Stockman M.S., P.W.S.
Biologist / Professional Wetland Scientist
131 Summit Street
Plainfield, MA 01070
edstockman@verizon.net
413-634-5024

Right-of-Way Coordinator
Mass Dept. of Agricultural Resources
251 Causeway St., Suite 500
Boston, MA 02114

March 10, 2018

RE: Eversource Vegetation Management Plan (VMP) 2018

Dear ROW Coordinator:

As a wetland scientist and frequent visitor, I have a vested interest in protecting Cape Cod's aquifer. All terminal moraines and glacial outwash plains contain fragile and uniquely different ecosystems including Cape Cod. It's understandable that vegetation within an electrical transmission right-of-way (ROW) must be controlled but if controlling vegetation threatens the quality of drinking water resources then less threatening control methodologies must be implemented.

Sandy soils and shallow depth to groundwater

Other than wetland soils, most Cape Cod soils are excessively drained sandy soils (1). Application of any herbicide to soils developed in sandy parent material deposited in a glacial terminal moraine or in outwash deposits need to be very carefully assessed for infiltration, percolation and mobility characteristics on a site by site basis (see Attachment A). Previously applied herbicides were soluble in water to various degrees and were mobile.

Monitoring wells – strongly recommended

With any herbicide use it is strongly recommended that numerous monitoring wells are installed within the ROW. To protect the drinking water quality of Cape Cod and to establish baseline data, water from the wells should be assessed for contamination prior to and after herbicide applications. Cape Cod's sandy soils and shallow depth to groundwater is a recipe for surface applied herbicides to contaminate drinking water resources (2).

Glyphosate (Roundup) – probable human carcinogen

Under no circumstances should glyphosate-based herbicides (i.e. Roundup and others) be used on the ROW. In 2015, glyphosate (Roundup) was declared a probable human carcinogen by the cancer experts at the World Health organization (3). Glyphosate is soluble in water and a very mobile chemical that could easily find its way into the groundwater. Drinking water containing a probable human carcinogen is not in the best interest of all who live and vacation on the Cape.

Lost tourism and expensive remediation

Companies like Eversource claim it is too expensive to control vegetation without using herbicides. They never seem to consider the external costs associated with treating contaminated ground water and the loss of tourism due to their actions. Polluted groundwater is very expensive to treat and the cost of importing uncontaminated water for tourists is not cost effective.

Cost should not be the only consideration in vegetation management on Cape Cod. The sandy/gravelly nature of the soil substrate and its shallow depth to groundwater makes Cape Cod's Sole Source Aquifer very vulnerable to contamination from surface sources (see Attachment B). The Eversource herbicide dependent VMP is a threat to not only the water resources of Cape Cod but also to the livelihoods of those people dependent on the tourist industry.

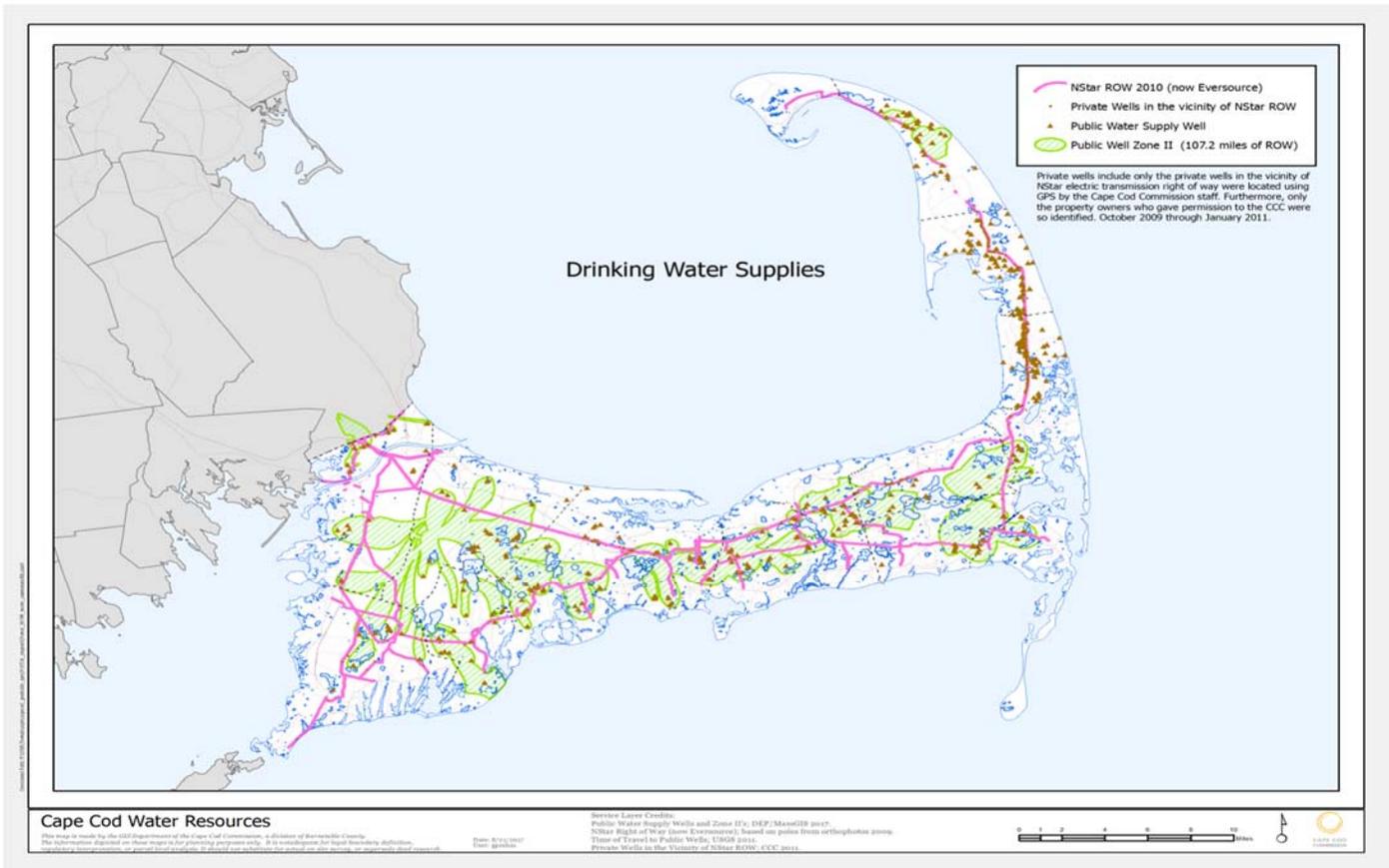
Respectfully submitted,

Edward Stockman M.S., P.W.S.

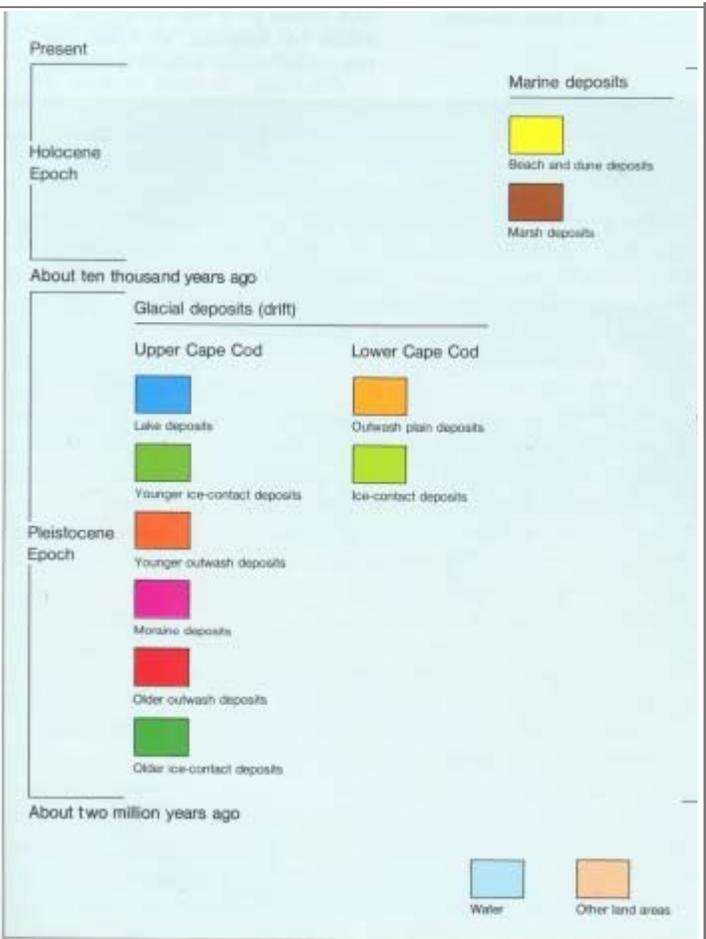
Biologist / Professional Wetland Scientist

References

- (1) Soil Survey of Barnstable County, Massachusetts, USDA
https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/massachusetts/MA001/0/barnstable.pdf
- (2) Well Data, Cape Cod Commission
<http://www.capecodcommission.org/index.php?id=239>
- (3) World Health Organization, International Agency for Research on Cancer, IARC Monographs Volume 112: evaluation of five organophosphate insecticides and herbicides, March 20, 2015.
<https://www.iarc.fr/en/media-centre/iarcnews/pdf/MonographVolume112.pdf>

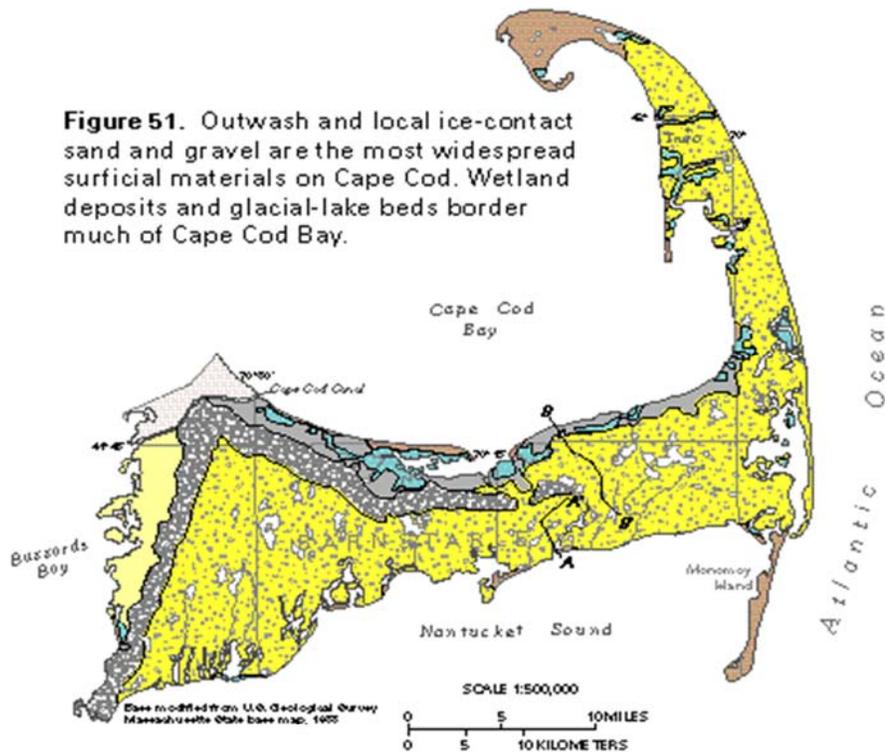


Geologic map of Cape Cod (generalized from detailed mapping by K. F. Mather, R. P. Goldthwait, L. R. Theismeyer, J. H. Hartshorn, Carl Koteff, and R. N. Oldale).



Attachment A

Figure 51. Outwash and local ice-contact sand and gravel are the most widespread surficial materials on Cape Cod. Wetland deposits and glacial-lake beds border much of Cape Cod Bay.



Modified from LeBlanc, D.R., Guswa, J.H., Frimpter, M.H., and Lundquist, C.J., 1986, Ground-water resources of Cape Cod, Massachusetts: U.S. Geological Survey Hydrologic Investigations Atlas 692, 4 sheets.

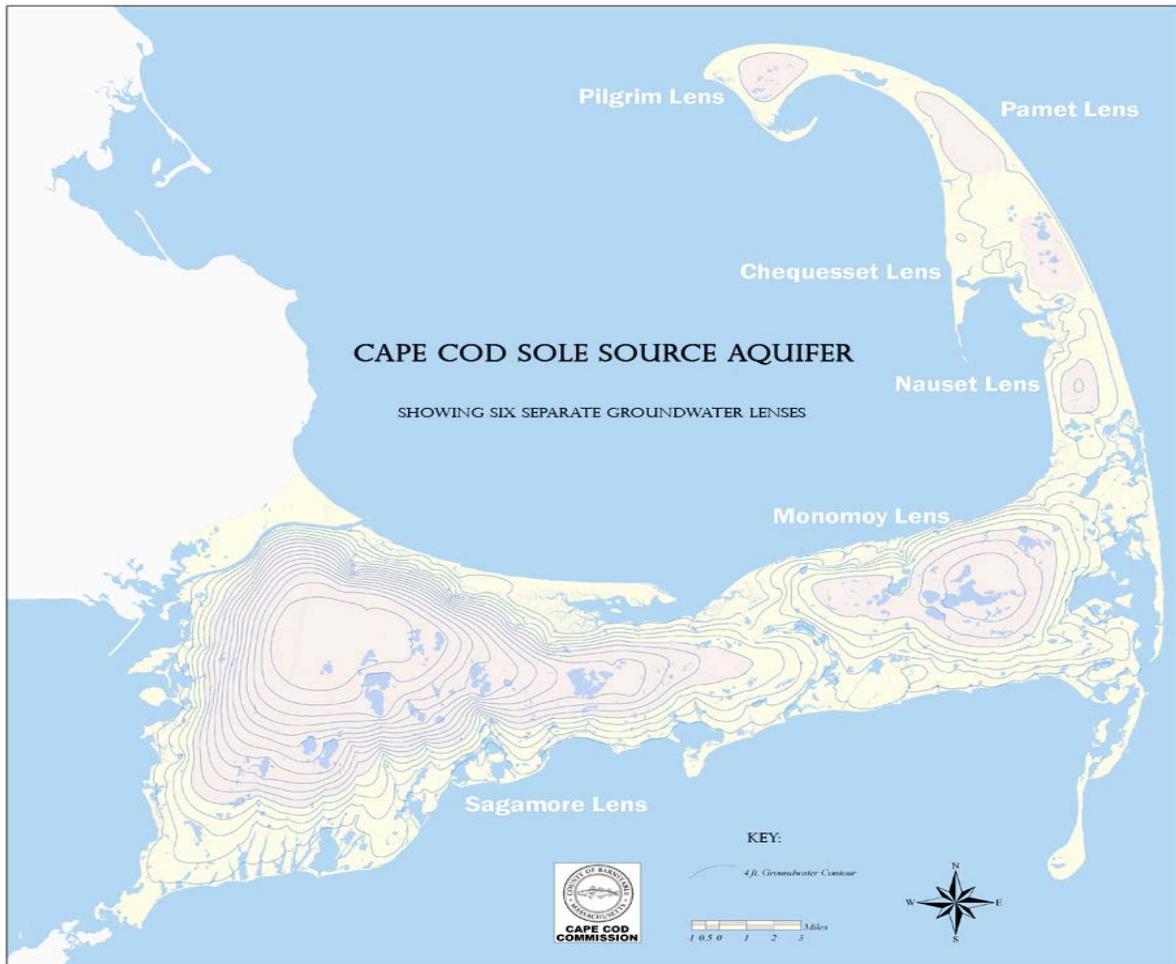
EXPLANATION

Quaternary deposits

-  Beach and dune deposits—Fine to coarse sand
-  Wetland deposits—Peat, organic debris, clay, silt, and very fine to fine sand
-  Glacial-lake deposits—Mostly clay, silt, and very fine to fine sand; locally includes coarse sand and gravel
-  Outwash deposits—Coarse sand and gravel with some interbedded fine and medium sand
-  Outwash and local ice-contact deposits, undifferentiated—Coarse sand and gravel with some clay, silt, cobbles, and boulders
-  Till—Terminal moraine consisting of unsorted and unstratified clay, silt, sand, gravel, cobbles, and boulders

A—A' Line of hydrogeologic section

Attachment B



The topographic lines of the aquifer, referred to as "water table contours," are used by hydrogeologists to plot the exact flow of groundwater. Over the years this effort has led to the use of complex groundwater models to predict and answer many questions about how the aquifer responds to new stresses such as pumping and the discharge of wastewater.

The Cape Cod Aquifer is extremely susceptible to contamination from various land uses and activities. The aquifer has been seriously impacted from military activities, gas stations, landfills, and a host of other activities. These examples have led to multiple strategies to protect the aquifer at all levels of government and have spawned a vigorous industry for the assessment and clean-up of contaminated groundwater. The groundwater of Cape Cod is fairly well protected except for impacts from the prevalence of residential septic systems.

Horsley Witten Group

Sustainable Environmental Solutions

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February 27, 2018

VIA EMAIL

Clayton Edwards
Massachusetts Department of Agriculture Resources
251 Causeway Street, Suite 500
Boston, MA 02114

Re: Eversource Energy, Eastern MA Five-Year Vegetation Management Plan for Cape Cod and Marthas Vineyard (2018-2022)

Dear Mr. Edwards:

I am writing to comment on the Eversource Energy, Eastern MA Five Year Vegetation Management Plan for Cape Cod and Marthas Vineyard (2018-2022).

I have thirty years of experience as a consulting hydrologist working for government, nonprofit, and private organizations throughout the United States and abroad. As a consultant to the U.S. Environmental Protection Agency I have developed Watershed Protection Guidance documents and provided related training in 43 states nationwide. I have served on the MADEP Stormwater Advisory Committee, MADEP Sustainable Water Initiative, and the MADEP Climate Change Adaptation Advisory Committee and am currently serving on MADEP's Title 5 Wastewater Advisory Committee. I also assisted in the preparation of the Massachusetts Smart Growth and Smart Energy Toolkit – a guidance document for Massachusetts communities for sustainable development practices. I serve as an adjunct faculty at Tufts University and Harvard Extension School where I teach graduate-level courses in Water Resources Management, Low Impact Development, and Green Infrastructure.

Section 9 of the proposed Plan identifies Sensitive Areas where "any areas within rights-of-way...in which public health, environmental or agricultural concerns warrant special protection to further minimize risks of unreasonable adverse effects." There are two such sensitive areas that are not adequately addressed in the Plan – 1) private wells and 2) potential public water supply areas.

Private Wells

There are thousands of private drinking water wells throughout Cape Cod and Martha's Vineyard. They draw from the EPA-designated Sole Source Aquifers and are generally of very good (natural) water quality. They have no back-up drinking water supplies.

The Plan identifies private domestic wells as a sensitive resource area. It states, “identified private drinking supplies within one hundred feet of a ROW are included in our permanent records and maps, and landowners are encouraged to post signs on the edge of the ROW to help identify private water supplies (the no-spray treatment area is fifty feet from a private well).

The 50-foot setback is arbitrary and inadequate to protect drinking water quality. Private wells draw groundwater from areas substantially beyond 50 feet in an upgradient direction. Wellhead protection areas for private wells are elongated along these flow lines (see figure below). The Town of Nantucket prohibits septic system installations within 300 feet in the upgradient direction (100 feet on the downgradient side).

The Massachusetts DEP Private Well Guidelines (August 2017) support this approach. On page 17 under “Setbacks” they state, “consideration should also be given to the direction of groundwater flow...”

Private well drinking water quality is a public health issue and accordingly protection should err on the side of the resource area. I recommend that the protection distance (no spraying) be extended to 300 feet on the upgradient side of private wells. I also recommend that the process for updating the locations of new private wells be clarified to ensure that all private wells are included.

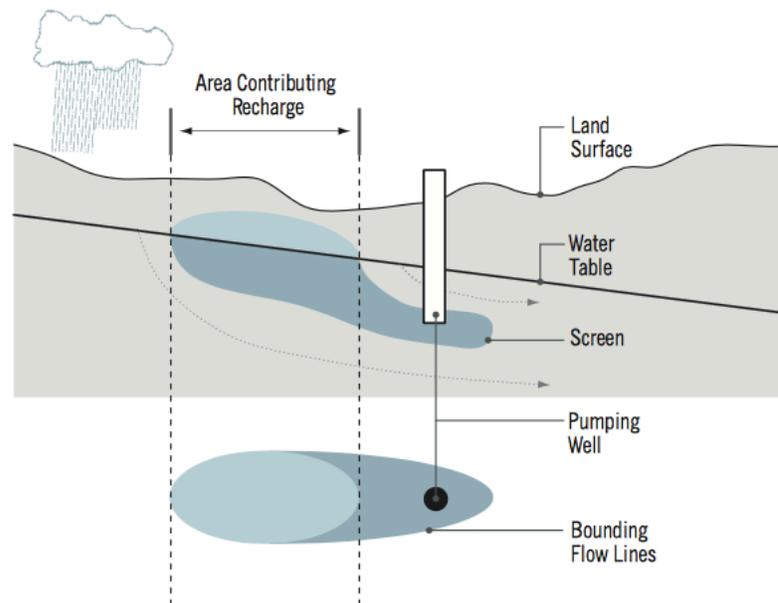


Diagram WR2: Wellhead Protection Recharge Area

Potential Public Drinking Water Supply Areas

The Cape Cod Commission has identified Potential Public Drinking Water Supply Areas in their Regional Policy Plan (see attached map). These areas are critical to the sustainability of Cape Cod. The Regional Policy Plan is the regulatory document that applies to development projects across Cape Cod and thereby serves as the basis for land use decisions and practices. These resource areas should be added to the Sensitive Areas list for a no-spraying alternative.

Summary

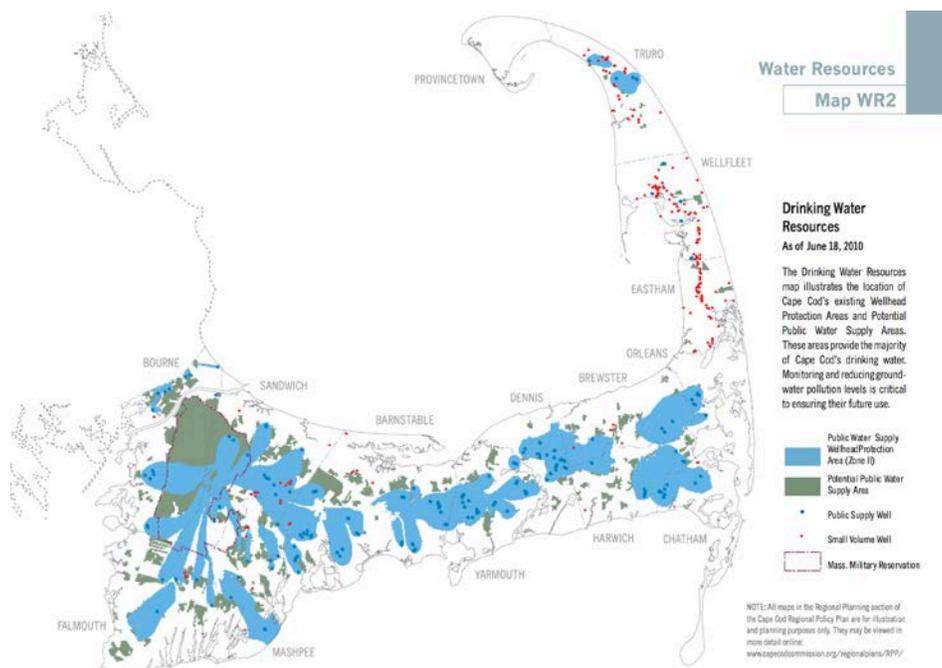
In summary I believe that Eversource should limit their spraying to the greatest extent possible – as they do have mechanical options. We do not have complete information on the impacts of the herbicides that are used and their breakdown products. There are many unknowns.

We do have good information about our water resources on Cape Cod and the islands as a result of decades of hard work in mapping resources and developing water resources protection techniques. These resources should be recognized and utilized in the updated Plan.

Sincerely,

HORSLEY WITTEN GROUP, INC.

Scott W. Horsley
Principal



Horsley Witten Group

Sustainable Environmental Solutions

90 Route 6A • Unit 1 • Sandwich, MA 02563
508-833-6600 • horsleywitten.com



March 19, 2018

Clayton Edwards
Massachusetts Department of Agriculture Resources
Suite 500
251 Causeway Street
Boston, MA 02114

RE: Eversource Energy, Eastern MA Five-Year Vegetation Management Plan for Cape Cod and Marthas Vineyard (2018-2022).

Dear Mr. Edwards:

I am writing to comment on the Eversource Energy, Eastern MA Five-Year Vegetation Management Plan for Cape Cod and Marthas Vineyard (2018-2022). This comment letter is provided as a supplemental document to the letter that I previously provided dated February 27, 2018.

I have thirty years of experience as a consulting hydrologist working for government, nonprofit, and private organizations throughout the United States and internationally. As a consultant to the U.S. Environmental Protection Agency I have developed Drinking Water and Watershed Protection guidance documents and provided related training in 43 states nationwide. I have served on the MADEP Stormwater Advisory Committee, MADEP Sustainable Water Management Initiative (SWMI), MADEP Climate Change Adaptation Advisory Committee and am currently serving on MADEP's Title 5 Wastewater Advisory Committee. I also assisted in the preparation of the Massachusetts Smart Growth and Smart Energy Toolkit – a guidance document for Massachusetts communities for sustainable development practices. I serve as an adjunct faculty at Tufts University and Harvard Extension School where I teach graduate-level courses in Water Resources Management, Low Impact Development, and Green Infrastructure.

Section 9 of the proposed Plan identifies Sensitive Areas where "any areas within rights-of-way...in which public health, environmental or agricultural concerns warrant special protection to further minimize risks of unreasonable adverse effects." There are two such sensitive areas that are not adequately addressed in the Plan – 1) private wells and 2) potential public water supply areas. Both of these represent critical public health issues and need to be included in the plan as Sensitive Areas where herbicides are not applied.

Private Wells

There are thousands of private drinking water wells throughout Cape Cod and Martha's Vineyard. They draw groundwater from the EPA-designated Sole Source Aquifers and are generally of very good (natural) water quality. There are no back-up drinking water supplies. Many of these wells are remote from public drinking water supply distribution systems, leaving no viable options for connection to municipal systems in case of contamination

The Plan identifies private domestic wells as a sensitive resource area. It states, “identified private drinking supplies within one hundred feet of a ROW are included in our permanent records and maps, and landowners are encouraged to post signs on the edge of the ROW to help identify private water supplies (the no-spray treatment area is fifty feet from a private well).

The 50-foot setback is arbitrary and inadequate to protect drinking water quality. It provides a false sense of security to consumers. Private wells draw groundwater from areas substantially beyond 50 feet in an upgradient direction

A report published by the United States Geological Survey (USGS) describes an elliptical-shaped recharge area from which each well derives its water (see diagram WR2 below). Depending on the depth of the well and the local groundwater flow characteristics private wells draw groundwater that was recharged from areas that are several hundred feet upgradient. Several approaches have been developed by researchers and municipalities to delineate wellhead protection areas to private wells.

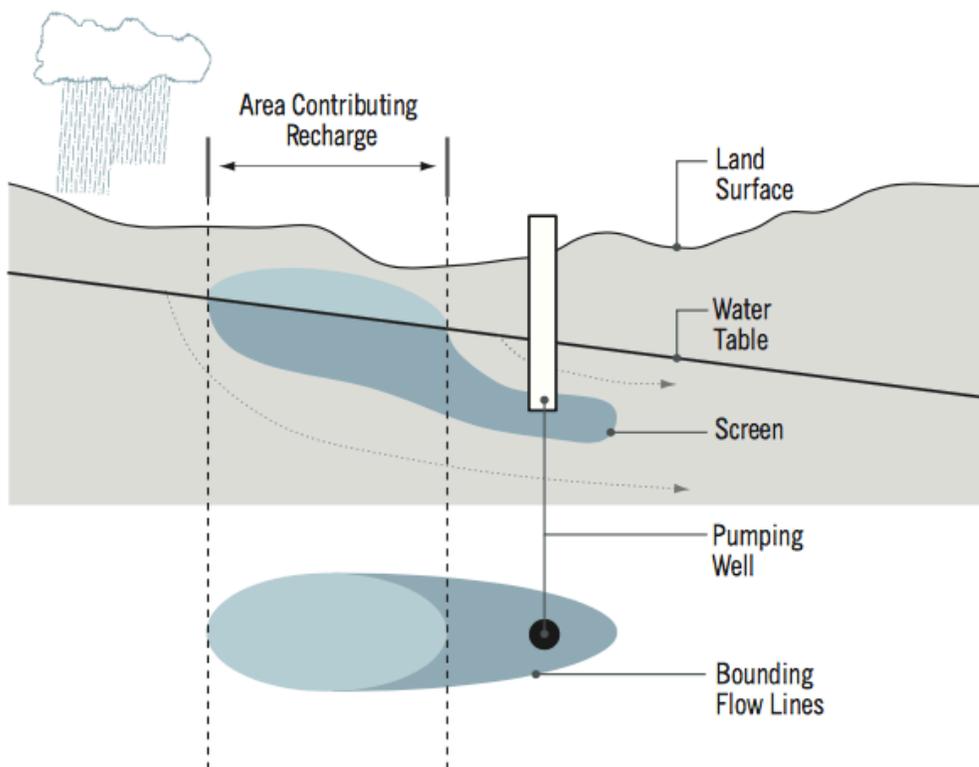
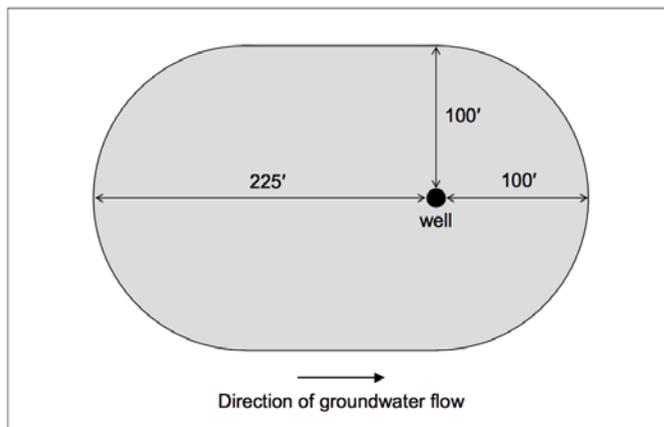


Diagram WR2: Wellhead Protection Recharge Area

Source: United States Geological Survey, 1998

A study of emerging contaminants in private wells on Cape Cod was undertaken by Silent Spring Institute (Schneider et al, 2011). This report utilized a method to delineate recharge areas to private wells that included a 225-foot upgradient area (see figure 1 from that report below).

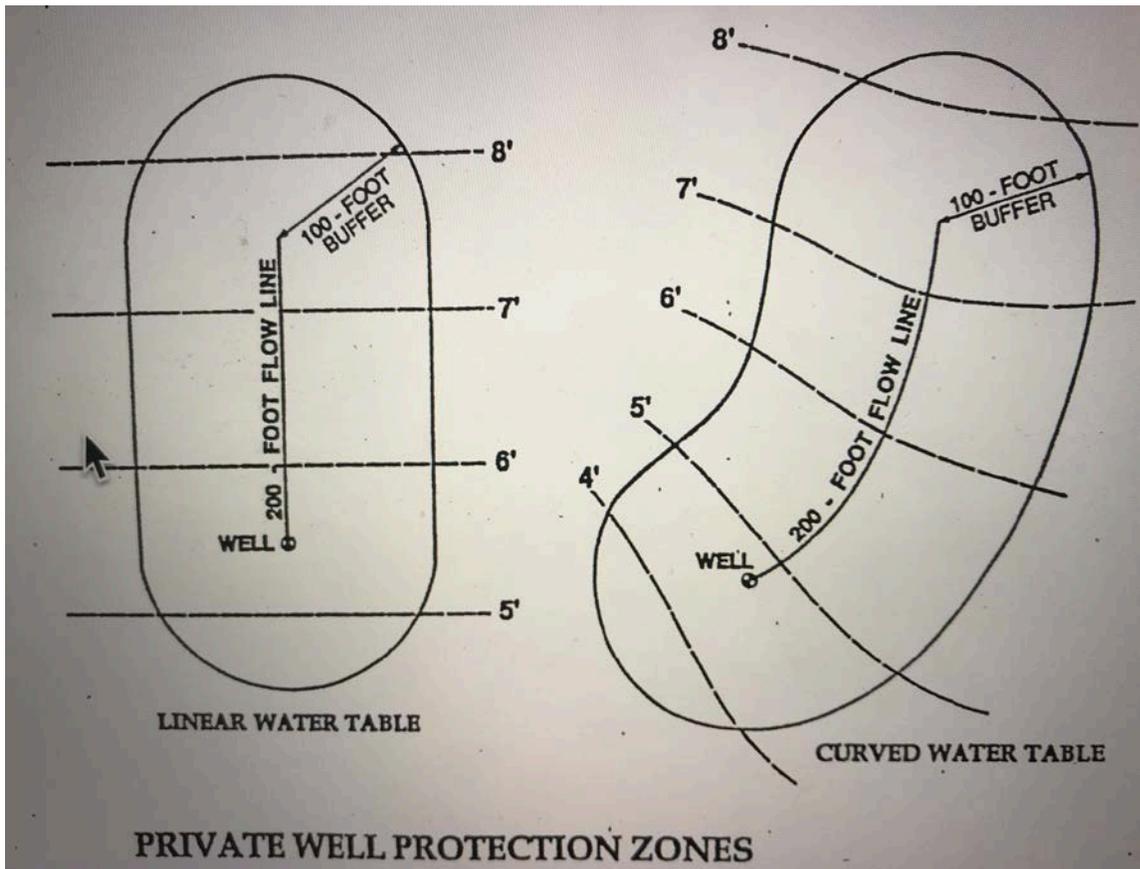
Figure 1. (a) Sample recharge area used to estimate extent of residential development in area influencing each private well. This approach is based on the methodology of Kerfoot and Horsley¹⁴ and is designed to include the predominantly upgradient direction of the recharge area and to incorporate potential seasonal fluctuations in the direction of flow.



Source: Silent Spring Institute, 2011

The Town of Nantucket Board of Health requires the delineation of private well protection zones and prohibits septic system installations within 300 feet in the upgradient direction and 100 feet on the downgradient side (see figure below from the Nantucket Board of Health Regulations, Section 62.00).

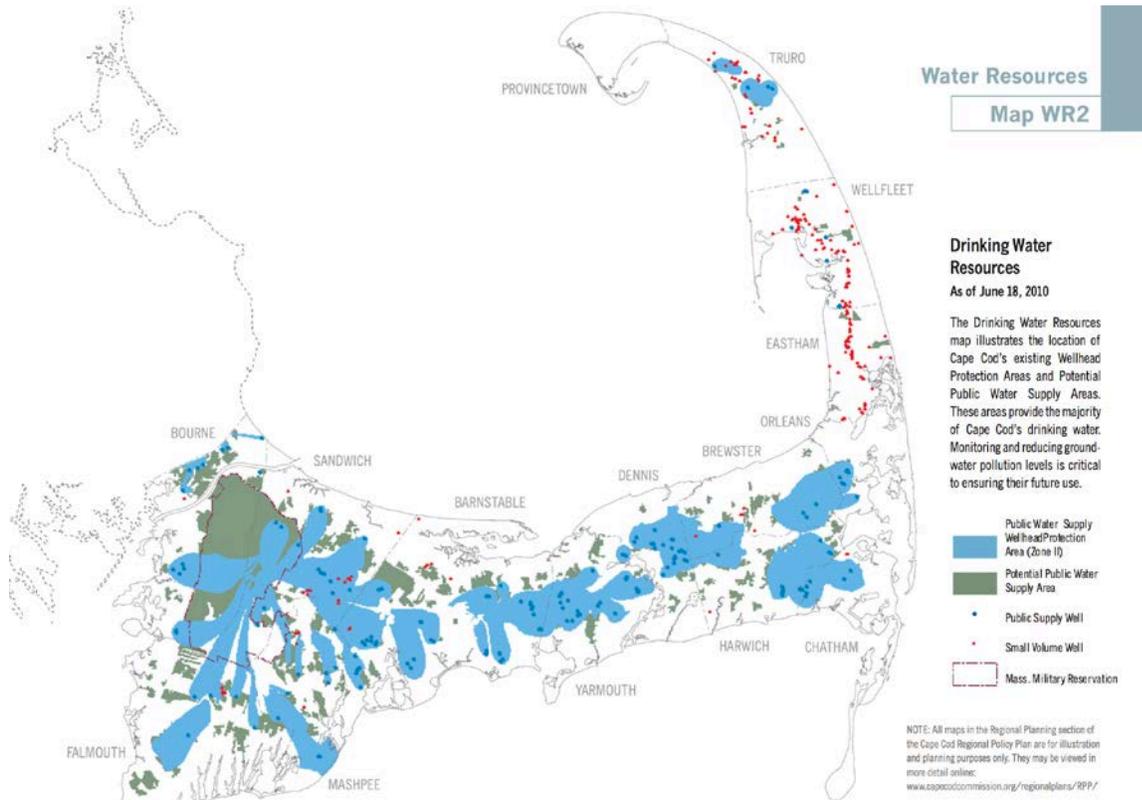
Private well drinking water quality is a public health issue and accordingly regulatory programs should err on the side of protection. I recommend that the protection distance (no spraying) be extended to 300 feet on the upgradient side of private wells. Water table maps are available throughout the Cape Cod region that show regional groundwater flow directions. These maps can be used to estimate the upgradient direction for private wells. Additional on-site hydrogeological mapping can also be used to determine more localized groundwater flow directions where it exists.



Source: Nantucket Board of Health Regulation 62.00

Potential Public Drinking Water Supply Areas

The Cape Cod Commission has identified Potential Public Drinking Water Supply Areas in their Regional Policy Plan (see attached map). These areas are critical to the sustainability of Cape Cod. They represent the only viable future sources of drinking water to Cape Cod residents. As demonstrated by recent groundwater contamination of existing public supply wells on Cape Cod, future alternatives must be preserved. Given the long residence times associated with groundwater in the Cape Cod aquifer and the relatively slow migration rates associated with many contaminants a long-term view must be taken to protect these resources. The Regional Policy Plan is the regulatory document that applies to development projects across Cape Cod and thereby serves as the basis for land use decisions and practices. These resource areas should be added to the Sensitive Areas list for a no-spraying alternative.



Source: Cape Cod Commission, 2012

Summary

In summary Eversource should not apply herbicides within drinking water protection areas including wellhead protection areas, potential public drinking water supply areas and private well protection zones (that incorporate a 300-foot setback in the Upgradient direction).

Herbicides and their residues have been detected in groundwater on numerous occasions in similar hydrogeologic settings such as Long Island, New York. Cape Cod's shallow depth to groundwater, low organic content in our native soils, relatively cold groundwater temperatures all raise the vulnerability of our drinking water supplies. We do not have complete information on the impacts of the herbicides that are used and their breakdown products. There are many unknowns.

However, we do have excellent information about our water resources on Cape Cod and the islands as a result of decades of hard work by USGS, Cape Cod Commission and others in mapping resources and developing water resources protection techniques. Wellhead Protection Areas and Potential Public Drinking Water Supply Areas have been mapped and are included in the Cape Cod Commission's Regional Policy Plan. Groundwater research conducted by the United States Geological Survey (USGS) and others have demonstrated the high mobility of contaminants in the Cape Cod groundwater system (well beyond 100 feet). We

Mr. Clayton Edwards
March 19, 2018
Page 6 of 6

know that private drinking water wells draw groundwater from contributing areas that extend well beyond the 50-foot protection zone proposed in the Eversource Vegetation Management Plan. The Town of Nantucket Board of Health has adopted a 300-foot protection zone upgradient of private wells. These resources should be recognized and utilized in the updated Plan. These drinking water protection areas should be recognized as "Sensitive Areas" within the Vegetation Management Plan. Herbicide applications should be prohibited in these areas.

References

Laurel Schaidler, Ph.D., Janet Ackerman, Ruthann Rudel, M.S., Sarah Dunagan, M.A.
Julia Brody, Ph.D. Emerging Contaminants in Cape Cod Private Drinking Water Wells, Silent Spring Institute, November, 2011

O.L. Franke, T.E. Reilly, D.W. Pollock, and J.W. LaBaugh, Estimating Areas Contributing Recharge to Wells - Lessons from Previous Studies, United States Geological Survey (USGS), 1998.

Cape Cod Regional Policy Plan, Cape Cod Commission, August 2012

Sincerely,

HORSLEY WITTEN GROUP, INC.



Scott W. Horsley
Principal

Enclosure



Clayton Edwards
ROW Coordinator
Massachusetts Department of Agricultural Resources (MDAR)
Pesticide Division
Causeway Street, Suite 500
Boston, MA 02114

March 29, 2018

Dear Mr. Edwards ~

I am against the VMP 2018-2022 because it lists the use of Herbicides to maintain vegetation along power lines on Cape Cod and Martha's Vineyard.

GLYPHOSATE, the active ingredient in RoundUp is even more toxic when mixed with another herbicide.

Does the state, MDAR, have test results for mixtures of herbicides used? If so can you send that to me in email form, thank you.

My concern is, Glyphosate, the active ingredient in RoundUp herbicide, is a biocide that interferes with cellular metabolism, and a toxin. It is one of the five herbicides Eversource uses on Cape Cod and Martha's Vineyard. Its use would otherwise not need be restricted by precautions and regulations. Its toxicity is of concern around the world, and it has been banned in many jurisdictions, including the Netherlands, France, Belgium, Russia, Malta, Sri Lanka, Mexico, Argentina and Columbia. Brazil is moving toward a ban. By a split vote this month, November 2017, Europe did not enact a ban on glyphosate, but the decision was very controversial (and may lead to the fall of the governing coalition in Germany.) The US State Department aggressively promotes its use worldwide.

The World Health Organization's International Agency for Research on Cancer (IARC) recognizes glyphosate as a cause of cancer, especially non-Hodgkin's lymphoma in humans, and others in lab animals. It is recognized as a probable cause of acute renal failure, which is epidemic in a number of tropical-latitude agricultural societies.

The state of California lists glyphosate as a cancer-causing agent on labels of the product. <https://www.nature.com/news/widely-used-herbicide-linked-to-cancer-1.17181><https://toxics.usgs.gov/highlights/glyphosate02.html>

California is doing all they can to protect their citizens, shouldn't Massachusetts be doing the same.

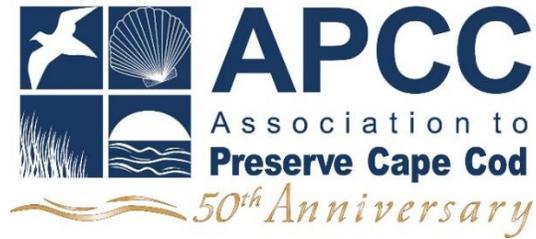
I always thought of Massachusetts as being leaders. Please do not approve the VMP as it is proposed to you by Eversource.

Sincerely,

Dru Lindgren
Assistant Executive Director,
Find The Cause Breast Cancer Foundation
Resident Southborough, MA

Find The Cause Breast Cancer Foundation funds research on the environmental causes of breast cancer and educates the public on prevention.

1881 Worcester Road Suite 200A Framingham, MA 01701
www.findthecausebcf.org



March 5, 2018

Rights of Way Coordinator
Massachusetts Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston, MA 02114

Andrew Gottlieb
Executive Director

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Dear Rights of Way Coordinator:

The Association to Preserve Cape Cod (APCC) submits the following comments regarding Eversource Energy's five-year Vegetation Management Plan (VMP).

Founded in 1968, APCC is the leading regional non-profit environmental advocacy and education organization on Cape Cod. Supported by thousands of members from every Cape Cod town, APCC's mission is to promote policies and programs that foster the preservation of the Cape's natural resources. APCC focuses its efforts on the protection of groundwater, surface water, and wetland resources, preservation of open space, the promotion of responsible, planned growth and the achievement of an environmental ethic.

The VMP submitted by Eversource proposes vegetation control and maintenance using a combination of mechanical vegetation removal and herbicide application on the utility's rights of way (ROW) on Cape Cod. As has been pointed out numerous times in public comments submitted over the past several years by APCC, other environmental organizations, municipalities, elected officials and concerned citizens, Cape Cod has an abundance of sensitive habitats that support rare plant and animal species. Its sandy soils are highly permeable, which allows contaminants to easily leach through to groundwater. The groundwater is hydrologically connected to the Cape's many freshwater ponds and wetlands, and is also the source for the region's private and public drinking water supplies. These fragile resources are found on, and are in close proximity to, Eversource's ROW.

The VMP states that herbicides will be applied to control vegetation in most areas along its ROW, including within 10 feet of a surface water body or other wetland, and within 50 feet of a private drinking water well. Although the VMP does not list which herbicides Eversource specifically plans to use on Cape Cod, it does provide a link to the list of approved herbicides on the Department of Agricultural Resources' Rights of Way Sensitive Area Materials List, suggesting that some combination of these listed herbicides will be used.

In examining this list, APCC notes that many of the approved herbicides have been linked to some human health risk and/or environmental concern:

- Aminopyralid (Milestone, Opensight): Its sale has been suspended in various parts of the world. Since aminopyralid is a relatively new herbicide, little independent information is available in the published literature on the toxicity of aminopyralid to humans or other mammal species. Aminopyralid persists in soils with a half-life

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- ranging from 32 to 533 days, with a typical time of 103 days, and is considered to have a high mobility in soil.¹ In sediment-water systems, the half- life was 462 to 990 days.² It is soluble in water and has moderate to high mobility with the ability to leach through soils and possibly contaminate groundwater.
- Glyphosate (Round Up Pro, Rodeo, Accord Concentrate): In 2015, the World Health Organization’s International Agency for Research on Cancer classified glyphosate as “probably carcinogenic to humans.” Their scientists found there was a particularly strong link between glyphosate and non-Hodgkin lymphoma. On March 28, 2017, the California Environmental Protection Agency’s Office of Environmental Health Hazard Assessment confirmed that it would add glyphosate to California’s Proposition 65 list of chemicals known to cause cancer. Some research has also indicated that glyphosate may be an endocrine disruptor. It has been linked to liver disease, birth defects and reproductive problems in laboratory animals, and it may kill beneficial gut bacteria and damage the DNA in human embryonic, placental and umbilical cord cells. One study suggests that glyphosate may affect pathogens such as salmonella in ways that can contribute to antibiotic resistance. Other recent research suggests it can interfere with hormones.³ Glyphosate acts as a powerful antibiotic against lactobacillus and bifidobacterium bacteria. Without these bacteria, honeybees cannot digest nectar and honey and become disoriented in their foraging.⁴
- Metsulfuron Methyl (Escort XP, Patriot Selective Herbicide): Several sources state that research suggests the chemical may be slightly toxic to birds, the aquatic environment and honey bees.
- Sulfometuron Methyl (Oust XP, Spyder Selective Herbicide): In laboratory tests on animal subjects, sulfometuron methyl caused anemia, atrophied testicles and testicular lesions, and increased the incidence of fetal loss. A sulfometuron methyl breakdown product causes DNA damage in the colon of laboratory animals.⁵ Studies suggest that sulfometuron methyl may leach through the soil and enter groundwater.⁶
- Triclopyr, Butoxyethyl Ester (Garlon 4, Garlon 4 Ultra): Acute exposure to this herbicide has also been linked to blood, kidney, liver and nervous system toxicity in animals. Though not widely classified as a carcinogen, two unpublished studies on triclopyr exposure to rats and mice have suggested increased frequency of mammary gland cancer at high doses. In experimental animal studies, high doses of triclopyr have been shown to cause reproductive and developmental abnormalities, including increased fetal death and skeletal malformations, as well as liver and

¹ MacBean C, ed; The e-Pesticide Manual, 15th ed., Version 5.0.1. Surrey UK, British Crop Protection Council. Aminopyralid (150114-71-9) (2010)

² USEPA/OPPTS; Pesticide Factsheet. Aminopyralid (1560114-71-9). Conditional Registration. August 10, 2005. Available from, as of Jun 30, 2011: <http://www.epa.gov/opprd001/factsheets>

³ Grossman, Elizabeth, National Geographic, April 23, 2015

⁴ Vallianatos, Evaggelos; Why Honeybees Don’t Have A Chance In The Midst Of Pesticides; Huffington Post, 03/09/2017

⁵ JOURNAL OF PESTICIDE REFORM/ WINTER 2002 • VOL. 22, NO. 4

⁶ California Dept. of Pesticide Regulation

kidney defects. Butoxyethyl ester has a potential for surface water runoff and waterway contamination due to its low soil adsorption capacity. Butoxyethyl ester may pose significant risks to groundwater and surface water sources. Triclopyr has been shown to be moderately to highly toxic to freshwater plants and fish as well as some marine vertebrates and invertebrates when in butoxyethyl ester form. At least one study indicates that mammal populations in forested areas treated with triclopyr have been significantly reduced. Because triclopyr is a very potent plant growth disruptor, unintended target plants may be destroyed due to spray drift and runoff from rain. Additionally, triclopyr has been shown to disrupt the normal growth and nutrient cycling properties of microorganisms, fungi, mosses and algae, which are essential to the normal function of healthy ecosystems.⁷

- Paclobutrazol (Combistat): The EPA in 2015 determined in an ecological risk assessment that paclobutrazol posed a potential risk to birds, reptiles and terrestrial-phase amphibians, mammals, terrestrial and aquatic plants, as well as other aquatic organisms.⁸ There is suspicion from lab experiments that paclobutrazol could reduce fertility. There is also some concern that this chemical can cause cancer or mutations but there is not enough data compiled yet to make an informed assessment. However, it is toxic to aquatic organisms, and may cause long-term adverse effects in the aquatic environment.⁹

In addition to the active herbicide products proposed for use, the largely unpublished “inert ingredients” and ingredients used as surfactants for the herbicide products are an unknown risk. According to the National Institute of Environmental Health Science, numerous studies indicate that inert ingredients, which are not labeled and considered proprietary business information, may enhance pesticide toxicity on the nervous system, the cardiovascular system, mitochondria, genetic material and hormone systems. These so-called inert ingredients may in fact be biologically or chemically active. Most of the tests required to register a pesticide are performed with the active ingredient alone, not with every ingredient present in the product.¹⁰

There are too many unknowns attached to the proposed herbicides and to their long-term effects on the Cape’s fragile environment and human population; what is known about these products is troubling. It is APCC’s position that if an adverse effect on the environment or human health has been detected that is linked to herbicide use on Eversource’s ROW on the Cape, it will be too late. Eversource’s continued use of these herbicides as part of its VMP has the potential to adversely affect the Cape’s sensitive habitats and water resources, as well as pose human health risks from exposure to herbicides, and this potential risk is enough to warrant discontinuation of their application above the Cape’s aquifer and in its sensitive habitat areas.

It must also be said that the practice of clear-cut mowing, which Eversource has stated is one of its alternative methods to control vegetation, can be devastating to sensitive habitats and rare species when done indiscriminately.

⁷ National Pesticide Information Center, 2002, Weed Control Methods Handbook, The Nature Conservancy, Tu et al.

⁸ Federal Register Volume 81, Number 3 (Wednesday, January 6, 2016)

⁹ CHEMWATCH, Apr-21-2009

¹⁰ National Institute of Environmental Health Science, 2006 Dec; 114(12): 1803–1806

Clearly, there are other methods of vegetation management that can be utilized that will not introduce toxic chemicals to the environment or result in a blanket leveling of all habitats within the ROW.

Manual removal of vegetation is one of those methods. Hand removal of targeted woody vegetation along the ROW has been successfully demonstrated by volunteer groups in several Cape Cod towns. For several years now, the Brewster Conservation Trust and the Harwich Conservation Trust have each conducted vegetation management programs on their respective Brewster and Harwich properties along the ROW. Both organizations have proven that undesirable vegetation can be effectively removed with a small group of volunteers using only hand tools. The effort achieved the same objective as Eversource's VMP, but without the risk of herbicides or the destruction of clearcutting. Eversource may view the use of herbicides versus hand removal as a cost-saving business decision, but the health of the Cape's environment and its citizens should not be compromised based on the company's bottom line.

APCC urges the Massachusetts Department of Agricultural Resources to be more responsive to the concerns expressed by the broad spectrum of Cape Cod citizens, elected officials and organizations opposed to the utility's current VMP policies. MDAR and Eversource should work closely with community leaders to actively seek out viable low-impact options for vegetation management, such as hand removal, that will not place the Cape Cod's fragile environment at risk.

Sincerely,



Andrew Gottlieb
Executive Director

cc: State Senator Julian Cyr
State Senator Viriato deMacedo
State Rep. Sarah Peake
State Rep. Timothy Whelan
State Rep. William Crocker
State Rep. Dylan Fernandes
State Rep. David Vieira
State Rep. Randy Hunt

**Barnstable County Assembly of Delegates
Resolution 16-03 on Power Line Right-of-Way Maintenance**

Whereas, the governing body of every Barnstable County town has voted repeatedly, to petition the Governor and the Massachusetts Department of Agricultural Resources (MDAR) to deny all Vegetation Management Plans (VMPs) and Yearly Operating Permits (YOPs) for Eversource/ formerly NSTAR which include the use of herbicides to maintain power line rights-of-way on public and others' private land; and,

Whereas these petitions to challenge the applicability of existing MDR Regulations to the distinctive hydrology of Cape Cod have regularly been preemptorily denied; and,

Whereas the sole-source aquifer just beneath our sandy soil is the only fresh water available to residents of and visitors to Cape Cod for all our needs; preserving its quality from contamination is a vital concern; and,

Whereas the Preamble to our Barnstable County Home Rule Charter states that the defined purpose of our regional government is “...to deal with regional issues which transcend the existing boundaries of municipal governments;”

Therefore, as the Towns acting individually have been unable to secure relief from the permitted chemical trespass within their boundaries and above their groundwater;

Now, the Regional Government of Barnstable County Resolves to call upon Governor Charles Baker, by delivering a copy of this Resolution, to cause MDAR to deny any power line vegetation management plan within Barnstable County, which includes the application of herbicides including glyphosate and its adjuvants, and similar others.

Copies of this Resolution shall be also delivered to both State Senators, and all Representatives for Barnstable County to the General Court.

Submitted April 20, 2016

Approved May 18, 2016

Brian O'Malley
Provincetown Delegate



The Town of Barnstable

Office of Town Manager

367 Main Street, Hyannis, MA 02601

Office: 508.862.4610

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Citizens' Resource Line: 508.862.4925



Mark S. Ells, Town Manager
mark.ells@town.barnstable.ma.us

M. Andrew Clyburn, Assistant Town Manager
andy.clyburn@town.barnstable.ma.us

April 4, 2018

John Lebeaux, Commissioner
Massachusetts Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston, MA 02114

RE: Eversource Energy's Five-Year Vegetation Management Plan (VMP)

Dear Rights of Way Coordinator:

The Town of Barnstable, at the direction of its Town Council, provides the following comments on the above-referenced Vegetation Management Plan (VMP) submitted by Eversource which proposes vegetation control and maintenance using a combination of mechanical vegetation removal and herbicide application on the utility's rights of way (ROW) within the town of Barnstable.

As Barnstable's leaders and its citizens have pointed out numerous times in response to previously-submitted plans, Barnstable has an abundance of sensitive habitats that support rare plant and animal species. Its sandy soils are highly permeable, which allows contaminants to easily leach through to groundwater. The groundwater is hydrologically connected to the Cape's many freshwater ponds and wetlands, and is also the source for the Barnstable's private and public drinking water supplies. These fragile and irreplaceable resources are found on, and are in close proximity to Eversource's ROW.

The VMP states that herbicides will be applied to control vegetation in most areas along its ROW, including within 10 feet of a surface water body or other wetland, and within 50 feet of a private drinking water well. Although the VMP does not list which herbicides Eversource specifically plans to use in Barnstable, it does provide a link to the list of approved herbicides on the Department of Agricultural Resources' Rights of Way Sensitive Area Materials List, suggesting that some combination of these listed herbicides will be used.

Alarminglly, many of the approved herbicides have been linked to human health risks and/or environmental concerns. In addition to the active herbicide products proposed for use there are also largely unpublished "inert ingredients". According to the National Institute of Environmental Health Science, numerous studies indicate that inert ingredients, which are not labeled and considered proprietary business information, may enhance pesticide toxicity on the nervous system, the cardiovascular system, mitochondria, and genetic material and hormone systems.

As a sole source aquifer community that has experienced chemical contamination from outside sources in our public water supply, we are keenly aware of these sensitive receptors and must be absolutely certain that we ensure public safety and drinking water supply safety. There are too many unknowns attached to the proposed herbicides and to their long-term effects on the Barnstable's fragile environment and human population. Eversource's continued use of these herbicides as part of its VMP has the potential to adversely affect Barnstable's sensitive habitats and water resources, as well as pose human health risks from exposure to herbicides. This potential risk is enough to warrant discontinuation of their application above the Cape's aquifer and in its sensitive habitat areas.

Barnstable's concerns also extend to the practice of clear-cut mowing, which Eversource has stated is one of its alternative methods to control vegetation, which can be devastating to sensitive habitats and rare species when done indiscriminately.

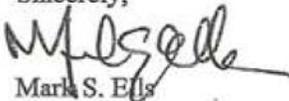
Additionally, you should be aware that in at least three instances, Eversource's predecessor in title took title to certain parcels conveyed by deed or easement from the Town of Barnstable, or its predecessor in title. In each instance, Eversource accepted title subject to express conditions in the nature of restrictive covenants that expressly or by implication ban the application of chemical herbicides on the Eversource properties and easements identified therein.

Your attention is invited to a deed recorded in the Barnstable County Registry of Deeds on October 3, 1931 in Book 485, Page 141. See also easements dated February 3, 1971 and recorded in Book 1499, page 1038 and dated May 17, 1968 in Book 1402, page 301.

The Town of Barnstable has the full benefit of these provisions which superseded and take precedence over any statute or regulation to the contrary. The Town expects full compliance by Eversource with these documents. Any VMP approved for Eversource should be explicitly subject to the above-referenced easements which ban the application of chemical herbicides.

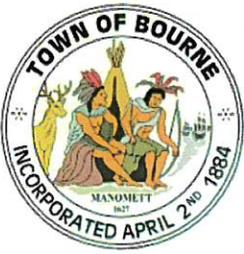
In sum, the importance of protecting and preserving Barnstable's public and private water supplies and its fragile natural resources requires an approach by the Massachusetts Department of Agricultural Resources which rejects Eversource's VMP Plan as proposed and imposes low-impact options for vegetation management, such as hand removal. The Town of Barnstable would welcome the opportunity to work with Eversource to achieve a mutually beneficial result for Barnstable's citizens.

Sincerely,



Mark S. Ellis
Town Manager

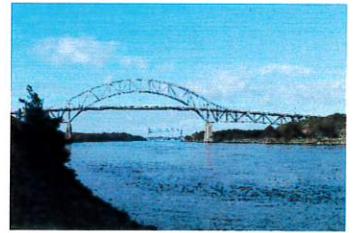
cc: Barnstable Town Council
State Senator Julian Cyr
State Rep. William Crocker
State Rep. Timothy Whelan
State Rep. Randy Hunt



TOWN OF BOURNE

Town Administrator

24 Perry Avenue – Room 101
Buzzards Bay, MA 02532-3496
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Thomas M. Guerino
Town Administrator

April 2, 2018

Clayton Edwards, Massachusetts Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston, MA 02114-2151

Dear Mr. Edwards:

As you are aware, the Eversource is applying five different herbicides under approximately 150 miles of electrical and transmission lines across Cape Cod and the Islands. For decades, Eversource (formally NSTAR and Boston Edison and Commonwealth Electric) used only non-chemical methods for controlling weeds along its rights-of-way, employing mechanical cutting and hand mowing exclusively across the state, including on Cape Cod. The Town continues to oppose all requests by Eversource for licensure to apply chemical spraying herbicides in any location within the Town of Bourne and throughout Cape Cod.

These herbicides threaten public health, the environment and precious drinking water resources on Cape Cod. We, the Bourne Board of Selectmen, oppose pesticide use along rights-of-way on Cape Cod, and ask that NSTAR commit to a no-spray, herbicide-free policy on Cape Cod rights-of-way for the following reasons:

- While herbicide treatment can be less expensive in the short-term, however, the use of herbicides to control weed growth along rights-of-way on Cape Cod is an unnecessary risk for public health and the environment. The Right-of-Way being sprayed cover 85% of the contribution lands for Bourne's drinking water.
- The herbicides Eversource proposes for use on Cape Cod can migrate off rights-of-way, seeping into groundwater and surface water and exposing humans and aquatic organisms to toxic chemicals. Cape Cod is an EPA-designated sole source aquifer, meaning the aquifer is the only source of drinking water for Cape Cod and if contaminated, would create a significant hazard to public health. Sandy soils across the Cape leave groundwater particularly vulnerable to contamination.

Cape Cod is very windy and documented wind velocities rarely fall within label restrictions, meaning that herbicides will drift during spraying operations. Additionally, areas in Bourne north of the Cape Cod Canal are within the Plymouth/Carver aquifer area. I am providing links below that depict environmental hazards for each of the five herbicides on the plan so that you may decide if this rises to a best practices management plan.

Glyphosate - see page #3 for Environmental hazards:

<http://www.cropsmart.net/Products/Glyphosate/CropSmart%2041%20Plus%20Label.pdf>

Triclopyr - toxic to fish =

http://www.alligarellc.com/assets/pdf/TRICLOPYR_4_LABEL.pdf

Imazapyr - http://www.alligare.com/assets/pdf/almazapyr2SL_LABEL.pdf

Metsulfuron -

http://www.4cweed.com/assets/docs/METSULFURON%20METHYL%20DF_LABEL.pdf

Krenite - <http://transportation.ky.gov/maintenance/documents/pesticide/krenite-s%20label.pdf>

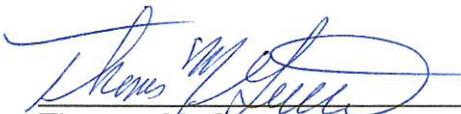
Any short-term financial benefits are far outweighed by the long-term liability for risks posed to precious drinking water, the health of Cape Cod communities, and the safety of workers. We request that Eversource abandon its current plan to use herbicides along rights-of-way on Cape Cod and commit to a no-spray, pesticide-free policy of vegetation management on Cape Cod and the Islands.

In addition to the above and as you are aware, the Bourne Town Meeting has required that the Town do everything in its authority, through the Board of Selectmen to move to have the application of sprays and ground applied herbicides along utility Rights of Way fully ceased.

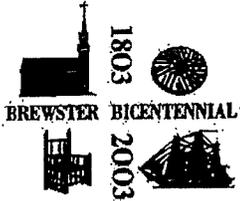
The Town asks for your intervention in this matter and all further spraying be postponed until alternative non-chemical controls are implemented.

We additionally request a delay in the spraying by the revocation of all permits in consideration or granted Eversource (Vegetation Management Plan) for Cape Cod and the Islands.

Respectfully,



Thomas M. Guerino
Town Administrator



TOWN OF BREWSTER
WATER DEPARTMENT



Cynthia Barren
Susan Brown
Doug Wilcock
William Porter
Board of Water Commissioners

Paul Anderson
Superintendent

February 23, 2018

Mr. Michael Embury
Brewster Town Hall
2198 Main Street
Brewster, MA 02631

RE: Eversource Integrated Vegetation Management Program

Dear Mr. Embury;

On January 28, 1986 the Space Shuttle Challenger exploded 73 seconds after leaving the ground killing all seven crew members. One of the crew was a teacher from our neighboring state New Hampshire. It was a terrible tragedy and was completely avoidable. You have heard the term "it doesn't take a Rocket Scientist" well in this case it took many and some of them were concerned with an O-ring. They said it wasn't designed for cold temperatures; they were correct. It was later determined that NASA's organizational culture and decision making process was flawed. The Challenger disaster has been used as a case study in discussions of engineering safety and workplace ethics.

In my experience many regulating agencies have flawed organizational cultures and decision making processes. Brewster has every reason to be concerned with Eversource's Vegetation Management Plan and Yearly Operational Plan that has been and continues to be overseen by the Department of Agriculture Resources. The herbicides being utilized may pose a threat to the sole aquifer that provides domestic water to Brewster as well as all the towns on Cape Cod.

Brewster has five well sites that provide domestic water and fire protection to over 90% of the community. The ground water is replenished by annual rainfall and the soil composition acts as a filter cleaning the water. Attachment A shows the water table elevations in Brewster and it clearly indicates that our ground water is near the surface. This means the soil that acts as a filter is thin and it is also primarily composed of sand which is extremely pervious. I marked the location of the power lines and some locations are only between 10' to 20' above the ground water in locations proposed to be treated. Attachment A also shows the general direction the ground water flows.

Attachment B shows the water table elevations, locations of wells (Brewster's are dotted red) and I marked the power lines as well. If you compare the two it appears that Brewster's wells are upstream from the powerlines. This makes it difficult to "identify, describe, and support assertions related to specific harm relative to spray locations, town water supply, and the direction of ground water flow." To be clear I believe the spraying is a major concern due to the shallow nature of the ground water but not necessarily due to the location of Brewster's wells and direction of ground water flow.

The Space Shuttle Challenger tragedy happened because the organization refused to recognize valid concerns of qualified professionals. I can't prove the herbicides being used will impact the ground water. To the best of my knowledge no one has used this type of application in a location that is similar to Cape Cod. I believe the risk is significant and should be investigated more thoroughly prior to implementation.

Respectfully,



Paul Anderson
Superintendent

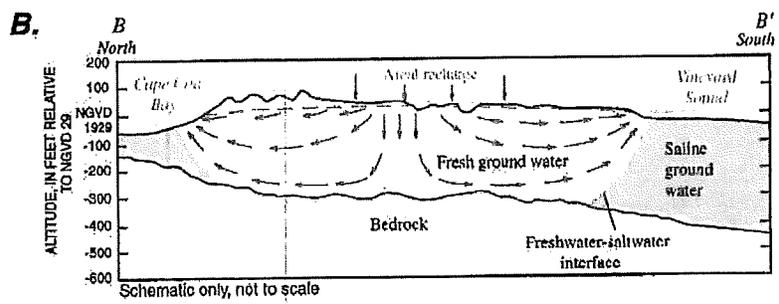
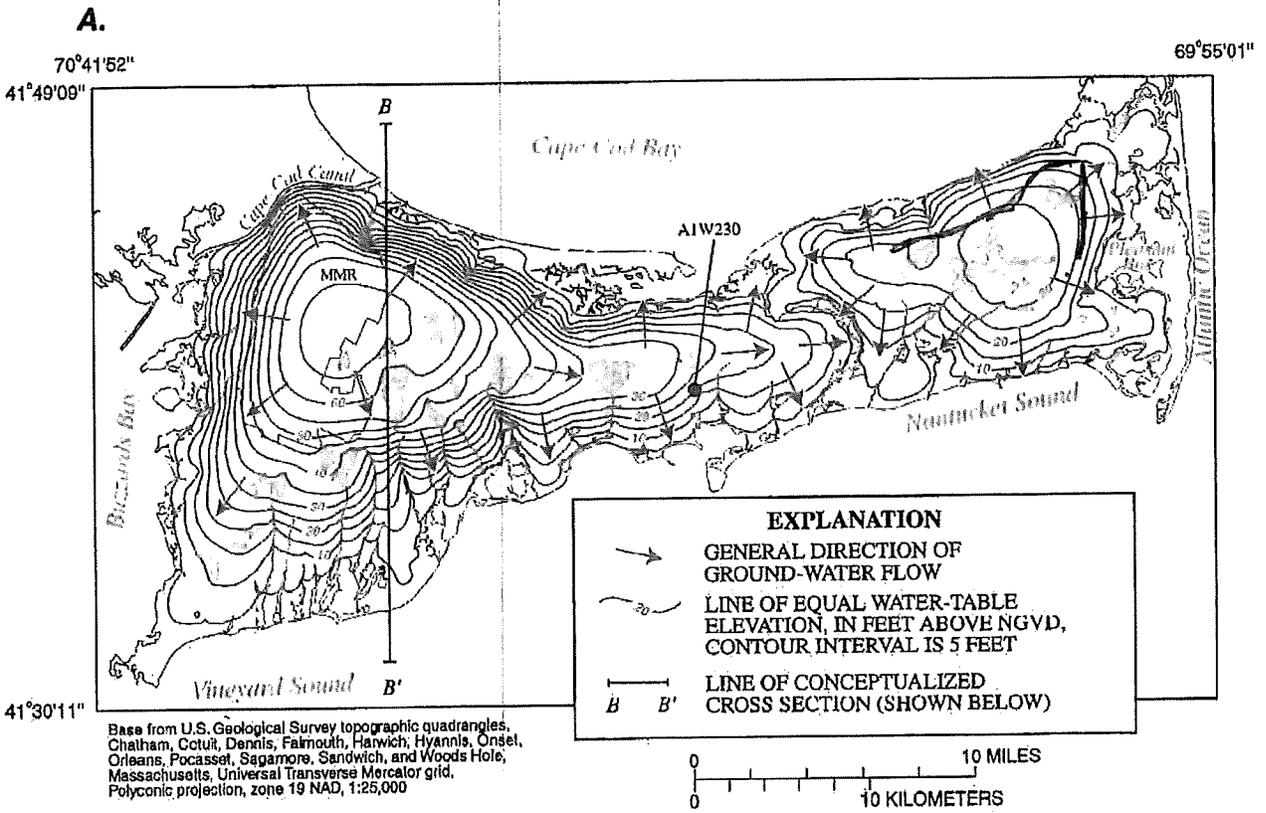


Figure 5. A, Regional water table for central and western Cape Cod; and B, generalized vertical ground-water flow, western Cape Cod, Massachusetts.

Surface Water

Water-table contours and ground-water-flow patterns on Cape Cod are strongly affected locally by numerous kettle-hole ponds because the ponds offer no effective resistance to flow. The ponds are flow-through ponds; ground-water-flow paths converge in areas upgradient of the ponds, where ground water discharges into the ponds, and diverge in downgradient areas, where pond water recharges the aquifer. Some ponds have surface-water outlets where ponds drain into freshwater

streams. Streams generally are areas of ground-water discharge (gaining streams) and receive water from the aquifer over most of their length. Streamflow entering the channel as ground-water discharge (base flow) generally is the primary component of streamflow; however, streamflow may be augmented by surface-water runoff during heavy precipitation events. Some stream reaches may lose water to the aquifer (losing streams), particularly in areas downgradient of pond outflows. Surface runoff is negligible owing to the sandy soils and gentle topography, except during extremely wet periods.



Town of Brewster

2198 Main Street
Brewster, MA 02631-1898
Phone: (508) 896-3701
Fax: (508) 896-8089

Office of:
Select Board
Town Administrator

March 26, 2018

Clayton Edwards
Massachusetts Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston, MA 02114

Re: Eversource - Eastern Massachusetts Five Year Vegetation Management Plan (VMP) for Cape Cod and Marthas Vineyard (2018-2022)

Dear Mr. Edwards:

I write on behalf of the Brewster Select Board, the citizens of Brewster and myself regarding the community's objection to the above referenced Vegetation Management Plan (VMP) submitted by Eversource.

Brewster has been in the forefront of attempting to work within a system that is heavily skewed in favor of Eversource and their insistence that spraying is the sole means of managing vegetation along their rights-of-way. The Town has clearly stated and will continue to hold that there is an alternative to spraying for vegetation management. Eversource continues to deny that mowing is a viable alternative and refuses to meet with the Town and its representatives in an attempt to design an alternative program. (As a side note – I have walked nearly all of the rights-of-ways in Brewster and none are threatened by vegetation and they all could be mowed yearly as an environmentally safe alternative to spraying.

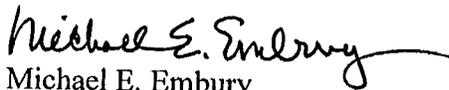
The Town maintains that the VMP is flawed and deficient. Their lack of supporting data and studies supporting their position is problematic.

I will reemphasize that the residents of Brewster do not want spraying within this community as a safeguard to our sole source aquifer. They are also mindful that our neighbors on the Cape need the same protections from the future detrimental effects of spraying. Too many examples of chemical treatments of the past have been proven to be harmful to the environment and populations when we were told there was nothing to be worried about.

The VMP as submitted should be rejected by MDAR. A Cape alternative needs to be developed through negotiations between Eversource, MDAR and a committee of representatives of Cape communities and implemented for an extended period of time (3-5 years).

Thank you for your consideration in this matter. An alternative to spraying will help in assuring the environmental protection of the Cape's water sources.

Sincerely,

A handwritten signature in cursive script that reads "Michael E. Embury". The signature is written in black ink and has a long, sweeping underline that extends to the right.

Michael E. Embury
Town Administrator

February 26, 2018

Rights-of-Way Program
Massachusetts Dept. of Agricultural Resources
251 Causeway St, Suite 500
Boston, MA 02114-2151

Re: Eversource Energy 2017 YOP for Cape Cod and Martha's Vineyard

To the Rights-of –Way Program,

The objective of this letter is to comment on the Eversource Energy VMP and YOP as it affects the Town of Brewster in general and, more specifically, lands owned by the Brewster Conservation Trust (BCT). A core aspect of BCT's Mission is to protect the natural resources in our town: fragile wildlife habitat and water resources including vernal pools, wetlands, and ground water which is the water supply for Brewster and neighboring towns. To this end, we have spent millions of dollars protecting land within the Zone IIs in Brewster and in purchasing pond-front properties. In general, we feel that chemical spraying, particularly using a chemical still under scientific debate as called for in the Eversource YOP, threatens the fragility of Cape Cod's environment and the sole source aquifer on which we rely for our water supply, whether from horizontal (across the land's surface) or vertical (downward through the soil) movement of the chemical.

The Brewster Conservation Trust owns and oversees the protection of more than 220 parcels of land in Brewster. Our principal criteria for purchasing land and acquiring conservation restrictions are the protection of habitat and water resources, including water supply. BCT owns several parcels which fall within the Eversource ROW and which would be subject to chemical spraying as per the YOP. These parcels include habitat for rare and endangered species, other special Massachusetts habit characteristics, and some are located within a Zone II drinking water supply area. These parcels would also be subject to the performance standards explained in the Brewster Conservation Commission's letter to you, dated February 23, 2018.

We feel that that chemical spraying is the wrong approach to these fragile resources. As a result and to obviate the need for chemical spraying, BCT's teams of volunteers have manually cleared woody vegetation within the ROW on eight of our properties that would be subject to Eversource treatment.

The attached map and table indicate the location of these properties and their environmental significance. **We request that Eversource crews refrain from spraying on any of these properties.** Please confirm receipt of this letter and the fact that BCT has cleared the land in a way that obviates the need for spraying. In addition, we would be available to meet at any time with an Eversource representative to visit the properties described in this letter.

Sincerely,

Henry P. Minis, President

cc: Clayton Edwards, Mass Pesticide Bureau

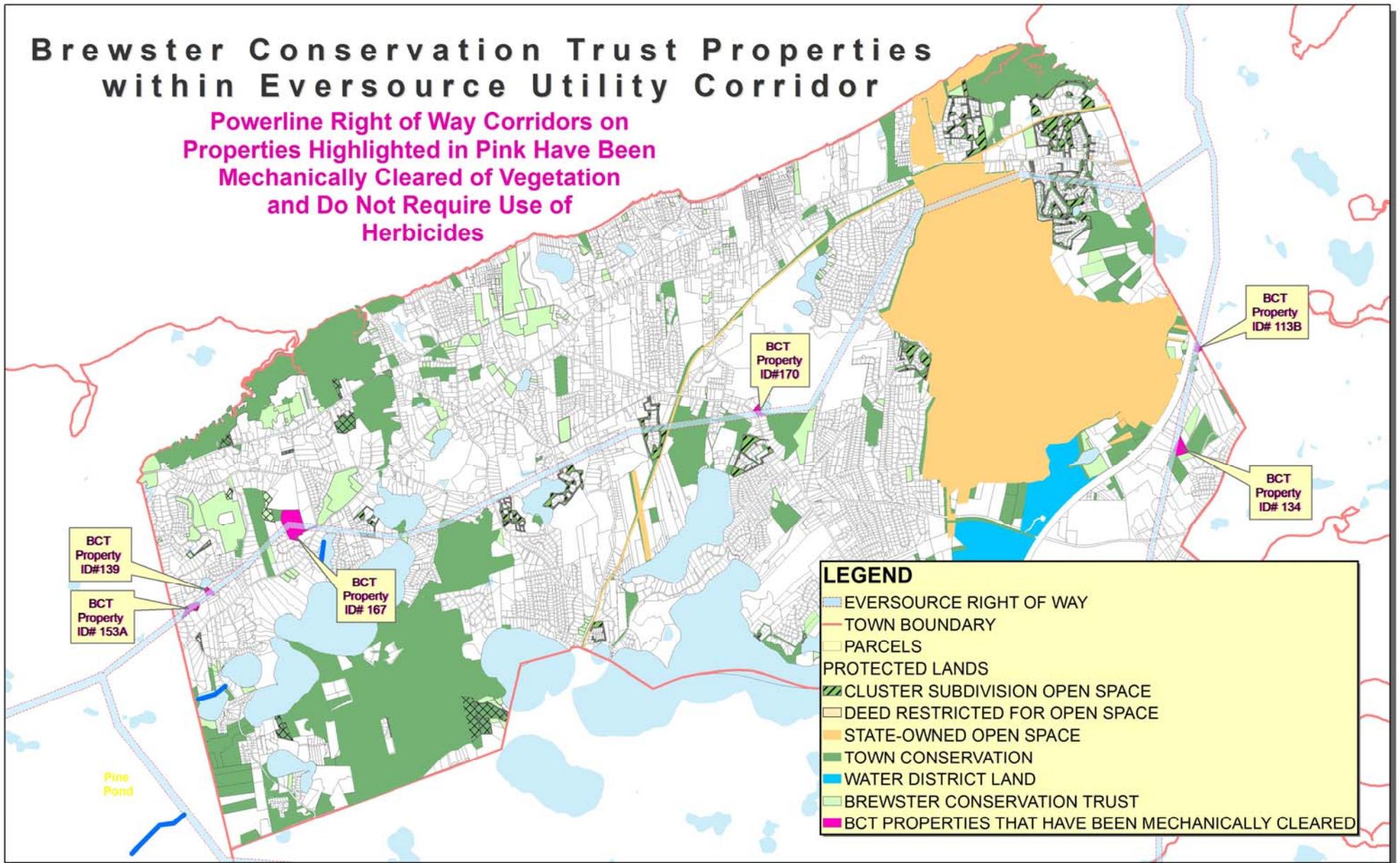
**Summary of Brewster Conservation Trust Properties Within Eversource Powerline Corridors
That Have Been Manually Cleared of Woody Vegetation**

Figure A provides a list of all lands owned by the Brewster Conservation Trust (BCT) that are partially or wholly within the Eversource powerline right of way and have been mechanically cleared of woody vegetation in order to prevent the need for spraying of herbicides. Figure B maps these parcels.

Figure A. List of BCT Parcels Within The Eversource Right of Way Cleared of Woody Vegetation

BCT ID NO.	GRANTOR	A C R E A G E			STREET ADDRESS	ASSESSORS MAP & LOT	HABITAT & ENVIRONMENTAL IMPORTANCE
		Upland	Wetland	TOTAL			
153A	Baldwin	3.30	0.26	3.56	0 Earthbound Cartway	Map 3, Lot 17	Certified Vernal Pool, Zone II Water Supply Protection Area, Estimated or Priority Habitat of Rare Wildlife, District of Critical Planning Concern (DCPC [Water Supply Protection])
139	Hunton	1.89	0.00	1.89	Zona Drive at Round Pond	Map 13, Lot 6	Pond shore, Zone II Water Supply Protection Area, Biomap2, Estimated or Priority Habitat of Rare Wildlife, Statewide Land Conservation Plan, District of Critical Planning Concern (DCPC [Water Supply Protection])
167	Merchant	13.17	0.00	13.17	0 Abby Road	Map 24, Lot 90	Pine-Oak woods
170	Miller and Holmes	2.00	0.48	2.48	0 Long Pond Road	Map 75, Lot 16	Pond shore, Cape Cod Commission Significant Natural Resource Area, Statewide Land Conservation Plan,
134	Harrington	2.50	0.50	3.00	0 Powerline (off Clay Hole Road)	Map 144, Lot 46	Vernal Pool, Zone II Water Supply Protection Area, Biomap Liv. Waters/Core Supporting Habitat, Area of Critical Environmental Concern (ACEC), Pleasant Bay watershed, Marine Recharge Area
113B	Jester	1.70	0.00	1.70	0 Mid-Cape Highway	Map 146, Lot 12	Zone II Water Supply Protection Area, Biomap2, Est. or Pri. Habitat, Statewide Land Conservation Plan, District of Critical Planning Concern (DCPC [Water Supply Protection]), Pleasant Bay watershed, Marine Recharge Area

Figure B. Map of BCT Parcels Within The Eversource Right of Way Cleared of Woody Vegetation



Michael Embury

From: Patrick Ellis
Sent: Friday, March 23, 2018 11:56 AM
To: Michael Embury
Subject: FW: TRO Hearing

FYI

From: Patrick Ellis
Sent: Thursday, September 21, 2017 3:09 PM
To: 'brucetuab@gmail.com' <brucetuab@gmail.com>
Subject: TRO Hearing

R. Patrick Ellis
Superintendent of Public Works
Town of Brewster

Former Superintendent of Public Works Town of Sandwich 1986-1996
Town of Sandwich Selectman 1996-1999 , 2014-2017
Massachusetts Tree Wardens and Foresters Association Past President

A.A. Cape Cod Community College Liberal Arts
A.S. Stockbridge School of Agriculture U-Mass Urban and Community Forestry

Responsibility for Public Works in Brewster including Highways, Parks, Cemetery, Trees, Brewster Recycling Center, Fleet maintenance and almost anything else which requires public works in Brewster.

Brewster has multiple wells which are drawing water closer to the surface than 50 feet. The issue here is risk assessment, Brewster has won national awards for its water quality, largely due to the fact that we put very little if any additives into our water, we are very proud of this achievement. Brewster has also engaged in decades of land and water preservation with restrictive zoning and large tract land acquisition. The prevailing reason for this was to preserve the water quality for future generations and to insure the excellent quality of life we enjoy.

I have been in this industry for over thirty years and have seen almost every pesticide or herbicide used in the past banned. As soon as we develop the method to detect the limits in water or soil we have taken them off the shelf. Clearly this shows that we don't have the capacity at present to evaluate the risk if we don't know if the product ends up in water or what form it takes once it is in water.

We have other methods including mechanical means to accomplish this task. Developments in machinery such as stump grinders and mowers now do work we would never have attempted even 20 years ago. In addition; one of the missing habitats in southern New England are open fields, mowing on a regular basis would return these area to fields which would be of little threat to the transmission lines and provide habitat for upland game and songbirds.

Paul Hebert
142 Strawberry Hill Road
Centerville, MA 02632

Right-of-Way Coordinator
Massachusetts Department of Agricultural Resources
251 Causeway Street
Suite 500
Boston, Massachusetts 02114

3/7/2018

Dear Right-of-Way Coordinator,

The 64 Million Dollar Question is that given there are alternatives to EverSource putting herbicides all over Cape Cod – Why contribute to the Chemicals of Emerging Concern to our drinking water?

Citizens have volunteered to cut and maintain bushes and shrubs; naturalist landscapers and arborists have plans that would be effective in controlling growth and erosion; suggestions of everything from rows of solar panels to planting blueberry bushes and other agricultural opportunities abound at cost savings to EverSource.

As a member of the Cape Cod Waste Water Collaborative for the 208 Plan, as a citizen who drinks the water, as an elected Barnstable Town Councilor and liaison to the Barnstable Board of Health and as the vice-president of the Cape and Islands Selectmen and Councilors Association herbicide spraying and use is WRONG. When the Barnstable County Fire Academy polluted our wells with fire fighting form the County was SUED for Damages. They are paying for clean-up and water filtration.

CHEMICALS OF EMERGING CONCERN are a reality today. Water is our highest priority and contributes to the public health debate. Testing is increasing to find any and all hot spots. When the herbicide chemicals reach reportable levels in our water rest assured that EverSource and the permitting Departments and Agencies will be held responsible. The sad fact is that the damage to the water will already have been done. The clean up and the costs of filtering will be expensive.

I sincerely hope that the Massachusetts Department of Agricultural Resources will NOT approve the EverSouce plan to use herbicides. Next to clean water we depend on our agriculture for healthy food. Herbicides do not fit into the mission of providing for the health and wellness of our citizens especially when school children can recommend better options.

Respectfully,

Paul Hebert
paul.hebert142@gmail.com



Town of Chatham
Department of
Natural Resources



Health
(508) 945-5165

Water Quality Laboratory
(508) 945-5188

Conservation
(508) 945-5164

Coastal Resources
(508) 945-5176

Shellfish
(508) 945-5184

Harbormaster
(508) 945-5185

FAX (508) 945-5163
261 George Ryder Road Chatham, MA 02633

March 21, 2018

Rights-of -Way Program
Massachusetts Department of Agricultural Resources
251 Causeway St., Suite 500
Boston, Massachusetts 02114

Re: Eversource 5-Year Vegetation Management Plan 2018-2022

Dear Sir/Madam:

The Chatham Town Board of Health discussed the above-referenced plan during its March 19th meeting. In addition, one member attended the March 6th public hearing held in Chatham. While the plan appears to be well written, the board "never-the-less" voted to oppose its approval by MDAR.

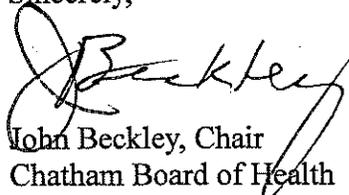
The Board of Health believes that it does not make sense for a utility, such as Eversource, to apply over 2,000 gallons of herbicide, along many miles of rights-of-way, above an extremely vulnerable sole source aquifer **when** there are other mechanical ways to achieve the same end. Public health practitioners understand the importance of investing in prevention. And when it comes to something as irreversible as ground water contamination, it is crucial that the public policy be set in a way that prevents such a possibility. On Cape Cod, ground water = drinking water. Why put it at risk?

In the real world, the best written plans may not always be followed. Workers may not always be diligent and careful when mixing or preparing herbicide products. Wind may gust unexpectedly. History also teaches us that many chemicals believed to be safe at one point in time are later revealed to be far more persistent and injurious than originally thought.

If MDAR decides in the end to grant the new permit, our board feels it is essential that there be a groundwater testing/monitoring provision included. This is the only way to provide the scientific proof that there is no migration of herbicides or their metabolites into shallow groundwater.

We feel this is an issue where the long view needs to be taken.

Sincerely,



John Beckley, Chair
Chatham Board of Health

cc. Board of Selectmen
Robert Duncanson, Director of Natural Resources

Eversourcevmp.odt

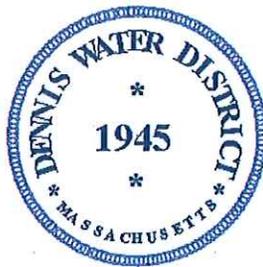
WATER COMMISSIONERS

Paul F Prue, Chairman

Peter L McDowell

Alan Tuttle

508-398-3351 Fax: 508-398-6799



Sheryl A McMahon
Clerk & Treasurer

David Larkowski
Superintendent

James Ritchie
Assistant Superintendent

www.denniswater.org

February 12, 2018

RE: Public Hearing Comments against Eversource Energy's Vegetation Management Plan (VMP)

To Mass Dept. of Agriculture Resources:

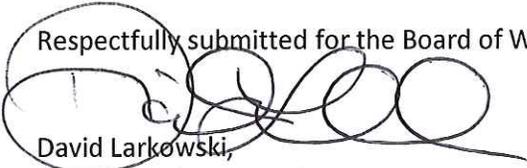
As the elected officials of Dennis Water District we represent the singular public water supplier for the Town of Dennis. As representatives of those consumers we provide the following comments on Eversource Energy's Yearly Operating Plan (YOP) and Vegetation Management Plan. The Dennis Water District owns and controls more than 1,000 acres of water shed protection land and operates 22 drinking water wells serving as many as 65,000 people during the busy summer months. Within the Town of Dennis, Eversource operates 4.4 miles of major power lines on both public and private lands totaling about 80 acres.

With both ownership and use of public lands by utilities comes the responsibility to protect that land and the resources they provide the local the community. Water suppliers are regulated under M.G.L. 310 CMR 22.00 by the Department of Environmental Protection (DEP) which promulgates rules for the use of public property for water supply and water supply protection purposes. We ask, "Has the DEP been asked for an opinion on this YOP and the intended use of herbicides and pesticides on properties it regulates as sources for drinking water and water supply protection?" We suggest that, if asked, the Department of Environmental Protection would respond with a resounding "NO" to the use of such agents for the purpose of clearing and maintaining water shed property.

The Federal Safe Drinking Water Act regulates and administers testing requirements for water suppliers. Over the years these regulations are requiring more rigorous testing for new contaminants, more extensive sampling procedures and analysis and lowering detection results down to parts per trillion. These tests have identified a number of contaminants found in drinking water supplies once thought never to be a problem. This has led to new regulations and communities having to deal with these new detections and having to clean up a problem that should have been prevented in the first place.

Public water suppliers need regulators to be forward thinking. Make new decisions taking lessons from history into consideration. Prevent future detections so we do not have to clean up old ones. It's not that Eversource can't maintain their power lines without this type of chemical treatment. They most certainly can with other non-contaminating methods. They simply don't want to accept the cost. But, that cost just may be our water quality. We strongly urge the Department of Agricultural Resources to change the status quo of these utilities and their YOP and refocus the operations to less hazardous means of power line maintenance.

Respectfully submitted for the Board of Water Commissioners,


David Larkowski,
Superintendent



A private non-profit land trust founded in 1988

February 27, 2018
Rights -of- Way Coordinator
Massachusetts Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston, MA 02114

To whom it may concern,

Founded in 1988, the Dennis Conservation Trust acquires and preserves open space in Dennis and promotes sound conservation practices while working with others who share common interest and values in preserving land and the quality of life. Over the last 30 years, the Trust has acquired ownership of over 392 acres of diverse land types, including uplands, wetlands and beachfront in Dennis. The Trust also holds perpetual conservation restrictions on another 217 acres.

I am writing to you, on behalf of the Dennis Conservation Trust, to express concern regarding the Eversource Energy- Eastern MA Five Year Vegetation Management Plan for Cape Cod and Martha's Vineyard (2018-2022). The Dennis Conservation Trust holds interest in 12.7 acres of land along the Eversource Energy Right of Way through Dennis. In the plan, Eversource Energy reviews their activities, both mechanical and chemical, to manage vegetation along its right of way easements.

After reviewing the plan, we are alarmed to see that Eversource Energy will continue its use of herbicides to treat vegetation within the right of ways. While we understand that vegetation removal is time consuming, there are several Cape Cod-based organizations and municipalities that have attempted to coordinate with Eversource Energy on manually clearing the right of ways using volunteers and staff. This collaborative effort exemplifies the communities' desire to eliminate the need for herbicides.

The Dennis Conservation Trust is urging the Massachusetts Department of Agriculture (MDAR) to prohibit Eversource Energy from using herbicides ultimately preventing further risk to our drinking water and to the plants and animals who call Cape Cod its home. We also ask that MDAR encourage Eversource Energy to work with local groups to achieve the management goals they have without the use of herbicides.

Thank you for your diligence in reviewing Eversource Energy's plan. Thank you for considering our request.

Sincerely,

A handwritten signature in blue ink, appearing to read "Katherine Garofoli", is written over a light blue horizontal line.

Katherine Garofoli

Director

Post Office Box 67 · East Dennis, Massachusetts 02641

*Pursuant to Internal Revenue Code requirements for substantiation of charitable contributions,
no goods or services were provided in return for the Tax Deductible contributions.*

TOWN OF EASTHAM

2500 State Highway
Eastham, MA 02642
For all departments 508-240-5900 Fax 508-240-5918
www.eastham-ma.gov



March 27, 2018

Clayton Edwards
Rights-of-Way Coordinator
Massachusetts Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston, MA 02114

RE: Update to Board of Health Letter, February 2, 2018 - Response to Eversource
Vegetative Management Plan

Dear Mr. Edwards:

As stated in my letter of February 2, 2018, the Eastham Board of Health opposes the application of herbicides to control vegetation along the Eversource right of way (ROW) in our town. I wish to reinforce this opposition by supporting the information included in the March 4 letter from our Water Management Committee, as well as the letter from our Board of Selectmen. Information in these letters includes specific facts about our soil and drinking water sources which make Eastham uniquely more susceptible to potential contamination of our groundwater that could result from use of herbicides for vegetative management along ROWs.

Mr. Harris (Vice Chair, Water Management Committee) and his committee did extensive reviews of County soil survey documents, determining that more than 3/4th (77%) of the soils along ROWs are "deep, sandy, and excessively drained", thus providing a fast conduit for drainage of surface water and runoff from treated areas. In addition, the depth to groundwater in many places in town is substantially less than 50 feet (including the 29 foot distance to groundwater near a major water supply well in District G that is 350 feet from the ROW). Our Health Agent and her staff included a list with updated locations of 72 private drinking water wells along the ROW easement.

Although Eastham has completed the first phase of construction of a municipal water system, many residents will continue to use private wells for drinking for a number of years. With the sandy soils, fast drainage of surface contaminants, and shallow depth to top of groundwater in many places, we feel the risks of contamination from herbicides, even when a 50 foot buffer is maintained from private wells, far outweigh the benefit of their use, when mechanical methods can adequately maintain the ROW areas.

Our Health Department staff is planning an information session for residents, to which Eversource representatives will be invited to participate. Our Town is committed to working with its residents and with Eversource to take care of the ROW vegetation in the most responsible and feasible ways possible to protect our sole source aquifer. See the attached list of private Eastham drinking water wells that are adjacent to the right of way that could be impacted by any herbicide used in this fragile area.

Sincerely,

Joanna Buffington, M.D., M.P.H.
Chair, Eastham Board of Health
cc: Eastham Board of Selectmen



TOWN OF EASTHAM

2500 State Highway, Eastham, MA 02642
All Departments 508-240-5900
www.eastham-ma.gov

February 2, 2018

Clayton Edwards
Rights-of-Way Coordinator
Massachusetts Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston, MA 02114

RE: Response to Eversource's Vegetation Management Plan

Dear Mr. Edwards:

The Eastham Board of Health has taken a position in opposition to application of herbicides as a method for controlling vegetation along the right of way. Non toxic alternatives to weed control exist through selective hand cutting and mechanical mowing. It is of critical importance in a community served by on site private wells that we continue to protect public health by protecting our ground water and surface waters. Eastham will continue to have private wells many years to come as we develop a municipal water system. To protect the municipal water system under construction it is our responsibility to safeguard the drinking water quality to the highest degree possible. The Eastham Board of Health has taken this position in opposition to herbicide application in the past and will continue to do so in the future. It is our responsibility to protect public health, the environment and the taxpayer investment in our water supply by being proactive advocates taking action to protect water quality.

Respectfully,



Dr. Joanna Buffington, Chair
Eastham Board of Health

CC: Eastham Board of Selectman



TOWN OF EASTHAM

2500 State Highway
Eastham, MA 02642

For all departments 508-240-5900 Fax 508-240-5918

www.eastham-ma.gov

March 4, 2018

RE: LETTER RECOMMENDATION TO MASSACHUSETTS DEPARTMENT OF
AGRICULTURAL RESOURCES FROM EASTHAM WATER MANAGEMENT
COMMITTEE

Rights-of-Way Program
Massachusetts Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston, MA, 02114-2151

The Town of Eastham Water Management Committee recommends the Massachusetts Department of Agricultural Resources not allow the large-scale application herbicide to limit vegetation growth on right-of-way land under electrical, high tension transmission lines in Eastham as proposed by Eversource Energy, Boston, MA.

The Committee finds that extensive herbicide application on the predominately sandy, highly permeable soils found throughout, Town of Eastham uplands risks health harm to Eastham citizens through drinking water drawn from herbicide contaminated groundwater.

The Soil Survey of Barnstable County classifies Eastham upland soils in the Carver course sand series: "a very deep ---- an excessively drained soil in broad areas of outwash plains", "on tops of knobs" and "on hills and ridges", with three sub-groups present: CdA, 0 to 3 percent slope; CdB, 3 to 8 percent slope; and CdC, 8 to 15 percent slope (1). Along the right of way the three sub-groups compose 22, 25 and 30 percent, respectively, a total of 77 percent of the right of way in the town (2).

The Committee's concern centers on the high permeability of Carver soil and related absence of small soil particles, described as silt and clay, in the soil composition. Carver soils appear to lack the physical properties to filter out/hold herbicides away from groundwater as capillary water (3). The survey indicates a water permeability rate of greater than 20 inches per hour (4) and a clay component of 1-5 percent (4), and 0-10 percent of the soil particles in the subsoil passing the smallest sieve size (5).

The Committee prefers the vegetation be limited by a means absent of the risk of groundwater contamination. Limiting vegetation by power vehicle mechanical means, as limited by safe slope operation, seems a more reasonable approach.

The Town of Eastham operates a water supply well in District G, in North Eastham near Railroad Avenue, 350 feet from the right of way. The groundwater surface lies 29 feet below the earth surface at the well.

Groundwater contamination from the closed and capped, municipal, sanitary landfill negatively impacts 40 households in Eastham. Following the detection of 1, 4, Dioxane at the landfill in 2013 Eastham conducted an extensive well testing program of more than 300 residential wells. To limit exposure Eastham requires impacted households to connect to the municipal supply system and terminate private well use.

The Town of Eastham has charged the Water Management Committee to “exercise review and advice on issues related to” (water resources including) “Protect the water resources with appropriate remediation measures”, and “Protect water quality of ponds.”

-
1. Pages 31-33, and (Map) Sheets 6, 7 and 8, Soil Survey of Barnstable County, Soil Conservation Service, United States Department of Agriculture, 1984.
 2. (Map) Sheets 6, 7 and 8, Soil Survey of Barnstable County.
 3. Page 127, Glossary, Soil Survey of Barnstable County.
 4. Page 203, Table 15, Physical and Chemical Properties, Soil Survey of Barnstable County.
 5. Page 194, Table 14 Engineering Index Properties, Soil Survey of Barnstable County.

Charles Harris, Vice Chair
Eastham Water Management Committee

ROW 349 - Eastham

Key#, Map and Parcel, Address					Location	Coordinates
Map	Parcel	Ext	Key	Number		
5	32	A	853	2740	NAUSET RD	N41' 864.79 W69' 981.72
5	36		855	65	OAK LEAF RD	N41' 51.861 W69' 58.846
5	44	A	862	2660	NAUSET RD	N41' 51.843 W69' 58.841
5	44	B	863	40	OAK LEAF RD	N41' 51.849 W69' 58.815
5	44	G	868	2640	NAUSET RD	N41' 51.818 W69' 58.860
5	44	H	869	2620	NAUSET RD	N41' 51.798 W69' 588.68
5	108		931	60	HELM RD	N41' 51.742 W69' 58.904
5	109		932	30	HELM RD	N41' 51.764 W69' 58.892
5	110		933	10	HELM RD	N41' 51.803 W69' 58.887
5	111		934	2685	NAUSET RD	N41' 51.834 W69' 58.916
5	122	C	947	4890	STATE HWY	N41' 51.697 W69' 59.057
5	124		949	4790	STATE HWY	N41' 51.649 W69' 59.093
5	125		950	4760	STATE HWY	N41' 51.575 W69' 59.124
8	179		2367	137	HOLMES RD	41.85234 69.98291
8	184		2373	75	HOLMES RD	N41' 51.219 W69' 59.011
8	186		2375	25	HOLMES RD	N41' 51.271 W69' 59.06
8	187		2376	200	BRACKETT RD	N41' 51.284 W69' 59.005
8	191	J	11157	20	DORY LN	41.857033 69.981967
8	191	K	11158	22	DORY LN	41.857483 69.9836
8	191	L	11159	24	DORY LN	41.856733 69.98415
8	191	M	11160	26	DORY LN	N41' 51.379 W 69' 59.027
8	191	N	11161	28	DORY LN	N41'51.443 W 69' 58.986
11	4		3472	3580	STATE HWY	N 41' 50.603 W 69' 58.977
11	105		3590	50	KINGSBURY BCH RD	N 41' 50.482 W 69' 58.980
11	106		3591	20	KINGSBURY BCH RD	N 41' 50.484 W 69' 58.965
11	108		3593	100	ARMOUR DR	N 41' 50.473 W 69' 58.949
11	109		3594	90	ARMOUR DR	N 41' 50.438 W 69' 58.945
11	111		3596	80	ARMOUR DR	N 41' 50.423 W 69' 58.975
11	113		3598	70	ARMOUR DR	N 41' 50.371 W 69' 58.946
11	114		3599	60	ARMOUR DR	N 41' 50.376 W 69' 58.965
11	145	G	3636	14	WOOD DUCK LN	N 41' 50.327 W 69' 58.971
11	145	I	3638	10	WOOD DUCK LN	N 41' 50.282 W 69' 58.958
11	145	J	3639	8	WOOD DUCK LN	N 41' 50.274 W 69' 58.959
11	151		3644	460	LOCUST RD	N 41' 50.217 W 69' 58.939
11	153		3646	60	COLONY RD	N 41' 50.164 W 69' 58.956
11	154		3647	50	COLONY RD	N 41' 50.147 W 69' 58.967
11	155		3648	40	COLONY RD	N 41' 50.116 W 69' 58.954
11	156		3649	30	COLONY RD	N 41' 50.112 W 69' 58.966
11	157		3650	30	COLONY RD	N 41' 50.118 W 69' 58.971
11	157		3650	20	COLONY RD	N 41' 50.129 W 69' 58.992
14	103		4658	35	HATCH WAY	N 41' 49.969 W 69' 58.950
14	107		4662	30	HATCH WAY	N 41' 49.955 W 69' 58.939
14	108		4663	20	HATCH WAY	N 41' 49.923 W 69' 58.968
14	114		4666	470	SAMOSSET RD	N 41' 49.885 W 69' 58.949
14	121		4668	10	NICKERSON RD	N 41' 49.765 W 69' 58.922
14	128		4675	70	NICKERSON RD	N 41' 49.569 W 69' 58.915
14	129		4676	55	NICKERSON RD	N 41' 49.647 W 69' 58.905
14	130		4677	35	NICKERSON RD	N 41' 49.679 W 69' 58.924
14	131	A	9825	25	NICKERSON RD	N 41' 49.704 W 69' 58.965
14	131	B	9824	15	NICKERSON RD	N 41' 49.724 W 69' 58.950
14	180		4726	1550	BRIDGE RD	N 41' 49.297 W 69' 58.953
14	181		4727	1585	BRIDGE RD	N 41' 49.338 W 69' 58.930
14	223		4774	90	JENNIE CLARK RD	N 41' 49.372 W 69' 58.922
14	234		4773	100	JENNIE CLARK RD	N 41' 49.408 W 69' 58.919

14	235		4772	110	JENNIE CLARK RD	N 41' 49.418	W 69' 58.907
17	33		5077	415	IRELAND WAY	N 41' 48.734	W 69' 59.072
17	34		5078	405	IRELAND WAY	N 41' 48.762	W 69' 59.063
17	35		5079	395	IRELAND WAY	N 41' 48.779	W 69' 59.064
17	36		5080	385	IRELAND WAY	N 41' 48.799	W 69' 59.090
17	590		5250	52	INDIAN WAY	N 41' 49.260	W 69' 58.945
17	591		5251	50	INDIAN WAY	N 41' 49.216	W 69' 58.964
17	593		5253	48	INDIAN WAY	N 41' 49.214	W 69' 58.968
17	610		5270	25	PEQUOD LN	N 41' 49.169	W 69' 58.959
17	611		5271	27	PEQUOD LN	N 41' 49.168	W 69' 58.954
17	612		5272	24	PEQUOD LN	N 41' 49.114	W 69' 58.953
17	628		5288	27	NUTMEG LN	N 41' 49.113	W 69' 58.960
17	629		5289	22	NUTMEG LN	N 41.817817	W-69.98315
17	644		5304	25	PILGRIM LN	N 41' 49.044	W 69' 58.990
17	705	N	5381	100	LIMERICK WAY	N 41' 48.901	W 69' 59.022
17	705	P	5383	80	LIMERICK WAY	N 41' 44.841	W 69' 59.055
17	722		5403	785	GOVERNOR PRENCE RD	N 41' 48.939	W 69' 59.004
17	723		5404	745	GOVERNOR PRENCE RD	N 41' 48.905	W 69' 59.027



TOWN OF EASTHAM

2500 State Highway, Eastham, MA 02642 - 2544

All departments 508 240-5900 Fax 508 240-1291

www.eastham-ma.gov

March 19, 2018

Massachusetts Department of Agricultural Resources
Attn: Rights-of-Way Coordinator
251 Causeway Street; Suite 500
Boston, MA 02114

RE: Eversource VMP 2018 - 2022

Dear Mr. or Ms.:

We are writing to state our concern about the Eversource VMP 2018 - 2022 that focuses on chemical vegetation management strategies. The Eastham Board of Selectmen feel strongly that vegetation control techniques in Eastham, and everywhere on the Cape, should be limited to non-chemical applications such as hand-cutting and Integrated Vegetation Management (IVM) techniques.

The Town of Eastham understands that vegetation management is important to the utility companies. To support Eversource in meeting their needs to maintain the ROW, we will gladly assist in any way possible to clear the way, including using Town resources to manually clear.

Eastham is opposed to the spraying of herbicides anywhere in Eastham and our Town regulations discourage their application by residents and businesses. The following reasons support our objections to the state's acceptance of the VMP 2018 – 2022:

1. The chemicals used are toxins which go into the soil that is covering our sole source aquifer;
2. These same toxins have potential adverse impacts on the above ground environment, bee populations and plants;
3. MDAR, in continuing to support chemical vegetation control measures, shows a lack of concern for the special environment with the sole source aquifer on Cape Cod;
4. And, the power lines in Eastham run through the DEP Zone 2 of our public water supply.

In summary, we hope you are concerned as well, and will do everything possible to ensure that our water supply, our fragile environment, and the health of our citizens, are protected.

Thank you for your consideration.

Sincerely,



William O'Shea

Chair, Eastham Board of Selectmen

cc: Eastham Board of Selectmen
Representative Sarah K. Peake
Senator Julian Cyr
POCCA, Laura Kelley, President



TOWN OF FALMOUTH

Office of the Town Manager & Selectmen

59 Town Hall Square, Falmouth, Massachusetts 02540

Telephone (508) 495-7320

Fax (508) 457-2573

March 26, 2018

Mr. Clayton Edwards, Director
Rights-of-Way Programs
Massachusetts Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston, Massachusetts 02114-2151

Subject: Eversource 2018 Yearly Operational Plan for Cape Cod

Dear Mr. Edwards,

The Falmouth Board of Selectmen is writing to confirm our opposition to Eversource's 2018 VMP to manage vegetation on or about the electric power transmission line rights-of-way in Falmouth, as it involves the potential use of toxic pesticides/herbicides.

Cape Cod is designated by the US Environmental Protection Agency as a sole source aquifer. This single aquifer is the principal source of clean drinking water for the Town of Falmouth. Due to the highly permeable soil, this aquifer is extremely susceptible to contamination from multiple land uses, including storm water runoff. Contamination of this aquifer could create a catastrophic situation that would be difficult or impossible to completely and responsibly remedy. Representative of the Town of Falmouth's commitment to fresh, clean drinking water is the recent construction of a state-of-the-art \$46.5 Million water filtration facility serving Falmouth residents. The needless spraying of toxic pesticides and herbicides in the Town of Falmouth places this major public investment on behalf of the citizens of Falmouth at inappropriate risk.

Thank you for your consideration of our concerns on this critical environmental issue.

Sincerely,

Susan L. Moran, Chairman

Samuel H. Patterson

Megan English Braga

Douglas C. Brown

Doug Jones

FALMOUTH BOARD OF SELECTMEN



Town of Harwich
Board of Health
732 Main Street Harwich, MA 02645
508-430-7509 – Fax 508-430-7531
E-mail: health@town.harwich.ma.us

March 26, 2018

Clayton Edwards
Rights of Way Coordinator
Massachusetts Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston, MA 02114

RE: EVERSOURCE FIVE YEAR VEGETATION MANAGEMENT PLAN
CAPE COD AND MARTHA'S VINEYARD 2018-2022

Dear Mr. Edwards,

On March 19, 2018 the Harwich Board of Health voted to write to you regarding the Eversource Five Year Vegetation Management Plan (VMP) for 2018-2022. The Board of Health would like to express opposition to the use of herbicides on the Eversource Power Lines Rights of Way.

The area to be managed is located directly above the sole source aquifer and many areas are within the Zone II Drinking Water Protection District. The Harwich Board of Health is concerned not only with the potential for drinking water contamination but with overspray of herbicides near private property and recreation areas. Use of herbicides as part of the VMP has the potential to adversely affect our water resources as well as pose human health risks from unnecessary exposure to herbicides.

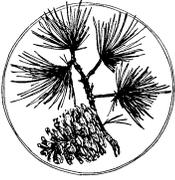
The Harwich Board of Health believes that safer, alternative methods for vegetation management exist and are more appropriate for use in Harwich. Those methods include manual and mechanical removal of vegetation within the Right of Way. As such, we urge you to halt the use of herbicides under the VPM.

Thank you in advance for your help in protecting the health and safety of the residents of Harwich.

Sincerely,

Pamela R. Howell, RN
Board of Health Chairman

CC: Eversource Energy, Eastern MA Vegetation management, One NSTAR Way, SE-370,
Westwood, MA 02090-9230
Laura Kelly, POCCA



HARWICH CONSERVATION TRUST

P.O. Box 101, South Harwich, MA 02661

(508) 432-3997, Email: hct@cape.com

www.HarwichConservationTrust.org

March 6, 2018

Rights of Way Coordinator
Massachusetts Department of Agricultural Resources (DAR)
251 Causeway Street, Suite 500
Boston, MA 02114-2151

Dear Rights of Way Coordinator:

On behalf of the Board of Trustees of the nonprofit Harwich Conservation Trust (HCT), I ask the MA DAR to direct Eversource to amend its Vegetation Management Plan (VMP) proposal so Eversource will forego herbicide use within Rights of Way (ROW) that it maintains as outlined in Eversource's VMP.

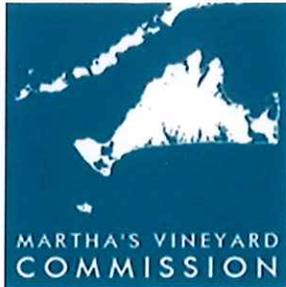
It is our understanding that mechanical means of vegetation management in these ROWs have worked in the past. Reduction of herbicide use whenever possible should take place. Eversource has the ability to forego herbicide use in ROWs, including those located in Zone II of Contribution areas for public drinking water supply wells and recharge areas for private drinking water supply wells.

Thank you for your time and consideration.

Sincerely,

A handwritten signature in cursive script that reads "Michael W. Lach". The signature is written in black ink and is positioned above the printed name and title.

Michael Lach
Executive Director



Martha's Vineyard Commission

OLD STONE BUILDING • 33 NEW YORK AVENUE
P.O. BOX 1447, OAK BLUFFS, MASSACHUSETTS, 02557
PHONE 508-693-3453 • FAX 508-693-7894
INFO@MVCOMMISSION.ORG • WWW.MVCOMMISSION.ORG

March 19, 2018

Clayton Edwards
Pesticide Inspector/ROW Program
Department of Agricultural Resources
251 Causeway St., Suite 500
Boston, MA 02114

Dear Mr. Edwards,

The Martha's Vineyard Commission is writing to comment on Eversource's Five-Year Vegetation Management Plan, on the basis that it does not adequately inform and protect the public, and it allows the use of potentially dangerous herbicides.

The common theme with all of the herbicides used by Eversource (fosamine ammonium, triclopyr, imazapyr, metsulfuron-methyl, glyphosate) is that there are no long term studies about their effects on human health and the environment. The Cape & Islands have many unique characteristics that aren't found in other places throughout the state; including acidic, sandy soils and a shallow water table. These special characteristics are not accounted for in this plan.

The tests used to prove that these chemicals are safe are incredibly outdated and have such a low sample size, usually six to ten male forestry workers who were exposed dermally for lengths ranging from three months to a year, that their validity and correlation to the rest of the population is called into question. We especially call for the elimination of the use of Triclopyr on Martha's Vineyard.

On the safety data sheet for Triclopyr provided by this department, it reads "No information was obtained on the invertebrate toxicity of Garlon 4, the butoxyethyl ester of Triclopyr."¹ Studies have shown Triclopyr to be highly toxic to aquatic invertebrates, especially oysters. There was one study conducted where a concentration of 0.0001% killed half of an oyster population.² It has also been proven that oyster larvae are much more susceptible to Triclopyr than other marine invertebrates.³ This is especially concerning for the Cape & Islands because of the efforts to use oyster cultivation as a nitrogen remediation technique in the coastal ponds.

Triclopyr has also been shown to move readily through soil, especially acidic, sandy soils with low carbon matter. On the safety data sheet provided by this department, it states that "microbial degradation is

¹ <http://www.mass.gov/eea/docs/agr/pesticides/rightofway/docs/triclopyr-2011.pdf>; p.6

² Ward, T.J. and R.L. Boeri. 1991c. Triclopyr-BEE: Acute flow through shell deposition test with the eastern oyster, *Crassostrea virginica*. Dow Elanco.

³ U.S. EPA. Prevention, Pesticides and Toxic Substances. 1998. Reregistration eligibility decision (RED): Triclopyr. Washington, D.C., Oct. Pp. 45.

the primary mechanism by which Triclopyr is degraded in soils..."⁴ The issue is that in sandy, acidic soils, Triclopyr dissolves in the water and moves quickly through the soil, instead of binding to the soil and degrading.⁵

The burden of proof should lie with the applicant, Eversource, to prove that all of the proposed herbicides are safe, and are not causing negative impacts on the environment, especially on the drinking water. The Towns and individual citizens should not be required to pay for expensive water and soil tests to prove that the chemicals used are causing harm. These tests should be conducted, at the applicant's expense, to prove that the herbicide applications are safe. The MVC requests the Department's support in creating such an agreement with Eversource.

Most of the power line ROWs on the Island run through conserved land, and the wire and border zones are already maintained for fire protection and trail use. The MVC suggests that MDAR cooperate in facilitating agreements between Eversource and the Sheriff's Meadow Foundation (West Chop Woods in Tisbury) and the Department of Conservation and Recreation (the Manuel F. Correllus State Forest in Edgartown). These agencies are completely capable of maintaining the power line ROWs to Eversource's specifications without the use of herbicides; for years the DCR used to maintain the ROWs in Edgartown. The small ROW in Oak Bluffs could easily be managed by the Oak Bluffs Highway Department.

Finally, we request that a regular meeting be held each year that herbicide applications are scheduled between Eversource and the Island Towns. The purpose of this meeting is to brief adjacent land owners and other interested parties on the dates, locations, concentrations and other attributes of the herbicide application program. This will ensure that the public is informed and protected.

There is danger in using these compounds on Martha's Vineyard. We request that the State review the use and effects of these herbicides, and control Eversource's use of them above the Cape & Island's shallow water table.

Thank you for your consideration.



Adam Turner
Executive Director

⁴ Reference 1, p. 2.

⁵ JN Smith, RC Martin, RG Croix, Levels of the herbicide glyphosate in well water. *Bulletin of Environmental Contamination and Toxicology* 1996. 57:759-65.



Town of Orleans

T: 508-240-3700
x450

F: 508-240-3746

Board of Health

19 School Road - Orleans, MA 02653-3699

March 2, 2018

William Hayes, Senior Transmission Arborist
Eversource Energy, Eastern MA
Vegetation Management
247 Station Drive, SE-370
Westwood, MA 02090-9230

RE: 2018 Eversource Five Year Vegetation Management Plan

Dear Mr. William Hayes,

Thank you for forwarding the Orleans Board of Health the *2018 Eversource Five Year Vegetation Management Plan* (VMP). The Board has reviewed the VMP and offers the following comments:

Safe drinking water is essential to the public health and well being of Orleans residents. The protection of this vital resource is of the utmost importance. The Board of Health aims to prevent contamination of Cape Cod's natural resources by reducing the use of emerging contaminants within the Town of Orleans. As reported in the Board's 2013 response to the NSTAR VMP, the Health Department records indicate several private wells, Zone IIs and wetlands within proximity of the Rights of Ways (ROWs) you propose to treat.

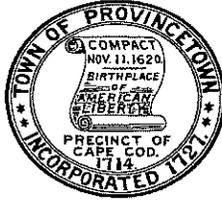
An analysis of your previous herbicide application usage, conducted by POCCA, indicates an increase in gallons used from 2013 to 2014, despite a reduction in acres covered between those two years. The justification of this increase is unclear. The Orleans Board of Health requests that Eversource develop a VMP that specifically identifies a strategy to diminish, and ultimately eliminate, the use of these chemicals over the next five years and identifies a timeline for alternative methodologies that will be implemented as the chemical controls are phased out.

If you have comments or questions, please call the Health Department at (508) 240-3700 ext. 450.

Sincerely,

Alexandra E. Fitch
Assistant Health Agent

Cc: Orleans Town Manager
Orleans Conservation Administrator
Orleans Director of Planning
Orleans Board of Water and Sewer Commissioners



**Town of Provincetown
260 Commercial Street
Provincetown, MA 02657**

**Board of Health
Telephone (508) 487-7020
Fax (508) 487-7040**

February 27, 2018

Rights-of-Way Program
Massachusetts Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston, MA 02114

Re: Eversource Vegetation Management Plan 2018-2022

Dear Sir or Madam,

On behalf of the Town of Provincetown Board of Health I am writing to express the Board's disapproval of the Eversource Vegetation Management Plan (VMP) for 2018-2022. The Board believes the herbicide application outlined in the VMP will be detrimental to the quality of the water in Cape Cod's sole source aquifer. Further, they believe there are alternatives to the application of herbicides that are just as effective in controlling vegetation.

The Town of Provincetown gets its drinking water from the Pamet lens, which is a mere 5 feet underground. Contamination of the lens from applied herbicides is highly possible, especially considering the sandy nature of the Cape's soil, through which contaminants can travel at a rate of a foot per day. If the trend of applying approximately 2000 gallons of herbicide per year continues with the proposed plan, 10,000 gallons of herbicide will have been applied, posing a definite threat to our potable water quality and safety.

Alternative methods for controlling the vegetation include hand pruning, a thorough method which requires about the same effort as spraying; weed heaters, which heat plants to the ground; mowing, the original method of control; and goats. Some towns have also expressed an interest in taking control of the vegetation management.

The Board strongly urges the Department of Agricultural Resources to require Eversource to choose alternative methods for vegetation control on Cape Cod. The health and safety of our community depend on it.

Sincerely,

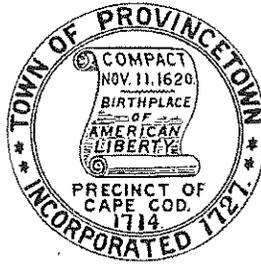
Morgan Clark,
Director, Health Department
Agent, Provincetown Board of Health

TOWN OF PROVINCETOWN

Department of Public Works

Highway Division
Water & Sewer Division
Buildings & Grounds Division
Transfer Station/Recycling Center
Sanitation Division
Cemetery Division

Richard J. Waldo, Director
Steven H. Wlodkowski, Deputy Director
Cody J. Salisbury, Water Superintendent
Sherry Prada, Operations Director



Veterans Memorial Community Center

2 Mayflower St., Room 74
Mail: 260 Commercial Street
Provincetown MA 02657
Phone: 508.487.7060
FAX: 508.487.4675

<http://www.provincetown-ma.gov>

rwaldo@provincetown-ma.gov
swlodkowski@provincetown-ma.gov
csalisbury@provincetown-ma.gov
sprada@provincetown-ma.gov

February 28, 2018

Rights-Of-Way Program Coordinator
Mass Dept. of Agricultural Resources
251 Causeway Street Suite 500
Boston, Ma 02114-2151

COPY

RE: Eversource Vegetation Management Plan 2018-2022

The Provincetown and Truro Water and Sewer Board has reviewed the proposed plan by Eversource to use herbicides along power line rights of way. We vigorously oppose any and all proposed spraying of herbicides anywhere on Cape Cod. We have a sole source aquifer that provides 100 percent of the drinking water to Truro and Provincetown. We believe that this spraying would threaten the quality of our drinking water.

The reckless use of chemicals in the United States is well-documented. For example, the well-intentioned introduction of MTBE (methyl tert-butyl ether) to gasoline was a disaster. Amendments to the Clean Air Act in 1990 promoted use of MTBE in all gasoline to reduce air pollution. Ultimately, this possible carcinogen contaminated aquifers throughout the United States. MTBE has since been phased out and replaced by safer chemicals (e.g., ethanol.) However, plumes of MTBE are still being managed today.

Glyphosate appears to be the primary herbicide in the NSTAR plan to control vegetation. In March 2015 the World Health Organization's International Agency for Research on Cancer published a summary of its forthcoming report on glyphosate, and classified it as "probably carcinogenic in humans" (category 2A) based on epidemiological studies, animal studies, and *in vitro* studies. While we acknowledge that there are other studies attesting to the safety of glyphosate, we believe that there is enough uncertainty surrounding its use that it would be irresponsible to use it in an area with a sole source aquifer. We suspect that the other herbicides have been studied even less than glyphosate. Therefore, we do not believe it is prudent to treat these chemicals as "innocent until proven guilty" when it comes to application in Truro and Provincetown.

We urge you to consider only non-chemical interventions to reduce vegetation anywhere on Cape Cod.

Sincerely,

Jonathan Sinaiko
Chairman, Provincetown Water and Sewer Board

Town of Sandwich
The Oldest Town on Cape Cod



Health Department
16 Jan Sebastian Drive
Sandwich, MA 02563
(508) 888-4200
Fax: (508) 833-0018

March 21, 2018

William Hayes, Senior Arborist
Eversource Energy, Eastern MA
Vegetation Management
247 Station Drive, SE-370
Westwood, MA 02090-9230

Dear Mr. Hayes,

The Sandwich Board of Health is opposed to the use of Herbicides on the Eversource Power Line Right of Way located in the Town of Sandwich.

The Board opposes the use of Herbicides on the Eversource Power Lines Rights of Way with the belief that use of herbicides can result in the contamination of the sole source aquifer beneath the Right of Way. The Board also opposes the use of herbicides in proximity of residential dwellings to the Right of Way. Residents abutting the Right of Way should be protected and not subject to carcinogens found in the herbicides.

The Town encourages the continuation of manual and mechanical operations for clearing the Power Line Right of Ways. The Board thanks Eversource for the elimination of the use of herbicides thus far and encourages such to continue.

Thank you.

Sincerely,

David B. Mason, RS, CHO
Director of Public Health
Town of Sandwich

Cc: Board of Health
Board of Selectmen
File



TOWN OF TISBURY

office of

THE BOARD OF HEALTH

PO Box 666, 66 High Point Lane
Vineyard Haven, Massachusetts 02568

Telephone (508) 696-4290

Fax (508) 696-7341

March 27, 2018

Clayton Edwards
Director of Rights-of-Way Programs
Massachusetts State Pesticide Bureau
251 Causeway Street, Suite 500
Boston, MA 02114-2151

RE: Eversource 2018-2022 Vegetation Management Plan

Dear Mr. Edwards:

The Tisbury Board of Health is in receipt of the Eversource 2018-2022 Five Year Vegetation Management Plan (VMP).

As previously noticed to the Mass Department of Agricultural Resources and Eversource the Town of Tisbury is opposed to the use of herbicides on the Eversource right of ways (ROWs) within the Town of Tisbury due to the potential health risk it poses to the public and requests that the ROWs be maintained by mechanical means only.

The ROWs in the Town of Tisbury subject to the 2018-2022 Eversource Vegetation Management Plan are located in an environmentally sensitive area. In addition to multiple residences, the ROWs are in close proximity to the town's public water supply wells and recharge area, private water supply wells and Lake Tashmoo, a waterway classified as "impaired" by the Massachusetts Department of Public Health. Additionally, the water table in many locations is less than fifty feet deep and, therefore, doesn't meet the herbicide application separation distance required by State regulations. We feel that allowing the application of herbicides within 50 feet of wells, 100 feet of wetlands and 10 feet of ponds is unacceptable and the setback distances must be reconsidered. At the very least, herbicides should not be applied within ½ mile of any water body or recharge area given our Island's porous soils and high water table.

Although specific herbicides are not listed in the VMP, the Town of Tisbury is opposed to the use of Triclopyr for maintenance within the Town. Triclopyr persists for an extended period of time and is particularly toxic when it enters the groundwater, eventually ending up in our ponds and pond sediment

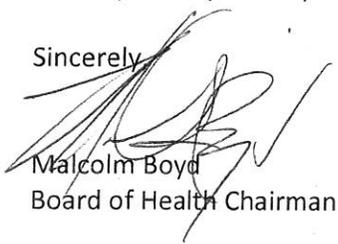
killing shellfish and other bottom dwelling aquatic life. Triclopyr also persists on surfaces that have been sprayed, making it difficult for homeowners to know when it is safe to re-enter their properties, both those lying under the power lines and the adjacent properties. Although Eversource maintains a right of way easement, the vegetation management plan proposes applying a highly toxic substance onto private property by a third party absent the consent of the property owner.

The Tisbury Board of Health also requests that, prior to any herbicide application, Eversource be required to submit a complete list of the actual chemicals being applied as well as providing a time and date that the property owners can safely return to their property following application, the precautions necessary should they enter the property prematurely and the safe handling of shoes and clothing to prevent contamination of their home's interior. No herbicide application should be allowed without the provision of a firm safe-return date and associated decontamination procedures.

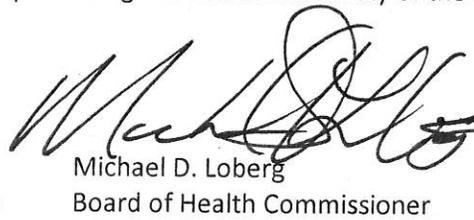
Please know that we are also extending an invitation to Eversource to meet with us and discuss our concerns regarding the vegetation management plan.

Thank you for your help in protecting the health and safety of the residents of Tisbury.

Sincerely,



Malcolm Boyd
Board of Health Chairman



Michael D. Loberg
Board of Health Commissioner



Jeffrey Pratt
Board of Health Commissioner

cc: Julian Cyr, State Senator, Cape and Island District
Dylan Fernandes, State Representative, Barnstable, Dukes and Nantucket District



TOWN OF TRURO

P.O. Box 2030, Truro, MA 02666

Office of the Board of Selectmen

Tel: 508-349-7004, Extension: 110 or 124 Fax: 508-349-5505

February 27, 2018

Rights-of-Way Coordinator
Rights-of-Way Program
Massachusetts Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston, Massachusetts 02114

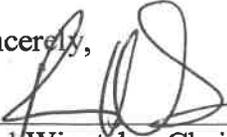
Dear Rights-of Way Coordinator:

We are writing to request that you deny any requests by Eversource in their five year Vegetation Management Plan to use herbicides along our utility rights-of-way. Most Truro residents rely on groundwater for their drinking water supply. Use of such pesticides permeates the sand, silt and clay that comprises much of our Truro landscape very rapidly and contaminates our local water supply.

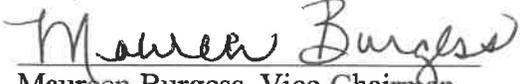
We ask that the Massachusetts Department of Agriculture require Eversource to utilize less toxic alternative methods of mitigating vegetation overgrowth along power lines to protect our aquifer and our citizens. We believe this will represent a constructive approach forward and your support would be invaluable. We hope you will seriously consider our request.

Thank you in advance.

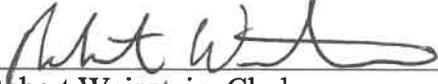
Sincerely,



Paul Wisotzky, Chairman



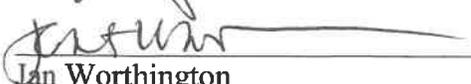
Maureen Burgess, Vice-Chairman



Robert Weinstein, Clerk



Jay Coburn



Ian Worthington
Board of Selectmen
Town of Truro

February 28, 2018

Rights-of-Way Program,
MA Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston, MA 02114

Re: Eversource Vegetation Management Plan (VMP)

Dear Sir or Madam;

The Board of Selectmen is concerned with the Vegetation Management Plan submitted to you by Eversource. Many of our citizens have raised concerns about the use of chemicals as a weed control method on Martha's Vineyard. The long term effects of these chemicals seeping into our groundwater are unknown and if the groundwater becomes contaminated, residents will be forced to develop expensive water treatment facilities to meet their needs. If the chemicals travel into our streams and lakes and to the ocean, the effects on our fisheries and other wildlife could be irreversible.

We believe that the residents of our community, and the Island as a whole should have the right to determine what chemicals are sprayed onto our lands. There are other weed control methods that can be used that will achieve the same effect without the potential for unknown long term effects. We urge you to deny Eversource's request for the use of chemicals and ask them to find a more environmentally sensitive method for weed control.

If you have any questions please contact our office at 508-696-0102.

Sincerely,

J. Skipper Manter, Chair

Board of Selectmen

West Tisbury, Martha's Vineyard



TOWN OF WELLFLEET
Health & Conservation Department

220 West Main Street
Wellfleet, MA 02667
508-349-0308 ♦ fax 508-349-0327

Hillary H. Greenberg
Health & Conservation Agent
Hillary.Lemos@wellfleet-ma.gov

February 15, 2018

Clayton Edwards
Rights-of-Way Coordinator
Massachusetts Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston, Massachusetts 02114-2151

RE: Vegetation Management Plan: Eversource Cape and Islands 2018-2022

Dear Mr. Edwards:

The Wellfleet Board of Health has reviewed the Vegetation Management Plan: Eversource Cape and Islands 2018-2022 and offers the following comments. We strongly believe that the maintenance of the power line rights of ways using herbicides presents an unnecessary risk to the residents of Wellfleet, their aquifer, and the environment. As you know, Wellfleet has extremely sandy soils that are highly permeable and allow contaminants to easily leach through to groundwater. Wellfleet residents rely solely on groundwater for all their potable water needs.

We have confidence that the other methods for vegetation management would be more beneficial to our residents and the environment. We strongly urge you to remove herbicide application from the tool box and rely on methods such as manual removal of vegetation, selective planting, fire, grazing, and meadowscaping to maintain the power line right of way in our community and on Cape Cod.

In Wellfleet, there are thirteen properties with private drinking water wells near the Way, some as little as ten (10) feet away from the edge of the easement. The municipal well field is located less than 400 feet from Way 301. Right of Way 301 also crosses very valuable wetlands including the Herring River, Hatches Creek, Silver Spring Brook and Fresh Brook, and is located within rare plant and species habitat.

Out of concern for public health and the environment the Board of Health's preference is for an herbicide free Right of Way.

Yours,

Hillary Greenberg

cc: Conservation Commission
Board of Selectmen



TOWN OF WELLFLEET
CONSERVATION COMMISSION
220 West Main Street
Wellfleet, MA 02667

February 23, 2018

Clayton Edwards
Rights-of-Way Coordinator
Massachusetts Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston, Massachusetts 02114-2151

RE: Vegetation Management Plan: Eversource Cape and Islands 2018-2022

Dear Mr. Edwards:

The Wellfleet Conservation Commission has reviewed the Vegetation Management Plan: Eversource Cape and Islands 2018-2022 and offers the following comments. We strongly believe that the maintenance of the power line rights of ways using herbicides presents an unnecessary risk to the residents of Wellfleet, their aquifer, and the environment. As you know, Wellfleet has extremely sandy soils that are highly permeable and allow contaminants to easily leach through to groundwater. Wellfleet residents rely solely on groundwater for all their potable water needs.

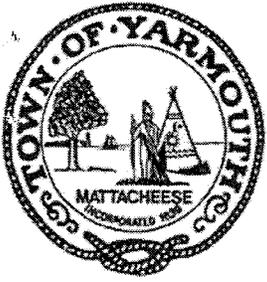
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Out of concern for public health and the environment the Conservation Commission's preference is for an herbicide free Right of Way.

Yours,

Hillary Greenberg



TOWN OF YARMOUTH

1146 ROUTE 28, SOUTH YARMOUTH, MASSACHUSETTS 02664-4451

Telephone (508) 398-2231 ext. 1240, Fax (508) 760-3472

BOARD OF HEALTH

March 1, 2018

Rights-of-Way Program
Massachusetts Dept. of Agricultural Resources (MDAR)
251 Causeway St, Suite 500
Boston, MA 02114-2151

Re: Yarmouth Health Department Comments regarding:

Eversource Energy, Eastern MA
Five Year Vegetation Management Plan (VMP)
Cape Cod and Marth's Vineyard
(Barnstable and Duke's Counties)
2018-2022

Dear Sir or Madam,

The Yarmouth Health Dept. respectfully submits the following comments regarding the abovementioned 2018-2022 Eversource VMP based on the most recent review of the matter by the Yarmouth Board of Health (BOH) and Health Dept. These comments are submitted in accordance with the notice from your office indicating a comment period closing on March 16, 2018.

First, regarding herbicide application please be aware of the following Yarmouth properties with well water within 100 feet of ROW 346.

24 Gooseneck Rd.

31 Gooseneck Rd.

933-935 West Yarmouth Rd.

Second, please provide the Yarmouth Health Dept. with the current Eversource list of Yarmouth addresses with well water so that we can compare it with our listing. An electronic copy emailed to me is fine.

Third, please check with the Yarmouth Water Dept. regarding any properties in the vicinity of the Right-of-Way that are not connected to Town water. The Yarmouth Water Dept. does not maintain a list of properties with well water, but they have the ability to check whether specific properties are connected to Town water. Also, please check with the Cape Cod Commission on this subject as they may have knowledge of additional private well locations.

Fourth, the resident of 24 Gooseneck Road requests, due to health concerns, a neighborhood exemption from Right-of-Way (ROW) herbicide application in the vicinity of his property and those of his neighbors.

Fifth, the BOH requests that Eversource provide real-time online maps indicating the location of current herbicide application as it occurs.

Sixth, residents have requested notification of the exact days of ROW herbicide application with an update provided if the days are rescheduled for any reason. We realize that Eversource notifies abutters 30 days in advance of ROW herbicide application by placing door hangtag notifications on each home and that notification is placed in newspapers 48 hours in advance. However, residents request more accurate notice so they can take precautionary measures such as staying indoors, keeping pets indoors and closing doors and windows. One method of delivering more accurate notice may be your reverse telephone notification system that alerts residents of electric power restoration status.

Seventh, the BOH requests that Eversource be directed to explore alternative methods to the use of herbicides for ROW vegetation management such as, but not limited to, mechanical cutting and goat grazing.

Furthermore, the Yarmouth BOH voted recently not to recommend the Eversource ROW herbicide treatments.

The above comments have previously been submitted to Eversource regarding their Yearly Operational Plans (YOP) for Right-of-Way vegetation management. The Health Dept. has requested that Eversource please respond categorically in writing to the seven comments listed in this letter. A written response from Eversource will give the Town valuable feedback regarding the status of the listed concerns.

Disappointingly, to date no response to these comments has been received by our department from Eversource.

Thank you for your kind consideration of these comments and your efforts to accommodate them. Please contact me in the Health Office if you have any questions or concerns.

Sincerely,



Carl E. Lawson, Jr.
Hazardous Waste Inspector
Town of Yarmouth
Health Office
1146 Route 28
South Yarmouth, MA 02664
Tel. 508-398-2231 Ext. 1240
clawson@yarmouth.ma.us

Cc: Board of Health
Board of Selectmen
Daniel Knapik, Town Administrator
Gary Damiecki, Town of Yarmouth Acting Water Superintendent
Kelly Grant, Conservation, Administrator
Senator Julian Cyr
Representative Timothy Whelan
Representative William Crocker
Protect Our Cape Cod Aquifer (POCCA)

COMMENTS IN OPPOSITION TO THE APPROVAL OF EVERSOURCE'S
SUBMITTED VMP 2018-2023
SUBMITTED BY C. W. RICE – 29 MARCH 2018

Eversource Energy, Eastern MA (“Eversource”) a/k/a/
 (“Applicant”)

- “Eversource only performs vegetation maintenance work in full compliance with all laws and regulations.” (Page 1, Submitted VMP, 14 December 2017)
- “Eversource is committed to managing vegetation at all of its facilities in a safe, environmentally responsible and efficient manner in full compliance with a vast array of state and federal laws and regulations.” (Page 1, Submitted VMP, 14 December 2017)
- “Electricity transmitted over hundreds of miles of distribution and transmission rights-of-way (ROW) throughout Cape Cod and Martha’s Vineyard of Massachusetts (Appendices 1 & 2).” (Page 1, Submitted VMP, 14 December 2017)
- “Eversource ‘s program is based on a three to five-year selective herbicide application ...”

I: Easements and the Rights Conveyed by the Easements:

Over much of Eversource’s winding ROW the subject of the submitted VMP, the ROW relies on myriad number of easements over private property. Many of these easements were drafted by prior electrical distribution companies, that were absorbed by Eversource through acquisition or merger. The rights to utilize the existing easements for the ROWs were acquired by Eversource as well.

The question that needs to be clarified, as the VMP is silent about exactly what are those allowed uses or activity(s) that may be performed by the language of the easements? Copies of easements and similar relevant documents were not provided

COMMENTS IN OPPOSITION TO THE APPROVAL OF EVERSOURCE'S
SUBMITTED VMP 2018-2023
SUBMITTED BY C. W. RICE – 29 MARCH 2018

with Applicant's submitted VMP. A number of easements simply contain pretty standard boilerplate language i.e.

“construct, repair, replace, maintain, operate, inspect, patrol and remove a line or lines of poles and/or H-frames and/or towers and/or combinations of poles, H-frames and towers with wires and/or cables above and/or underground, and all foundations, anchors, guys and other usual fixtures, equipment and appurtenances deemed necessary for the transmission and/or distribution supply of electrical energy for light, heat, power or any other purposes. ...

and

from time to time to clear and keep said (strip) cleared or any part thereof, of trees, underbrush, buildings and other structures,” with “all trees, underbrush and other obstructions (being) the property of the Company, its successors and assigns.”

In other words, does MDAR's ROW Section have the legal right to grant and or approve Eversource's application of the listed toxic herbicides on easements that may or may not allow such an activity.

Has MDAR's ROW Section asked for or examined each and every easement's language to ensure that the Applicant has the rights so as to be in “full compliance with all laws and regulations” which would include the language of the easements?

Is the language “from time to time to clear and keep said (strip) cleared or any part thereof, of trees, underbrush, ...” broad enough to allow toxic chemical treatments to be applied?

I would submit that “clearing” the full width of the easement and removal of the trees and shrubs which it is deemed to own; that is all that it allows, where the grant of a use easement must be strictly construed in favor of the owners of the land. It does not

permit the application of toxic chemicals within the easement as part of its specified powers to “clear” the easement, “clearing” suggests the removal whereas the spraying of herbicides leaves the dead trees and shrubs in place as a toxic blight on the land.

Nowhere in 333 CMR 11.00 can find an authority for MDAR’s ROW Section to modify, change or authorize work or an activity such as the application of a toxic herbicide where the underlying easement for the ROW does not specifically allow that activity. We must keep in mind that for the most part the Applicant does not own the land, they simply hold an easement that allows the Applicant, “... for the transmission and/or distribution supply of electrical energy for light, heat, power or any other purposes.” and to maintain the appurtenances deemed necessary and used for that activity to be maintained, and for the clearing and removal of trees, underbrush and other structures.

Therefore, I would submit that the Applicant’s submitted VMP be denied until the Applicant can prove that application of herbicides is an allowed use in ROWs. And further that all easements are to be submitted for MDAR’s ROW and Legal Sections to review and understand before any approval for the use of herbicides and chemicals in those easements.

II: Water Quality, Aquifer Protection Zoning Districts, Compliance.

Eversource Energy, Eastern MA (“Eversource”) a/k/a/
 (“Applicant”)

- “Eversource only performs vegetation maintenance work in full compliance with all laws and regulations.” (Page 1, Submitted VMP, 14 December 2017)

COMMENTS IN OPPOSITION TO THE APPROVAL OF EVERSOURCE'S
SUBMITTED VMP 2018-2023
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- “Eversource is committed to managing vegetation at all of its facilities in a safe, environmentally responsible and efficient manner in full compliance with a vast array of state and federal laws and regulations.” (Page 1, Submitted VMP, 14 December 2017)
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- “Eversource ‘s program is based on a three to five-year selective herbicide application ...”

All seventeen of the listed towns have some form of Aquifer Protection Zoning protection in place as it’s a requirement by DEP and the Federal Clean Water Act. The majority of the zoning bylaws in this area are modeled after a DEP planning model for Water Quality and Aquifer Protection.

<http://www.mass.gov/eea/docs/dep/water/modgwpd.pdf>

This model was initially developed in 1991 to provide communities with an example of a bylaw that complies with MassDEP’s Wellhead Protection Regulations (WHP), 310 CMR 22.21(2).

It should be noted that Zoning Bylaws, besides having to be adopted by a super majority vote of Town Meeting, must also be approved by the Municipal Section of the Massachusetts Attorney General’s Office to ensure legality and the ability to enforce.

It is possible that in some the seventeen communities the local Board of Health protect their drinking water supplies entirely through a Board of Health Regulation (rather than zoning), a

COMMENTS IN OPPOSITION TO THE APPROVAL OF EVERSOURCE'S
SUBMITTED VMP 2018-2023
SUBMITTED BY C. W. RICE – 29 MARCH 2018

Model Groundwater Protection Board of Health Regulation is also available.

For this comment, local approval shall mean approval from the local board that administers and permits activities in defined ground water and watershed areas as shown on local approved maps.

The Applicant as part of submittal in Appendix 6 an argument as to applicability of the Massachusetts Wetland's Act. MGL c. 131 §40.

“DEP worked closely with DFA to include provisions which give maximum protection for water supplies and provide protection for wetlands at least equal to that provided under the M.G.L. c. 131, § 40 and 310 CMR 10.00. To eliminate duplicate review under M.G.L. c. 131, § 40, DEP has adopted changes to the wetlands regulations which allow herbicide applications on rights of way in accordance with the DFA regulations without filing a Notice of Intent under the M.G.L. c. 131, § 40. However, non-exempt applicants will still be required to file a Request for Determination of Applicability to the appropriate conservation commission to establish boundaries of wetlands on or near the right of way. Specifically, these regulations presume that work performed in accordance with a VMP and YOP, as may be required under DFA regulations, will not alter an area subject to protection under M.G.L. c. 131, § 40.” (Page 1, Appendix 6, Submitted VMP, 14 December 2017)

The Applicant thusly makes an argument that local Conservation Commissions and MassDep have limited control over work in wetlands, riverine areas and similar areas.

However, no such argument has been presented, for relief in the Ground Water Protection districts in the seventeen communities, nor has any

proof of Special Permits or Board of Health approvals for work and activities in Ground Water Protection Areas.

“Groundwater Protection District: The land area consisting of aquifers and Zone II recharge areas as identified on a map and adopted pursuant to this bylaw.

Hazardous Material: Any substance in any form which because of its quantity, concentration, or its chemical, corrosive, flammable, reactive, toxic, infectious or radioactive characteristics, either separately or in combination with one or more substances, constitutes a present or potential threat to human health, safety, welfare, or to the environment, when improperly stored, treated, transported, disposed of, used, or otherwise managed. Hazardous material includes, without limitation, synthetic organic chemicals, petroleum products, heavy metals, radioactive or infectious materials, and all substances defined as toxic or hazardous under MGL c. 21E. This term shall not include hazardous waste or oil.”

MGL c. 21E:

““Hazardous material”, material including but not limited to, any material, in whatever form, which, because of its quantity, concentration, chemical, corrosive, flammable, reactive, toxic, infectious or radioactive characteristics, either separately or in combination with any substance or substances, constitutes a present or potential threat to human health, safety, welfare, or to the environment, when improperly stored, treated, transported, disposed of, used, or otherwise managed. The term shall not include oil. The term shall also include all those substances which are included under 42 USC Sec. 9601(14), but it is not limited to those substances.”

“Water is one of our most important resources. The Earth’s freshwater is stored in lakes, rivers, and streams, or below ground

COMMENTS IN OPPOSITION TO THE APPROVAL OF EVERSOURCE'S
SUBMITTED VMP 2018-2023
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in aquifers. Water collecting on the ground, or in a stream, river, lake, sea or ocean, is called surface water.

Groundwater is below the soil surface and develops from the seepage or infiltration of water into the ground. As water moves, both on the surface, and under the ground, suspended or dissolved substances such as pesticides can move with it. Because surface and groundwater are interconnected, cross contamination can occur.”

Source: <https://pesticidestewardship.org/water/>.

Both MassDEP, and local boards and commissions charged with the safety of the public use a number of tools to protect both the groundwater (aquifer) and surface water bodies, the Applicant fails to fully articulate how they will comply with local regulations and bylaws there are in place to protect local water supplies, watersheds, recharge areas and well heads from “Hazardous material(s)”

For example, the community of Brewster is burdened with two Eversource ROW, one that runs generally east-west ROW 346A and one that runs generally north south ROW 319 both of them directly through an area of Critical Planning Concern. (See Appendix 1)

“In general terms, all activities in the lands over a sole source aquifer need to be carefully managed to protect this irreplaceable resource. The significant threats to groundwater could include depletion of aquifers through unsustainable withdrawals, onsite disposal of wastewater, release of pollutants into the ground (e.g., a leaking underground storage tank), and infiltration of contaminated surface water from, for instance, over-fertilization of or pesticide application to lawns or crops, improper storage of manure, or runoff from impervious surfaces. Protection from these threats is fostered by sound regulations paired with

adequate enforcement; well-crafted land use zoning plans and practices; appropriate wastewater management to protect ecology of receiving waters and the health of people using them; and an active public education program on best practices for residents and businesses to protect groundwater. Brewster already has implemented many important controls on such activities to protect groundwater quality, including creating Zone IIs and Districts of Critical Planning Concern, having regulations that restrict development on lands. (Page 6-4, Town of Brewster, Integrated Water Resources Management Plan (IWRMP) Phase 1 Report.)

[http://www.horsleywitten.com/brewsterIWRMP/reports/PhaseI/IWRMP PhaseI Report Feb11CDM.pdf](http://www.horsleywitten.com/brewsterIWRMP/reports/PhaseI/IWRMP%20PhaseI%20Report%20Feb11CDM.pdf)

The typical Groundwater Protection By-law, has a section entitled: "Permitted Uses." A review of this section indicates the application of herbicides is not a permitted use.

From the MassDEP suggested bylaw.

"6. PERMITTED USES

6.1. The following uses are permitted within the Groundwater Protection District, provided that all necessary permits, orders, or approvals required by local, state, or federal law are also obtained:

1. conservation of soil, water, plants, and wildlife;
2. outdoor recreation, nature study, boating, fishing, and hunting where otherwise legally permitted;
3. foot, bicycle and/or horse paths, and bridges;
4. normal operation and maintenance of existing water bodies and dams, splash boards, and other water control, supply and conservation devices;

5. maintenance, repair, and enlargement of any existing structure, subject to Section 7 and Section 8 of this bylaw;
6. residential development, subject to Sections 7 and 8 of this bylaw;
7. farming, gardening, nursery, conservation, forestry, harvesting, and grazing, subject to Section 7 and Section 8 of this bylaw;
8. construction, maintenance, repair, and enlargement of drinking water supply related facilities such as, but not limited to, wells, pipelines, aqueducts, and tunnels; and
9. any use permitted in the underlying zoning except for those uses specifically prohibited in Sections 7 and 8 of this bylaw."

A review of this section indicates the application is not a permitted use.

The transmission of electricity is most likely an allowed use in the underlying zoning however the transmission and to maintain the appurtenances deemed necessary and used for that activity would be allowed, but the use of herbicides would be an exception.

Therefore, I would submit that the Applicant's submitted VMP be denied until the Applicant can prove that application of herbicides is an allowed use in ROWs in those areas whose locus is in Groundwater Protection District(s). Or that the Applicant already holds the appropriate Special Permits or Approvals for the application of herbicides in those locus's.

III: Unique Soil Profiles as a Result of Laurentide Continental Ice Sheet's Formation of Cape Cod

COMMENTS IN OPPOSITION TO THE APPROVAL OF EVERSOURCE'S
SUBMITTED VMP 2018-2023
SUBMITTED BY C. W. RICE – 29 MARCH 2018

Eversource Energy, Eastern MA (“Eversource”) a/k/a/
 (“Applicant”)

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- “Eversource’s program is based on a three to five-year selective herbicide application ...”

All seventeen of the listed towns are located in area that was covered last continental ice sheet (named the Laurentide) or at the retreating edge of the ice sheet.

Geologist Robert N. Oldale, U. S. Geologic Survey, Woods Hole Field Center, MA., writes in his monograph, “Geologic History of Cape Cod, Massachusetts”
<https://pubs.usgs.gov/gip/capecod/index.html>

“The geologic history of Cape Cod mostly involves the advance and retreat of the last continental ice sheet (named the Laurentide after the Laurentian region of Canada where it first formed) and the rise in sea level that followed the retreat of the ice sheet. On Cape Cod, these events occurred within the last 25,000 years, and many can be dated by using radiocarbon techniques.”

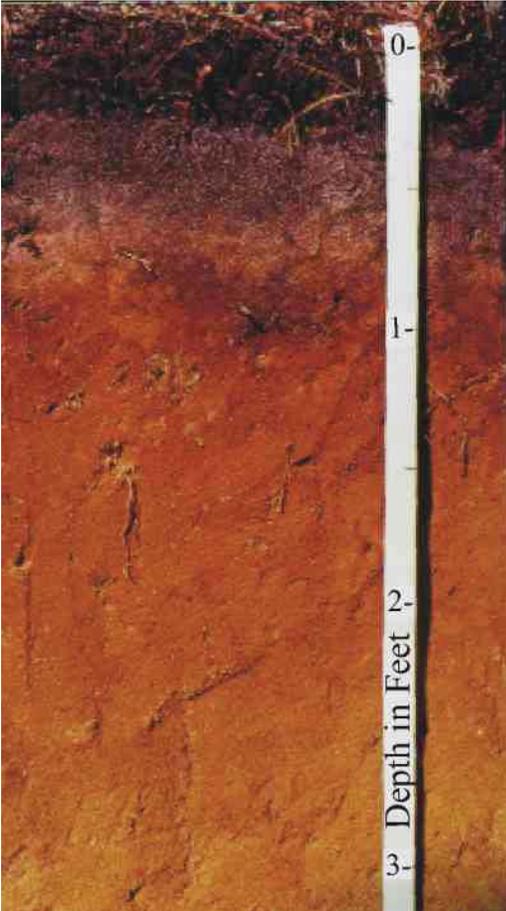
“Outwash plains make up most of the Cape Cod landscape. They are made up of sand and gravel deposited by meltwater streams that flowed across the plain in a braided pattern. This resulted in a broad flat depositional surface that sloped gently away from the ice front. The deposits in the ice proximal part of the outwash plain were deposited atop the glacial terminus, and when the ice melted away, these deposits collapsed to form an irregular surface that sloped steeply in an up-ice direction. This slope is called an ice-contact head of outwash.

Outwash deposits also form a highly irregular and unorganized morphology called kame and kettle terrain. A kame is a knoll or hill composed of outwash deposits, which originally filled a hole in the ice. When ice melted away, the deposits collapsed to form a hill. A kettle is just the opposite of a kame. The outwash was deposited around and over an ice block. When the ice block melted away, the outwash collapsed to form a hole.”

In simple terms the vast majority of the soils where the ROWs are located are in areas of extremely sandy soils, the soil profiles generally show a small organic area, and then coarse sand for many feet below that thin top layer. Depending on the elevation of groundwater a saturated layer of wet sand may be as high as five feet from the surface or even at surface as a standing body of water.

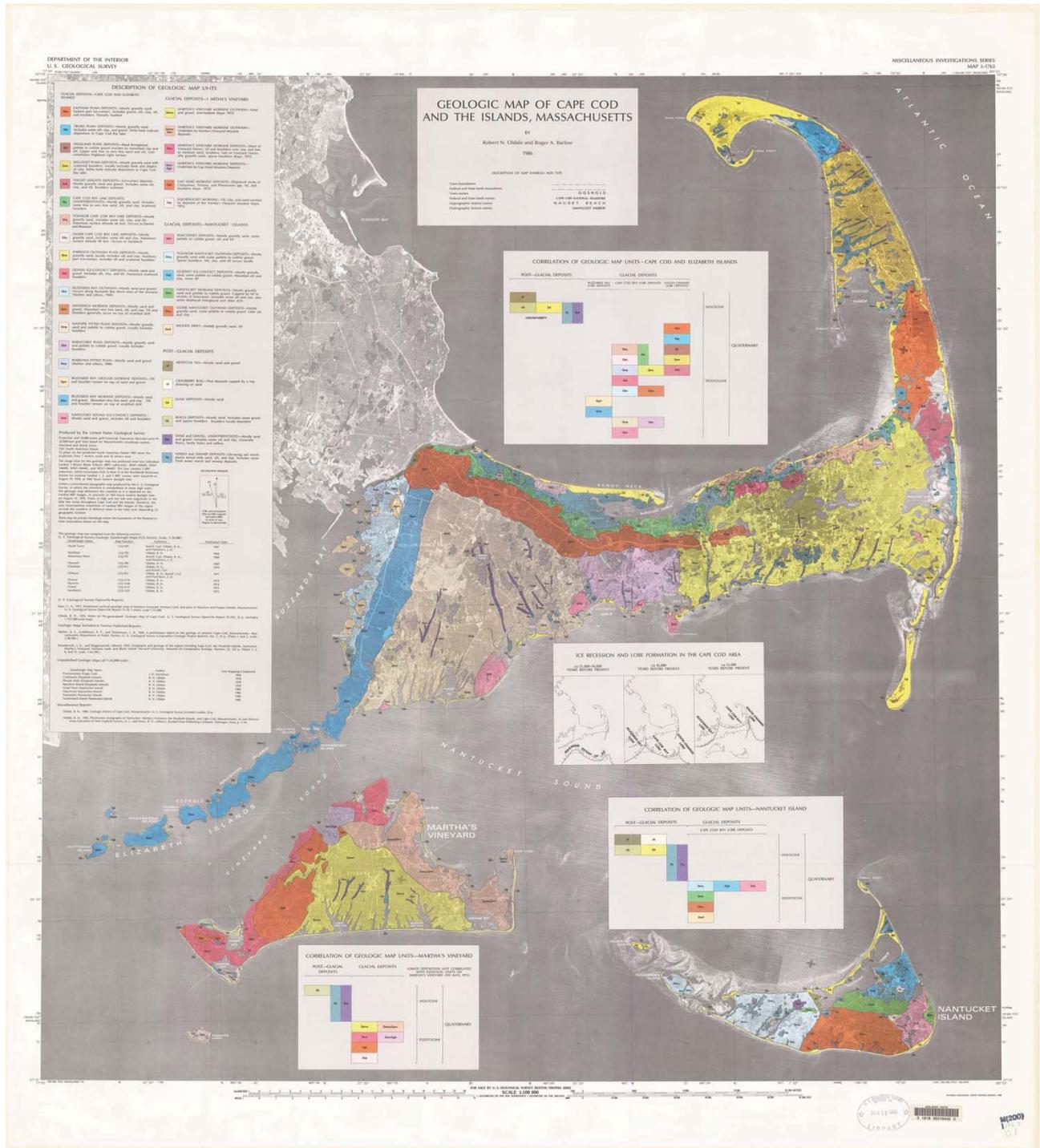
Monthly ground water depths are easily obtainable from the Cape Cod Commission, USGS and MassDEP.

COMMENTS IN OPPOSITION TO THE APPROVAL OF EVERSOURCE'S
SUBMITTED VMP 2018-2023
SUBMITTED BY C. W. RICE – 29 MARCH 2018



“The windblown material and the upper part of the underlying drift make up the parent material for Cape Cod soils. These soils are called podzols and are typical of young soils developed on a sandy parent material in a temperate climate under forest cover. A podzol is characterized by a soil profile that consists of an upper dark organic zone and a bone-white zone that together make up the "A" horizon and a reddish orange zone that makes up the "B" horizon (Fig. 17). Beneath the "B" horizon is the parent material of the soil, either drift or the windblown layer or both.”

COMMENTS IN OPPOSITION TO THE APPROVAL OF EVERSOURCE'S
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Geologic map of Cape Cod, by K. F. Mather, R. P. Goldthwait, L. R. Theismeyer, J. H. Hartshorn, Carl Koteff, and R. N. Oldale

The above map shows the overall post Laurentide ice sheet's soil deposits remaining above sea level. Of particular interest is the yellow tinted area which for the most part are Coarse deposits. That include Gravel deposits composed of at least 50 percent gravel-size clasts; cobbles and boulders predominate; minor amounts of sand occur within gravel beds, and sand composes few separate layers. Gravel layers generally are poorly sorted, and bedding commonly is distorted and faulted due to postdepositional collapse related to melting of ice. Sand and gravel deposits are composed of mixtures of gravel and sand within individual layers and as alternating layers. Sand and gravel layers generally range from 25 to 50 percent gravel particles and from 50 to 75 percent sand particles. Layers are well to poorly sorted; bedding may be distorted and faulted due to postdepositional collapse. Sand deposits are composed mainly of very coarse to fine sand, commonly in moderately sorted layers. Coarser layers may contain up to 25 percent gravel particles, generally granules and pebbles; finer layers may contain some very fine sand, silt, and clay

These layers are very permeable and allow for vertical movement through the material at fast rate. The very thin organic duff layer does very little to slow the vertical movement downward to groundwater levels. It contains very little microbial bacteria to attach to by certain herbicides.

What does all this mean? It means that the horizontal fifty-foot buffer zone, will not stop the transfer of surface toxic chemicals to pumping locations in the ground water, for the fifty-foot distance is of no use where ground water lies just feet below the surface.

333 CMR 11.04 (1), (2) sets that set back requirements for well heads and uses MassDEP guidelines, the problem is this one-size fits all scenario works where ground water levels are greater than fifty feet below the surface. It is a standard, however, that does

not protect ground water on Cape Cod and the Islands, that lies very close to the surface, without a protective organic soil barrier to bind chemicals and allow for degradation of herbicides. To protect public health and safety.

MDAR needs to work with MassDEP to gain a better understanding of the unique highly permeable soils and the well above average ground water table, that private and municipal wells draw from and the depth to ground water to surrounding recharge and draw down areas.

Therefore, I would submit that the Applicant's submitted VMP be denied until: one, the Applicant can prove that application of herbicides is safe owing to the very high ground water levels in ROWs in those areas whose locus is in Groundwater Protection District(s). I can find no valid ground water study in the submitted VMP, that would justify the use of toxic chemicals in the form of herbicides, in these areas other than 333 CMR 11.04 allows it, that is not good enough and does nothing to protect the ground water supplies.

And two, MDAR has consulted with MassDEP Water Quality Division to gain a better understanding of the hydrogeology and hydrology of the Cape and Islands sole source aquifer and the soils above that aquifer.

IV: The Potential for MDAR to Be a Party to Landowner Damages as a Result of the Application of Herbicides

Eversource Energy, Eastern MA ("Eversource") a/k/a/
("Applicant")

COMMENTS IN OPPOSITION TO THE APPROVAL OF EVERSOURCE'S
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- “Eversource only performs vegetation maintenance work in full compliance with all laws and regulations.” (Page 1, Submitted VMP, 14 December 2017)
- “Eversource is committed to managing vegetation at all of its facilities in a safe, environmentally responsible and efficient manner in full compliance with a vast array of state and federal laws and regulations.” (Page 1, Submitted VMP, 14 December 2017)
- “Electricity transmitted over hundreds of miles of distribution and transmission rights-of-way (ROW) throughout Cape Cod and Martha’s Vineyard of Massachusetts (Appendices 1 & 2).” (Page 1, Submitted VMP, 14 December 2017)
- “Eversource ‘s program is based on a three to five-year selective herbicide application ...”

The Applicant in the VMP states that in the VMP, that BMP and safety will be utilized by their own employees and contractors and that an adherence to restrictions, set-backs and weather conditions will be observed and be in place during all applications of herbicides.

During 2017, in several places along the ROW, violations were observed and reported to MDAR and local authorities as to application in winds in excess of the permitted wind level, application to the edge of wetlands and surface water bodies.

The VMP makes no mention of these past occurrences and offers no oversight as to how these errors will be corrected in the future.

- It also appears that there is confusion about if Eversource’s contractors and employees are required to report daily amounts applied, where based on GPS coordinates and

COMMENTS IN OPPOSITION TO THE APPROVAL OF EVERSOURCE'S
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SUBMITTED BY C. W. RICE – 29 MARCH 2018

weather conditions. The Daly Vegetation Reporting is discussed in a vague manner in the VMP. (Page 36, Submitted VMP, 14 December 2017)

- What controls are in place for “touch up treatments” as to notice? (Page 37, Submitted VMP, 14 December 2017)

Is there a spot and unannounced check system in place for MDAR's ROW staff to observe contractor performance and compliance to the VMP, BMPs and safety? If not, why not?

Therefore, I would submit that the Applicant's submitted VMP be denied until: one, the Applicant can prove that application of herbicides has standards and practices in place to hold accountable those that carelessly apply herbicides.

And that the Applicant and MDAR come to an understanding about daily application logs and the public's ability to review those logs, and further those logs should be submitted to municipal authorities in the seventeen communities where that activity takes place.

In closing I have been fortunate to read a number of the comment letters in opposition from residents, and various municipal entities along with submittals from engineers, scientists, attorneys and legislators, so I will not be redundant in adding comments that follow along those other comments. But do endorse them and hope that they are weighed in a favorable light by the approving authorities.

Submitted by C. W. Rice

cwrice@me.com

508-272-7441

Rights of Way Coordinator
Massachusetts Department of Agricultural Resources
251 Causeway Street, Suite 500 Boston, MA 02114

Lee Roscoe
33 D Frederick Ct.
Brewster, MA. 02631
508 896 3510
peteowl@aol.com

Dear MDAR,

I am a former state commended environmentalist and environmental educator writing to ask you to reconsider the Eversource Vegetative Management Plan for Cape Cod and the Vineyard. Our shallow aquifers' lenses can be easily permeated by toxins, thus affecting drinking water as well as vulnerable flora and fauna. No chemical pesticide or herbicide is completely safe to use. Why risk it when hand pruning and other methods with absolutely no risk can be used?

The Cape and Islands have asked for years that Eversource cease potentially contaminating our water sources by spraying toxins on their right of ways and we have asked the state to do its job and update the ancient science on these toxins.

Recently NBC news reported "Ohio Attorney General Mike DeWine sued agricultural giant Monsanto, alleging the company concealed dangers posed by a toxic chemical compound it manufactured for nearly a half century. In the suit, prosecutors argued that the company should pay for the clean-up of what it says are dozens of rivers, lakes and other water bodies contaminated with polychlorinated biphenyls, or PCBs."

National Geographic, 2015 wrote, "Glyphosate is not included in the U.S. government's testing of food for pesticide residues or the monitoring of chemicals in human blood and tissues. As a result, there is no information on how much people are exposed to from using it in their yards, living near farms or eating foods from treated fields. A recent USGS study sampled waterways in 38 states and found glyphosate in the majority of rivers, streams, ditches, and wastewater treatment plant outfalls tested...Research... links it to antibiotics resistance and hormone disruption. Several national governments are planning to restrict its use, and some school districts are talking about banning it."

They say that it "attaches pretty firmly to soil particles" and that none have determined if low level exposure over time is safe.

My point is toxins once deemed "safe" and used for years are later found to be dangerous. It is shameful that you will not enforce the precautionary principal vis a vis toxins sprayed by Eversource on Cape Cod. Our unique ecosystem should not be an experiment for the sake of expedience.

Sincerely Yours,

Lee Roscoe

TO :

Rights -of- Way Coordinator, MDAR, Massachusetts Department of Agricultural Resources,
251 Causeway Street, Suite 500, Boston, MA 02114

Greetings from Brewster,

I wish to comment upon the Eversource VMP 2018 plan for Cape Cod, and especially Brewster.

We have just seen yet another mass murder of schoolchildren by a shooter who, like a preponderance of other shooters, had been given prescription anti-psychotic drugs to take. It has been clearly shown in several scientific studies that anti-depressive drugs like Prozac cause angry and suicidal thoughts in some of those who take these drugs. (See: <https://www.theguardian.com/science/2000/may/22/drugs.uknews> for one such study)

I am a 30-year medical herbalist in Brewster, and part of my practice is to help people who are psychologically in a state of 'dis-ease' to try and regain their balance. Part of my "suggestions" for clients (because we herbalists do not "diagnose, prescribe, or give medical advice"...) is to gather wild-growing Saint Johnswort flowers and buds (*Hypericum perforatum*) and make a tea or tincture to be taken as one step in helping their condition.

Saint Johnswort grows naturally in sunny, sandy loam, and especially where the soil has been disturbed, as after a road has been put in, a foundation dug, or land plowed. Powerline rights-of-way are perfect habitat for this very useful and medicinally-valuable plant. Application of herbicides to these plants will cause them to become neurotoxins, thereby leading to a myriad of diseases (cancer, Parkinson's, dysbiosis, ...) but especially diseases of the nervous system.

Eversource has been spraying these neurotoxins (yes, that means POISONS to the Nervous System) on Saint Johnswort and other valuable medicinal plants (Yarrow, Plantain, Elder, Bayberry...) for years. They have been spraying these poisons upon the land of others over which they have a "right of way". Thus, with a landowner's permission, any person in need of these botanical medicines can harvest them along these right-of-ways. If the plants are covered with poison, then the public who harvest these plants are being poisoned by Eversource. Basically, Eversource is poisoning our medicine, causing damage to people's nervous systems, and contributing to the heinous mass murders we are seeing across the country.

Thus I do ask the regulatory bodies of the Commonwealth of Massachusetts (where my family has lived since 1630) to PROHIBIT the use of herbicides upon any rights-of-way over which it has regulatory authority throughout Massachusetts, I am against the VMP 2018 by Eversource.

With great sincerity— Stephen B Brown, 2620 Main Street, Brewster, Ma.

Dear Mr. Edwards:

In response to MDAR's opportunity to solicit public feedback on the proposed Eversource VMP, I'd like to share a few thoughts as to why their proposal falls short of what should be asked of them, as a public utility.

People on Cape Cod are extraordinarily diligent when it comes to matters of the environment. In that light, it is no surprise that town after town on the Cape has said, we do not want Eversource using toxic pesticides in our town. As a public utility, they should be responsive to that. As the state agency in charge of overseeing them, it is incumbent on MDAR to do so. Little attention is paid to unique hydrology on the Cape. While the argument is made that they are only using a certain amount over 150 miles of ROW, that amount is actually more intensely used over a much smaller amount of that 150 miles, as much of it they are currently not able to use those toxic pesticides, by law.

The argument that - we are using this responsibly based on science does not hold up either to current science or as we have seen time and time again with substances brought into our environment, they were much more dangerous than initially thought. Why can't we be proactive, listen to our citizens and use alternative means to maintain the ROW? MDAR has the ability to tell Eversource, you are not being good stewards of the public trust by this VMP. Further, Eversource contracts out at least some of this work, and we have had citizens report instances where even current laws are not being adhered to, apparently without consequence to Eversource.

I ask that MDAR takes a more proactive stance, and back the communities on Cape Cod that have said no to Eversource.

Respectfully Submitted,

Steve Leibowitz
Brewster, Mass
March 25, 2018

March 26, 2018

To: Massachusetts Department of Agricultural Resources

My name is Steven Kleinberg. I am a resident of Eastham, Massachusetts. I have served on the town's Conservation Commission and currently serve as the Director of Emergency Sheltering at the Nauset facility.

I would like to formally state my concerns and strong opposition to Eversource Energy's 2018 VMP with respect to managing vegetation on or about the electric power transmission line right of ways (RoW) in Eastham with the use of the use of toxic pesticides/herbicides for the next five (5) years.

I am opposed to the VMP considering it lists the use of 9 types of herbicides. Glyphosate has been proving to be problematic and this concerns me very much. Glyphosate, the active ingredient in RoundUp herbicide, is a biocide that interferes with cellular metabolism, and a toxin. It is one of the five herbicides Eversource uses on Cape Cod and Martha's Vineyard. Its use would otherwise not need be restricted by precautions and regulations. Its toxicity is of concern around the world, and it has been banned in many jurisdictions, including the Netherlands, France, Belgium, Russia, Malta, Sri Lanka, Mexico, Argentina and Columbia. Brazil is moving toward a ban. By a split vote this month, November 2017, Europe did not enact a ban on glyphosate, but the decision was very controversial (and may lead to the fall of the governing coalition in Germany.) The US State Department aggressively promotes its use worldwide.

The World Health Organization's International Agency for Research on Cancer (IARC) recognizes glyphosate as a cause of cancer, especially non-Hodgkin's lymphoma in humans, and others in lab animals. It is recognized as a probable cause of acute renal failure, which is epidemic in a number of tropical-latitude agricultural societies. The state of California lists glyphosate as a cancer-causing agent on labels of the product.

<https://www.nature.com/news/widely-used-herbicide-linked-to-cancer-1.17181>

<https://toxics.usgs.gov/highlights/glyphosate02.html>

I ask our state MDAR to not allow the VMP 2018 as it is written and to remove herbicide use before approving for the next 5 years.

Thank you for your attention to this matter.

Steve Kleinberg
15 Clayton Rd
Eastham, MA 02642

RICHARD K. LATIMER

ATTORNEY AT LAW

222 Main Street, Suite 204

P.O. Box 710

March 29, 2018

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Fax (508) 548-7008

E-mail

rklaw@meganet.net

Clayton Edwards
Right of Way Program
Mass. Dept. of Agricultural Resources
251 Causeway Street, Suite 500
Boston, MA 02114

Via First Class Mail
& E-mail to Clayton.L.Edwards@state.ma.us

Re. ROW Management Plan for Eversource Energy

Dear Mr. Edwards:

I am an attorney who has represented homeowners in the Hatchville area of Falmouth, MA, whose property is burdened by a utility easement for transmission of electricity currently owned by Eversource, on matters unrelated to the current proposal to use toxic herbicides for ROW management. This letter is submitted to you as my comment as a concerned citizen on the pending application by Eversource as to any use of toxic herbicides within its electric utility easements in Hatchville, and on Cape Cod generally which is a peninsular area with a fragile and vulnerable aquifer.

The focus of this comment is not simply the very serious environmental issue under your consideration, but an equally serious issue of property rights as between residential property owners and Eversource. This issue of property rights also involves a question of takings by the Commonwealth, for which the landowners must be compensated, should your office enlarge the existing electric utility easements by permitting the use of toxic herbicides by Eversource for ROW management.

I therefore ask that you deny Eversource's application for using herbicides within the easement in the Hatchville area of Falmouth, and all other areas similarly situated, as that would be enabling both a trespass and nuisance against the owners of the burdened estates as well as a taking by the Commonwealth without payment of just compensation. I also ask that you refer this matter to counsel before ruling on the pending application, for advice on the issues of property rights addressed herein.

The electric utility easements in the Hatchville area of Falmouth were created by a 1951 Order of Taking, which specifies what powers the utility company exercise, first Cape & Vineyard Electric Co. and now its successor Eversource. Eversource's uses of the servient estates subject to the taking, are limited to a right to:

construct, repair, replace, maintain, operate, inspect, patrol and remove a line or lines of poles and/or H-frames and/or towers and/or combinations of poles, H-frames and towers with wires and/or cables above and/or underground, and all foundations, anchors, guys and other usual fixtures, equipment and appurtenances deemed necessary for the transmission and/or distribution supply of electrical energy for light, heat, power or any other purposes. . . .

Those powers apply to the electric company's right to erect and maintain its transmission lines and related structures. As to what it can do with respect to ROW maintenance, the Order of Taking limits the electric company's powers to certain specific mechanical activities, as follows:

from time to time to clear and keep said (strip) cleared or any part thereof, of trees, underbrush, buildings and other structures," with "all trees, underbrush and other obstructions (being) the property of the Company, its successors and assigns.

Nowhere does the 1951 Order of Taking state that the utility company can apply herbicides or introduce any other toxic substances into the environment within the easements created in Hatchville. A copy of the 1951 Order of Taking is enclosed with this mailing for your reference.

Eversource thus owns only a use easement for transmission of electricity, which does not grant any possessory interest in the land or unlimited rights of use as against the rights of the owner of the land.. *Foster v. Connecticut River Transmission Company*, 223 Mass. 528, 532 (1916). Therefore, in determining the rights of the parties subject to the proposed herbicide use, the grant of easment must be strictly construed against Eversource. See *Id.*

An easement does not convey a possessory interest to the grantee sufficient to exercise unlimited control over the servient estate. *Lowell, et al. v. Piper, et al.*, 31 Mass. App. Ct. 225, 229 (1991), citing Restatement of Property (1944), Sect. 450 comment b. "The nature of an electrical transmission line and its occupancy of air space, rather than surface area, gives the holder of a power easement only limited rights over the surface of the servient land" and it must exercise its rights in a manner that does not unreasonably damage the landowner's quiet enjoyment of their property. *Western Mass. Electric Co.*, 8 Mass. App. Ct. 815, 824-825 (1979). Therefore, the 1951 Order of Taking does not give Eversource the right to enter onto the ROW over private land and apply toxic chemicals to kill vegetation.

The Order of Taking allows "clearing" the full width of the easement, a mechanical process for the removal of the trees and shrubs which it is deemed to own, and that is all that Eversource is allowed to do, where the grant of a use easement must be strictly construed in favor of the owners of the land. It does not permit the application of toxic chemicals within the easement as part of its specified powers to "clear" the easement, with the potential to damage the aquifer, nor does it allow Eversource to kill the trees it owns and then leave them in place as a toxic blight on the land which impairs the landowner's right to quiet enjoyment..

If the owner of a utility easement causes damage to the land in the exercise of its rights, it will be held liable for nuisance and trespass. *Fortier, et al. v. Town of Essex*, 52 Mass. App.

Ct. 263, 268 (2001). Live trees and shrubs are an asset for the landowners, as providing a healthy environment for wildlife as well as enhancing the scenic and passive recreational value of their properties. By leaving the dead trees it owns on the landowner's property, without the owner's consent, Eversource both trespasses and creates a nuisance for which it will be held liable in damages.

If the Commonwealth permits this to occur, as a use exceeding what is expressly permitted by the 1951 Order of Taking, that will constitute a further taking for which the Commonwealth must pay "just compensation" to all of the burdened landowners, as required by the Fifth Amendment to the Constitution of the United States. In that event, I will advise my existing clients accordingly, as well as others in the area who may seek my counsel on the issue.

If the Commonwealth has the right to do such a taking, to expand the user rights of Eversource upon just payment to the land owners, you must ask whether that would be a wise policy decision? To pay for multiple takings would incur costs far in excess of whatever savings herbicide use might provide to Eversource, while creating a very real risk of serious damage to the environment, including pollution of the aquifer. If such pollution occurs, there would be a further taking over and above the use of herbicides *per se*, due to the loss of potable water for which both the Commonwealth and Eversource may be held liable. See *Fortier, supra*, town held liable in nuisance and trespass for pollution caused by sewer pipe leakage onto burdened estate.

With this comment, I am raising a legal issue which arises in context of the serious environmental issue that is now before you on review of the proposal to permit Eversource to apply toxic chemicals within its easements over privately owned properties. I therefore request that you refer this matter to legal counsel for advice before taking any action on Eversource's pending application to allow the use of herbicides within the utility ROW in the Hatchville area and other areas on Cape Cod in which the original taking is expressly limited to clearing and removal of the vegetation owned by Eversource.

Thank you.

Yours truly,

Richard K. Latimer

RKLme

cc: Hon. Charles D. Baker, Jr.
Office of the Governor
constituent.services@state.ma.us

Rights of Way Coordinator
Massachusetts Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston, MA 02114

March 23, 2018

To Whom It May Concern:

My name is John Lipman. I live in Orleans, MA and have worked in the field of ecological restoration, which included the careful and targeted use of herbicides to eradicate and control invasive plant species. I am a licensed pesticide applicator under Massachusetts regulations. I am opposed to the VMP 2018-2022 as written to maintain vegetation overgrowth, primarily because of the way it proposes using herbicides for vegetation control.

While I agree with the use of herbicides in certain, very exceptional situations, I feel that the use of herbicides as a general control measure in utility Rights-of-Way (ROW) should not be allowed. I have worked with herbicides in circumstances where there was simply no feasible alternative, primarily because the nature of the invasive species we were eradicating were otherwise impossible to control. Generally this is limited to a very few, aggressively invasive species, such as knotweed and phragmites, which are extremely difficult to eradicate without the use of glyphosate or triclopyr. While there may be instances of these species proliferating on utility ROWs, it is hard to justify a reason to use herbicides except in such extremely limited circumstances.

In addition, if an herbicide is determined to be necessary, how is applied very important to ecological and human health. In the ecological restoration industry, herbicides are applied in an extremely judicious way, including direct mechanical injection into the plant; "cut-and-wipe" technique; and direct application to plant stalks using a sprayer or application brush.

Other non-toxic techniques that have shown promise include direct harvesting of invasive tree species for firewood and the use of grazing animals, such as goats. These methods can turn a problem into a value proposition by supporting secondary local businesses. Though it may not be in Eversource's interest to diversify their own company's economic portfolio, it could still be economically valuable for them to outsource land under their control, thereby promoting alternatives to herbicides that can save money and boost local industry.

In short, herbicides should be the last line of defense to prevent otherwise uncontrollable invasive plant infestations that are a direct threat to utility operations, and they should never be used on native plants or native landscapes. The potential impacts to our groundwater and aquatic habitat – already compromised by prior irresponsible uses of chemicals that have permanently poisoned drinking water sources on Cape Cod – are simply too important to overlook.

A study by the Ecological Society of America points out the impacts of glyphosate on native aquatic plant and animal species. The study, which represented one of the most extensive experimental investigations of pesticide effects on aquatic communities, highlighted significant negative ecosystem effects of glyphosate (brand name *Roundup*). Specifically, *Roundup* reduced tadpole richness by 70% by

completely exterminating two species (leopard frogs and gray tree frogs) and nearly exterminated a third species (wood frogs). These reductions in tadpole survival were concomitant with a decrease in predator biomass, suggesting that *Roundup* also caused a trophic cascade from the herbivores to the predators (Ecological Society of America, "The Impact of insecticides and Herbicides on the Biodiversity and Productivity of Aquatic Communities," Relyea, Rick A., April 2005, Vol. 15, Issue 2).

I would strongly urge MDAR to investigate non-toxic methods of vegetation control and explore how a diverse, multi-pronged vegetation management strategy could avoid the use of herbicides while strengthening local economies. Similarly, I would also urge that you amend the VMP as written for Cape Cod and Martha's Vineyard to prohibit the use of herbicides except in those extreme situations in which the eradication of invasive species warrants such emergency measures, and consult a company working in ecological restoration as to how the use of herbicides can be minimized if not avoided entirely.

Yours Truly,

A handwritten signature in blue ink, appearing to read "John A. Lipman", with a long horizontal flourish extending to the right.

John A. Lipman
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Brian O'Malley, MD
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ptown.doc@verizon.net

March 28, 2018

Clayton Edwards
Rights of Way Coordinator
Massachusetts Department of Agricultural Resources
251 Causeway St.
Boston, MA 02114

In Re: Eversource 2018 VMP Proposal

Dear Sir:

I write in my capacity as the elected Delegate to the Barnstable County Assembly from Provincetown, and Chair of the Assembly's Standing Committee on Natural Resources.

I would first bring to your attention the non-binding Resolution 16-3 passed by the Assembly May 18, 2016, with a 67% vote, and not a single No vote. This resolution was to reprise the votes taken by every one of our fifteen Cape Cod towns calling for methods other than herbicides for power line maintenance in their respective communities.

And secondly, I would recall to you, a water supply issue in Barnstable Town with polyfluorinated compounds, which has saddled our County government with an over six-million-dollar remediation expense for the decontamination of some of Town of Barnstable's municipal wells. These PFCs are, of course, contaminants of emerging concern, not yet categorized as toxins.

Whereas, we do recognize as toxins the chemicals used as herbicides. Glyphosate, in particular, has been well studied, with abundant literature recognizing many health concerns. The extremely costly epidemic of Chronic Kidney Disease and failure, known in the affected warm belt of the earth as Agricultural Nephropathy, is strongly believed to be caused by glyphosate.

This toxicity is why your role as a regulator is so important. Use of toxic chemicals should be limited and carefully controlled. You promulgate regulations meant to balance varied concerns. But when the question comes to countering cost vs. human health and life, surely there can be no equivocation. The utility's concerns are purely bottom-line; they suggest that mechanical methods of ROW vegetation control are less efficient (but even that justification is open to some doubt.)

In keeping with the precautionary principal for the use of quite-probably toxic substances in a fragile environment, I would urge that the utility be required to submit an alternative Vegetation Management Plan for your consideration.

Sincerely,

Brian O'Malley, MD

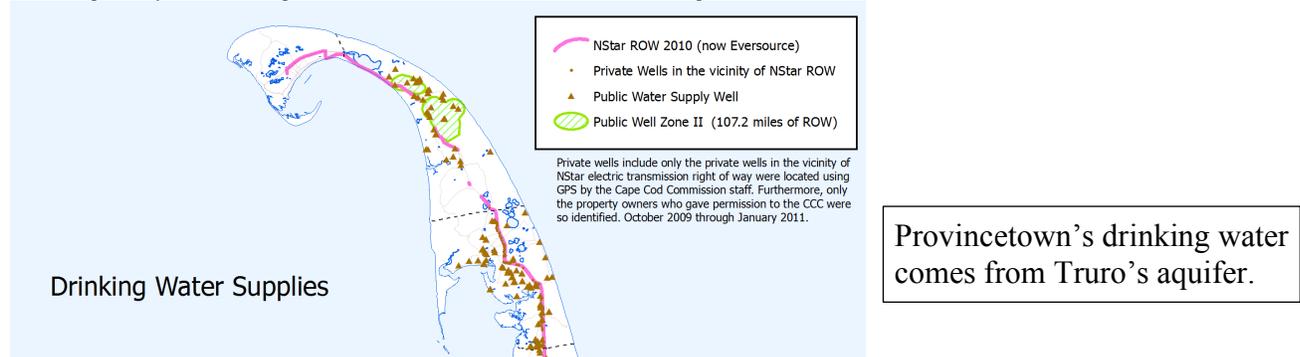
28 March 2018

Rights-of-Way Coordinator
Massachusetts Department of Agricultural Resources
251 Causeway Street, Suite 500
Boston MA 02114

Dear Sir or Madam:

I write as a year-round resident of Provincetown at the tip of Cape Cod regarding Eversource's 5-year vegetation management plan (VMP) for 2018-2022, which relies heavily on the use of herbicides to maintain the rights-of-way under their power lines on the Cape and Martha's Vineyard.

Due to its unique geography, Provincetown is at the mercy of others for both the source and the health of its drinking water. Because our water is sourced in Truro and pumped to holding tanks (standpipes) for our use, and because Truro, like other Cape Cod towns, is part of the Eversource VMP, we are doubly impacted by the actions of others beyond our town line.



We have just endured five years of herbicide application through the previous VMP, and I believe that the continued use of herbicides by Eversource on the rights-of-way in the town of Truro and all Cape towns will result in long term adverse effects on the environment and drinking water. Given that here on the Cape we all share the same precious aquifer, I urge you to recommend alternative methods of managing vegetation under the power lines, such as manual removal, which is a proven method.

Please require Eversource to refrain from listing the use of toxic herbicides as part of their 2018-2022 Vegetation Management Plan.

Yours truly,

Laura Ludwig
1 Duncan Lane
Provincetown MA 02657

Cc via email:
POCCA
Rep. Sarah Peake
Sen. Julian Cyr

March 25, 2018

Rights of Way Coordinator
Massachusetts Department of Agriculture Resources
251 Causeway Street, Suite 500
Boston, MA 02114

Dear Rights of Way Coordinator,

My name is Gail Ferguson. I am a resident of Wellfleet, MA, and I am writing to urge the Department of Agriculture Resources (MDAR) to postpone making a decision regarding approval of Eversource Energy's Vegetation Management Plan 2018-2022 (VMP) until more is known about the long term health consequences likely to result from its use of the 9 herbicides which are listed therein; and from the interaction of the listed herbicides with each other, and with other substances found in Cape Cod's soil and water.

My opposition to the Eversource Energy VMP is primarily based on the following:

1. We do not yet know enough about the potential harm to Cape Cod residents which might result from the application of a chemical such as (as one example) **glyphosate** on the type of soils found on the Cape, that is: soils which are highly permeable, and which, therefore, would result in an elevated rate of travel, both horizontally and vertically. Given the fact that our drinking water sources are close to the surface and interconnected, any resulting harmful toxins seem likely to become widespread.ⁱ
2. Recent risk assessments performed by reputable scientific panels worldwide have concluded that glyphosate is probably a human carcinogen. Notably, in 2015 the World Health Organization classified glyphosate as "probably carcinogenic to humans".ⁱⁱ Four countries outlawed use of glyphosate as information emerged regarding the probable effects on humans of its use on food sources and vegetation, and 18 countries have taken steps to either restrict or ban glyphosate. In 2017 the state of California elected to list glyphosate as a known carcinogen.ⁱⁱⁱ Additionally, serious concerns have been raised regarding the other 8 herbicides listed in the VMP.^{iv}
3. If Eversource Energy is permitted to begin spraying glyphosate (and the 8 other chemicals listed in its VMP) before an updated independent and objective risk assessment **appropriate for Cape Cod's unique soil and water resources is made**, there is a real possibility that Cape Cod residents, and our children, will experience serious irreversible harm, and we could lose our only drinking water source. At that point remedial actions would likely be "too little, too late".

4. It has been shown that vegetation found in the Eversource ROWs can be managed by manual extraction methods which are affordable.^v Consequently I believe that there is no reasonable (and may I add: “responsible”) reason that the VMP should be approved at this time. The stakes are simply too high to risk the wellbeing of the very citizens MDAR is charged to protect.

In closing I would like to say that I wish you could stand in our shoes, and that you could assess the risk from our perspective. Our drinking water is our lifeline. Healthy children are our future. It is my hope that MDAR will make a decision in this matter that comes down on the side of caution, so that an updated appropriate risk assessment can be made concerning possible local effects resulting from use of the 9 herbicides in question.

Sincerely,

A handwritten signature in black ink that reads "Gail Ferguson". The signature is written in a cursive, flowing style.

Gail Ferguson
130 West Main Street
Wellfleet, MA 02667
gfergusonwellfleet@comcast.net

Notes:

1. See, letter to MDAR from The Association to Preserve Cape Cod, page 1, attached.
2. See, World Health Organization document, attached.
3. See, web article at: <https://www.baumhedlundlaw.com/toxic-tort-law/monsanto-roundup-lawsuit/where-is-glyphosate-banned>

(continued)

4. See, letter to MDAR from The Association to Preserve Cape Cod, pp. 1 and 2, and the citations set out therein, attached.

5. See, letter to MDAR from The Association to Preserve Cape Cod, p. 4, for discussion of manual removal efforts by the Brewster Conservation Trust and the Harwich Conservation Trust, attached.

IARC Monographs Volume 112: evaluation of five organophosphate insecticides and herbicides

Lyon, France, 20 March 2015 – The International Agency for Research on Cancer (IARC), the specialized cancer agency of the World Health Organization, has assessed the carcinogenicity of **five organophosphate pesticides**. A summary of the final evaluations together with a short rationale have now been published online in *The Lancet Oncology*, and the detailed assessments will be published as Volume 112 of the IARC Monographs.

What were the results of the IARC evaluations?

The herbicide **glyphosate** and the insecticides **malathion** and **diazinon** were classified as *probably carcinogenic to humans* (Group 2A).

The insecticides **tetrachlorvinphos** and **parathion** were classified as *possibly carcinogenic to humans* (Group 2B).

What was the scientific basis of the IARC evaluations?

The pesticides **tetrachlorvinphos** and **parathion** were classified as *possibly carcinogenic to humans* (Group 2B) based on convincing evidence that these agents cause cancer in laboratory animals.

For the insecticide **malathion**, there is *limited evidence of carcinogenicity* in humans for non-Hodgkin lymphoma and prostate cancer. The evidence in humans is from studies of exposures, mostly agricultural, in the USA, Canada, and Sweden published since 2001. Malathion also caused tumours in rodent studies. Malathion caused DNA and chromosomal damage and also disrupted hormone pathways.

For the insecticide **diazinon**, there was *limited evidence of carcinogenicity* in humans for non-Hodgkin lymphoma and lung cancer. The evidence in humans is from studies of agricultural exposures in the USA and Canada published since 2001. The classification of diazinon in Group 2A was also based on strong evidence that diazinon induced DNA or chromosomal damage.

For the herbicide **glyphosate**, there was *limited evidence of carcinogenicity* in humans for non-Hodgkin lymphoma. The evidence in humans is from studies of exposures, mostly agricultural, in the USA, Canada, and Sweden published since 2001. In addition, there is convincing evidence that glyphosate also can cause cancer in laboratory animals. On the basis of tumours in mice, the United States Environmental Protection Agency (US EPA) originally classified glyphosate as *possibly carcinogenic to humans* (Group C) in 1985. After a re-evaluation of that mouse study, the US EPA changed its classification to *evidence of non-carcinogenicity in humans* (Group E) in 1991. The US EPA Scientific Advisory Panel noted that the re-evaluated glyphosate results were still significant using two statistical tests recommended in the IARC Preamble. The IARC Working Group that conducted the evaluation considered the significant findings from the US EPA report and several more recent positive results in concluding that there is *sufficient evidence of carcinogenicity* in experimental animals. Glyphosate also caused DNA and chromosomal damage in human cells, although it gave negative results in tests using bacteria. One study in community residents reported increases in blood markers of chromosomal damage (micronuclei) after glyphosate formulations were sprayed nearby.

How are people exposed to these pesticides?

Tetrachlorvinphos is banned in the European Union. In the USA, it continues to be used on livestock and companion animals, including in pet flea collars. No information was available on use in other countries.

Parathion use has been severely restricted since the 1980s. All authorized uses were cancelled in the European Union and the USA by 2003.