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CAPE COD
COMMISSION

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Cape Cod Commission Staff Memo

Date: August 16, 2021

To: Bourne ISWMF Subcommittee, Cape Cod Commission

Re: Development of Regional Impact Review
Bourne Integrated Solid Waste Management Facility, Phases 7, 8, 9 (CCC No. 20064)
201 MacArthur Boulevard, Bourne, MA 02532

- At its July 26, 2021 hearing on the above-referenced matter, the Subcommittee continued the hearing to August 16, 2021 to consider the oral and written testimony submitted on the Project and to allow the Applicant to provide additional information.
- The Commission received considerable written testimony and supplemental submissions for the Project File following the last hearing. This memo provides staff comments on issues raised at the last hearing, in light of the materials submitted to date.

Written testimony provided by Conservation Law Foundation (CLF) includes discussion of excessive use of cover at the Facility, operations at SEMASS, and the possibility of certain contaminants in the within the leachate and groundwater. While the Commission has broad discretion to consider these issues, staff note that MassDEP actively regulates operations and environmental monitoring at solid waste facilities. Specifically related to the use of cover at the Facility, MassDEP regulates the types and quantities of cover material used.¹ Potential environmental impacts from the Facility have been monitored for several decades by a groundwater and soil gas monitoring program. Staff expect that the MassDEP approvals necessary for the proposed Project will include the placement of additional groundwater and gas monitoring wells along their perimeter.

I. Waste Management Goal and Objectives

The Waste Management Goal of the RPP is to *promote a sustainable solid waste management system for the region that protects public health, safety, and the environment and supports the economy.*

While the Regional Policy Plan (RPP) and MassDEP's Solid Waste Master Plan acknowledge that we must reduce reliance on disposal, MassDEP anticipates that the disposal of solid waste will continue in some form for decades.² However, both also recognize the role of Integrated Solid Waste Management

¹ 310 CMR 19.130(15)(b)

² Draft 2030 Solid Waste Master Plan, MassDEP (September 2019), setting goal to reduce disposal rates by 90% by 2050.

(ISWM) in our transition to a Zero Waste future. A Zero Waste future requires major changes in how society produces and uses products, and will require elimination of products or packaging that are not reusable, recyclable, or compostable. Integrated Solid Waste Management (ISWM) is a holistic waste reduction, diversion, composting, recycling system that still relies on some degree of disposal, providing a practical transition to a Zero Waste future.

The Regional Policy Plan recognizes the importance of preserving the region's remaining solid waste disposal capacity in an ISWM system. The Bourne ISWMP promotes recycling, waste diversion, and is pursuing waste to energy initiatives and opportunities to expand composting. Policies and infrastructure are being implemented around the region that will move the Cape toward the Zero-Waste goal, but we are not there yet. The proposed DRI prevents closure of the facility in 2024 and preserves annual disposal capacity, also allowing the facility to pursue alternatives to landfilling.

II. Consistency with Climate Mitigation Goal

The Climate Mitigation Goal is intended to support the advancement of the region's climate change mitigation and adaptation actions. The Technical Bulletin states that it is meant to support, and be supported by, the other goals within the RPP.

The Climate Mitigation Goal directs DRI applicants and the Commission to strive to minimize emissions from development activity that generates greenhouse gas (GHG), but recognizes that such development should be considered in light of other regional interests, such as solid waste management. The Goal aligns with the state's climate mitigation policies (Global Warming Solutions Act, Green Communities Act, and related policies), which guide communities toward solutions that reduce GHG emissions, while maintaining access to necessary infrastructure and facilities.

Bourne ISWMP is regional infrastructure that serves a critical role in managing the region's waste. While it is not a long-term solution for regional waste management, it is essential until the region can transition to higher recycling rates, composting, and a Zero-Waste system. It is sensible and efficient to make use of and expand the existing facility where resources and infrastructure is already in place, provided that regional resources can be protected.

Objective CM3 promotes carbon sequestration and other emissions removal practices as a tool toward reducing GHGs. The Technical Bulletin allows an applicant to provide a GHG inventory of a project's emissions, but does not require such an analysis. A GHG inventory for a development project is a possible method to assist an applicant in demonstrating that the project has minimized its GHGs. In lieu of this method, the applicant has provided details of efforts to capture and reduce GHGs at the facility.

The Applicant indicates that existing landfill gas collection is designed to capture and reuse 95% of gas emissions, and this rate will be maintained under new conditions. Additionally, the project will be protecting land to meet the open space requirements; these permanently protected lands will help offset GHGs in addition to meeting the open space requirements of the RPP and addressing important rare species habitat needs. The subcommittee may wish to consider the carbon sequestration objective when considering the Town's open space proposal, but neither the open space goal nor the climate mitigation goal require that the GHGs emissions are fully offset by carbon sequestration.

Objective CM4 promotes the use of low- or no-carbon energy generation technologies appropriate to context. As indicated in the staff report, the subcommittee may find that the facility is consistent with

this Objective, conditioning a decision on the requirement that the Town pursue installation of solar photovoltaics on the facility's cap, or demonstrate that this is infeasible.

III. Open Space Waiver

The Applicant has requested a waiver of the 3:1 Open Space requirement under the Open Space Goal of the RPP. The supplemental materials submitted on August 13, 2021 support the request for flexibility in the methods used to meet the open space requirement.

The Applicant's supplemental materials indicate that, in addition to the previously discussed off-site parcel, the Applicant is willing to restore the 74-acre site consistent with EPA recommendations. The Applicant cited the portion of the Open Space Technical Bulletin that discusses the restoration of degraded areas on-site to meet the open space requirement. Although the site would not be fully restored to its natural state and function, the subcommittee could provide credit as the substantial acreage and connectivity would provide some habitat value if restored.

When considering this proposal, staff suggest that the subcommittee consider the specific requirements for granting a waiver under the RPP:

- the waiver will not result in substantial detriment to or substantial derogation from the purposes and values intended to be protected or promoted by such goal or objective
- the intent of the goal or objective will be met through some alternate approach, including appropriate mitigation
- that the waiver is necessary to fulfill, protect, or promote another compelling regional purpose, goal, objective or value from the Act or RPP that could not be achieved without such waiver

The purpose of the Open Space Goal of the RPP is to protect, preserve or enhance open space to ensure that the values and characteristics of the region will be sustained and stewarded for future generations. Important to the evaluation is that the Applicant is providing a parcel of higher value land in a ratio of 1.5:1. While not in full compliance with the required methods for meeting the objectives of the goal, staff suggest that the provision of more open space than will be developed is unlikely to be substantially detrimental to the goal to protect, preserve, or enhance the open space to sustain the values and characteristics of the region.

As to whether the alternative approach proposed by the Applicant will meet the intent of the Goal, it is unclear what the specific restoration plan would be for this site. However, other landfills in Massachusetts have successfully restored sites and established habitat value.³ Staff suggest that the subcommittee could find that the intent of the Open Space Goal could be met through the combination of offsite protection and site restoration.

The third consideration for the waiver request is whether the waiver is necessary to fulfill another regional goal from the Act or the RPP. Both the Act and the RPP include solid waste management as a priority. Section 1(c) of the Act lists, as a purpose of the Cape Cod Commission, furthering the provision of capital facilities, including solid waste disposal facilities. The RPP supports this purpose

³ See Superfund Sites in Reuse in Massachusetts, EPA, <https://www.epa.gov/superfund-redevelopment/superfund-sites-reuse-massachusetts> (2021); Revegetating Landfills and Waste Containment Areas Fact Sheet, EPA, https://www.epa.gov/sites/default/files/2015-08/documents/revegetating_fact_sheet.pdf (2006)

with Objective WM2, which is to support an integrated solid waste management system, as discussed above. While commenters have suggested that “the proposed expansion would be unnecessary if Zero Waste programs were enforced and expanded” even under DEP’s most optimistic projection, waste disposal is going to be necessary beyond the current proposal.

IV. Water Resources

Per- and polyfluoroalkyl substances (PFAS) are a family of chemicals used since the 1950s to manufacture stain-resistant, water-resistant, and non-stick products. PFAS continue to be widely used in common consumer products such as coatings, on food packaging, outdoor clothing, carpets, and artificial turf. PFAS do not break down easily and are widely detected in soil, water, air, and food.

Given the amount of consumer products that continue to be manufactured with PFAS, it is not unreasonable to assume that the leachate at the facility contains PFAS. However, the Facility has provided details of the monitoring and protections in place to prevent and detect leaks of leachate. MassDEP indicated in its comments on the Single Supplemental Environmental Impact Report that the double composite liner system is consistent with the requirements for systems at hazardous waste sites. Therefore, despite the possibility that the leachate may contain PFAS, none of the material in the record indicates that the groundwater is contaminated with PFAS.

It should be noted, however, that the Facility does not monitor the groundwater for PFAS. This is not currently required by DEP, likely because there is no potential that it will be used for drinking water. However, given that PFAS is considered an emerging contaminant, requiring testing for PFAS where sampling is already taking place could be considered.