

September 2, 2020
W-P Project No. 14083I

Neil Angus, AICP, CEP, LEED AP
Devens Enterprise Commission
33 Andrews Parkway
Devens, MA 01434

Subject: Narrative for Reuse Plan and Industrial Performance Standards
Shabokin and Patton Water Treatment Plant Projects

Dear Mr. Angus:

In accordance with the submission requirements for a Level 2 Unified Permit Application for the referenced project we have prepared the following narrative intended to address compliance with the Reuse Plan 974 CMR 1.02 and Industrial Performance Standards 974 CMR 4.00.

Background

Shabokin Well Site

The site for the proposed Shabokin Water Treatment Plant (WTP) is located on the northeast side of Sheridan Road near the existing Shabokin well and pumphouse. The site is located within the Open Space and Recreation zoning district. Municipal uses are approved within all zoning districts of Devens. The site entrance is approximately 300 feet to the east of the intersection of Sheridan and Mirror Lake Road. The proposed WTP site located in within a cleared area used as a former gravel pit. The existing access road to the gravel pit will be paved as part of this project and be subject to stormwater treatment.

The site generally flat with a gradual slope toward the entrance road and was previously cleared of vegetation; some additional clearing will be required as part of the project. The area surrounding the building site consists of very steep vegetated and exposed gravel hills with some slopes greater than 50%. The site abuts a designated Slope Resource Area (SRA) as depicted on the Devens Slope Resource Area Overlay Map, the limits of the SRA have been shown on the project drawings with the boundary provided from the Devens GIS system. Wetlands were identified on the eastern edge of the access drive and across the street from the site entrance. No work is anticipated to occur directly in any wetlands, however the existing access road is currently located within the 100-foot wetland buffer.

As noted above, the site for the proposed Shabokin WTP has been previously cleared of vegetation and has remained in a cleared condition since at least 1995. While most of the site has been cleared of trees, portions of existing vegetation near the existing driveway and areas near the edges of the project site will need be cleared to allow for the proposed construction. The anticipated cleared area is approximately 0.33 acres.



Patton Well Site

The site for the proposed Patton Water Treatment Plant (WTP) is located on the southern side of Patton Road, approximately 0.5-miles to the west of its intersection with Marne Street. The site is located within the Open Space and Recreation zoning district. Municipal uses is approved within all zoning districts of Devens. The site immediately abuts Patton Road within an existing cleared area that extends approximately 110-feet deep from the ROW line. A wetlands delineation did not identify any wetlands within the proposed work area, but wetlands were identified near the existing well pump station and across the street from the proposed site. The topography of the site generally slopes from southwest to northeast with an approximate slope of 3%. The site abuts a designated Slope Resource Area (SRA) as depicted on the Devens Slope Resource Area Overlay Map, the limits of the SRA have been shown on the project drawings with the boundary provided from the Devens GIS system.

Most of the site has been cleared and consists of existing gravel area, additional clearing will be necessary to accommodate the proposed site layout. Given the existing conditions and grades at the site, more soil from the proposed earthwork operations will be generated than can be re-utilized for construction. The excess will be maintained on site in an area to the west of the building in order to avoid any export of soil. The soil will be stockpiled, graded, and permanently revegetated to prevent erosion. Berming along the front of the proposed building has been provided using some of the excess soil to help buffer the view from Patton Road.

Devens Reuse Plan

Goals and Objectives

As discussed in Chapter 4 of the Devens Reuse Plan, “The Devens Reuse Plan provides a comprehensive framework and strategy to reuse the buildings, infrastructure, land and open space to produce jobs and environmental protection in the Devens Regional Enterprise Zone.” The plan goes on to further describe that one of the primary goals was to craft a plan that places a priority on preservation and enhancement of the open space within Devens..

As noted above, both sites for the proposed water treatment facilities are within the Open Space and Recreation zoning districts. Goals and objectives for each zoning district were identified within the Devens Reuse Plan and protecting and enhancing natural resources was a central theme for this zoning district. In recognition of the importance of this zoning district, a more detailed “Devens Open Space and Recreation Plan” (DOSRP) was drafted in 2008 with the goals of establishing a management plan for the open space.

One of the key conclusions reached within the DOSRP was that “MassDevelopment and the Devens Enterprise Commission have been diligent in the protection of groundwater and surface water resources within Devens. Continued efforts are still needed to address areas of un-treated storm water and possible non-point source pollution both on MassDevelopment lands and especially Army lands.” Although the DOSRP may not have specifically identified PFAS as a contaminant of concern in 2008, the plan does recognize that protection and enhancement of groundwater sources is critical to the future success of Devens.



Construction of the two water treatment plants aligns well with the goals and objectives of the Devens Reuse Plan. Providing consumers in Devens with clean, safe drinking water goes beyond compliance. The commitment to clean water enhances the environmental and economic goals that are part of the plan for continued successful redevelopment of Devens.

Specific goals and objectives contained within the Devens Reuse Plan that are reflective of these projects include the following:

- Development must be sustainable, which means achieving a balance of economic, social, and environmental needs, while maintaining and enhancing the natural resource base.
- Demonstrate the interdependence of economic development and environmental protection and the symbiosis of public and private uses.
- Protect and enhance the quality of life of the citizens in the host communities, the region, and the Commonwealth.
- Ensure an effective expeditious, and efficient clean-up of hazardous materials, including Superfund areas, tied to the needs of the Reuse Plan.

Development of enhanced drinking water treatment capacity at the Patton and Shabokin wells affirmatively furthers the goals and objectives of the Devens Reuse plan, as well as the Devens Open Space and Recreation Plan.

Maintaining and enhancing drinking water quality is directly linked to the ability of Devens to sustain and grow its economic base. The continued redevelopment of Devens and the ability to attract and retain residents and businesses is only possible with access to clean water. As noted above a key cultural and social objective of the Devens Reuse Plan is the protection and enhancement of the quality of life of the citizens. These projects are directly linked to the quality of life available to the citizens of Devens.

Devens Open Space and Recreation Plan

The Devens Trail Inventory Map depicts the Mirror Lake Trail system in the general vicinity of both the Patton and Sheridan well sites. The Mirror Lake Trails currently dead-end at Patton Road near the existing well site. No changes are proposed in the vicinity of this trailhead, and access to the trail will remain unchanged as a result of this project.

Similarly, the Mirror Lake Trail connects to the Sheridan Trail (Sheridan Road) adjacent to the existing Sheridan well and pump house. The site driveway for the WTP will be in the general vicinity of the trail but will not prohibit access to the trail.



Trip Generation

The proposed WTP's are not expected to result in any increase to the number of trips to the surrounding roadway network. Devens Utilities Department staff members currently visit the site daily and will continue after construction. Typically the visits to the site consist of two (2) staff members two times per day.

Deliveries of supplies, occasional vendor visits, and maintenance visits are part of the current operations at the well sites and are expected to continue at a similar rate. For deliveries of supplies, both the Patton and Shabokin sites would most often be visited by the same truck further minimizing trips.

Existing Variances

The Applicant is not aware of existing variances that apply to the subject property.

Industrial Performance Standards

Please see the Industrial Performance Standards Checklist included with this submittal.

Slope Resource Area

The proposed Shabokin WTP was specifically sited in an area that requires minimal tree clearing and a layout that is as compact as practical. The site has is within an area that was previously cleared and used as a gravel pit with areas of steep slopes at the perimeter. Having been used as a gravel pit, the site is a low point with some areas of exposed soil on the surrounding slopes. As part of the project the exposed slopes at the perimeter are proposed to be stabilized and re-vegetated.

Based on the available mapping, some areas of the site do fall within the 35' buffer area of the Devens Slope Resource Area (SRA). Those areas are primarily located on the edges of the site. However, no material impact from this project is anticipated due to the factors noted above. In addition, because the site is located at the bottom of the slope rather than the top, stormwater runoff from the site will not cause any erosion to existing upslope areas.

Water Resource Protection

The location of the Patton WTP is within the Zone II District of the Water Resource Protection Overlay. Per 974 CMR 4.09 projects shall utilize BMP's and other protective measures depending on their WRP Zone. The proposed project will comply with the requirements of section 4.09. A copy of the Emergency Action Plan (EAP), including spill response, is included with this submission.

The following is a short summary of the above and below ground storage planned for the site:

- Diesel Generator Tank - The generator will be supplied with a belly tank with audible overflow alarming. High and low fuel level is monitored. Secondary containment will be supplied in the bedframe of the unit and will be inspected by operations staff regularly.



- Sewage Tank - Sanitary wastewater from the facility will flow by gravity to a 4,000-gallon tight tank. The tight tank will be monitored by an ultrasonic level transducer as well as high- and low-level float switches with alarming tied into the plant's SCADA system. The tight tank will be emptied periodically by a septic hauling truck for removal and disposal at the MassDevelopment WWTP.
- Residuals Tank - Settled residual solids from the filter backwash process will flow by gravity to a 10,000-gallon tight tank. The residuals tank will be monitored by an ultrasonic level transducer as well as high-level and low-level float switches with alarming tied into the plant's SCADA system. The residuals tank will be emptied periodically by a septic hauling truck for removal and disposal at the MassDevelopment WWTP.

The location of the Shabokin WTP is mostly within the Zone I District of the Water Resource Protection Overlay, however certain areas of the site are outside Zone I. The storage of diesel, sewage and residuals is has been proposed for the areas of the site outside of Zone 1. The following is a short summary of the storage and monitoring planned for the site:

- Diesel Generator Tank – Given the proximity to Zone I ,the generator would be paired with an above-ground external diesel fuel storage tank constructed of double wall steel encased in reinforced concrete. The fuel tank would be provided with leak detection sensing, level sensing, a site gauge, a high-level sensor with alarming, and overfill containment. A ConVault brand, or equivalent is proposed for this location. Product literature is included with this submittal.
- Sewage Tank - Sanitary wastewater from the facility will flow by gravity to a 4,000-gallon tight tank. The tight tank will be monitored by an ultrasonic level transducer as well as high- and low-level float switches with alarming tied into the plant's SCADA system. The tight tank will be emptied periodically by a septic hauling truck for removal and disposal at the MassDevelopment WWTP.
- Residuals Tank - Settled residual solids from the filter backwash process will flow by gravity to a 10,000-gallon tight tank. The residuals tank will be monitored by an ultrasonic level transducer as well as high-level and low-level float switches with alarming tied into the plant's SCADA system. The residuals tank will be emptied periodically by a septic hauling truck for removal and disposal at the MassDevelopment WWTP.



Waivers Requested

The following is list of waivers requested for section 3.04 of the Devens Code to facilitate the development of the two projects:

Summary Waiver Request# 1: Section 3.04 (3)(a)1. a - Parking shall be on rear or side of buildings, 10% max allowed in front of building

Waiver Justification #1: The nature of the proposed use does not require a significant amount of parking, and as such the parking has been located to be as efficient as possible for staff. The desire to utilize the already cleared area of the Patton site results in the layout of the building with the facility access doors facing Patton Road. Placing the parking nearest the doors is the most efficient and safest layout for staff. Use of the parking will be intermittent, and it is desirable for safety purposes to have the parking close to the building doors as the facility may occasionally have staff at the site during night-time hours. Berming and landscaping has been provided in front of the parking to soften the view from Patton Road.

Summary Waiver Request# 2: Section 3.04 (3)(a)1.h – bicycle parking required

Waiver Justification #2: Site use is expected to be limited to employees, vendors, and delivery personnel. None of these users are expected to visit the site by bicycle and waiver is requested to the requirement for bicycle storage.

Summary Waiver Request# 3: Section 3.04(6)(a)2.a – Vertical granite curb or cement concrete curb is required at all driveway entrance roundings to the point of rounding tangency.

Waiver Justification #3: Both Patton and Sheridan roads exist as uncurbed roadway sections. Adding curb in the driveway entrances would add to the scope of drainage work adjacent to and within the roadways. The Applicant requests a waiver to provide curbing at the driveway entrance.

Summary Waiver Request# 4: 3.04(6)(a)3.a – Commercial and industrial property lights may only be illuminated between 11 p.m. and 7 a.m. if the DEC determines lights are needed to ensure safety for night operations on the premises.

Waiver Justification #4: The proposed WTP's are considered critical infrastructure and operate 24 hours per day. In order to respond to malfunctions, emergencies, etc. the Applicant's standard procedure is for the area surrounding the building to be illuminated from dusk to dawn. Lighting at both sites is minimal and consists of only building wall mounted cut-off fixtures with shielding. No pole mounted fixtures are proposed at either site. In addition, the Shabokin WTP building is setback from the road by approximately 300 feet and will be mostly buffered by existing vegetation which would serve to minimize visibility from surrounding areas. The applicant is requesting a waiver to allow each site to provide lighting from dusk to dawn as is their typical operating standard.

Summary Waiver Request# 5: Section 3.04(6)(a)7.a.1– All sewage generated by site development at Devens shall connect to the Devens public sewer system. The Applicant shall provide evidence that the



sewage generated by the proposed development shall be accepted by the Devens Wastewater Treatment Facility.

Waiver Justification #5: Public sewer is not available to either site given their location in Devens. Sewage generated is expected to be minimal with only one bathroom proposed for employee and visitor use. Sewage is proposed to be stored in a tight tank with level monitoring and be pumped out on a regular basis. Because the sites are located near the Patton and Sheridan wells and Zones 1 and 2, a septic system is not a feasible option. The Applicant is seeking a waiver to this section.

Schedule

The commencement of construction for the two projects is planned to be staggered by 6 months. Beginning with the Patton WTP, followed by Shabokin. This approach is intended to minimize disruption to the water supply system in Devens during construction.

Please let us know if you have any questions.

Sincerely,
WRIGHT-PIERCE

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Project Manager
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Enclosures

cc: Jim Moore, MassDevelopment