

**DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
**SHC APPROVAL SUMMARY SHEET**

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**PARK NAME:** Smith Road Sheep Farm

**PARK OWNER:** Township of Parsippany-Troy Hills

**COUNTY:** Morris

**MUNICIPALITY:** Township of Parsippany-Troy Hills

**REASON FOR REQUEST:**

Diversion



Acre(s): 0.164 (easement)

Block: 736 Lot: 9.01 (p/o)

Value: \$19,311.22

**COMPENSATION:**

Cash



\$19,311.22

**SYNOPSIS:** The New Jersey Department of Environmental Protection, on behalf of the Township of Parsippany-Troy Hills ("Township"), requests approval to allow the diversion of a total of 0.164 +/- acre of Green Acres encumbered parkland, known as the Smith Road Sheep Farm property, in connection with the Township's Well 20 Replacement Project. The proposed diversion is needed to allow for the construction and maintenance of a production well and pump house to replace the Township's decommissioned Well 20. To compensate for the proposed minor diversion, the Township proposes to remit \$19,311.22 to Green Acres for deposit into the Garden State Preservation Trust Fund.

**PUBLIC HEARING:**

**Date:** May 13, 2021

**Comments:** No public comments were received at the hearing or during the post-hearing public comment period.

**APPLICABLE STATUTE:** N.J.S.A. 13:8C-1 et seq.

**APPROVAL:**

I, Ray Bukowski, Assistant Commissioner of the Department of Environmental Protection, approve this request in accordance with the provisions of N.J.S.A. 13:8C-1 et seq., N.J.A.C. 7:36 and DEP Administrative Order AO2019-11.

  
\_\_\_\_\_  
Ray Bukowski, Assistant Commissioner

10/21/21  
\_\_\_\_\_  
Date

### **Description of Property and Proposed Diversion:**

In 2006, the Township acquired Block 736, Lots 9.01 and 9.02, which total 4.96 acres, with funding assistance from the Green Acres Program (Project #1429-99-015-2) and the Morris County Open Space Trust Fund. Lot 9.01 is currently undeveloped, as is the majority of Lot 9.02. Lot 9.02 contains the remnants of the original sheep farm, including a residential structure now used for athletic team meetings. These lots were acquired to mitigate the density of nearby development and provide passive recreation for neighboring residents, as well as to protect the integrity of Troy Brook (which runs adjacent to these lots and feeds the environmentally sensitive wetlands in the 2000-acre Troy Meadows complex).

Lot 9.01, located at 560 Smith Road, is a 0.92-acre parcel. It is bounded to the east by Smith Road, to the south by a Township-owned parcel containing a detention basin, and to the west and north by Lot 9.02. As explained in more detail below, the Township now proposes to convey a well easement on approximately 0.164 acre of this lot to the Parsippany-Troy Hills Water Department to construct and operate a municipal water supply well in this location as a replacement for another municipal well. The proposed easement will allow the construction of a building containing the new well, piping, and treatment necessary to operate the well as part of the water system. The proposed easement area also includes a gravel driveway, underground piping from the proposed building to the water main in Smith Road and a 50-foot radius buffer zone required by NJDEP to control pollutant sources and non-water system related activities near the wellhead.

The attached aerial site map (Figure 1) depicts the location of the proposed diversion area.

### **Public Need/Public Benefit:**

The Township's Water Department operates twelve active groundwater wells, all located within the Township, to provide the drinking water needs for approximately 50,000 people. Over time, wells often experience a decrease in capacity and require rehabilitation and/or replacement. One of the Township wells identified as in need of replacement was Well 20, located on Block 736, Lot 7.07 approximately 275 yards north of the proposed diversion area on Block 736, Lot 9.01.

Well 20 was installed in 1986, tapping a sand and gravel, glacial deposits aquifer system known locally as the Buried Valley Aquifer system. The NJDEP Water Allocation Permit (WAP) allowed Well 20 to be pumped at a permitted rate of 700 gallons per minute (gpm) or about one (1) million gallons per day (gpd). Well 20 makes up approximately 7.15% of the total instantaneous capacity of the system. Well 20 was one of the Township's primary supply wells, but was taken out of service in mid-2017 due to a combination of significantly reduced performance, and persistence of detections of perchloroethylene/tetrachloroethene (PCE) concentrations from an off-site source which were slightly below the current NJDEP maximum contaminant level (MCL).

The Water Department rehabilitated Well 20 in 2013, but by March 2017 the capacity had again decreased to about half of the permitted rate. Since 2017, the Water Department has been exploring options to return Well 20 to service to allow restoration of capacity and operational flexibility relative to meeting system demands. Based on the recurring decrease in capacity, the Water Department determined that Well 20 should be replaced with a new public community water supply well. The successful replacement of water supply wells relies in part on the availability of land that is located where the corresponding hydrogeologic conditions are favorable. Ideally, replacement wells are located using land within 100 feet of the well to be replaced, and a minor modification to an existing NJDEP Water Allocation Permit can be pursued.

After the Water Department identified and analyzed fourteen potential locations, including both Township-owned and privately owned parcels, as being possibly available/accessible, and within the appropriate system pressure district, the Township ultimately was granted approval from Green Acres to place a temporary test well on Lot 9.01 in the summer of 2020. Prior to the approval of the Township's temporary use of Lot 9.01 for a test well, Green Acres required the Township to provide an alternatives analysis showing why Lot 9.01 was the only feasible, reasonable and available location for the proposed replacement well. Although Green Acres typically does not ask for an alternatives analysis for a temporary use, the analysis was required in this case because a successful test would lead to the Township applying to permanently divert this area for the replacement well. If other non-parkland alternatives were available, feasible and reasonable, then allowing the test well on parkland would not have been appropriate.

The test well was determined to be a large capacity yielding well. Therefore, the Township and the Water Department are now seeking NJDEP approvals, including the proposed diversion of parkland, to use the Well 20 replacement as a permanent water supply well.

### **Alternatives:**

The NJDEP's Bureau of Water Allocation defines a "replacement" well as being constructed to approximately the same depth, tapping the same aquifer, having the same or less pump capacity, and located within 100 feet of a decommissioned well. Due to a lack of available land within 100 feet of Well 20, in preliminary discussions with the NJDEP, the Township and the Water Department proposed to construct a replacement well in a nearby area outside the 100-foot radius. The Bureau of Water Allocation was amenable to the proposal, subject to appropriate testing to confirm the well yield, and analysis of potential impacts to nearby groundwater users, contamination sources, and the environment.

The proposed replacement well and treatment building will require a NJDEP well permit, revision to an existing NJDEP Water Allocation Permit, NJDEP Permit to Construct, and NJDEP Permit to Operate. When reviewing nearby parcels as

possible alternatives to the proposed location, the Water Department was determined that the majority were mapped as having wetlands, and/or sensitive habitats. Construction in wetland areas would involve additional permits depending on the extent of disturbance due to underground utility lines, and structures.

Another consideration for the replacement of Well 20 is that concentrations of PCE detected in samples collected from Well 20 while in service were close to the NJDEP MCL, and future treatment would likely be needed. The combination of the current lot size and topography, and proximity to Troy Brook limit the area and accessibility for the installation of a replacement well and construction of treatment of PCE. Based on the existing site constraints, the Water Department determined that replacement of Well 20 requires relocating the well to another hydrogeologically-favorable and available parcel in the same pressure district of the service area.

In pursuing the future installation and use of a replacement well, the Water Department identified fourteen locations, including both Township-owned and privately owned parcels, as being possibly available/accessible, and within the appropriate system pressure district. These locations were reviewed in combination with mapping showing the extent and thickness of the Buried Valley Aquifer system tapped by Well 20, existing supply wells (operated by the Water Department and others), NJDEP identified Known Contaminated Sites, and Groundwater Classification Exception Areas (identifying areas identified as exhibiting groundwater contamination occurring above the New Jersey Ground Water Quality Standards). A preliminary prioritization of parcels was completed considering reported aquifer thickness, proximity to existing Well 20 and other Water Department wells, proximity to streams and wetlands, Known Contamination Sites and Classification Exception Areas, and major roadways (due to road salting concerns). Of the fourteen locations, only three were considered viable: Block 728, Lots 3, 4.01, 5, 7, and 8; Block 741, Lot 4.2; and Block 736, Lots 9.01 and 9.02 (the park). The remaining locations were deemed not feasible, reasonable and/or available due to a variety of factors including the proximity of the replacement well to the location of the decommissioned Well 20 site, whether the proposed location is located within the Buried Valley Aquifer, proximity to major roadways, proximity to or presence of wetlands and / or sensitive habitats, and contamination potential.

A more thorough review of each of the three locations included an analysis of property setbacks, mapped wetlands and sensitive habitats, and potential nearby sources of water quality impacts. Exploratory boring and possible small diameter test well locations were selected based on setback distances from surface-water bodies and wetlands, and accessibility with a standard drill rig. In considering applicable NJDEP requirements for construction of municipal water supply wells, an overburden thickness of at least 100 feet would be needed. Each of the three sites were evaluated by advancing boreholes through the overburden using a "sonic" drill rig to enable continuous sampling. A total of four borings were completed with two of them converted to a small diameter observation wells. Two borings were completed at Block 728, Lots 7 and 8 (69 Baldwin Road). Both

borings encountered bedrock at shallow depths of 44 and 65 feet below grade, resulting in inadequate thickness for construction of the replacement well. The third boring was completed at Block 741, Lot 4.2 (761 Smith Road), which encountered bedrock at 80 feet below grade. In that location, the thickness and grain-size makeup of the encountered material were not conducive to the replacement of Well 20. The fourth boring was completed at Block 736, Lot 9.01 (560 Smith Road), and was completed to a depth of 130 feet without encountering bedrock. Much of the material was coarse-grained consistent with the Buried Valley Aquifer, and the hydrogeologic conditions encountered at this location were favorable for supporting the replacement of Well 20.

The Water Department did not determine that any other parcel met the necessary criteria for replacement of Well 20. Based on this analysis, the Department concurs that non-parkland alternatives to the proposed diversion are not feasible, reasonable and/or available for this project.

**Public Hearing:**

Pursuant to *N.J.A.C. 7:36-26.6*, an applicant for a minor disposal/diversion must hold one public hearing on the proposed disposal/diversion application. The Township held the required public hearing on Thursday, May 13 at 7:00pm as a WebEx remote meeting. No public comments were received at the hearing or within the two-week post-hearing public comment period.

**Compensation:**

Under the Green Acres rules, *N.J.A.C. 7:36.26.2(b)1*, the proposed diversion has been classified as "minor" since it (1) involves an easement taking on less than one acre of parkland, (2) is for a public project and (3) meets the other substantive criteria for minor diversions. In general, the compensation requirements for minor diversions of parkland are intended to encourage the use of cash compensation rather than replacement land to streamline the application and approval process for relatively small takings of parkland that are needed for publicly sponsored projects.

The estimated market value of an easement for the 0.164-acre diversion area was determined by the Township's Tax Assessor to be \$19,311.22. In accordance *N.J.A.C. 7:36-26.5(a)(1)(i)*, the minimum compensation for a minor easement diversion is \$2,500 for the first 0.10 of an acre of parkland to which the easement would apply and \$1,000 for every additional tenth of an acre subject to the easement, or the estimated market value, whichever is greater. As such, the proposed compensation for the 0.164 utility easement area is \$19,311.22. As required by *N.J.A.C. 7:36-26.6(i)*, the Township will remit the monetary compensation to the Green Acres Program for deposit into the Garden State Preservation Trust Fund.

The Green Acres rules for both minor and major disposals/diversions of parkland require that the applicant compensate for both the value of the land being disposed or diverted and for any trees of 6-inch caliper or greater that will be removed as part of the proposed disposal/diversion. In this instance, the proposed easement will not result in any tree removal. Therefore, no tree compensation is due.

**MAPS**



Source: NJGIS

### Legend

- Green Acres Program
- New Jersey Parcel
- Existing Well 20

New Jersey Location



Proposed Diversion Area = 0.164 acres

## Figure 1 Aerial Site Map

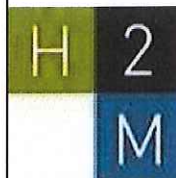
SHC1429005 Smith Road Replacement Well

560 SMITH ROAD, BLOCK 736, LOT 9.01  
TOWNSHIP OF PARSIPPANY, MORRIS COUNTY, NJ

SCALE: 1"=300'

DATE 09/2021

PARS2001



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