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FINAL

**Highlands Council Staff Recommendation Report
Application for Highlands Applicability Determination (HAD) Exemption #11
Butler Water Treatment Plant Upgrades**

Date: January 6, 2022

Re:	Application Type:	Exemption #11
	Name:	Butler Water Treatment Plant Upgrades
	Municipality:	Kinnelon Borough
	County:	Morris
	Highlands Act Area:	Preservation Area
	LUCZ Location:	Protection Zone
	Property:	Block 45301 Lot 110; Block 46001, Lot 101
	Proposed Use:	Water Treatment Plant and Access Road
	Staff Recommendation:	Approval of Public Health and Safety Waiver with Conditions, Finding of Consistent with Highlands Act and RMP

1.0 Executive Summary

Butler Water Department is proposing needed upgrades to the water treatment system at the Butler Reservoir located in Kinnelon Borough. The site is entirely located in the Preservation Area. The project appears eligible for a Highlands Act Exemption #11 that would be issued by NJDEP. Exemption 11 requires that the project be consistent with the Highlands Act, a finding of which is issued by the Highlands Council.

The proposed improvements create impacts to Highlands Open Water Buffers that cannot be avoided or mitigated; therefore, a public health and safety waiver is required before the project can be deemed consistent with the Act. Due to the nature of the improvements to upgrade and modernize the water filtration system for a public water system, a public health and safety waiver appears appropriate.

1.1 Public Comment Period

On November 30, 2021 the Plan Conformance Committee approved the HAD 11 to be posted for a 30-day public comment period, from December 3, 2021 to January 3, 2022. The Highlands Council has received no public comments on the proposed Exemption #11 for the Butler Water Treatment Plant Upgrades. Therefore, the project will be reviewed during a public hearing in front of the Highlands Council on January 20, 2022.

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2.0 Project Summary

The Butler Water Department (applicant) has submitted an application to the New Jersey Department of Environmental Protection (NJDEP). The applicant seeks a Highlands Applicability Determination (HAD) on an Exemption #11 for a project proposed within the Highlands Preservation Area. Exemption #11 applies to the routine maintenance and operations, rehabilitation, preservation, reconstruction, repair, or upgrade of public utility lines, rights of way, or systems, by a public utility, provided that the activity is consistent with the goals and purposes of the Act. The Highlands Council is tasked with making a recommendation to the NJDEP regarding the consistency of Exemption #11 with the goals and purposes of the Highlands Act.

The Butler Water Department is proposing treatment plant upgrades at the Butler reservoir located in Kinnelon Borough. The purpose is to improve the existing filtration vessels, which are no longer considered acceptable technology under current regulations. Although the existing filtration vessels are permitted under a legacy clause, this equipment is aging and will require replacement soon. It is anticipated that the pressure filters will be replaced with gravity filters and the capacity of the filters will be upsized to be capable of handling the full water allocation of 5 million gallons per day (MGD), including an allowance for redundancy in filter service. Under this arrangement, one of the existing sludge lagoons would likely be re-purposed for filter backwash clarification. No increase in water allocation is proposed.

The existing filtration building is located on a separate parcel, Block 45301, Lot 110, a significant distance from the main plant, which is located at Block 46001, Lot 101. Consolidating the treatment processes to one area at Block 46001, Lot 101 will allow for easier access by plant personnel for day-to-day operations and maintenance as well as a more efficient process train. Drying beds for residuals handling are also proposed along with a clear-well for chlorination. The existing chemical feed systems will be modified, as applicable, to maintain consistency with the required bulk liquid chemical system standards, including sufficient storage volume and secondary containment. Reflective of industry best practices, the upgrade will also consider integration of office spaces, meeting spaces, and other functional workspaces for plant personnel. The disturbed area to accommodate this new construction is approximately 1.05 acres, including 0.95 acres of impervious area.

A new access road is also being proposed, as the current access road is in poor condition with limited usefulness. The existing road traverses the Butler Reservoir Dam causeway; this route impedes the ability of the plant to receive larger deliveries on a regular basis as the road and dam cannot accommodate oversized vehicles. The proposed access road is anticipated to connect to Kakeout Road in the space between the two parcels located towards the northeast portion of the site: Block 45207, Lot 104 and Block 45401, Lot 116. The road is anticipated to be approximately 1,550 feet long by 25 feet wide, with a widened wedge near the entrance to the plant to accommodate the turning radius of larger vehicles. The disturbed area to accommodate the new road is anticipated to be approximately 1.21 acres, including approximately 1.10 acres of impervious cover. The existing access road will remain to provide secondary access.

3.0 Impact on Highlands Resources

Highlands staff has reviewed the submitted materials and has assessed whether the project is consistent with the goals and purposes of the Highlands Act. To do this, staff first assessed which

Highlands resources have the potential be affected by the project. These resources are: Total Forest Area and Forest Resource Area, Highlands Open Water (HOW) Protection Area, Prime Groundwater Recharge Area, Critical Wildlife Habitat, and Steep Slope Protection Area.

3.1 Total Forest Area and Forest Resources Area

According to the HAD 11 application, impacts to the Total Forest Area and Forest Resources Area will be a total proposed disturbance area of 89,225 ft², 2.05 acres, or 0.48% of the parcel disturbed. This is comprised of be approximately 47,975 ft² disturbed by the proposed road and 41,250 ft² disturbed by the proposed building. Tree clearing will be necessary to accommodate temporarily disturbed areas as well as permanently disturbed areas. Clearing of trees and vegetation will be performed only where necessary. Regeneration of vegetation will be encouraged within the temporarily disturbed areas upon completion of the work. Because this parcel is already heavily wooded, general tree replacement on the property is not a practical option. Instead, the objective is to be able to demonstrate an effort to address forest integrity. In its plan to address forest integrity, the Borough will consider the following: revegetation efforts, including evaluating optimal areas for tree planting across the property, restoring native plant species in existing pre-disturbed areas (for example, along Bubbling Brook road), and restoring native plant species in areas where invasive species have been removed; Invasive species management, including removal of existing invasive plants and washing down equipment before it enters the site to prevent the spread and migration of invasive plant species; and the development of a site-specific forest management plan.

3.2 Highlands Open Waters Protection Area and Prime Groundwater Recharge Area

The HAD 11 application indicates that the total proposed disturbance area to HOW Protection Area is approximately 87,521 ft², 2.05 acres, or 0.47% of the parcel. This total disturbance area is comprised of 36,632 ft² impacts from the proposed road and 40,280 ft² impacts from the proposed building. According to the HAD 11 application, the total proposed disturbance to Prime Groundwater Recharge Area will be approximately 89,225 ft², 2.05 acres, or 0.48% of the parcel. This total disturbance area is comprised of 47,975 ft² disturbance area from the proposed road, and 41,250 ft² disturbance from the proposed building.

The proposed construction will inevitably overlap with the HOW Protection Area and the Prime Groundwater Recharge Area resources due to the limited geometry of the parcel as well as the fact that this work is for a surface water treatment plant and necessary proximity to the Butler Reservoir. As the proposed road will add impervious surface, best management practices for stormwater pollution and runoff control will be implemented, adhering to the Stormwater Rules at NJAC 7:8, to handle runoff in a manner that minimizes environmental impact. The road will be pitched to divert runoff away from open waters and directed towards bioretention ponds, to impede flow and treat runoff. The water collected in the ponds would percolate back into native soils, replenishing the natural shallow groundwater aquifers in the area.

3.3 Critical Wildlife Habitat

According to the HAD 11 application, the total proposed disturbance area to Critical Wildlife Habitat will be approximately 89,225 ft², 2.05 acres, or 0.48% of the parcel. This total disturbance area is comprised of 47,975 ft² from the proposed road and 41,250 ft² from the proposed building. The wildlife species listed as present according to Highlands Council mapping include Northern Copperhead (species of special concern), Barred Owl (state threatened), Northern Goshawk (state

endangered), Veery (special concern), Worm-eating Warbler (special concern), and Wood Thrush (special concern).

Construction activities, including clearing and grubbing, will likely cause a disturbance to some species habitats. However, it is anticipated that this disruption will be temporary in nature, as the ratio of the proposed disturbance compared to the entirety of the parcel is small. The proposed disturbance includes a narrow corridor for the access road and a rectangular area for the new plant building. Despite the new structures and accessway, it is probable the wildlife population will not be discouraged from occupying the surrounding wooded areas. The Borough will submit a Natural Heritage Program data request and correspond with the New Jersey Division of and Wildlife, as required, to confirm species on site prior to beginning any work. Any unique or irreplaceable land types that are identified by the Natural Heritage Database will be given special consideration. Wildlife displacement is anticipated to be temporary and expected to mainly occur specifically during construction due to noise pollution and extended periods of human activity. Upon completion of construction, it is anticipated that there will be a repopulating of wildlife inhabitation.

3.4 Steep Slope Protection Area

According to the HAD 11 application submitted, the total proposed disturbance area to mapped Steep Slope Protection Area is 23,728 ft², 0.54 acres, or 0.13% of the parcel. This total disturbance is comprised of 16,688 ft² disturbance area from the proposed road, and 7,040 ft² disturbance area from the proposed building. Although this site does have areas with steep slopes, in general, no permanent work is proposed that will adversely affect significant areas of steep slope. Regarding site access, it should be noted that the current proposed road presents the least overlap with designated steep slope protection areas as compared to the other options as presented in the roadway alternative analysis discussed in the HAD 11 application documentation. It is understood that areas of steep slopes play a functional role within the ecosystem as well as for recreational use and scenic value. Care will be taken to address all necessary soil erosion and sedimentation measures to prevent soil loss, silting of nearby wetlands and water bodies, and altering of drainage patterns surrounding the proposed construction.

3.5 Summary of Highlands Resource Impacts

In summary, the estimated disturbance are as follows, organized by resource type and type of proposed disturbance:

Highlands Layer	Disturbance Area of Proposed Road	Disturbance Area of Proposed Building	Total Proposed Disturbance Area	Percentage of Parcel Disturbed
Total Forest Area	47,975 ft ²	41,250 ft ²	89,225 ft ² / 2.05 acres	0.48%
Forest Resource Area	47,975 ft ²	41,250 ft ²	89,225 ft ² / 2.05 acres	0.48%
Highlands Open Water Protection Area	46,632 ft ²	40,280 ft ²	87,521 ft ² / 2.01 acres	0.47%
Highlands Riparian Area	46,632 ft ²	22,382 ft ²	65,484 ft ² / 1.50 acres	0.35%
Prime Groundwater Recharge Area	47,975 ft ²	41,250 ft ²	89,225 ft ² / 2.05 acres	0.48%
Critical Wildlife Habitat	47,975 ft ²	41,250 ft ²	89,225 ft ² / 2.05 acres	0.48%

Steep Slope Protection Area (Severely Constrained)	16,688 ft ²	7,040 ft ²	23,728 ft ² / 0.54 acres	0.13%
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4.0 Waiver and Staff Recommendation

The entirety of the parcel falls within the Highlands Preservation Area and impacts to Highlands resources are unavoidable. This project cannot be designed to entirely avoid or mitigate all impacts to Highlands resources, particularly to the Highlands Open Water Protection Area buffers. RMP Objective 1D4b requires that “Preservation Area buffers for Highlands Open Waters shall comply with the Highlands Preservation Area rules at N.J.A.C. 7:38, which provide that all major Highlands developments are prohibited within Highlands Open Waters and its adjacent 300-foot buffer in the Preservation Area except for linear development, which may be permitted provided that there is no feasible alternative for the linear development outside Highlands Open Waters or its buffer.”

Based on Objective 1D4b, the roadway construction could be permitted in the Highlands Open Water Protection Area Buffer, but the construction for the building cannot. Therefore, in accordance with RMP Policy 7G2 (noted below), the Borough of Butler is requesting a public health and safety waiver, to be issued by the Highlands Council.

Policy 7G2: For both the Preservation Area and the Planning Area, a waiver may be issued by the Highlands Council on a case-by-case basis from the requirements of the RMP or any amendments to a master plan, development regulations, or other regulations adopted by a local government unit specifically to conform them with the RMP: 1) if determined to be necessary in order to protect public health and safety; 2) for redevelopment in certain previously developed areas as identified by the Highlands Council, or 3) in order to avoid the taking of property without just compensation. Any waiver issued shall be conditioned upon a determination that the proposed development meets the requirements prescribed for a finding as listed in Section 36.a of the Highlands Act to the maximum extent possible.

The main purpose of this project is to upgrade the water treatment facility equipment to be more modern and compliant with currently acceptable technology under NJDEP regulations, and therefore, it is demonstrably in the interest of public health and safety.

Highlands Council staff recommends the approval of a public health and safety waiver and a finding that the project is consistent with the Highlands Act, provided that the following conditions are met:

- Butler Borough Water Department shall prepare and submit a plan detailing the proposed forest mitigation strategies, including specific details for implementation and maintenance. These plans should include restoration of any areas of existing development to be abandoned as part of this project.
- Copies of the final approved site plans (one digital copy), supporting documents, and any approving resolution shall be submitted to the Highlands Council in accordance with Highland Council Digital Submission Requirements.

This determination is based upon the proposed project as described in the application received September 17, 2021 for a HAD under Exemption #11 prepared by H2M Architects and Engineers submitted on behalf of Butler Water Treatment Plant. Should circumstances change, the Highlands Council reserve the right to modify this recommendation. This determination does not eliminate the need for any permits, approvals, or certifications required by the NJDEP or any federal, State, county, or municipal review agency with jurisdiction over this project/activity.