H 2 M architects + engineers
119 Cherry Hill Road, Ste 110
Parsippany, NJ 07054 | tel 862.207.5900

ARCHITECTURE NJ #21AC00040200
ENGINEERING NJ #24GA2802550

September 16, 2021

New Jersey Highlands Council
100 North Road (Route 513)
Chester, NJ 07930

Attn: Lisa Plevin, Executive Director
Keri Green, Science Manager

Re: Butler Water Treatment Plant Upgrades
Highlands Applicability Determination
H2M Project No.: BUTL2001

Ms. Plevin and Ms. Green,

The enclosed Highlands Applicability Determination package has been prepared on behalf of the Borough of Butler to address proposed upgrades to the Butler Water Treatment Plant facility.

A hard copy of this complete application is also being sent to the following:

- New Jersey Department of Environmental Protection, Division of Land Resource Protection;
- Borough of Kinnelon Municipal Clerk; and
- Borough of Butler Municipal Clerk.

This package includes the following:

1. Completed and signed copy of the HAD application forms;
2. Copy of application fee check for $100.00 payable to “Treasurer, State of New Jersey” as dictated by N.J.A.C. 7:28-2.3 fee for applicants that are Municipalities;
3. Documentation of proof of public noticing requirements to the required municipal agencies (listed below);
    a. Copy of the standard notification letter is included in ‘Attachment A’; and
    b. Proof of notice via certified mail receipts to all required recipients.
4. Project Description, which is included as ‘Attachment B’;
5. One (1) set of various maps as required;
    a. Map 1: US Geological Survey Map;
    b. Map 2: Tax Assessment Map; and
    c. Map 3: County Road Map.
6. Two (2) copies of full-size, signed and sealed site plans, as required;
    a. Drawing C0.0 shows the relevant parcel;
    b. Drawing C1.0 shows the existing site conditions; and
    c. Drawing C1.1 shows a conceptual proposed site plan.
7. Project Justification; and
8. USB flash drive with the electronic files of the above listed items.

Noticing letters have been distributed to the following:

- New Jersey Department of Environmental Protection, Division of Land Resource Protection;
- Highlands Council;
- Borough of Kinnelon Municipal Clerk;
- Borough of Butler Municipal Clerk;
- Borough of Kinnelon Environmental Advisory Committee;

- Borough of Kinnelon Planning Board;
- Borough of Kinnelon Construction Official;
- Borough of Butler Planning Board;
- Borough of Kinnelon Construction Official; and
- Morris County Planning Board.

It should be noted that the notice letters were posted at the same time as this package.

We appreciate your timely review of this important project. Should you have any questions, please feel free to contact our office via phone at 862-207-5900 or email at pcole@h2m.com (or Rachel Kim at rkim@h2m.com).

Very truly yours,

H2M architects + engineers

Patrick K. Cole, P.E.
Assistant Vice President

cc: James Lampmann, Borough of Butler
Keith Smith, Borough of Butler

X:\BUTL (Borough of Butler)\BUTL2001\02-Permitting\Highlands\HAD Exemption\HAD Submission\Attachments\BUTL2001 00 Cover Letter.docx

State of New Jersey
Department of Environmental Protection
Division of Land Use Regulation
501 E. State Street Mail Code 501-02A P.O. Box 420
Trenton, NJ 08625-0420
Phone #: (609) 777-0454 Web: www.nj.gov/dep/landuse

Highlands Applicability Determination (HAD) Application Form

NOTE: Pursuant to N.J.A.C. 7:38-2.4(a), if an applicant is willing to stipulate that a proposed project or activity constitutes a major Highlands development and is not exempt from the Highlands Act, a Highlands Applicability Determination (HAD) is not required and the applicant may proceed directly with an application for a Highlands Preservation Area Approval (HPAA).

PLEASE TYPE OR PRINT CLEARLY: Complete all sections of the form and provide supporting documentation as outlined in the "Highlands Applicability Determination Checklist".

Section I. General Highlands Application Information

1. Applicant Name: Mr./Ms./Mrs Butler Water Treatment Plant (Keith Smith, Superintendent) E-Mail: ksmith@butlerborough.com
   Address: 1 Ace Road Daytime Phone: 973-838-7200 Ext. 413
   City/State: Butler, NJ Zip Code 07405 Cell Phone:
2. Agent Name: (Mr./Ms./Mrs) Patrick Cole, P.E.
   Firm Name: H2M architects + engineers E-Mail: pcole@h2m.com
   Address: 119 Cherry Hill Road, #110 Daytime:Phone: 862-207-5900 Ext. 2104
   City/State: Parsippany, NJ Zip Code 07054 Cell Phone:
3. Property Owner: Mr./Ms./Mrs Borough of Butler, (Ryan Martinez, Mayor / James Lampmann, Borough Administrator) E-mail: admin@butlerborough.com
   Address: 1 Ace Road Daytime Phone: 973-838-7200 Ext. 222
   City/State: Butler, NJ Zip Code 07405 Cell Phone:
4. Project Name: Butler Water Treatment Plant Address/Location: Bubbling Brook Road
   Municipality: Kinnelon County: Morris Zip Code 07405
   Block(s): 46001 Lot(s): 101
   N.A.D. 1983 State Plane Coordinates (feet) E (x): 529342 N(y): 785591 *Not Longitude/Latitude*
   Water Quality Management Area: 03 Pompton, Pequannock, Wanaque, Ramapo Watershed: 03AA Pequannock River
   Total Project or Activity Cost: $7M (estimated) Total Fee: $100.00 Check #: 57904
5. Project Description: The primary reason for the proposed upgrades to the plant are due to the existing filtration vessels. These vessels are no longer considered acceptable technology under current regulations, and though continued use is permitted under a legacy clause, this equipment is aging and will require replacement soon. Additionally, the filtration building is located on a separate parcel, Block 45301, Lot 110, a significant distance from the main plant. The proposed upgrade will include relocation of the filtration process closer to the main plant, and reflective of industry best practices the upgrade will also consider integration of office spaces, meeting spaces, and other functional workspaces for plant personnel. A new access road will also need to be constructed.

Provide if applicable: Previous DEP File # (s):

6. APPLICATION(S) FOR: (Check all that apply)

	Exemption - HAD		Fee Paid Amount
☐	#1	Construction of a single-family dwelling, for an individual's own use or the use of an immediate family member	
☐	#2	Construction of a single-family dwelling on a lot in existence on August 10, 2004, not for use by the owner or an immediate family member, provided that construction does not result in the ultimate disturbance of one or more acres or a cumulative increase in impervious surface by one-quarter acre	
☐	#3	Construction of a major Highlands development that has received certain municipal and state approvals on or before March 29, 2004,	
☐	#4	Reconstruction of any building or structure for any reason within 125% of the footprint of the lawfully existing impervious surfaces on the site, provided that the reconstruction does not increase the lawfully existing impervious surface by one-quarter acre or more	
☐	#5	Improvement(s) to a legally existing single-family dwelling in existence on August 10, 2004, including but not limited to an addition, garage, shed, driveway, porch, deck, patio, swimming pool, or septic system where that improvement shall maintain the use as a single-family dwelling and does not permit use of the structure as a multiple dwelling unit	
☐	#6	Any improvement, for non-residential purposes, to a place of worship owned by a non-profit entity, society or association, or association organized primarily for religious purposes, or a public or private school, or a hospital, in existence on August 10, 2004, including but not limited to new structures, an addition to an existing building or structure, a site improvement, or a sanitary facility	
☐	#7	Any activity conducted by a landowner in accordance with an approved woodland management plan issued pursuant to the Farmland Assessment Act, N.J.S.A. 54:4-23.3 or for public lands, the normal harvesting of forest products in accordance with a forest management plan approved by the State Forester	
☐	#8	Construction or extension of trails with non-impervious surfaces on publicly owned lands or on privately owned lands where a conservation or recreational use easement has been established and filed with the deed for the lots on which the easement exists	
☐	#9	Routine maintenance and operations, rehabilitation, preservation, reconstruction, or repair of transportation or infrastructure systems by a State entity or local government unit, provided that the activity is consistent with the goals and purposes of the Highlands Water Protection and Planning Act and does not result in the construction of any new through-capacity travel lanes of 2,640 feet or more not including tapers	
☐	#10	Construction of transportation safety projects and bicycle and pedestrian facilities by a State entity or local government unit, provided that the activity does not result in the construction of any new through-capacity travel lanes of 2,640 feet or more not including tapers,	
☑	#11	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 of purposes of the Highlands Water Protection and Planning Act	$100.00
☐	#12	Reactivation of rail lines and rail beds existing on August 10, 2004	
☐	#13	Construction of a public infrastructure project approved by public referendum prior to January 1, 2005 or a capital project approved by public referendum prior to January 1, 2005	
☐	#14	Mining, quarrying, or production of ready mix concrete, bituminous concrete, or Class B recycling materials occurring or which are permitted to occur on any mine, mine site, or construction materials facility existing on June 7, 2004	
☐	#15	Remediation of any contaminated site pursuant to N.J.S.A. 58:10B-1 et seq.	
☐	#16	Activities on lands of a federal military installation existing on August 10, 2004	
☐	#17	A major Highlands development located within an area designated as Planning Area 1 (Metropolitan), or Planning Area 2 (Suburban) pursuant to the State Planning Act, 52:18A-196 et seq., as of March 29, 2004, that on or before March 29, 2004 has been the subject of a settlement agreement and stipulation of dismissal filed in the Superior Court, or a builder's remedy issued by the Superior Court, to satisfy the constitutional requirement to provide for the fulfillment of the fair share obligation of the municipality in which the development is located,	

Section II. Highlands Major Development Determination

1. Does the project meet the definition of a "capital improvement" pursuant to N.J.S.A. 13:20-1 et seq.? Yes ☑ No ☐
2. Is the project solely for agricultural or horticultural purposes pursuant to N.J.A.C. 7:38-1.4? Yes ☐ No ☑
3. Is the proposed project required as part of an Administrative Order, Court Order, NJDEP – ACO, or Juridcial Order to which the Department is a perty, from a State or Federal court? (If yes, please attach the order) Yes ☐ No ☑
4. Are other Departmental permits or authorizations required? If yes, please indicate below. Yes ☑ No ☐

Req'd	Type of Permit/Authorization	Submitted Yes	Submitted No	Req'd	Type of Permit/Authorization	Submitted Yes	Submitted No
☑	Freshwater Wetlands Authorization		☑	☐	New NJPDES SIU		
☑	Flood Hazard Area Permit		☑	☐	Modification to NJPDES SIU		
☐	New NJPDES DSW			☐	Sewer Extension (TWA)		
☐	Modification to NJPDES DSW			☑	Other Treatment Works Approval		☑
☐	Expansion/Re-rating NJPDES DSW			☐	Water Allocation Permit		
☐	New NJPDES DGW			☐	Water Main Extension		
☐	Modification to NJPDES DGW			☐	50 or More Realty Improvements (residential)		
☐	Expansion/Re-rating NJPDES DGW			☐	No Department permits are required		
☐	Other: _____						

Section III. Project or Activity WQMP Consistency Determination

This section of the application form is to be used for the determination of whether a project or activity is consistent with the applicable "Areawide Water Quality Management Plan" – Refer to "Attachment B" of the "Highlands Applicability Determination Checklist".

1. Projected Wastewater Flow:

☑ a. No wastewater is to be generated from this proposed project. If this box is checked go to #3.

☐ b. Wastewater will be generated by the proposed project. Answer below:

Depending on the type of wastewater treatment and type of development, there are different criteria to use to determine the total projected wastewater flow. Use the projected flow criteria under N.J.A.C. 7:14A-23.3 or N.J.A.C. 7:9A-7.4 to determine the total amount of wastewater the proposed project will generate. (See attachment "B" of the administrative checklist)

Criteria Used – Please check

☐ Standards for Individual Subsurface Sewage Disposal Systems - N.J.A.C. 7:9A-7.4

☐ The New Jersey Pollutant Discharge Elimination System (NJPDES) Rules - N.J.A.C. 7:14A-23.3

Type of Development – Please check all that apply and complete:

☐ Residential
Type of Dwelling Units: _____ # of Units: _____ Bedrooms per Unit: _____

☐ Commercial/Institutional
Type of Establishment: _____ Max. Occupancy:_____ Total Square Ft.: _____

☐ Industrial
Type of Establishment: _____ Max. Occupancy:_____ Total Square Ft.: _____

☐ Other
Type of Establishment: _____ Total Square Ft.: _____

Table 1 - Existing Wastewater Flows (If applicable):

Establishment Type *	Measurement Unit	Number of Units		Gallons per day (gpd)		Projected Flows (gpd)
			x		=	
			x		=	
			x		=	
			x		=	
Total amount of wastewater being generated					=	

Table 2 - Proposed Wastewater Flows:

Establishment Type *	Measurement Unit	Number of Units		Gallons per day (gpd)		Projected Flows (gpd)
			x		=	
			x		=	
			x		=	
			x		=	
Total amount of wastewater this project will generate					=	

If the proposal is for a new or expanded industrial facility that will generate industrial process wastewater which is not provided for on the attached projected flow criteria tables, provide a basis for the total projected wastewater discharge from the proposal site. Where other forms of wastewater (such as domestic, stormwater, non-contact cooling water, etc.) will be generated on site and treated by the proposed industrial wastewater treatment facility, include the basis for these flow projections as well.

2. Proposed Method of Wastewater Treatment:

☐ a. Individual subsurface sewage disposal systems < 2,000 gallons per day.
☐ b. New discharge to ground water ≥ 2,000 gallons per day.
☐ c. Conveyance to an existing wastewater treatment facility (DGW or DSW):

Name of Facility: _____ NJPDES #:_____
Location of Facility: _____
_____

Please also provide the following:

☐ A letter from the above facility verifying the existence and extent of wastewater collection infrastructure on August 10, 2004, and that adequate capacity is available, with a written commitment to service the proposed project
☐ A copy of a site plan or other appropriately scaled map, showing the point of connection to the wastewater collection system as it existed on August 10, 2004

3. Proposed Water Supply Source:

☑ a. No water supply is required for this proposed project. If this box is checked go to Section IV.
☐ b. Proposed water supply source. Answer below:

Projected peak waster use (gpd): _____

☐ Water Purveyor: *Provide name of water purveyor*: _____

☐ Residential Wells: *Provide number of wells proposed*:_____

☐ Commercial or Industrial Wells: *Provide number of wells proposed*:_____

☐ Irrigation Wells: *Provide number of wells proposed*:_____

Section IV. Certification of Application

An application shall be signed by the person or persons specified below (check that which applies – use additional sheets if needed):

☐ *For a corporation* - by a principal executive officer of at least the level of vice president
☐ *For a partnership or sole proprietorship* - by a general partner or the proprietor, respectively.
☑ *For a municipality, State, Federal, or other public entity* - by either a principal executive officer or ranking elected official
☐ *For an entity not covered above* - by all individual owners of record

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining and preparing the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment.

Patrick Cole, P.E., Agent of Applicant
Print or Type Name

Signature

Assistant Vice President
Title & Company H2M architects + engineers

14 SEPT 2021
Date

James Lampmann, Borough Administrator
Print or Type Name of Owner

Signature of Owner

9/15/21
Date

CALL NJDEP AT (609) 777-0454 IF YOU HAVE ANY QUESTIONS

SEND COMPLETED APPLICATION FORM AND ATTACHMENTS TO:

Postal Mailing Address

NJ Department of Environmental Protection
Division of Land Use Regulation
P.O. Box 420, Code 501-02A
Trenton, New Jersey 08625-0420
Attn: Application Support

Street Address (Courier & Hand Carry Only)

NJ Department of Environmental Protection
Division of Land Use Regulation
501 East State Street
Station Plaza 5, 2nd Floor
Trenton, New Jersey, 08609
Attn: Application Support

BOROUGH OF BUTLER No. 057904

REFERENCE/DESCRIPTION	NET AMOUNT
Vendor: TRE01 TREASURER, STATE OF NEW JERSEY	
PO: 21-00956 DESC: BUTLER WTP HIGHLANDS APP DETER	100.00
INV: HAD AMT: 100.00	

Check Date: 09/14/21 Check Amount: $********100.00

DETACH BEFORE DEPOSITING

BOROUGH OF BUTLER
ONE ACE ROAD
BUTLER, NJ 07405
CLAIMS ACCOUNT

LakelandBank
BUTLER, NJ 07405

55-537
212

No. 057904

DATE	CHECK NO.	AMOUNT
09/14/21	57904	$********100.00

One Hundred AND 00/100 Dollars

TO THE ORDER OF

TREASURER, STATE OF NEW JERSEY

CMFO-TREASURER MP

FINANCE CHAIRMAN MP

⑈057904⑈ ⑆021205376⑆ ⑈6144023⑈

ATTACHMENTS

Attachment A	Application Legal Notification Letter Template
Attachment B	Description of Work and Consistency with Highlands Act
Map 1	US Geological Survey Map
Map 2	Tax Assessment Map
Map 3	County Road Map
Drawing C0.0	Parcel Plan
Drawing C1.0	Existing Site Plan
Drawing C1.1	Conceptual Proposed Site Plan
Highlands Exemption Request	Project Justification

Attachment A

Highlands Applicability Determination Application (HAD)
Notice to County or Municipal Government Commissions, Boards or Officials

«AddressBlock»

Date: September 16, 2021

RE:	**Application submitted by:**	Borough of Butler Water Treatment Plant
	Project Street Address:	Bubbling Brook Road
	Project Block(s), Lot(s):	46001, Lot 101
	Project Municipality(s), County(s):	Kinnelon, Morris County, NJ

Dear Government Commission, Board or Official:

This letter is to provide you with legal notification that an application for a Highlands Applicability Determination will be submitted to the New Jersey Department of Environmental Protection (NJPEP), Division of Land Use Regulation under the Highlands Water Protection and Planning Act rules, N.J.A.C. 7:38. In addition, the Highlands Applicability Determination will also establish whether the project or activity on the above property is consistent, not addressed or inconsistent with the applicable area-wide Water Quality Management Plan. The proposed project is for the Butler Water Treatment Plant. The primary reason for the proposed upgrades to the plant are due to the existing filtration vessels. These vessels are no longer considered acceptable technology under current regulations, and though continued use is permitted under a legacy clause, this equipment is aging and will require replacement soon. Additionally, the filtration building is located on a separate parcel, Block 45301, Lot 110, a significant distance from the main plant. The proposed upgrade will include relocation of the filtration process closer to the main plant, and reflective of industry best practices the upgrade will also consider integration of office spaces, meeting spaces, and other functional workspaces for plant personnel. A new access road will also need to be constructed. Please refer to Attachment B for further details on the project scope.

___✓___ Exemption #11 which establishes whether the project or activity proposed on the above property is exempt from the Highlands Water Protection and Planning Act rules for the specific exemption activity.

_____ Determination of “Major Highlands development” which establishes whether or not the project or activity proposed on the above property is a major Highlands development under the Highlands Water Protection and Planning Act rules. If a proposed project or activity is determined to be a major Highlands development and is not exempt, the proposal will be subject to these rules.

_____ Unregulated by NJDEP which establishes if the project or activity proposed on the above property is agricultural or horticultural and thus not regulated by the NJDEP under the Highlands Water Protection and Planning Act rules

If you would like to inspect a copy of the application, it is on file at the Municipal Clerk’s Office in the Borough of Butler and the Municipal Clerk’s Office in the Borough of Kinnelon, or you can call NJDEP at (609) 984-0921 to make an appointment to see the application at NJDEP offices in Trenton during normal business hours.

The rules governing Highlands Applicability Determinations are found in the NJDEP’s Highlands Water Protection and Planning Act rules at N.J.A.C. 7:38. You can view or download these rules on the NJDEP Highlands website at www.nj.gov/dep/landuse/highlands, or you can find a copy of these rules in the county law library in your county courthouse.

The NJDEP welcomes any comments you may have on this application. If you wish to comment on this application, comments should be submitted to the NJDEP, in writing, within 30 days after the NJDEP publishes notice of the application in the DEP Bulletin (www.nj.gov/dep/bulletin). The NJDEP shall consider all written comments

submitted within this time - comments cannot be accepted by telephone. Please submit any comments you may have in writing, along with a copy of this letter, to:

New Jersey Department of Environmental Protection
Division of Land Use Regulation
P.O. Box 420, Mail Code 501-02A
Trenton, New Jersey 08625-0420
Attn: Application Support Unit

If you have any questions about this application, you can contact me or my agent, address(es) below.

Sincerely,

Jim Lampmann
Buter Water Treatment Plant
1 Ace Road
Butler, NJ 07405
(973) 838-7200 x413

Agent's Information

Patrick Cole, P.E.
H2M architects + engineers
119 Cherry Hill Road, Suite 110
Parsippany, NJ 07054
(862) 207-5900 x2104

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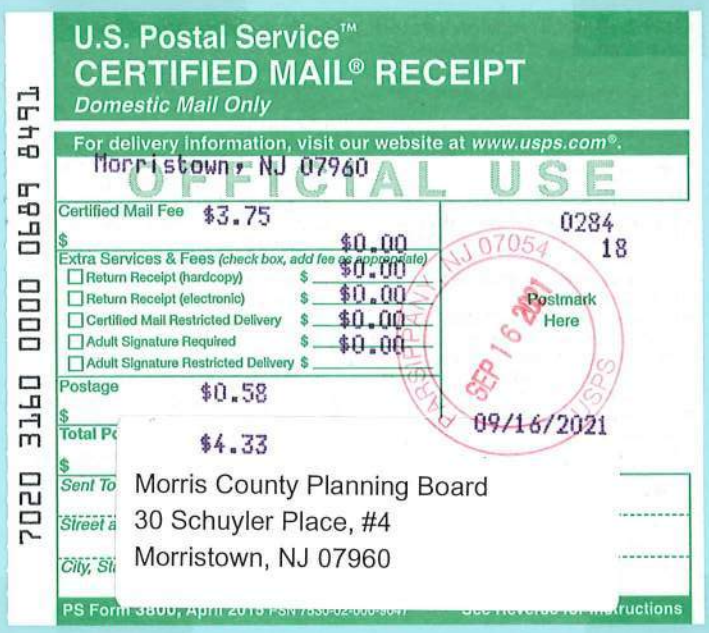

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Environmental Commission
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130 Kinnelon Road
City, State
Kinnelon, NJ 07405

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7020 3160 0000 0689 8446

Attachment B

Highlands Applicability Determination Application (HAD)
Description of Work and Consistency with Highlands Water Protection and Planning Act

Date: September 16, 2021

RE:	**Application submitted by:**	Borough of Butler Water Treatment Plant
	Project Street Address:	Bubbling Brook Road
	Project Block(s), Lot(s):	46001, Lot 101
	Project Municipality(s), County(s):	Kinnelon, Morris County, NJ

Dear Highlands Council:

The Butler Water Treatment Plant (PWSID NJ1403001 is a surface water treatment facility which uses the Butler Reservoir as its raw water source. The system is currently permitted at 5 million gallons per day (MGD) under Program Interest ID 5128, WAP120001; there are no intentions to modify the existing water allocation permitting at this time. The site is located in Kinnelon within the Highlands Preservation Area. The Butler Water Treatment Plant services approximately 2,500 customers (population of 8,000 individuals) in the Borough of Butler. Additionally, this utility supplies water to the High Crest Lake section of West Milford and the Borough of Kinnelon. The Water Utility strives to provide safe, dependable, high-quality water to its many customers.

All proposed plant improvements are to be constructed within the Borough-owned parcel, Block 46001, Lot 101. The total parcel area is approximately 427.42 acres. This is a heavily wooded site and tree clearing will be necessary to accommodate the construction described below.

The primary reason for the proposed upgrades to the plant are due to the existing filtration vessels. These vessels are no longer considered acceptable technology under current regulations, and though continued use is permitted under a legacy clause, this equipment is aging and will require replacement soon. Additionally, the filtration building is located on a separate parcel, Block 45301, Lot 110, a significant distance from the main plant. The proposed upgrade will include relocation of the filtration process closer to the main plant, and reflective of industry best practices the upgrade will also consider integration of office spaces, meeting spaces, and other functional workspaces for plant personnel. The permanently disturbed area required to accommodate this new structure is anticipated to be approximately 41,250 square feet (0.95 acres).

A new access road is also being proposed, as the existing road traverses the Butler Reservoir Dam causeway and this route impedes the ability of the plant to receive larger deliveries on a regular basis as the road and dam cannot accommodate larger vehicles. Also, since the roadway traverses the dam, deicing chemicals are not used on the road over the dam to avoid contamination of the water supply which often leads to no access for deliveries during the winter. 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 26 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 48,000 square feet (1.10 acres).

The following are excerpts from New Jersey Statues Annotated (N.J.S.A.) 13:20-1, The Highlands Water Protection and Planning Act:

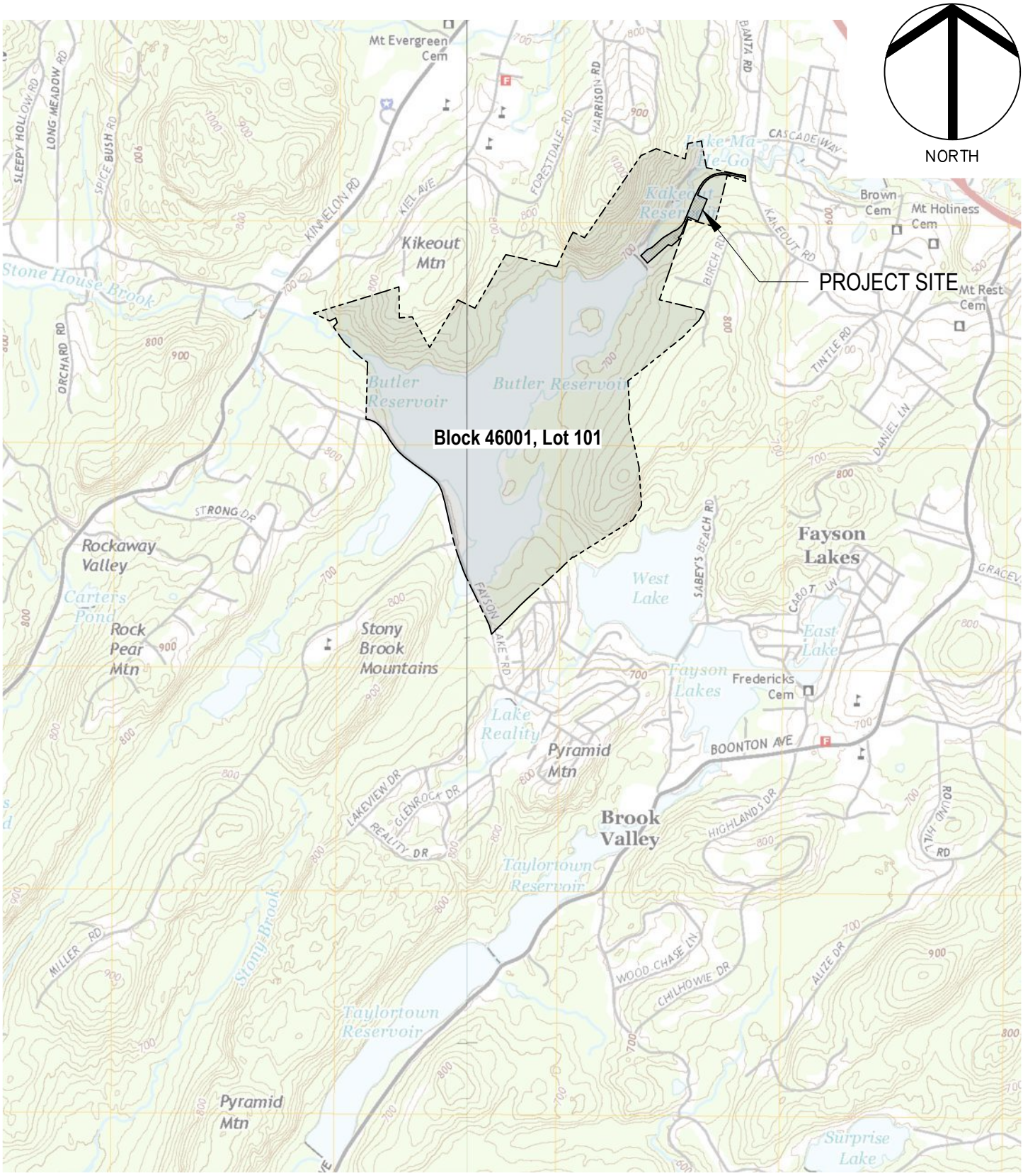
> "*Goals of the Regional Master Plan with respect to the entire Highlands Region shall be to protect and enhance the significant values of the resources thereof in a manner which is consistent with the purposes and provisions of the Highlands Water Protection and Planning Act.*"
>
> "*The New Jersey Highlands is an essential source of drinking water, providing clean and plentiful drinking water for one-half of the State's population, including communities beyond the New Jersey Highlands, from only 13 percent of the State's land area.*"
>
> Exemptions from the provisions of this act include "*the routine maintenance and operations, rehabilitation, preservation, reconstruction, repair, or upgrade of public utility lines, right of way, or systems, by a public utility, provided that the activity is consistent with the goals and purposes of this act.*"
>
> The NJDEP may grant waivers from its Highlands Rules for Public Health and Safety, if determined to be necessary.

This project is for a necessary upgrade to a surface water treatment facility that accommodates a public need for clean drinking water. Efforts are being made to minimize and mitigate resource impacts. The proposed construction avoids crossing over existing open waters and wetlands areas. The access road was designed such that it would accommodate the required functionality (large vehicle and truck turning radii) while simultaneously addressing the challenging terrain and minimizing the length of the route. New utility lines will be installed beneath the new access road; this redundant footprint will minimize disturbed area.

The proposed road would be pitched away from the existing stream and stormwater would be directed to a bio-retention basin. A 300-foot buffer from all Highlands open waters would be maintained where possible; it should be noted that the geometry of the parcel may preclude the ability to maintain this buffer in some areas.

Tree removal would be limited to the immediate areas surrounding and to accommodate the proposed construction. The Borough of Butler does not have a specific forest management plan; however, tree removal mitigation is already being considered prior to the start of any work to promote the ideals of the Highlands Regional Master Plan.

This proposed project is consistent with the Highlands Regional Master Plan and as indicated above, the Water Utility will take appropriate measures to ensure consistency is maintained throughout the final design and construction of the new facilities and access road.



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2000 1200 400 0 2000

SCALE: 1" = 2000'

MAP 1
US GEOLOGICAL SURVEY MAP
POMPTON PLAINS QUADRANGLE

N.J. STATE PLANE COORDINATES: NAD 83
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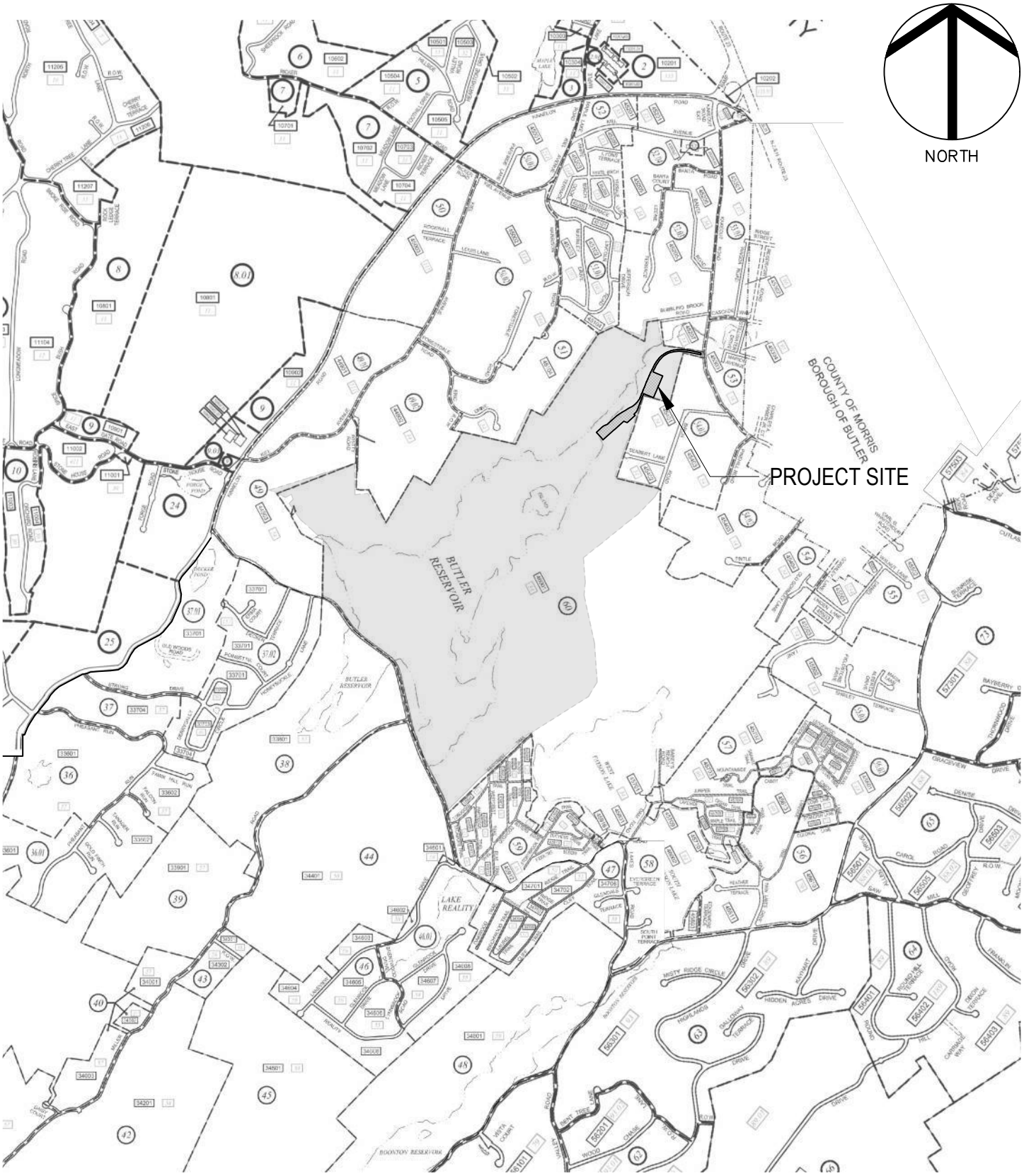
BLOCK 46001 - P/O LOT 101
BOROUGH OF KINNELON, MORRIS COUNTY, NJ

SCALE: 1"=2000' DATE 06/2021 BUTL2001



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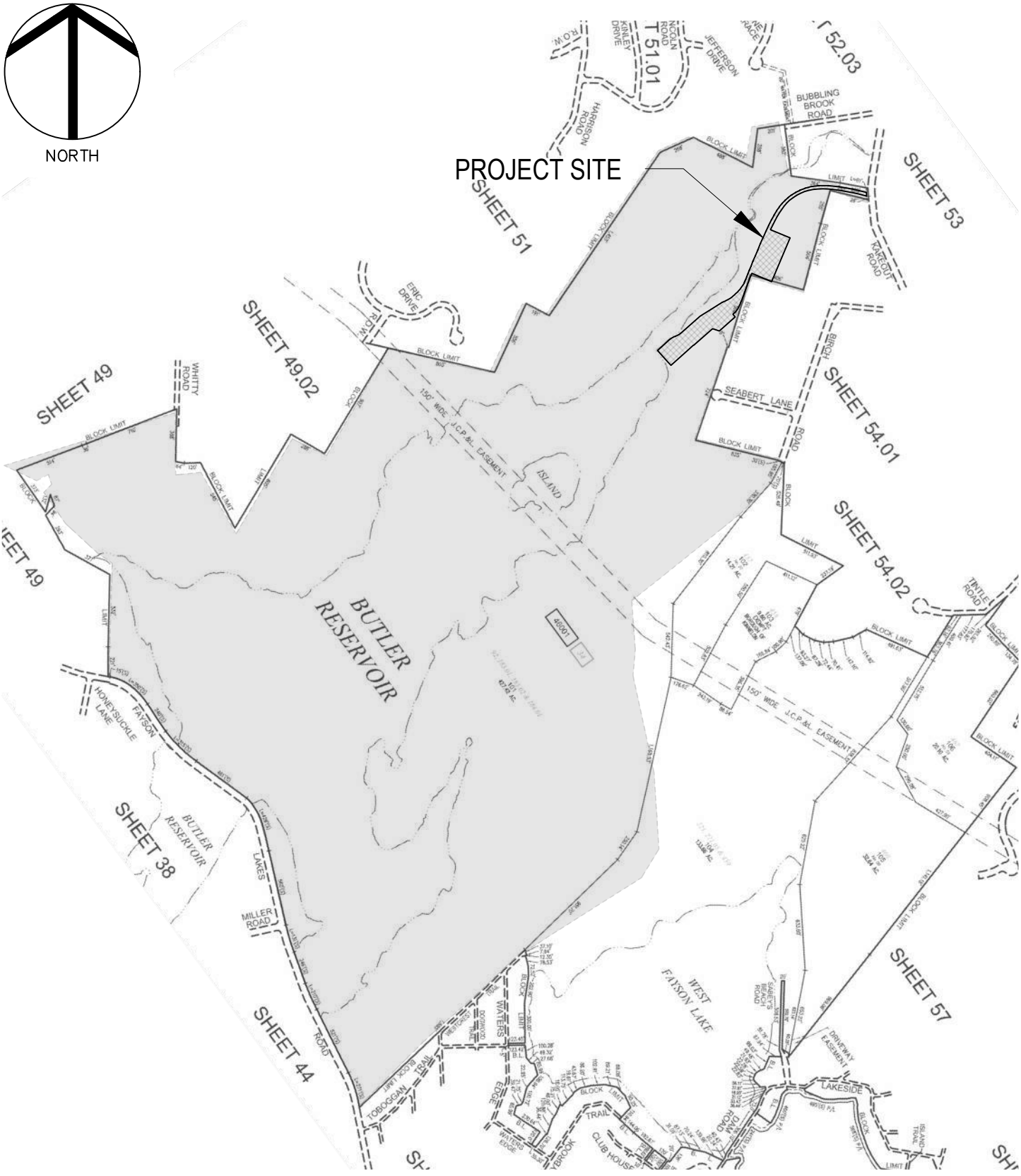
SCALE: 1" = 2000'

MAP 2
TAX ASSESSMENT MAP
BOROUGH OF KINNELON

N.J. STATE PLANE COORDINATES: NAD 83
E(X) 529,242 FEET; N(Y) 785,792 FEET
BLOCK 46001 - P/O LOT 101
BOROUGH OF KINNELON, MORRIS COUNTY, NJ

SCALE: 1"=2000' DATE 06/2021 BUTL2001



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MAP 3
COUNTY ROAD MAP
BOROUGH OF KINNELON

N.J. STATE PLANE COORDINATES: NAD 83
E(X) 529,242 FEET; N(Y) 785,792 FEET
BLOCK 46001 - P/O LOT 101
BOROUGH OF KINNELON, MORRIS COUNTY, NJ

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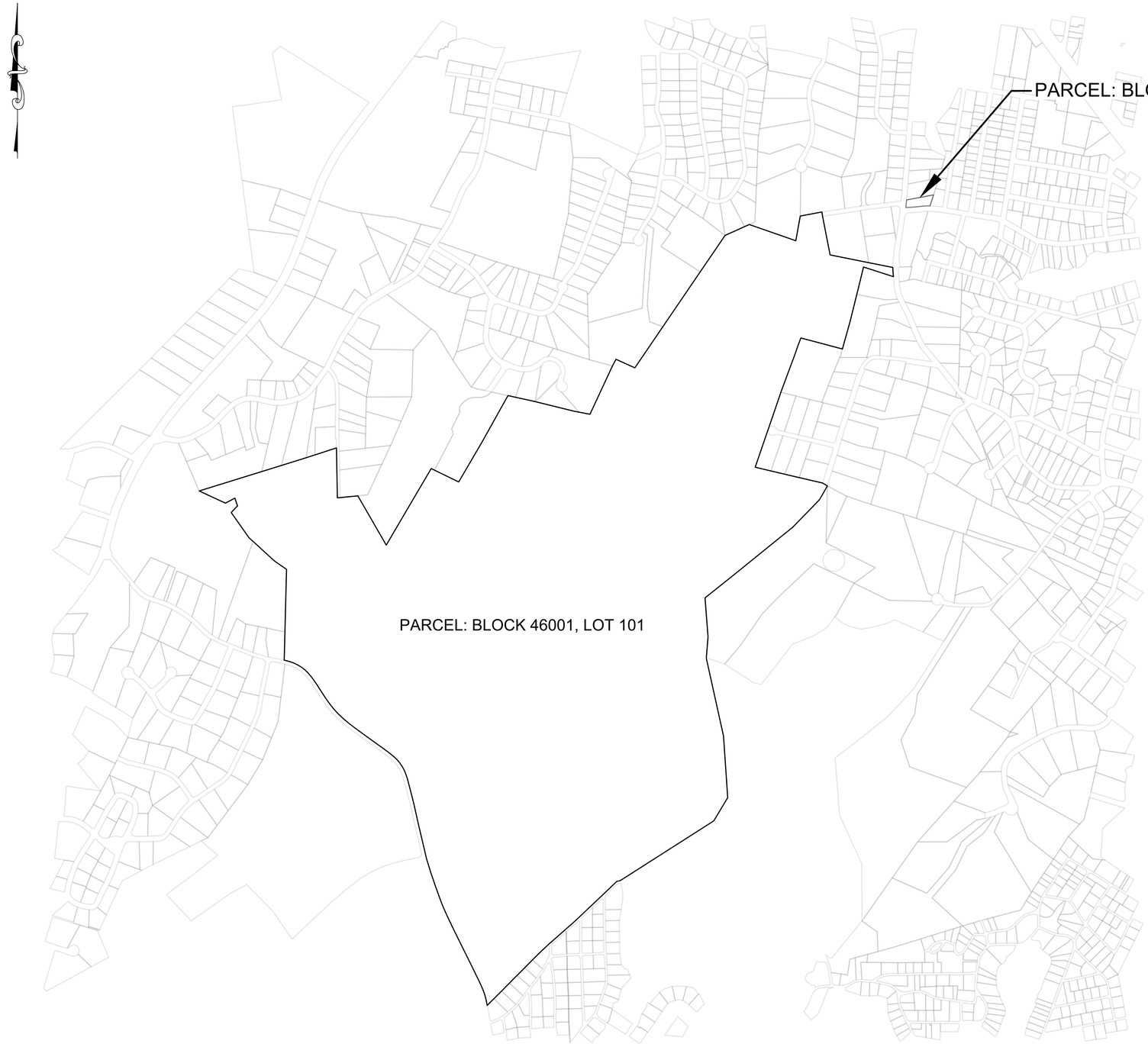

GRAPHIC SCALE

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(IN FEET)

1 inch = 500 ft.

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CONSULTANTS:

MARK	DATE	DESCRIPTION

STATE OF NEW JERSEY PATRICK K. COLE No. 24GE04587100 LICENSED PROFESSIONAL ENGINEER

9-15-21
DATE

PATRICK K. COLE, P.E.
NJ PROFESSIONAL ENGINEER Lic. No. 24GE04587100
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PKC	RAK		

PROJECT No.:	DATE:	SCALE:
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CLIENT

Butler Water Treatment Plant Improvements

Bubbling Brook Road

Block 46001, Lot 101

Borough of Butler
County of Morris
New Jersey

STATUS

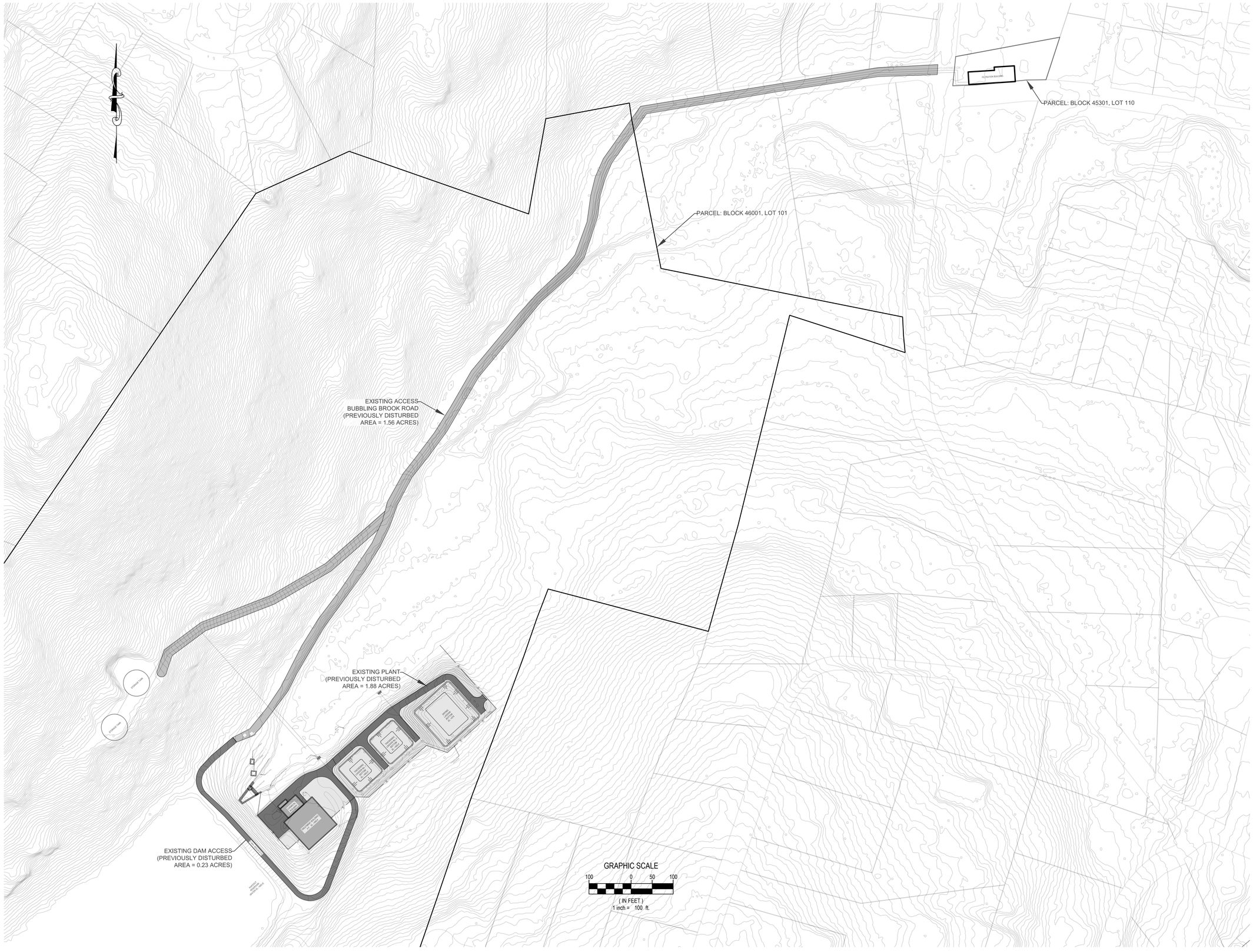
SCHEMATIC DRAWING

SHEET TITLE

PARCEL PLAN

DRAWING No.

C0.0



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NJ Engineering Certificate of Authorization No. 24GA28025500

CONSULTANTS:

MARK	DATE	DESCRIPTION

STATE OF NEW JERSEY — PATRICK K. COLE — No. 24GE04587100 — LICENSED PROFESSIONAL ENGINEER

9-15-21
PATRICK K. COLE, P.E. — DATE
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PKC	RAK		

PROJECT No.:	DATE:	SCALE:
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CLIENT

Butler Water Treatment Plant Improvements

Bubbling Brook Road

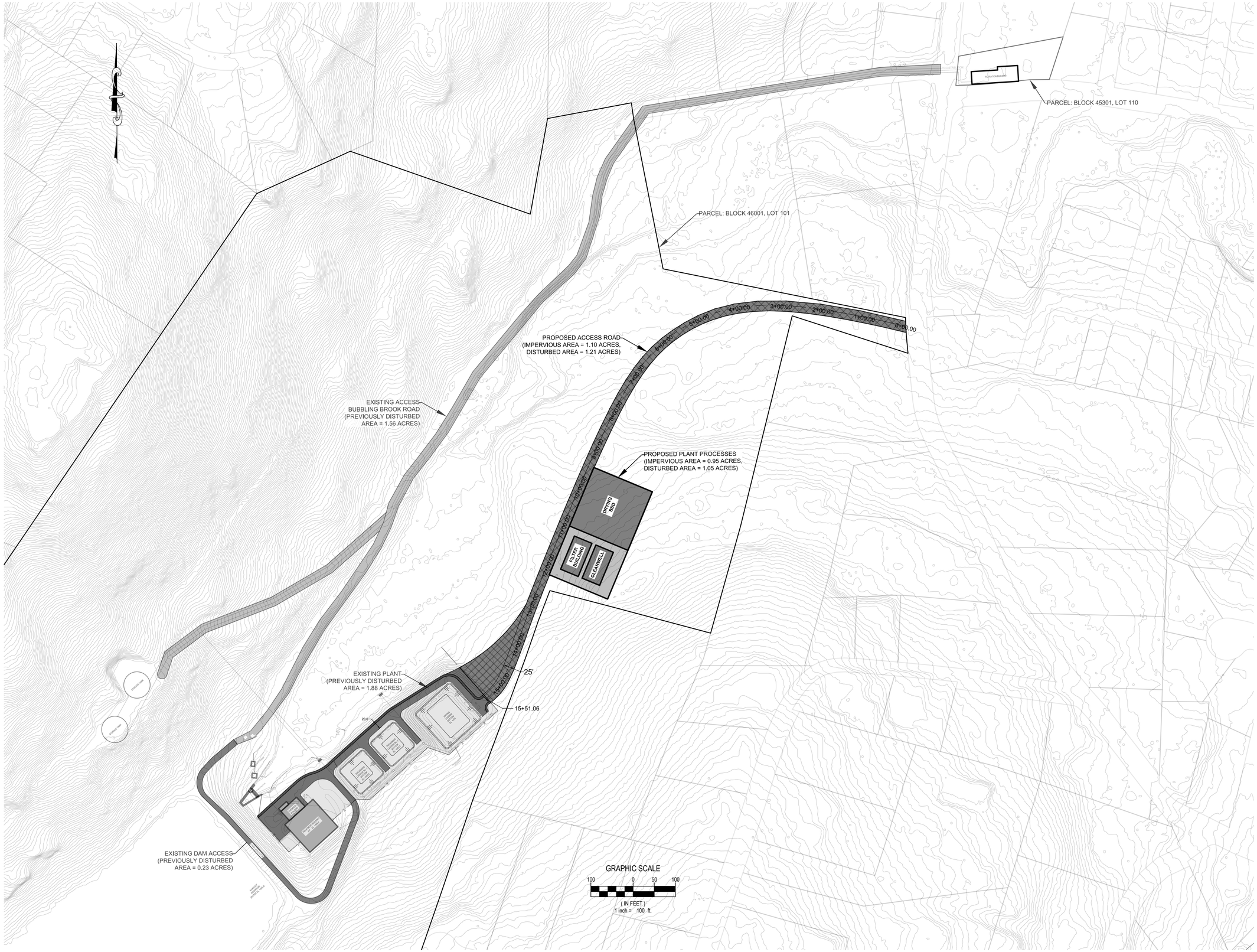
Block 46001, Lot 101

Borough of Butler
County of Morris
New Jersey

STATUS: **SCHEMATIC DRAWING**

SHEET TITLE: **EXISTING SITE PLAN**

DRAWING No.: **C1.0**



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CONSULTANTS:

MARK	DATE	DESCRIPTION

STATE OF NEW JERSEY
PATRICK K. COLE
No. 24GE04587100
LICENSED PROFESSIONAL ENGINEER

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Butler Water Treatment Plant Improvements

Bubbling Brook Road

Block 46001, Lot 101

Borough of Butler
County of Morris
New Jersey

STATUS

SCHEMATIC DRAWING

SHEET TITLE

CONCEPTUAL PROPOSED SITE PLAN

DRAWING No.

C1.1

Highlands Applicability Determination
Highlands Exemption Request

Butler Water Treatment Plant Upgrades
PWSID #: NJ1403001
Kinnelon, New Jersey

H2M Project No.
BUTL2001

September 2021

Prepared for:
State of New Jersey
Department of Environmental Protection
Division of Land Use Regulation
501 E. State Street
Trenton, NJ 08625

Prepared by:
H2M Architects & Engineers
119 Cherry Hill Road, Suite 110
Parsippany, NJ 07054

H 2 M architects + engineers

TABLE OF CONTENTS

FIGURES

1.0 INTRODUCTION

The Borough of Butler owns and operates a surface water treatment facility located at the southern terminal of Bubbling Brook Road, adjacent to the spillway of the Butler Reservoir. The project site is Block 46001, Lot 101 in the Borough of Kinnelon, Morris County, New Jersey.

The Butler Water Treatment Plant uses the Butler Reservoir as its raw water source. The raw water is processed through a clarification system, filtration system, and is dosed with disinfectant and a polyphosphate blend for corrosion passivation, prior to discharge into the distribution system. Though the system is permitted at 5 million gallons per day (MGD) in terms of raw water allocation capacity, the existing treatment system is only capable of processing a maximum of 4 MGD, and the current average plant flow is on the order of 2 to 3 MGD.

2.0 EXISTING SYSTEM DESCRIPTION

The main treatment plant is located near Butler Reservoir; the parcel is Block 46001, Lot 101, which is 427.42 acres. The main treatment plant building houses a clarification system and chemical feed system. The clarification system has been recently upgraded to a pulsator high-rate sludge blanket clarifier. The plant uses poly-aluminum chloride for a coagulant aid, caustic soda (NaOH) for pH adjustment, gaseous chlorine for disinfection, and blended phosphate for corrosion control. Adjacent to the main treatment plant building are a series of lagoons for residuals collection; existing filter backwash flows are discharged to a retention pond, with subnatant discharged to groundwater.

Specific to the existing clarification process waste stream (clarifier sludges) the current residuals handling process consists of two thickening lagoons and a drying lagoon; following decanting of supernatant which is currently returned to the nearby stream, Bubbling Brook, under a New Jersey Department of Environmental Protection (NJDEP) Discharge Elimination System Discharge to Surface Water permit. The sludge is spread out on the adjacent asphalt driveway for further drying before being hauled offsite.

Clarified water is conveyed through a multi-unit pressure filter system. The existing filtration building is located on a separate parcel, Block 45301, Lot 110, a significant distance from the main plant. This parcel is 0.36 acres.

There are two elevated storage tanks, located approximately 300 feet northwest of the main plant; these will remain a part of the distribution system.

3.0 PROPOSED PROJECT DESCRIPTION

All plant improvements are proposed to be constructed within the Borough-owned parcel, Block 46001, Lot 101 in the Borough of Kinnelon, New Jersey.

3.1 Treatment Plant Upgrades

As part of the treatment plant upgrades, 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 MGD, including an allowance for N+1 redundancy in filter service. Under this arrangement, one of the existing sludge lagoons would likely be re-purposed for filter backwash clarification.

The proposed upgrade will include relocation of the filtration process closer to the main plant; consolidating the treatment processes to one area will allow for easier access by plant personnel for day-to-day operations and maintenance as well as a more efficient process train. And, reflective

of industry best practices, the upgrade will also consider integration of office spaces, meeting spaces, and other functional workspaces for plant personnel. Drying beds for residuals handling are also proposed along with a clearwell for chlorination. The disturbed area to accommodate this new construction is approximately 41,250 square feet (0.95 acres); this disturbance area includes a 10% increase to the permanently disturbed area to account for temporary construction disturbance.

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.

3.2 Site Access & Roadway Alternatives Analysis

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 47,975 square feet (1.10 acres); this disturbance area includes a 10% increase to the permanently disturbed area to account for temporary construction disturbance.

In considering the possible access to the site, an alternatives analysis was performed to evaluate four different routes:

1. Seabert Lane Access would take the existing cul-de-sac, located between Block 45402, Lot 101 and Block 45401, Lot 102, and extend it into the Plant's property.
2. Bubbling Brook New Bridge would require rebuilding of the existing Bubbling Brook access and crossing Stone House Brook with a newly constructed bridge.
3. Bubbling Brook Rebuilding would require rebuilding of the existing Bubbling Brook access and rehabilitation of the existing dam to allow for large vehicle access.
4. Kakeout Road Access would involve construction of a new road through the northeast portion of the site.

3.2.1 Seabert Lane Access

One considered alternative access road is at the end of Seabert Lane, an otherwise dead-end street through a residential neighborhood. Seabert Lane sits at a higher elevation than the treatment facility. Any access routing to the plant proper would occur at a very steep grade. One way of circumventing the steep grade would be to zigzag the route so the road would lie more parallel to the contours of the incline; however, this is unfeasible for the turning radii of the large trucks necessary for deliveries of chemicals associated with centralizing all treatment to the existing facility.

Steep slope protection is a concern with this routing, as the majority of this path would overlap with severely constrained steep slope protection areas (as designated by the Highlands GIS, discussed further below in Section 5.1).

Additionally, because this routing is through a narrower road through a residential area, there is a concern for the disturbance of the residences by tractor trailer traffic as well as a concern that plant traffic could potentially be affected by parked vehicles on the street or

general neighborhood activity, which may be out of the control of plant personnel. For these reasons, this route was eliminated as an option.

3.2.2 Bubbling Brook Access with New Bridge

The second alternative consideration is to build a new bridge across the existing Stone House Brook (a waterway downstream of the reservoir) to connect Bubbling Brook Road directly to the main area of the plant and bypass the dam overpass. This proposal would require rehabilitation of Bubbling Brook Road (discussed further below in Alternative 3) in addition to construction of the new bridge. The routing, and all associated construction, would require traversing of an existing waterway and significant disturbance to sensitive habitats and wetlands.

This routing does not eliminate the turning radii requirements for larger vehicles, as several 90-degree turns would potentially be required to allow tractor trailer access to the site for deliveries.

In winter, bridges are prone to freezing more quickly than their adjacent roads because they are exposed on all sides and do not have the benefit of insulation of surrounding ground. The use of road salt and deicing chemicals would likely be necessary to maintain access to the plant via this routing which would introduce a potential source of contamination to the waterbody below.

3.2.3 Bubbling Brook Access with Rehabilitation of Existing Dam

A redevelopment to Bubbling Brook Road has been considered as another potential solution. Redevelopment of the current access road would require a large quantity of trees to be removed. Widening this road to accommodate chemical deliveries via truck would require the construction of retaining walls with stabilization grid due to the terrain and geology. This construction would disturb an additional 12 to 15 feet beyond the existing width of the road. There are also existing pipelines under the road which may restrict further development.

The existing road also runs over a dam on the northeastern portion of the Kakeout reservoir; this dam is not sized for the load bearing required for daily truck travel and chemical deliveries. Deliveries are restricted to small truck access only and therefore the dam overpass would require widening, which would likely necessitate modifications to the dam. Even if deliveries are performed using smaller vehicles that are able to access this roadway, frequent and continuous travel over this dam could result in stability concerns. Additionally, the turning radius off the dam and along the plant driveway is currently too sharp for larger vehicular access and would need to be amended.

In freezing weather conditions, deicing chemicals are not used on the road over the dam to avoid contamination of the water supply, which often leads to no access for deliveries to the plant during winter. Even with rehabilitation of the road and dam, access to the plant would likely continue to be limited in winter.

The rehabilitated road with its increased footprint as well as dam rehabilitation will result in greater disturbance of sensitive habitats, wetlands areas, and wetlands transition areas, as compared to a new access road (discussed further below in Section 3.2.4).

At the base of Bubbling Brook Road, near Kakeout Road, there are several residential homes; these neighbors use a portion of the road to access their properties. There is also a considerable amount of foot traffic in this area by hikers and other recreational users, as this road is a blue dot hiking trail and fishing permits are available for Kakeout Reservoir. Frequent tractor trailer traffic in this area would not be amenable to the community

members who use this road. It should also be noted that because this is a well-liked and frequented recreational area, members of the public often park their personal vehicles along Bubbling Brook Road to access the hiking trail and dam.

3.2.4 Kakeout Road New Access

The currently proposed access to the site is the construction of a new road connecting to Kakeout Road between Block 45207, Lot 104 and Block 45401, Lot 116. The current land ownership of the lot is such that no easements would be required to connect the proposed access road to Kakeout.

Additionally, no wetlands or waterways would be directly disturbed by the construction of the proposed road; it should be noted that wetlands transition areas may be affected. The road alignment has been laid out to minimize disturbance while still maintaining the practical access required for delivery vehicles; this route is shorter than the Bubbling Brook Road access route. This road could also be gated and prevent undesirable access by unauthorized personnel.

The proposed new road could be pitched away from the stream to allow stormwater to be directed towards a bioretention pond. This would not be an option for the above two alternates that consider rehabilitation of Bubbling Brook Road or for the sloped Seabert Lane access.

4.0 PURPOSE AND NEED

The proposed upgrades for the Butler Water Treatment Plant are critical to the continued use of this facility and the ability to provide safe drinking water to its customers. Butler Water Department has approximately 2,500 customers, which includes a population of approximately 8,000 people. This system also supplies water to Kinnelon Water Department and Passaic Valley Water Commission High Crest.

The primary reason for the proposed upgrades to the plant are due to the existing filtration vessels. These vessels are no longer considered acceptable technology under current regulations; per New Jersey Administrative Code (NJAC) 7:10 Safe Drinking Water Act Rules, clause 11.14, the Bureau of Safe Drinking Water will not approve pressure filters for primary filtration for surface water treatment plants. Though continued use is currently permitted under a legacy clause, this equipment will require replacement soon. It should also be noted that although the NJDEP has maintained a legacy clause for pressure filters for 30 years, continuation of this legacy clause could be phased out at any time.

Though the pressure filters are currently in a reasonably good state of repair, there is no redundancy in the filtration system. The filter vessels and their appurtenant piping and valving are exhibiting significant signs of age and chronic wear. Should equipment failure occur, the existing filter vessels would not be allowed to be replaced-in-kind.

Conversion of the existing filtration building to acceptable alternative filtration technology would not be feasible due to the head space requirements of new technology. Process unit footprints would require extensive temporary and permanent building modifications which would likely interfere with the ability to continue use of the pressure filters while construction is taking place. The Kakeout Road property is severely restricted for further expansion since it is in a residential area with homes along two properties to the north and east and roads along its west and south sides.

Additionally, there is room for improvement in the efficiency of the treatment plant operations. Currently, water is pumped approximately half a mile from the clarifiers at the main plant down to the pressure filter building and then pumped back up (approximately half a mile) to the tanks near the pulsator plant.

Consolidating the clarifying and filtration processes to one centralized area is preferable and will improve the ability of the plant operators to oversee equipment and run their daily operations.

Construction of new gravity filters will allow Butler Water Department to take advantage of their full permitted capacity of 5 MGD. These equipment upgrades are necessary for the Butler Water Department to be able to continue providing high quality, clean, safe drinking water to its customers.

5.0 HIGHLANDS PRESERVATION AREA

The entire site falls within the New Jersey Highlands Preservation Area, as formed under the NJDEP Highlands Water Protection and Planning Act. Water supply facilities are permitted in the preservation area.

There are 17 activities that may be exempt from meeting Highlands regulatory standards; the Butler Water Department is requesting Exemption 11, which is for "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 Highlands Act."

The New Jersey Highlands Water Protection and Planning Act was enacted in 2004 with the intent of preserving and protecting New Jersey's natural resources, including water, as this region supplies drinking water to more than half of the state's population.

The history of this facility spans from the 1940s when the intake structure with concrete vault, spillways, and building were installed at the dam. In 2010, Butler Water Department installed four new intake pipes to draw water from the reservoir. In 2015, the Borough replaced the media in its filter system to comply with NJDEP regulations. And most recently, the clarification system was upgraded to a pulsator high-rate sludge blanket clarifier. The Borough of Butler has consistently sought to maintain its facilities and operations to a high standard with the goal of providing its customers with the highest quality water.

This purpose of this proposed project is to comply with the Bureau of Safe Drinking Water regulations and to efficiently provide safe drinking water to the community. This objective falls in line with the goals of the Highlands Water Protection and Planning Act.

The goals of the Highlands regional master plan, as described in the New Jersey Statues Annotated (NJSA) 13:20-10, are as follows:

(1) Protect, restore, and enhance the quality and quantity of surface and groundwaters therein;
(2) Preserve extensive and, to the maximum extend possible, contiguous areas of land in its natural state, thereby ensuring the continuation of a Highlands environment which contains the unique and significant natural, scenic, and other resources representative of the Highlands Region;
(3) Protect the natural, scenic, and other resources of the Highlands Region, including but not limited to contiguous forest, wetlands, vegetated stream corridors, steep slopes, and critical habitat for fauna and flora;
(4) Preserve farmland and historic sites and other historic resources;
(5) Preserve outdoor recreation opportunities, including hunting and fishing, on publicly owned land;
(6) Promote conservation of water resources;
(7) Promote brownfield remediation and redevelopment;
(8) Promote compatible agricultural, horticultural, recreational, and cultural uses and opportunities within the framework of protecting the Highlands environment; and
(9) Prohibit or limit to the maximum extend possible construction or development which is incompatible with preservation of this unique area.

5.1 Avoidance and Minimization of Impacts

As the entirety of the parcel falls within the Highlands Preservation Area, it will not be possible to completely avoid impacts. However, an effort is being made to make the necessary upgrades with minimal disturbance to resources, as practical.

The estimated size of the proposed filtration building and drying bed area are dictated by the expected treatment requirements. Preliminary calculations have been performed using known water quality data and the permitted allocation of 5 MGD to approximate the footprint required for these processes. Though these calculations have been performed conservatively, the results are reasonable and the proposed areas represent a rational estimate of the anticipated required space to accommodate the necessary process upgrades.

The proposed access road is being routed such that stream crossings will not be necessary. Though the road will likely traverse wetlands transition areas, this is generally due to the route being limited by the geometry of the parcel. Leaving Bubbling Brook Road as is will maintain the ability for the local residents to comfortably continue using it as ingress and egress to and from their homes as well as preserving its accessibility to the general public as a blue dot trail and respecting its scenic value.

The process equipment will be electrically driven. The only anticipated sources of emissions would be the emergency backup generator and vehicular traffic to and from the plant; these sources currently exist and there is no additional emissions sources anticipated at this time.

Four maps were generated to calculate the anticipated impacts to the Highlands resources and are attached to this report. These maps were generated using the Highlands GIS data, which were accessed via the website: https://www.nj.gov/njhighlands/gis.

- Figure A shows the total forest and forest resource area;
- Figure B shows the Highlands Open Water Protection Area, Highlands Riparian Area, and Prime Groundwater Recharge Area; and
- Figure C shows the Critical Wildlife Habitat Area. This portion of the parcel has been delineated to be Rank 4 Preservation Area.
- Figure D shows the Steep Slope Preservation Area. There are areas designated as moderately constrained and severely constrained slopes within the boundaries of the proposed work. The Highlands GIS layer for this data is based on LiDAR derived elevation data.

Estimated disturbance areas for the various GIS layers are as follows:

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 (Rank 4)	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%

Steep Slope Protection Area (Moderately Constrained)	1,212 ft^2	2,628 ft^2	3,840 ft^2 / 0.09 acres	0.02%

The total parcel area is approximately 427.42 acres.

As explained above, the proposed disturbance areas presented herein are a preliminary approach to the design requirements of the system and site. The intent is to begin a dialogue with the Highlands to ensure that the proposed construction is functional for the plant personnel and to the constituents who utilize the clean drinking water produced by this facility. Another objective is to ensure that the disturbance area is sensitive to the Highlands Act goal of environmental protection and preservation and that the design is ultimately agreeable to all parties involved. It is anticipated that this will be an iterative and collaborative process in order to be able to address the requirements outlined above.

5.1.1 Tree Removal Mitigation

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 forestry integrity. The Borough will consider the following options in its plan:

- Revegetation efforts, including
    - Evaluating optimal areas for tree planting across the property, where applicable;
    - 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 further prevent the spread and migration of invasive plant species.
- Develop a site-specific forestry management plan.

The goals and objective of the plan will be to protect and maintain the forested areas surrounding the plant.

5.1.2 Highland Open Waters & Water Resources

NJAC 7:38-3.6 states that “There shall be a 300-foot buffer adjacent to Highlands Open waters in which no disturbance is permitted except…” where “there is no feasible alternative.”

The majority of the Butler Reservoir is within the limits of the parcel. Highlands Resources Maps indicate that most of the parcel is designated as prime groundwater recharge area, open water protection area, and riparian area.

The proposed construction will inevitably overlap with these designations due to the limited geometry of the parcel as well as the simple fact that this work is for a surface water treatment plant and necessary proximity to the Butler Reservoir. Because this work is for a drinking water facility that sources the Butler Reservoir, care will certainly be taken not to negatively affect surface water in this area.

As the proposed road will add impervious surface, best management practices for stormwater pollution and runoff control will be implemented, adhering to NJAC 7:8, to handle runoff in a manner that minimizes environmental impact. As discussed in Section 3.2.4 above, pitching of the road would be such that runoff would be diverted 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.

5.1.3 Flood Hazard Areas and Riparian Zone

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) panel associated with the site is Panel 176 of 475. The area of the proposed work is designated Zone X, which is an area determined to be outside the 0.2% annual chance floodplain. There is a designated floodway to the east of the northern end of the parcel, Zone AE, which is a floodway in a channel of a stream. The project work will not encroach on this area.

5.1.4 Steep Slopes

The Highlands regulations define steep slopes as topography with a grade greater than 10 percent. 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 above.

It is understood that areas of steep slope 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.

5.1.5 Sensitive Species Habitats

Resources Maps indicate that most of the parcel has critical wildlife habitats, mainly Rank 4 Preservation Area. 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 parcel as a whole is small. The proposed disturbance includes a narrow corridor for the access road and a rectangular area for the new plant processes; it could be argued that this geometry is less conspicuous in the context of this site as compared to a singular large circular clearing with an equivalent area.

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.

Tree clearing may be limited to certain times of the year due to sensitive species habitats. These restrictions will be strictly observed.

Despite the new structures and accessway, 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.

5.1.6 Recreational Opportunities & Scenic Value

The Butler (Kakeout) Reservoir is a known location for recreation. There is a well-traveled loop trail surrounding the reservoir that is used by hikers, walkers, and bikers. Fishing permits are also available to those who wish to fish at the reservoir. This project will not impede these activities. As discussed above, the intent is to maintain Bubbling Brook Road as is to allow the general public to access the reservoir.

The proposed new entrance to the site will be visible from Kakeout Road. However, the bulk of the upgrades will not be visible from the road or from the hiking trails and will be minimally visible from neighboring parcels. The landscape of the site and scenic value, as accessible to the general public, is not being changed.

5.2 Farmland, Historic Sites, Brownfield Remediation & Redevelopment, and Horticultural, Cultural, and Agricultural Use

Goals (4), (7), and (8) for the Highlands Preservation Area as listed in the Highlands regional master plan are not necessarily applicable to this project.

5.2.1 Historic and Archaeological Areas

The site is not located within an area containing any known historic properties, as informally confirmed by the New Jersey State Historic Preservation Office (NJHPO). A formal confirmation will be requested from the NJHPO. A Phase 1A Archaeological Survey may be required.

5.3 Health & Safety Waiver

As discussed above, the entirety of the parcel falls within the Highlands Preservation Area and impacts to Highlands resources are unavoidable. Because this project cannot be designed to entirely avoid or mitigate all impacts to Highlands resources, a waiver from the Highlands Regional Master Plan is being requested.

For the purposes of this project, the Borough of Butler will be pursuing a health and safety waiver, to be issued by the Highlands Council if the project is determined to be necessary in order to protect public health and safety. 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.

The standard protocol for seeking a waiver will be followed in pursuit of approval to proceed with this project. This will include public hearing, presentation of the scope of work and justification, and a 30-day public comment period.

6.0 CONCLUSION

This project furthers the Highlands goal of providing safe drinking water, and in doing so, this project furthers another Highlands goal of providing economic viability and desirable quality of life for the people in its community, as it is providing an essential service to the public.

The proposed treatment plant upgrades will minimize impacts to natural resources to the extents possible and practical. The site layout consideration was based on minimizing the permanently disturbed area with a reasonable estimate for the extents of the process upgrades and optimal routing of the road. The Borough will treat the site with thoughtfulness, especially when it comes to tree clearing and removal of vegetation as it is understood that wildlife habitats will be temporarily affected by the construction. Added impervious surfaces will be addressed with an appropriate stormwater management program.

And it should be emphasized that this is a drinking water facility, and therefore the utmost respect will be given to water resources.

This project is in the best interest of the local population; it is beneficial to the community and is in line with the goals of the Highlands Act.

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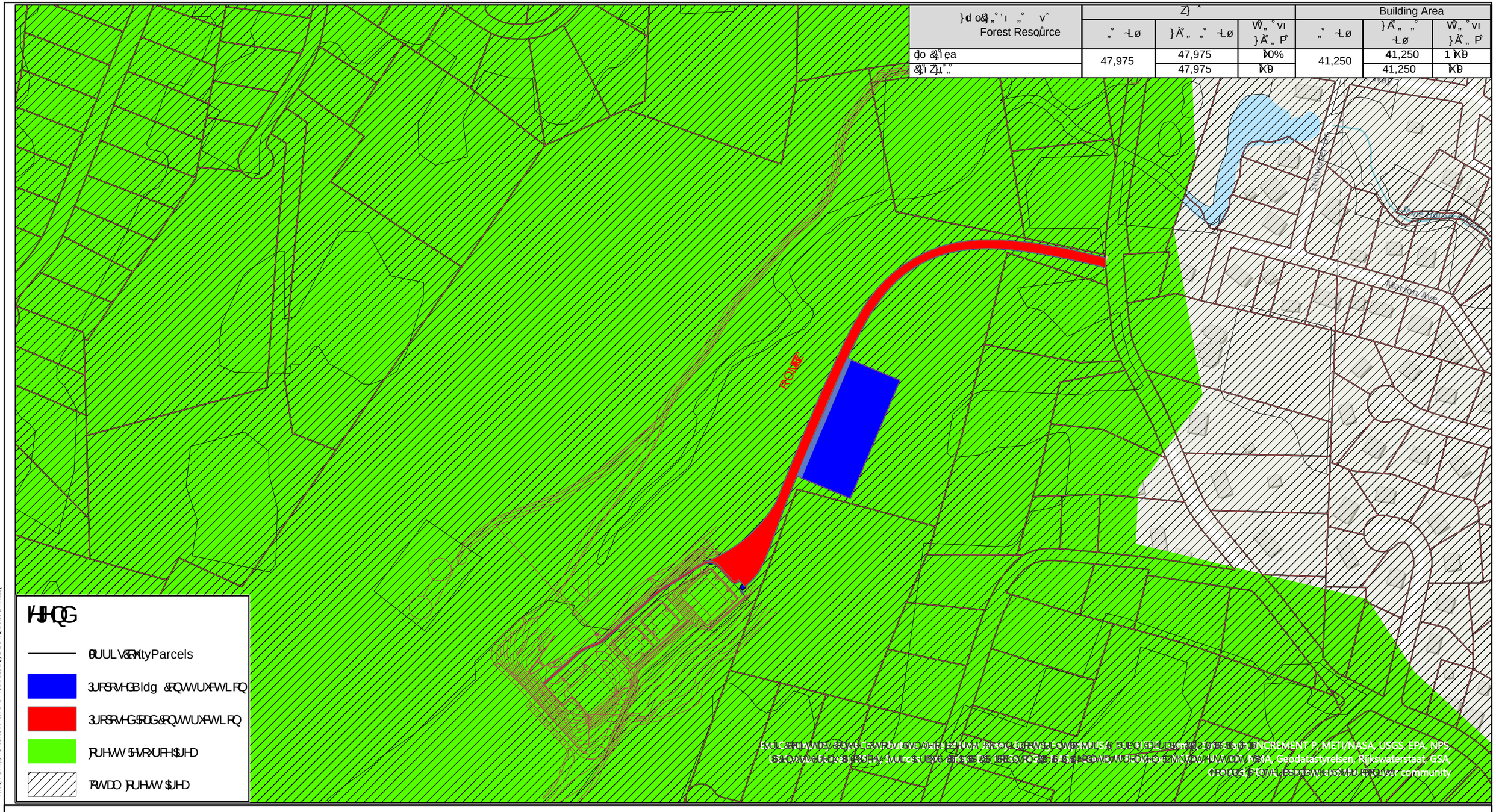

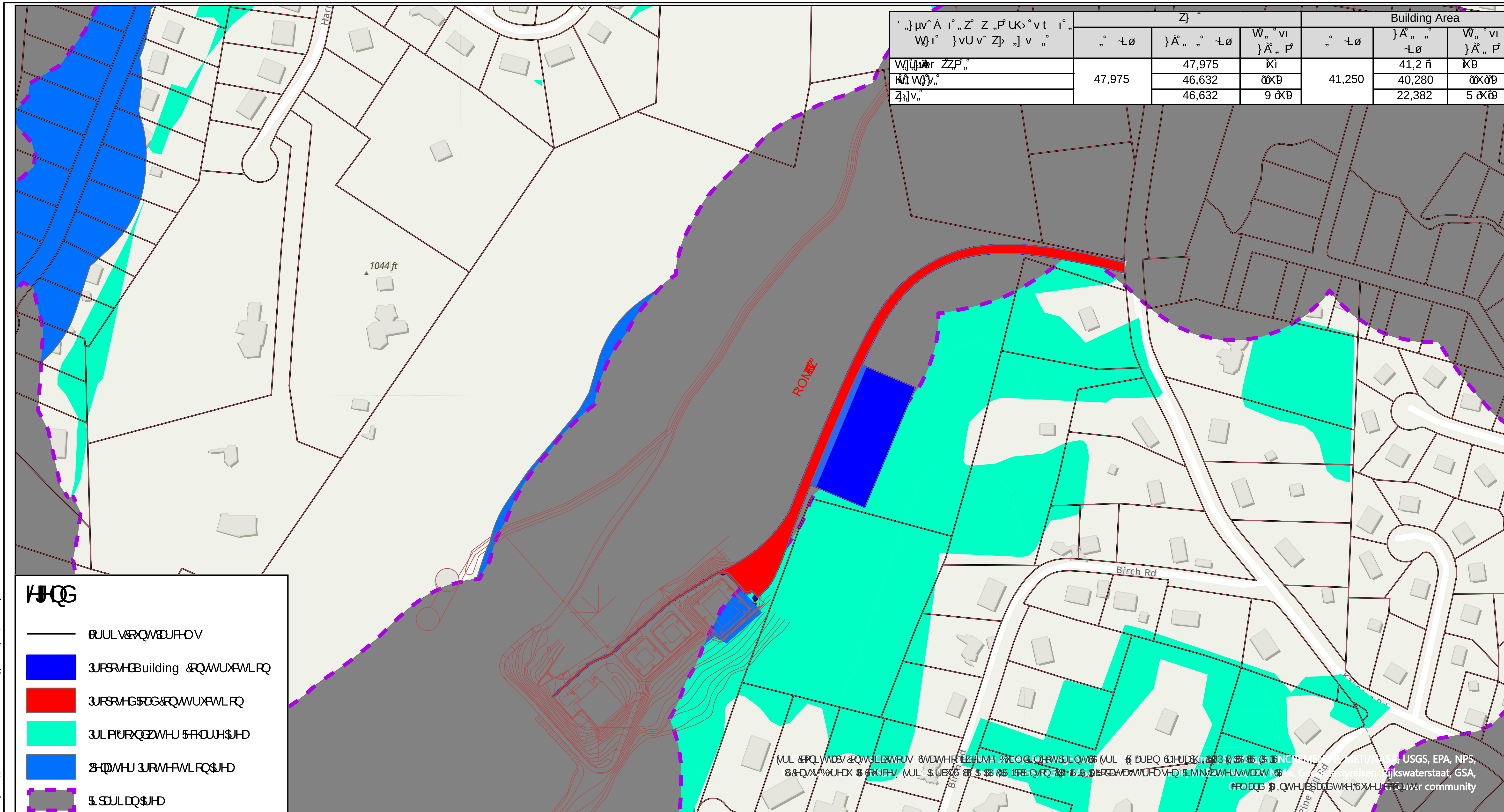

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	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	47,975	47,975	[illegible]	41,250	41,2[illegible]	[illegible]
[illegible]		46,632	[illegible]		40,280	[illegible]
[illegible]		46,632	[illegible]		22,382	[illegible]

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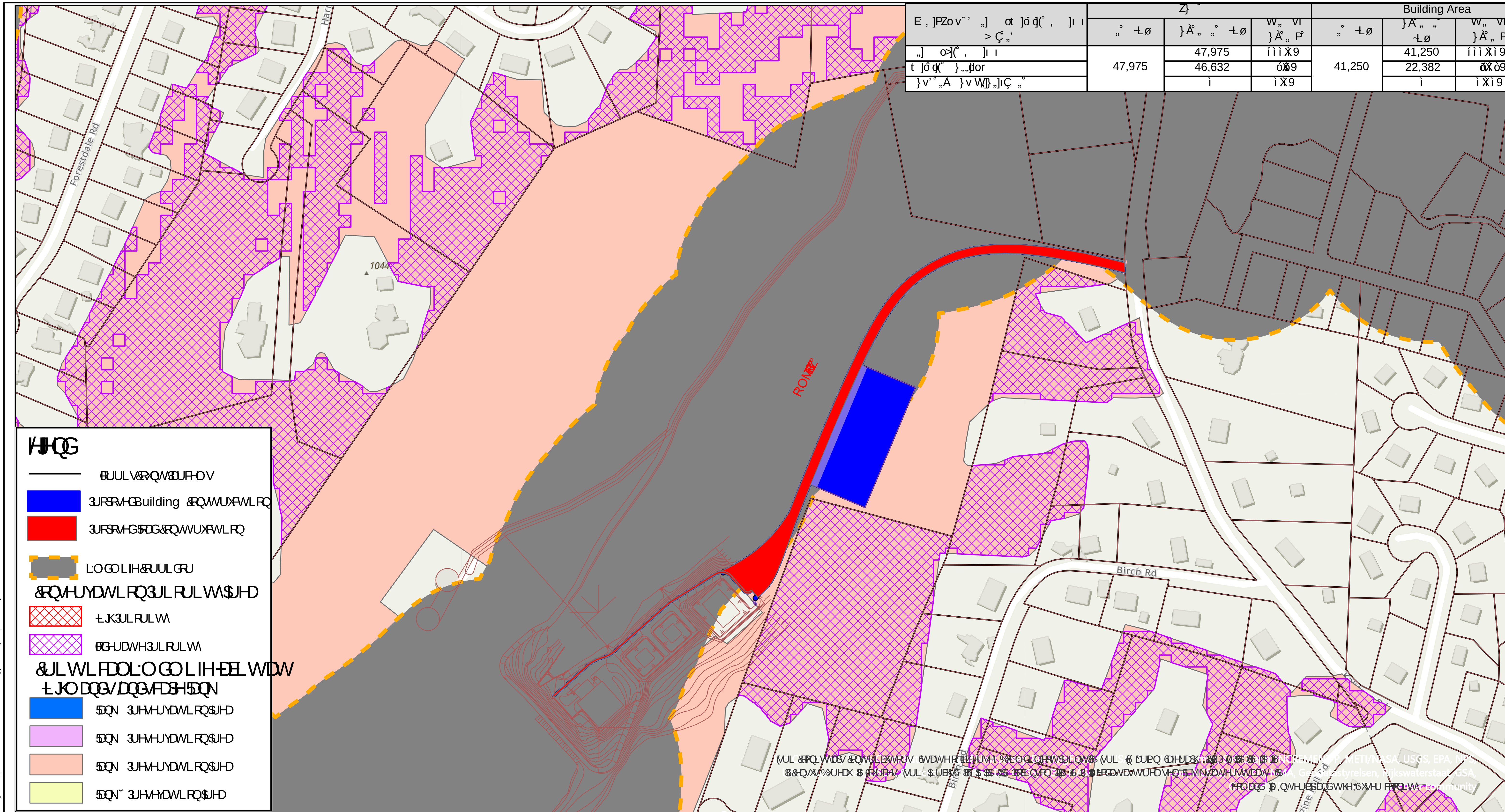

[illegible]	[illegible]			Building Area		
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	47,975	47,975	[illegible]	41,250	41,250	[illegible]
[illegible]		46,632	[illegible]		22,382	[illegible]
[illegible]		[illegible]	[illegible]		[illegible]	[illegible]

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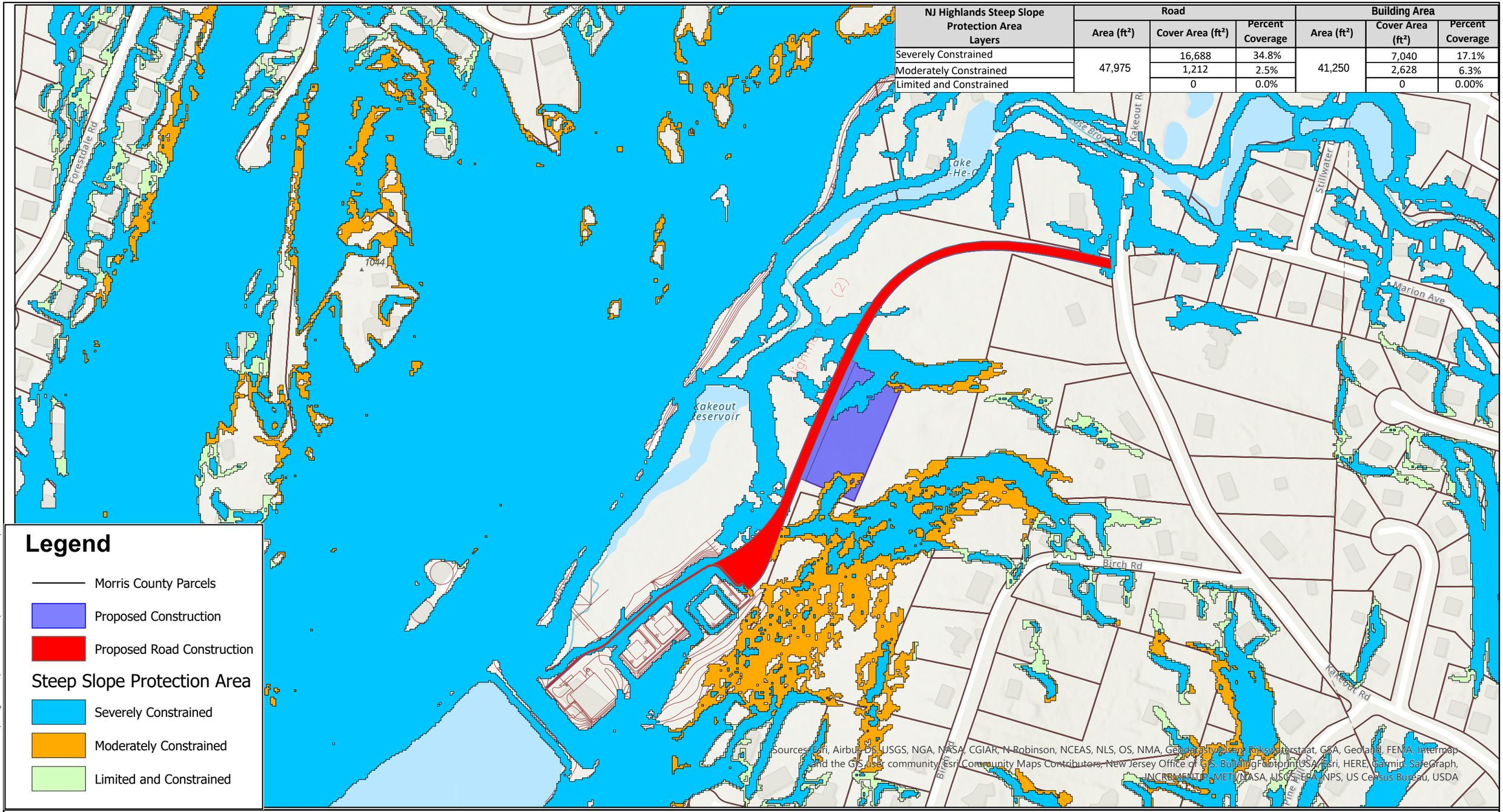
190 285 380

NJ Highlands Steep Slope Protection Area Layers	Road			Building Area		
	Area (ft²)	Cover Area (ft²)	Percent Coverage	Area (ft²)	Cover Area (ft²)	Percent Coverage
Severely Constrained	47,975	16,688	34.8%	41,250	7,040	17.1%
Moderately Constrained		1,212	2.5%		2,628	6.3%
Limited and Constrained		0	0.0%		0	0.00%



Legend

- Morris County Parcels
- Proposed Construction
- Proposed Road Construction

Steep Slope Protection Area

- Severely Constrained
- Moderately Constrained
- Limited and Constrained

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1:15,846

FIGURE D

Highlands Steep Slope Protection Area
Butler Water Treatment Plant
Kinnelon, Morris County, New Jersey

H2M architects + engineers
Melville, NY Parsippany, NJ
Albany, NY Suffern, NY Riverhead NY
Westchester, NY Wall, NJ New York, NY