

## MEMORANDUM

TO: Cape Elizabeth Planning Board  
FROM: Maureen O'Meara, Town Planner  
DATE: March 19, 2019  
SUBJECT: Wastewater Treatment Facility UV Disinfection Upgrade

### Introduction

The Portland Water District is proposing upgrades to the Wastewater Treatment Facility located at 488 Spurwink Ave to add ultraviolet disinfection. The application will be reviewed for compliance with Sec. 19-9, Site Plan Regulations.

### Procedure

- The Planning Board should begin by having the applicant summarize the project.
- The board should then allow for public comment regarding application completeness.
- The board should make a determination of completeness. If the application is deemed incomplete, board members should identify the information needed to make the application complete and no substantive discussion of the application should occur. If the application is deemed complete, substantive discussion may begin.
- If the application is deemed complete, then the board should open the public hearing which has been scheduled for this evening.
- At the close of the public hearing, the board may begin discussion.
- When discussion ends, the Board has the option to approve, approve with conditions, table or deny the application.

### Summary of Completeness

Attached are the completeness checklist and the comments of the Town Engineer. Below is a summary of possible incomplete items:

No items appear incomplete. The applicant has requested a waiver from providing traffic information.

### Site Plan Review Standards

Below is a summary of application compliance with the Site Plan standards, Sec. 19-9-5.

1. Utilization of the Site

The proposed construction is located on the portion of the site that has already been developed for wastewater treatment and existing vegetated buffers will remain.

2. Traffic Access and Parking

- a. Adequacy of Road System- Spurwink Ave has significant excess capacity and the proposed upgrades will not increase traffic to the site once construction is complete.
- b. Access into the Site- Existing access points will be used.
- c. Internal Vehicular Circulation-The existing circulation pattern will not be changed by this project
- d. Parking Layout and Design- No change to vehicular circulation is proposed.

3. Pedestrian Circulation

No change is proposed.

4. Stormwater Management

An additional 615 sq. ft. of impervious surface is proposed. Rainwater from this area will be directed to a vegetated filter strip. The Town Engineer has commented that it is possible the outfall will extend beyond the fence and may need some riprap to avoid erosion.

5. Erosion Control

Best management practices will be used to avoid erosion during and after construction.

6. Utilities

The project does not require water or sewage disposal. The applicant has provided comment from CMP regarding 3 phase power.

7. Shoreland Relationship

The project is not located in the Shoreland Overlay Performance District.

8. Landscaping and Buffering

The site is currently buffered by existing vegetation which will remain.

9. Exterior Lighting

The applicant has provided lumen levels at the fence line, which is 27' away from the property line. The highest level is 3.5 lumens. Site Plan regulations require that lighting at the property line not exceed .5 footcandles. Based on the information below, for this project, we should be able to treat lumen and footcandles as equivalent measurements.

A foot-candle equals **1 lumen** per square foot. The international standard (SI) counterpart of the foot-candle is the "lux." A lux equals **1 lumen** per square meter. The equation used to convert foot-candles to lux is: 1 foot-candle = 10.76 lux. Apr 24, 2017

[Foot-Candles Vs. Lumens | Sciencing](https://sciencing.com/footcandles-vs-lumens-5851616.html)

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10. Signs

No signs are proposed

11. Noise

The ultraviolet disinfection upgrade will not generate noise levels inconsistent with the current operation of the facility.

12. Storage of Materials

No exterior storage of materials is proposed

13. Technical and Financial Capacity

The applicant has provided evidence of financial resources to complete the project and technical ability.

Motion for the Board to Consider

**A. Motion for Completeness**

BE IT ORDERED that, based on the plans and materials submitted and the facts presented, the application of the Portland Water District for upgrades to the Wastewater Treatment Facility located at 488 Spurwink Ave to add ultraviolet disinfection be deemed (complete/incomplete). Completeness shall include granting the following waiver:

1. A waiver from submitting traffic access and parking information due to the lack of anticipated new traffic generated or parking required for the proposed upgrade and the available capacity in Spurwink Ave.

**B. Motion for Approval**

Findings of Fact

1. The Portland Water District is proposing upgrades to the Wastewater Treatment Facility located at 488 Spurwink Ave to add ultraviolet disinfection that requires review under Sec. 19-9, Site Plan Regulations.
2. The project upgrades (reflect/do not reflect) the natural capabilities of the site to support development.
3. Access to the site (will/will not) be on roads with adequate capacity to support the traffic generated by the development. Access into and within the site (will/will not) be safe. Parking (will/will not) be provided in accordance with Sec. 19-7-8, Off-Street Parking.
4. The project upgrades do not change any pedestrian ways within the development. The site is fenced for public safety and health reasons and does not allow public access.
5. The project upgrades (do/do not) provide for adequate collection and discharge of stormwater.

6. The project upgrades (will/will not) cause soil erosion, based on the erosion plan submitted.
7. The project upgrades do not require an adequate quantity and quality of potable water because the function of the site is to treat municipal wastewater.
8. The project upgrades do not require adequate sewage disposal because the function of the site is to treat municipal wastewater.
9. The project upgrades (will/will not) be provided with access to utilities.
10. The project (will/will not) locate, store or discharge materials in a manner harmful to surface or ground waters.
11. The project upgrades (will/will not) provide for adequate disposal of solid wastes.
12. The project upgrades (will/will not) adversely affect the water quality or shoreline of any adjacent water body.
13. The applicant (has/has not) demonstrated adequate technical and financial capability to complete the project.
14. The project upgrades (will/will not) provide for adequate exterior lighting without excessive illumination, subject to supplementing lighting levels at the fence line information with lighting levels at the property line information.
15. The project upgrades (will/will not) maintain a vegetative buffer throughout and around the site and screening as needed.
16. The project upgrades (will/will not) substantially increase noise levels and cause human discomfort.
17. The project upgrades (will/will not) include storage of exterior materials on the site.
18. The application substantially complies with Sec. 19-9, Site Plan Regulations.

THEREFORE BE IT ORDERED that, based on the plans and materials submitted and the facts presented, the application of the Portland Water District for

upgrades to the Wastewater Treatment Facility located at 488 Spurwink Ave to add ultraviolet disinfection be approved, subject to the following conditions:

1. That the plans be revised to address the comments of the Town Engineer in his letter dated March 11, 2019;
2. That the applicant provide information that the lighting levels at the property line will not exceed 0.5 footcandles; and
3. That there be no alteration of the site nor issuance of a building permit until the plans and materials have been revised to address the above conditions and submitted to the town planner.