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Executive Director

March 25, 2021

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

RE: Eversource Energy 2021 Yearly Operational Plan for Cape Cod

Dear Mr. Edwards:

The Association to Preserve Cape Cod (APCC) submits the following comments expressing concern regarding Eversource Energy's 2021 Yearly Operational Plan (YOP) for Cape Cod.

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 YOP 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, which for this calendar year includes the towns of Barnstable, Brewster, Chatham, Dennis, Eastham, Harwich, Orleans, Wellfleet and Yarmouth. The YOP states that herbicides will be applied to control vegetation in most areas along its ROW, including within 10 feet of surface water bodies or other wetlands, and within 50 feet of private drinking water wells.

As has been pointed out numerous times in public comments submitted by APCC, Cape Cod has an abundance of sensitive habitats that support rare plant and animal species. Its sandy soils are highly permeable, allowing contaminants to easily leach

through to groundwater. The groundwater is hydrologically connected to the Cape's many freshwater ponds and wetlands. Groundwater is also the source for the region's private and public drinking water supplies. These fragile resources are found on, under and in close proximity to Eversource's ROW.

The YOP lists the herbicides Eversource plans to use on Cape Cod as being approved by the Massachusetts Department of Agricultural Resources for use in designated Sensitive Areas. However, APCC notes that these products—despite their approval for use in “sensitive areas”—have all been linked in varying degrees to human health concerns and/or risks to the environment.

The list includes:

- **Imazapyr: (Arsenal Powerline, Polaris):** Imazapyr is slowly degraded by microbial metabolism and can be relatively persistent in soils. It has an average half-life in soils that range from one to five months. At pH above 5, it does not bind strongly with soil particles and can remain available for plant uptake in the environment. There are reports of unintended damage to desirable native plants when imazapyr has either exuded out of the roots of treated plants into the surrounding soil, or when intertwined roots transfer the herbicide to non-target plants.¹ The use of imazapyr in Norway was banned in 2001 “due to unacceptable risk for groundwater contamination, caused by high mobility and persistence in soil.” In 2003, the European Union voted to phase out the use of imazapyr for similar concerns.
- **Glyphosate (Rodeo):** 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.² Glyphosate acts as a powerful antibiotic against lactobacillus and bifidobacterium bacteria. Without these

¹ National Pesticide Information Center, 2004, Weed Control Methods Handbook, The Nature Conservancy, Tu et al.

² Grossman, Elizabeth, National Geographic, April 23, 2015



bacteria, honeybees cannot digest nectar and honey and become disoriented in their foraging.³

Most recently, EPA released a Draft Biological Evaluation in November 2020 regarding risks to listed species and critical habitats from glyphosate spraying.⁴ The data provided in the EPA report raise new concerns about this herbicide's impact on the natural environment. It is very likely that the EPA may alter its position on the use of glyphosate in the near future based on its evaluation, particularly in regard to the evidence of glyphosate's impact on critical habitats. **At a minimum, APCC calls on MDAR and the Massachusetts State Pesticide Bureau to exercise appropriate caution and require Eversource to withhold use of glyphosate until the EPA finalizes its work.**

- **Metsulfuron-Methyl (Escort XP, Patriot):** Multiple sources point to research that suggests the chemical may be toxic to birds, the aquatic environment, honeybees, and likely to other pollinators as well.
- **Triclopyr (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 kidney defects. 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.⁵ The toxicity of triclopyr to aquatic organisms is high compared to glyphosate. Triclopyr toxicity to wildlife ranges from not acutely toxic to slightly acutely toxic for birds and honeybees, and slightly to highly acutely toxic in fish, amphibians and aquatic invertebrates.⁶
- **Fosamine Ammonium (Krenite S):** Fosamine ammonium has a moderate potential to reach shallow groundwater in sandy soils. It is shown to not break down very well

³ Vallianatos, Evaggelos; Why Honeybees Don't Have A Chance In The Midst Of Pesticides; Huffington Post, 03/09/2017

⁴ EPA Draft Biological Evaluation of Glyphosate, November 2020

⁵ National Pesticide Information Center, 2002, Weed Control Methods Handbook, The Nature Conservancy, Tu et al.

⁶ Marin Municipal Water District Vegetation Management Plan Herbicide Risk Assessment, DRAFT-8/27/08



in water, and shows long-term persistence if the chemical reaches groundwater.⁷ The U.S. Environmental Protection Agency acknowledges fosamine ammonium has the potential to contaminate surface water through spray drift and runoff. Aquatic ecosystems potentially at risk include water bodies such as ponds, lakes, reservoirs, streams, rivers and estuaries adjacent to or downstream from a treated field.⁸

The largely unpublished “inert ingredients” and ingredients used as surfactants for the herbicide products identified in the YOP 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.⁹

MDAR’s own publication, “Herbicide Evaluation Technical Update No. 2: List of Approved Surfactants for Use in Sensitive Areas on Rights-of-Way – June 2010,” states: *“The review of these compounds (surfactants) is limited by toxicological data gaps, particularly with regard to the endpoint of endocrine disruption. While we would prefer to have more information on toxicity, we believe that the hazards posed to non-target aquatic organisms by these surfactants are limited by a low potential for significant exposure. The modeled results represent the best available information at this time for these compounds which have a limited database of information on toxicity and environmental fate.”* (Emphasis added.)

APCC maintains that there are too many unknowns associated with the proposed herbicides and their long-term effects on the Cape’s fragile environment and human population. What is known about these products is troubling. If an adverse effect on the Cape’s environment or human health is ever detected that is linked to herbicide use on Eversource’s ROW, that information will have arrived too late to undo the harm that has occurred. Eversource’s continued use of these herbicides as part of its YOP 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.

⁷ National Pesticide Information Center

⁸ Problem Formulation for the Ecological Risk and Drinking Water Exposure Assessments in Support of the Registration Review of Fosamine Ammonium, EPA, 2010

⁹ National Institute of Environmental Health Science, 2006 Dec; 114(12): 1803–1806



Eversource may view the use of herbicides versus safer methods of vegetation management 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 MDAR and the Massachusetts State Pesticide Bureau to be more responsive to the concerns expressed by the broad spectrum of Cape Cod citizens, municipalities, elected officials and organizations opposed to the utility's VMP policies and the recently submitted YOP. MDAR and Eversource should work closely with community leaders to actively seek out viable low-impact options for vegetation management that will not place the Cape Cod's fragile environment at risk.

Sincerely,



Andrew Gottlieb
Executive Director