

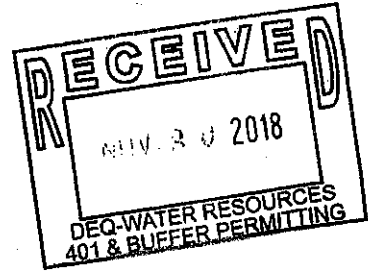


## **MVP Southgate Project**

Docket No. CP19-14-000

## **Attachment 30-1**

March 2019



**MVP Southgate Project**

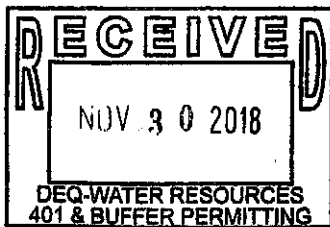
**Standard Joint Permit Application**

**U.S. Army Corps of Engineers –  
Wilmington District (SAW-2018-00887)**

**North Carolina Department of  
Environmental Quality,  
Division of Water Resources**

**Appendix A**

**North Carolina USGS 7.5-Minute Topographic Map Excerpts**



ROY COOPER  
Governor  
MICHAEL S. REGAN  
Secretary  
LINDA CULPEPPER  
Director



January 10, 2019

DWR # 20181638  
Rockingham & Alamance Counties

Mountain Valley LLC  
Attn: Matthew Raffenberg  
700 Universe Boulevard  
Juno Beach FL 33408

**Subject: REQUEST FOR ADDITIONAL INFORMATION**  
Mountain Valley Pipeline – Southgate (MVP Southgate)

Dear Mr. Raffenberg:

On November 30, 2018, the Division of Water Resources – Water Quality Programs (Division) received your application dated November 30, 2018, requesting a 401 Individual Water Quality Certification and Buffer Authorization from the Division for your project. The Division has determined that your application is incomplete and cannot be processed. **The application is on-hold until all of the following information is received:**

1. Please provide the Division with a copy of your response to the US Army Corps of Engineers request for more information dated December 28, 2018. [15A NCAC 02H .0502(c)]
2. The application documentation notes that the pipeline construction sequence includes clearing and grubbing of the project right away. Clarify the linear schedule for clearing and grubbing. For instance, will the entire linear length be cleared and grubbed, including all wetland and buffer areas prior to initiation of the next phase of construction? What means and/or measures will be taken to ensure protection of waters of the state and protected riparian areas for the maximum time feasible? [15A NCAC 02H .0506(f) and (g)]
3. Section 4.4 of the Project Description notes that Impact Avoidance and Minimization Measures include "Cutting trees to grade, and only removing stumps from directly over the trench, or where safety dictate otherwise..." This statement appears to contradict Section 2.4.2 and Figure 2 which describe Typical Pipeline Construction Sequence as complete clearing and grading of the entire project corridor. Please clarify. [15A NCAC 02H .0506(f) and (g)]



North Carolina Department of Environmental Quality | Division of Water Resources  
512 North Salisbury Street | 1617 Mail Service Center | Raleigh, North Carolina 27699-1617  
919.707.9000

For the portion of the project within the Jordan Lake watershed [15A NCAC 02B .0267]:

4. Provide route maps that show the proposed route and all impact areas overlaid onto the published county soil survey maps and USGS Topo maps. Please also clearly identify any streams that were determined to be “not present in the field” by DWR staff and therefore not subject to the Jordan Buffer Riparian Buffer Rules.
5. Provide a table that indicates which stream features are subject to the Jordan Lake Riparian Buffer Rules in accordance with the maps and site visit determinations noted in Item #3 above.
6. Modify Table 4.3 to indicate which stream impacts are being included in the Buffer Authorization request and which stream impacts will be requested under a major variance to be submitted separately.
7. All impacts from access roads should be accounted for as Road Impacts, or Temporary Road Impacts under the Table of Uses. Please clearly identify these on Table 4.3 (or other impact table) and calculate mitigation accordingly.
8. Provide impact maps with hatching or shading to clearly identify areas proposed (and calculated) as temporary impacts and areas proposed to be within a permanent maintenance corridor. Please provide impact drawings at a greater scale to clearly show details as necessary.
9. Provide mitigation acceptance/commitment letters from private Mitigation Banks and/or DMS to meet the Jordan Lake buffer mitigation requirements. The mitigation plan must comply with 15A NCAC 02B .0295 and G.S. 143-214.20.
10. Provide a description of Jordan Lake Riparian Buffer restoration within Section 2.5 of the Project Description.
11. Provide a description of the proposed permanent operation and maintenance plan for areas subject to the Jordan Lake Buffer Rules within Section 2.8 of the Project Description.

**Please note that due to the large volume of information submitted and the significant amount of information being requested in this letter, the Division has not completed its review and additional requests for more information may be necessary.**



Pursuant to Title 15A NCAC 02H .0502(e) and Title 15A NCAC 02B .0267, the applicant shall furnish all of the above requested information for the proper consideration of the application. Please respond in writing within 30 calendar days of receipt of this letter by:

- Sending one (1) copy of all of the above requested information to the 401 & Buffer Permitting Branch, 1617 Mail Service Center, Raleigh, NC 27699-1617,
- Sending one (1) copy of all of the above requested information to Sue Homewood, 450 West Hanes Mill Road, Suite 300, Winston-Salem, NC 27105, **and**
- Submitting all of the above requested information through this link: <https://edocs.deq.nc.gov/Forms/Supplemental-Information-Form> (note the DWR# requested on the link is referenced above).

If all of the requested information is not received within 30 calendar days of receipt of this letter, the Division will be unable to approve the application and it will be returned. The return of this project will necessitate reapplication to the Division for approval, including a complete application package and the appropriate fee.

Please be aware that you have no authorization under the Water Quality Certification Rules or Jordan Lake Buffer Rules for this activity and any work done within waters of the state or protected riparian buffers may be a violation of North Carolina General Statutes and Administrative Code.

Contact Sue Homewood at 336-776-9693 or [Sue.Homewood@ncdenr.gov](mailto:Sue.Homewood@ncdenr.gov) if you have any questions or concerns.

Sincerely,



Karen Higgins, Supervisor  
401 & Buffer Permitting Branch

cc: Heather Patti, TRC Environmental Corporation (via email)  
David Bailey, USACE Raleigh Regulatory Field Office (via email)  
Olivia Munzer, NCWRC (via email)  
DWR WSRO 401 files  
DWR 401 & Buffer Permitting Unit



## Contact Report for Karen Higgins

<b>Contact ID 593</b>	
Contact Status	<b>Completed</b>
Priority Level	<b>Medium</b>
Contact Date	01/10/2019
Type of Contact	Email
Type of Issue	No Issues were indentified with this contact
Issue Comments	<p>Hi Karen and Sue, Do you have time to discuss with a few of us our understanding of the Jordan variance process and application next week? We are currently running through some different scenarios and need some clarification on our interpretations. Please let me know if there is an hour next week that we can get together via Skype and look at some mapping. Thank you for your time, Alex Alex V. Miller Environmental Permitting Lead on behalf of Mountain Valley Pipeline, LLC 713-374-1599 [MVP Southgate Official Image - re-sized]</p>
Contacted By	N/A
Attachments	There are no files attached to this contact.
There are no followups for this contact.	

**Mountain Valley - Southgate Project  
Jordan Watershed Buffer Rules, Variance Application  
Meeting Minutes**

**Meeting Date:** January 23, 2019  
**Meeting Location:** NCDWR, Winston Salem Field Office, Winston Salem, NC  
**Meeting Leader:** Alex Miller, MVP, Environmental Project Manager  
**Minutes Prepared By:** Heather Patti, TRC Environmental Permitting

**Participants:** Sue Homewood, NCDEQ, Div of Water Resources (DWR) –  
Winston-Salem Office  
Travis Faul, NextEra  
Heather Patti, TRC Environmental Permitting  
Dan Truman, Equitrans Midstream  
Bob Zarzecki, Soil & Environmental Consultants  
Karen Higgins, NCDEQ, Div of Water Resources (DWR), Water &  
Buffer Permitting Branch, Raleigh Office (via Skype)  
Justin Curtis, AquaLaw (via Skype)  
Cory Chalmers, Equitrans Midstream (via Skype)  
Mark Cooper, Equitrans Midstream (via Skype)

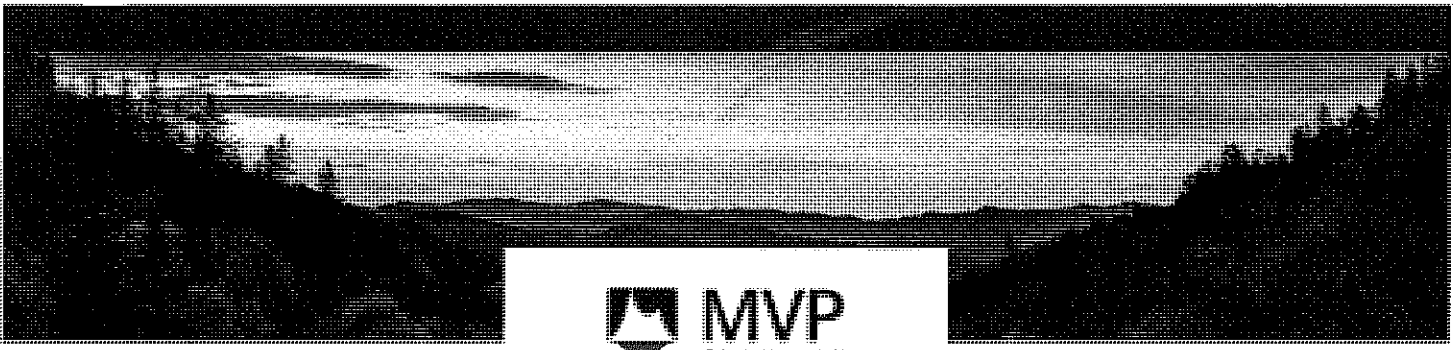
**Meeting Purpose:**

Pre-application meeting to discuss the major variance application process, documents, and drawings with the regulatory staff.

**Key Takeaways:**

- DEQ confirmed that buffer rules apply to the width of corridor; not the angle that the pipe crosses the stream.
- We confirmed that there will be just one variance application that will include all of the crossings.
- Mountain Valley will continue to work with DEQ after Variance application is submitted to prepare for the presentation to the Water Quality Committee forecasted for May.
  
- Project Update:
  - The pipe within most of NC and all of the Jordan watershed is 16” in diameter.
  - PSNC is still out anchor customer with the end receipt point in Alamance County.
  
- Currently Proposed Route:
  - The crossing angle calculations were reviewed on an example figure and the methodology was confirmed.
  - Final project route still being developed by the FERC with input from stakeholders.

- Discussion on braided channels: NCDWR confirmed to only buffer the most predominant stream in a braided channel system. This will reduce the current amount of buffered streams.
- Hardships based on Jordan Lake Buffer Rules:
  - Sue confirmed that the project falls within the “Utility, non-electric” category within the Table of Uses in the Buffer rules. This will be the presiding “Use” for which to apply for the variance. “Utility” factors in that there will be permanent vegetation maintenance, so future work would not require additional buffer authorizations as long as they are within the maintained corridor originally authorized.
  - Footnote 1 and Footnote 4 construction concerns
- Variance application process:
  - DWR confirmed that they have delegation from the Commission on minor modifications to approve minor changes post-approval should they need to occur.
  - DWR staff reserves right to send delegations up to upper management.
  - For footnotes 1 and 4 we will want to list each condition and provide a discussion on those we can or cannot meet across the entire project and why. For those conditions that don’t apply to all crossing, we will need to discuss for each crossing where we cannot meet it and why.



# Meeting Sign-In Sheet

<b>Project:</b> MVP Southgate	<b>Meeting Date:</b> 1/23/2019
<b>Facilitator:</b> Alex Miller	<b>Place/Room:</b> NCDEQ – Winston Salem Office

Name	Organization	Phone	E-Mail
Alex Miller	MVP	713-374-1599	alex.miller@nee.com
Heather Patti	TRC	919-256-6236	hpatti@trcsolutions.com
Karen Higgins	NCDEQ	phone	
Justin Curtis	Aqualaw	phone	
Corey <del>Talbot</del> <sup>Chalmers</sup>	EAM	phone	
Mark Cooper	Equitrans	phone	
Travis Faul	MVP	713-236-3609	travis.faul@nee.com
BOB ZARZECKI	SPEC	919-270-2068	bzarzecki@sandec.com
DAN TRUMAN	MVP	304-844-2174	dtruman@equitransandstrom.com
Sue Homewood	DWR	336 776 9693	sue.homewood@ncdenr.gov



## Hamberg, Alexis

---

**From:** Miller, Alex  
**Sent:** Friday, February 1, 2019 3:15 PM  
**To:** Hamberg, Alexis  
**Subject:** FW: calculating buffer mitigation required for MVP

Please log.

---

**From:** Higgins, Karen [<mailto:karen.higgins@ncdenr.gov>]  
**Sent:** Thursday, January 31, 2019 4:23 PM  
**To:** Kevin Martin <[kmartin@sandec.com](mailto:kmartin@sandec.com)>; Homewood, Sue <[sue.homewood@ncdenr.gov](mailto:sue.homewood@ncdenr.gov)>  
**Subject:** RE: [External] calculating buffer mitigation required for MVP

Mitigation should be calculated based on the permanent maintained easement area. If there are wetlands that overlap, subtract those areas out. For example:

Site ID	Temporary Zone 1 Impact (construction corridor)	Permanent Zone 1 Impact (maintenance corridor)	Temporary Zone 2 Impact (construction corridor)	Permanent Zone 2 Impact (maintenance corridor)	Area of Wetland Overlap in Zone 2 (maintenance corridor)
1	5,000	4,000	2,000	1,000	500

- If area outside of maintenance corridor is restored
- If maintenance corridor in Zone 2 is revegetated

Karen

--

**Karen Higgins**  
401 & Buffer Permitting Branch Supervisor  
Division of Water Resources  
Department of Environmental Quality

(919) 707-3630 office **\*\*please note my phone number has changed\*\***

[karen.higgins@ncdenr.gov](mailto:karen.higgins@ncdenr.gov)

<https://deq.nc.gov/about/divisions/water-resources/water-resources-permits/wastewater-branch/401-wetlands-buffer-permits>

512 N. Salisbury Street (Archdale Building), Suite 942-E, Raleigh, NC 27604  
1617 Mail Service Center, Raleigh, NC 27699-1617

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---

**From:** Kevin Martin [<mailto:kmartin@sandec.com>]  
**Sent:** Thursday, January 31, 2019 2:43 PM  
**To:** Homewood, Sue <[sue.homewood@ncdenr.gov](mailto:sue.homewood@ncdenr.gov)>  
**Cc:** Higgins, Karen <[karen.higgins@ncdenr.gov](mailto:karen.higgins@ncdenr.gov)>  
**Subject:** [External] calculating buffer mitigation required for MVP

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Another dumb question, if the construction corridor is 75' wide but they can restore 25' such that the permanent impact is 50' wide, should the buffer mitigation be calculated based on the initial 75' clearing or the 50' wide permanently maintained easement area?

## Kevin C. Martin

Principal  
Soil & Environmental Consultants, PA  
North Quarter Office Park  
8412 Falls of Neuse Road, Suite 104  
Raleigh, NC 27615  
(919) 846-5900 Office Phone  
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---

**From:** Homewood, Sue [<mailto:sue.homewood@ncdenr.gov>]  
**Sent:** Wednesday, January 30, 2019 4:37 PM  
**To:** Kevin Martin <[kmartin@sandec.com](mailto:kmartin@sandec.com)>  
**Cc:** Higgins, Karen <[karen.higgins@ncdenr.gov](mailto:karen.higgins@ncdenr.gov)>  
**Subject:** RE: [External] Jordan buffer question

Hello Kevin,

Good catch, for some reason I had thought that Session Law was specific to sewer lines but it appears to apply to gas utility lines in Zone 2 also. Also, In reading Footnote #4 again, since it states that *"If all of these BMPs are not used, then the underground utility line shall require a no practical alternative evaluation by the local government, as defined in Item (11) of this Rule."* We do not believe that Footnote 4 would require a variance. So only Zone 1 impacts that cannot meet Footnote #1 would trigger the variance.

Thanks,

Sue Homewood  
Division of Water Resources, Winston Salem Regional Office  
Department of Environmental Quality

336 776 9693 office  
336 813 1863 mobile  
[Sue.Homewood@ncdenr.gov](mailto:Sue.Homewood@ncdenr.gov)

450 W. Hanes Mill Rd, Suite 300  
Winston Salem NC 27105

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North Carolina Public Records Law and may be disclosed to third parties.

---

**From:** Kevin Martin <[kmartin@sandec.com](mailto:kmartin@sandec.com)>  
**Sent:** Wednesday, January 30, 2019 11:47 AM  
**To:** Homewood, Sue <[sue.homewood@ncdenr.gov](mailto:sue.homewood@ncdenr.gov)>  
**Cc:** Higgins, Karen <[karen.higgins@ncdenr.gov](mailto:karen.higgins@ncdenr.gov)>  
**Subject:** [External] Jordan buffer question

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Karen and Sue, more info on my zone 2 no mitigation and not requiring a variance question, in addition to the rules it is also based on the Jordan Lake Rules session law that states:  
SECTION 2.(b) Protection of Existing Riparian Buffers Rule. – Until the effective date of the revised permanent rule that the Commission is required to adopt pursuant to Section 2(d) of this act, the Commission and the Department shall implement the Protection of Existing Riparian Buffers Rule as provided in Section 2(c) of this act. SECTION 2.(c) Implementation. – The Protection of Existing Riparian Buffers Rule shall be implemented as follows: (1) Notwithstanding the Table of Uses set out in subdivision (9) of the Protection of Existing Riparian Buffers Rule, **utility, nonelectric, other than perpendicular crossings that have impacts only in Zone Two shall be categorized as exempt**

## Kevin C. Martin

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[kmartin@sandec.com](mailto:kmartin@sandec.com)

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---

**From:** Kevin Martin  
**Sent:** Wednesday, January 30, 2019 6:58 AM  
**To:** Homewood, Sue <[sue.homewood@ncdenr.gov](mailto:sue.homewood@ncdenr.gov)>

Cc: Higgins, Karen <[karen.higgins@ncdenr.gov](mailto:karen.higgins@ncdenr.gov)>

Subject: Jordan buffer question

Sue sorry but I am still confused, did you agree nonperpendicular zone 2 only crossings do not require a variance and do not require mitigation? Because I realize that the #4 footnote applies to all non perpendicular crossings but from a practical point I thought footnote 4 only applied to how you worked in Zone one since it specifically says

4

Provided that, **in Zone One**, all of the following BMPs for underground utility lines are used. If all

of these BMPs are not used, then the underground utility line shall require a no practical alternative evaluation by the local government, as defined in Item (11) of this Rule.

.  
Woody vegetation shall be cleared by hand. No land grubbing or grading is allowed.

.  
Vegetative root systems shall be left intact to maintain the integrity of the soil. Stumps shall remain, except in the trench where trees are cut.

.  
Underground cables shall be installed by vibratory plow or trenching.

.  
The trench shall be backfilled with the excavated soil material immediately following cable installation.

.  
No fertilizer shall be used other than a one-time application to re-establish vegetation.

.  
Construction activities shall minimize the removal of woody vegetation, the extent of the disturbed area, and the time in which areas remain in a disturbed state.

.  
Measures shall be taken upon completion of construction and during routine maintenance to ensure diffuse flow of stormwater through the buffer.

.  
In wetlands, mats shall be utilized to minimize soil disturbance.

**Kevin C. Martin**

Principal

Soil & Environmental Consultants, PA

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---

**From:** Homewood, Sue [<mailto:sue.homewood@ncdenr.gov>]  
**Sent:** Tuesday, January 29, 2019 9:06 PM  
**To:** Kevin Martin <[kmartin@sandec.com](mailto:kmartin@sandec.com)>  
**Cc:** Higgins, Karen <[karen.higgins@ncdenr.gov](mailto:karen.higgins@ncdenr.gov)>  
**Subject:** Re: [External] Jordan buffer question

Footnote 4 applies to all "other than perpendicular crossings". Footnote 1 applies to zone 1 only impacts.

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

**From:** Kevin Martin <[kmartin@sandec.com](mailto:kmartin@sandec.com)>  
**Date:** 1/29/19 5:55 PM (GMT-05:00)  
**To:** "Homewood, Sue" <[sue.homewood@ncdenr.gov](mailto:sue.homewood@ncdenr.gov)>  
**Cc:** "Higgins, Karen" <[karen.higgins@ncdenr.gov](mailto:karen.higgins@ncdenr.gov)>  
**Subject:** RE: [External] Jordan buffer question

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Thanks for the quick reply, so to be sure I am following this, a parallel impact in zone 2 is "Allowable" and does not require a variance or mitigation since the footnotes triggering the variance apply to what is happening in Zone 1. But a parallel impact in Zone 1 does require a variance because we have been told the proposed pipeline project cannot comply with all the conditions in footnote 4, Correct?

**Kevin C. Martin**

Principal  
Soil & Environmental Consultants, PA  
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---

**From:** Homewood, Sue [<mailto:sue.homewood@ncdenr.gov>]  
**Sent:** Tuesday, January 29, 2019 5:32 PM

**To:** Kevin Martin <[kmartin@sandec.com](mailto:kmartin@sandec.com)>  
**Cc:** Higgins, Karen <[karen.higgins@ncdenr.gov](mailto:karen.higgins@ncdenr.gov)>  
**Subject:** RE: [External] Jordan buffer question

Kevin,

Please see our response below in **red text**.

Thanks,

Sue Homewood  
Division of Water Resources, Winston Salem Regional Office  
Department of Environmental Quality

336 776 9693 office  
336 813 1863 mobile  
[Sue.Homewood@ncdenr.gov](mailto:Sue.Homewood@ncdenr.gov)

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Winston Salem NC 27105

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**From:** Kevin Martin <[kmartin@sandec.com](mailto:kmartin@sandec.com)>  
**Sent:** Tuesday, January 29, 2019 4:04 PM  
**To:** Homewood, Sue <[sue.homewood@ncdenr.gov](mailto:sue.homewood@ncdenr.gov)>; Higgins, Karen <[karen.higgins@ncdenr.gov](mailto:karen.higgins@ncdenr.gov)>  
**Subject:** [External] Jordan buffer question

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Sue & Karen, I am dealing with a few crossings on the MVP project and want to be sure how to deal with a couple situations where there is no crossing of the stream but there is a parallel impact to the stream buffer, so here is my take please advise if you agree. I understand, like everything else you may have to run this by others.

If impacts just zone 2 and the area is revegetated I think it is exempt and should not require mitigation since it is clearing and grading in Zone 2,

**This question has come up before and where a specific use is called out in the Table of Uses then the activity would fall under that use. In this case, gas line activities fall under the “utility, non-electric” category within the Table of Uses, not just clearing and grading in Zone 2. The allowances within Zone 1 and Zone 2 are spelled out specifically under this use.**



Use	Exempt*	Allowable*	Allowable with Mitigation*
Utility, non-electric, perpendicular crossings of streams and other surface waters subject to this Rule <sup>3,5</sup> : <ul style="list-style-type: none"> <li>• Disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor equal to or less than 10 feet in width</li> <li>• Disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width</li> <li>• Disturb greater than 40 linear feet but equal to or less than 150 linear feet of riparian buffer with a maintenance corridor equal to or less than 10 feet in width</li> <li>• Disturb greater than 40 linear feet but equal to or less than 150 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width</li> <li>• Disturb greater than 150 linear feet of riparian buffer</li> </ul>	X	X  X	X   X
Utility, non-electric, other than perpendicular crossings <sup>4,5</sup> : <ul style="list-style-type: none"> <li>• Impacts in Zone Two</li> <li>• Impacts in Zone One<sup>1</sup></li> </ul>		X	X

But for Zone 1 in my experience, some agents of the state say any impact to the Zone 1 buffer even if you do not cross the stream is a crossing while others contend if it does not cross the stream it is not a crossing.

Perpendicular crossings are defined within the Table of Uses (footnote 5).

<sup>5</sup> Perpendicular crossings are those that intersect the surface water at an angle between 7 105 degrees.

All other utility, non-electric impacts would fall under “other than perpendicular crossings”. This is different than some of the other buffer rules that list out “perpendicular” and “parallel”; Jordan lists “perpendicular” and “non-perpendicular”.

Bottom line in either interpretation it would either not qualify with the footnotes for zone 1 impacts if it is a crossing and if it is not a crossing, parallel impacts to Zone 1 do not appear in the table of uses so it is prohibited and requires a variance. Thanks again for your help

Kevin C. Martin

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## Hamberg, Alexis

---

**From:** Miller, Alex  
**Sent:** Wednesday, February 6, 2019 12:57 PM  
**To:** Hamberg, Alexis  
**Subject:** Fwd: [External] RE: WQC/EMC delegation of Staff Approval of Variance Modifications  
**Attachments:** EMC Delegation of Minor Modifications\_3-13-13.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Please log when back in the office.

Thanks!

----- Forwarded message -----

**From:** "Bob Zarzecki" <[bzarzecki@sandec.com](mailto:bzarzecki@sandec.com)>  
**Date:** Wed, Feb 6, 2019 at 12:54 PM -0500  
**Subject:** FW: [External] RE: WQC/EMC delegation of Staff Approval of Variance Modifications  
**To:** "Miller, Alex" <[Alex.Miller@nexteraenergy.com](mailto:Alex.Miller@nexteraenergy.com)>, "Faul, Travis" <[Travis.Faul@nexteraenergy.com](mailto:Travis.Faul@nexteraenergy.com)>  
**Cc:** "Kevin Martin" <[kmartin@sandec.com](mailto:kmartin@sandec.com)>

CAUTION - EXTERNAL EMAIL

Alex & Travis:

Attached is the delegation document outlining the conditions in which Staff can decide (if they so choose) to approve modifications to variance approvals without it having to go back to the WQC/EMC.

1. The proposed modification(s) do(es) not change the original preliminary findings that all of the requirements for a Major Variance have been met pursuant to 15A NCAC 02B .0233(9)(a), 15A NCAC 02B .0250(12)(a), 15A NCAC 02B .0259(9)(a), 15A NCAC 02B .0267(12)(a), or 15A NCAC 02B .0606(1)(a);
2. The modifications do not result in additional impacts (either direct or indirect) to buffers or water quality;
3. The modifications comply with the original Commission's approval with conditions or stipulations; and
4. The purpose of the project is unchanged.

I believe the plan was for you all to draft something similar specifically for MVP Southgate to include in your variance request.

**Bob Zarzecki**  
Wetlands Department Manager  
Soil & Environmental Consultants, PA

---

**From:** Higgins, Karen <karen.higgins@ncdenr.gov>  
**Sent:** Wednesday, February 6, 2019 9:11 AM  
**To:** Bob Zarzecki [bzarzecki@sandec.com](mailto:bzarzecki@sandec.com)  
**Cc:** Kevin Martin <kmartin@sandec.com>  
**Subject:** RE: [External] RE: WQC/EMC delegation of Staff Approval of Variance Modifications

Please see attached

Karen

--

**Karen Higgins**  
401 & Buffer Permitting Branch Supervisor  
Division of Water Resources  
Department of Environmental Quality

(919) 707-3630 office **\*\*please note my phone number has changed\*\***

[karen.higgins@ncdenr.gov](mailto:karen.higgins@ncdenr.gov)

<https://deq.nc.gov/about/divisions/water-resources/water-resources-permits/wastewater-branch/401-wetlands-buffer-permits>

512 N. Salisbury Street (Archdale Building), Suite 942-E, Raleigh, NC 27604  
1617 Mail Service Center, Raleigh, NC 27699-1617

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---

**From:** Bob Zarzecki [<mailto:bzarzecki@sandec.com>]  
**Sent:** Monday, February 4, 2019 10:57 AM  
**To:** Higgins, Karen <[karen.higgins@ncdenr.gov](mailto:karen.higgins@ncdenr.gov)>  
**Cc:** Kevin Martin <[kmartin@sandec.com](mailto:kmartin@sandec.com)>  
**Subject:** [External] RE: WQC/EMC delegation of Staff Approval of Variance Modifications  
**Importance:** High

**CAUTION:** External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to [report.spam@nc.gov](mailto:report.spam@nc.gov)

Karen:

I'm just following up on this. Can you provide us a copy of the WQC/EMC letter? I think it was done in 2002 or possibly early 2003, but don't hold me to it.

Thanks!

**Bob Zarzecki**  
Wetlands Department Manager  
Soil & Environmental Consultants, PA

---

**From:** Bob Zarzecki  
**Sent:** Tuesday, January 29, 2019 1:05 PM  
**To:** Higgins, Karen ([karen.higgins@ncdenr.gov](mailto:karen.higgins@ncdenr.gov)) <[karen.higgins@ncdenr.gov](mailto:karen.higgins@ncdenr.gov)>  
**Cc:** Kevin Martin <[kmartin@sandec.com](mailto:kmartin@sandec.com)>  
**Subject:** WQC/EMC delegation of Staff Approval of Variance Modifications

Karen:

I can't seem to put my hands on a copy of the WQC/EMC delegation memo where they outlined the conditions in which Staff could review and approve buffer variance modifications. Can you email me a copy?

Thanks!

**Bob Zarzecki**

Wetlands Department Manager  
Soil & Environmental Consultants, PA  
North Quarter Office Park  
8412 Falls of Neuse Road, Suite 104  
Raleigh, NC 27615  
(919) 846-5900 Office Phone  
(919) 256-4517 Direct Line  
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[bzarzecki@sandec.com](mailto:bzarzecki@sandec.com)

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## ENVIRONMENTAL MANAGEMENT COMMISSION

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DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

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Amy E. Pickle  
Clyde E. Smith, Jr.  
Steve W. Tedder

March 13, 2013

### MEMORANDUM:

To: Charles Wakild, Director  
Division of Water Quality

From: Charles Peterson, Chair  
Water Quality Committee

*Charles H. Peterson 13 March 2013*

Subject: Delegation of Minor Modifications to Approved Major Variances to the Director

This memo is to inform you of the Water Quality Committee's March 13, 2013 decision delegating approval of minor modifications to approved major variances of the Riparian Buffer Protection Rules to the Director of the Division of Water Quality. This is in accordance with the Water Quality Committee's February 12, 2003 decision delegating approval of minor modifications to approved major variances of the Riparian Buffer Protection Rules to the Director of the Division of Water Quality.

As a condition of this delegation, the Director shall send any requests for modifications to approved major variances to the Water Quality Committee if any of the following criteria are not met:

1. The proposed modification(s) do(es) not change the original preliminary findings that all of the requirements for a Major Variance have been met pursuant to 15A NCAC 02B .0233(9)(a), 15A NCAC 02B .0250(12)(a), 15A NCAC 02B .0259(9)(a), 15A NCAC 02B .0267(12)(a), or 15A NCAC 02B .0606(1)(a);
2. The modifications do not result in additional impacts (either direct or indirect) to buffers or water quality;



3. The modifications comply with the original Commission's approval with conditions or stipulations; and
4. The purpose of the project is unchanged.

Notwithstanding the above criteria, in those instances when the Director determines that approval of a modification merits additional scrutiny, the Director shall forward that request to the Water Quality Committee for its review and deliberation.

This delegation of approval of minor modifications to approved major variances of the Riparian Buffer Protection Rules is effective immediately.

cc: Frank Crawley  
Chuck Wakild  
Karen Higgins  
Lois Thomas



625 Liberty Avenue, Suite 1700 | Pittsburgh, PA 15222  
833-MV-SOUTH | mail@mvpsouthgate.com  
www.mvpsouthgate.com

February 8, 2019

Ms. Karen Higgins  
North Carolina Department of Environmental Quality  
Division of Water Resources  
401 & Buffer Permitting Unit, Wetlands Branch  
1617 Mail Service Center  
Raleigh, North Carolina 27699 -1617

RE: MVP Southgate Project  
DWR# 20181638  
Response to 1/10/2019 Request for Additional Information

Dear Ms. Higgins:

Mountain Valley Pipeline, LLC ("Mountain Valley") is providing this response to North Carolina Department of Environmental Quality (NC DEQ)'s initial comment letter, dated January 10, 2019, requesting additional information regarding the MVP Southgate Project ("Project"). This initial comment letter was in response to the Joint Permit Application (DWR# 20181638) submitted by Mountain Valley on November 30<sup>th</sup>, 2018. To allow for ease of reference, Mountain Valley has provided the NC DEQ comments below followed by Mountain Valley's response.

- 1. Please provide the Division with a copy of your response to the US Army Corps of Engineers request for more information dated December 28, 2018. [15A NCAC 02H .0502(c)]**

**Response:** A copy of this email was provided to the NC DEQ on January 17, 2019. Additionally, the response is attached as Attachment A.

- 2. The application documentation notes that the pipeline construction sequence includes clearing and grubbing of the project right of way. Clarify the linear schedule for clearing and grubbing. For instance, will the entire linear length be cleared and grubbed, including all wetland and buffer areas prior to initiation of the next phase of construction? What means and/or measures will be taken to ensure protection of waters of the state and protected riparian areas for the maximum time feasible? [15A NCAC 02H .0506(f) and (g)]**

**Response:** An exact schedule for the construction sequence of the Project has not been developed. The Project is proposing to use two spreads to construct the pipeline. Spread 1 includes MP 0 to MP 30.4 and Spread 2 includes MP 30.4 to MP 73.1. Generally, construction of the proposed pipeline within each spread will follow a set of sequential operations. In this typical pipeline construction scenario, the construction spread proceeds along the pipeline right-of-way in one continuous operation. The Project will coordinate the entire process in such a manner as to minimize the total time a tract of land is disturbed and therefore exposed to erosion and temporarily precluded from normal use.

The Project will clear the right-of-way of obstructions (e.g., trees and stumps, brush, logs, large rocks) according to the FERC Plan, the Project-specific erosion and sediment control plan (E&SCP), and applicable regulatory approvals. Erosion control devices will be installed prior to grubbing. After the land is cleared and grubbed, additional crews will begin with the next phases of construction, grading and trenching on the right-of-way. In most instances, the corridor will be reduced from 100-feet to 75-feet for the riparian buffer (50 feet from top of stream bank) of intermittent and perennial streams crossed by the Project. Aside

from clearing and/or grubbing, no construction activity will occur within the stream buffer until the pipeline crossing is ready to be installed and any inactive areas must be stabilized within 20 days. To facilitate future inspection and maintenance of the pipeline, trees will be cut to grade, and stumps will be removed within the proposed 50-foot permanent maintenance corridor. Within the proposed 25-foot temporary workspace, vegetation will be replanted and restored, trees will be cut to grade, but stumps will not be removed. In forested wetlands, trees will be cut to grade, but stumps will only be removed within 15 feet of the edge of the pipe trench, or where safety concerns dictate otherwise.

The Project will conduct post-construction restoration activities in accordance with the measures specified in the FERC Plan and Procedures, and as applicable to meet buffer requirements in accordance with 2B.0295 (n)(2). After a segment of pipe is installed, backfilled, and successfully tested, the Project will final-grade the right-of-way, temporary ATWS, and other disturbed areas, and construction debris will be disposed of properly.

3. **Section 4.4 of the Project Description notes that Impact Avoidance and Minimization Measures include "Cutting trees to grade, and only removing stumps from directly over the trench, or where safety dictate otherwise ... " This statement appears to contradict Section 2.4.2 and Figure 2 which describe Typical Pipeline Construction Sequence as complete clearing and grading of the entire project corridor. Please clarify. [15A NCAC 02H .0506(f) and (g)]**

**Response:** In Section 4.4 of the Project Description, the Project identified avoidance and minimization measures specific to wetland areas where we committed to reduced workspaces (75 feet). Section 2.4.2 is specific to upland construction areas where the full width of the construction workspace (100 feet) will be cleared, stumped and graded. While the full width of the construction workspace will also be cleared within wetlands, stumps will be left to minimize wetland soil disturbance and promote re-sprouting of vegetation from the stumps once wetland restoration is complete.

**For the portion of the project within the Jordan Lake watershed [15A NCAC 02B .0267]:**

4. **Provide route maps that show the proposed route and all impact areas overlaid onto the published county soil survey maps and USGS Topo maps. Please also clearly identify any streams that were determined to be "not present in the field" by DWR staff and therefore not subject to the Jordan Buffer Riparian Buffer Rules.**

**Response:** Route maps that show the proposed route and all impact areas overlaid onto the published county soil survey maps and USGS Topo maps are included as Attachments B and C. Streams determined to be 'not present in the field' by DWR are identified on the county soil survey maps per your request. These features are not subject to the Jordan Lake Riparian Buffer Rules.

5. **Provide a table that indicates which stream features are subject to the Jordan Lake Riparian Buffer Rules in accordance with the maps and site visit determinations noted in Item #3 above.**

**Response:** Stream features that are subject to the Jordan Lake Riparian Buffer Rules will be provided in an updated table per Item #6, below.

6. **Modify Table 4.3 to indicate which stream impacts are being included in the Buffer Authorization request and which stream impacts will be requested under a major variance to be submitted separately.**

**Response:** Mountain Valley is currently completing route evaluations and will be providing updated impact tables at a later date. Table 4.3 is being modified to indicate which streams are being included in the Buffer Authorization request and which streams are being requested for approval under a major variance. The major variance application was submitted to DWR on February 8, 2019 under separate cover.



7. **All impacts from access roads should be accounted for as Road Impacts, or Temporary Road Impacts under the Table of Uses. Please clearly identify these on Table 4.3 (or other impact table) and calculate mitigation accordingly.**

**Response:** All impacts from access roads are being accounted for in Table 4.3 as Road Impacts, or Temporary Road Impacts under the Jordan Watershed Buffer Rules Table of Uses and are identified as impacts to be approved under the Buffer Authorization request.

8. **Provide impact maps with hatching or shading to clearly identify areas proposed (and calculated) as temporary impacts and areas proposed to be within a permanent maintenance corridor. Please provide impact drawings at a greater scale to clearly show details as necessary.**

**Response:** Mountain Valley is currently completing route evaluations and will be providing updated impact maps and impact tables that will clearly identify what impacts are construction (temporary) impacts, and what impacts are operational (permanent) at a later date. Field surveys continued in January of 2019 and are planned for the near future. Updated drawings will include the newly delineated resources.

9. **Provide mitigation acceptance/commitment letters from private Mitigation Banks and/or DMS to meet the Jordan Lake buffer mitigation requirements. The mitigation plan must comply with 15A NCAC 02B .0295 and G.S. 143-214.20.**

**Response:** Copies of the current mitigation acceptance/commitment letters for the Project are provided in the Attachments and will be provided to the applicable agencies in digital format.

10. **Provide a description of Jordan Lake Riparian Buffer restoration within Section 2.5 of the Project Description.**

**Response:** The Project will install temporary and permanent erosion and sediment control measures where necessary, including silt fencing, diversion dikes, and vegetation. If the buffer was forested, Revegetation of the 25-foot temporary workspace with native tree species. The 50-foot permanent maintenance corridor and the 25-foot temporary workspace if not previously forested will be revegetated using approved native seed mix. Riparian buffer restoration will occur in accordance with 2B.0295 (n)(2). Detailed restoration plans will be submitted separately with the Project-specific E&SCP.

11. **Provide a description of the proposed permanent operation and maintenance plan for areas subject to the Jordan Lake Buffer Rules within Section 2.8 of the Project Description.**

**Response:** As stated above in Item #10, the operational impacts in Zone 1 will be revegetated with native grass seeding. In Zone 2, all impacts will be revegetated with native grass seeding unless otherwise noted. In the Jordan Watershed, all riparian buffer restoration will occur in accordance with 2B.0295 (n)(2). Detailed restoration plans will be submitted separately with the Project-specific E&SCP.



Mountain Valley appreciates the opportunity to provide this information in support of its request for Joint USACE Section 404 and 401 authorization of the Project pursuant to Nationwide Permit 12. Should you have any additional questions or further information to complete your review of the Project, please do not hesitate to contact Alex Miller at 713-374-1599 or via email at [alex.miller@nexteraenergy.com](mailto:alex.miller@nexteraenergy.com) or me at 561-691-2808 or via email [Matthew.Raffenberg@fpl.com](mailto:Matthew.Raffenberg@fpl.com). Thank you for your continued consideration.

Sincerely,  
**Mountain Valley Pipeline, LLC**



Matthew Raffenberg  
Senior Director, Environmental Services

Attachments

CC:

David Bailey, USACE  
Jean Gibby, USACE  
Scott McLendon, USACE  
Henry Wicker, USACE  
Todd Miller, USACE  
Sue Homewood, NC DEQ  
Travis Faul, MVP  
Heather Patti, TRC





## **MVP Southgate Project**

### **Attachment A USACE-Wilmington District January 2019 Response to RAI**

February 2019





625 Liberty Avenue, Suite 1700 | Pittsburgh, PA 15222  
833-MV-SOUTH | mail@mvpsouthgate.com  
www.mvpsouthgate.com

January 17, 2019

Mr. David Bailey  
United States Army Corps of Engineers -Wilmington District  
Raleigh Regulatory Field Office  
3331 Heritage Trade Drive, Suite 105  
Wake Forest, North Carolina 27587  
SAW-2018-00887  
Via Safe Upload

Ms. Karen Higgins  
North Carolina Department of Environmental Quality  
Division of Water Resources  
401 & Buffer Permitting Unit, Wetlands Branch  
1617 Mail Service Center  
Raleigh, North Carolina 27699 -1617

RE: MVP Southgate Project  
SAW-2018-00887  
Response to Request for Additional Information

Dear Mr. Bailey and Ms. Higgins,

Mountain Valley Pipeline, LLC ("Mountain Valley") is providing this response to your initial comment letter, dated December 28, 2018, requesting additional information regarding the MVP Southgate Project ("Project"). The comments from the letter are restated below and are followed by Mountain Valley's response.

- 1. While the U.S. Army Corps of Engineers, Wilmington District, Raleigh Regulatory Field Office (Corps) has verified the delineation of potential waters of the US within a majority of the proposed pipeline route in North Carolina, there are still sections of the route that have not been delineated or the delineation has not been verified. In addition, it is our understanding that there may still be some re-routing of sections of the pipeline. Pending submittal of additional delineations, the Corps may choose to field-verify the delineation for these areas in order to determine not only the extent of the jurisdictional impacts, but also the functional quality of the resources, upon which to determine appropriate compensatory mitigation requirements. (see PCN Section B.4b.).**

**Response:** Mountain Valley understands a completed jurisdictional determination is necessary prior to permit verification. Mountain Valley is in the process of completing the wetland and waterbody delineation on the remaining un-surveyed tracts, and will submit the updated delineation data (e.g., GIS data, maps, data sheets, photographs) when complete. The currently proposed route is still under evaluation by the Federal Energy Regulatory Commission (FERC) and any route adjustments would require additional survey and verification for resources managed by the U.S. Army Corps of Engineers, Wilmington District, Raleigh Regulatory Field Office (Corps). Mountain Valley will continue to work with the Corps for verification of delineated resource boundaries and functional quality so the appropriate compensatory mitigation requirements can be determined. Field survey is currently anticipated to be completed in the 3<sup>rd</sup> quarter, 2019.

---

2. **Changes to the wetland/stream delineation based on the Corps field-review are not all displayed on Appendix K 2-lh. For example, WB-C18-19 is shown as a pond, but was determined to primarily be a wetland, with a small component of surface water in its western extent. Also, S-C18-18 was determined to not be potentially jurisdictional. Review all delineation maps and plan sheets to ensure that the field-approved delineation is shown, and update all acreages/linear feet and impact proposals accordingly. Further, it is possible that our office will not agree with some of your forested vs. non-forested wetland designation (e.g. W-A18-22-PEM, etc.). However, these distinctions will be made following the completion of field delineations, field verifications (if necessary), and re-submittal of your PCN and attachments.**

**Response:** The changes made to the delineated resource area boundaries during the Corps field verification process conducted on September 5<sup>th</sup> and 8<sup>th</sup>, 2018 were incorporated into the drawing set that was submitted as part of the Joint Permit Application submitted on November 30<sup>th</sup>, 2018. Wetland and waterbody boundary modifications made during the field verification that occurred on September 25<sup>th</sup>, 2018 were not reflected within the original Joint Permit Application. These modifications will be submitted to the Corps with the information obtained during the additional field surveys in 1<sup>st</sup> quarter, 2019.

3. **The permit application appendices are missing the alignment sheets for the Alamance County section of the proposed project (i.e. Appendix B; Sheets PA-ALNC-H-650-01 through ALNC-H-650-21).**

**Response:** The alignment sheets for the portion of the Project in Alamance County have been uploaded to the Project website.

4. **Appendices K 2-lg, 2-li, and 2-lk appear to be the same file on the project website. Further, the permit application package appears to be missing Figure 4 (Wetland & Waterway Delineation Maps) Sheets 1-103. Please ensure that the project webpage includes the complete and correct documentation.**

**Response:** Mountain Valley reviewed the Project website and updated these files to ensure that the project webpage includes the complete and correct documentation. Additionally, Mountain Valley can furnish hard copies upon request.

5. **Please provide detailed plan and profile views for all proposed permanent fills of wetlands, streams, and other waters, including culvert sizes and lengths, overlaid on the approved delineation.**

**Response:** Mountain Valley will provide final plan and profile views for all proposed permanent fills of aquatic resources in North Carolina, including culvert sizes and lengths, once all surveys have been completed and the Project design is finalized (currently forecasted for 3<sup>rd</sup> quarter, 2019). Any plan and profile drawings developed in accordance with this request will be submitted to the Corps in a supplemental filing.

6. **Although no rip rap is currently proposed in wetland or stream areas, reference was made to decisions on rip rap needs being made during construction. Please note that the Corps Wilmington District considers rip rap to be a permanent impact (though not necessarily a permanent loss). As such, any rip rap proposed would need to be included in the PCN/application as a permanent impact and authorized prior to construction.**

**Response:** Should rip rap be proposed within any jurisdictional resource, Mountain Valley will submit for PCN approval prior to construction.

7. **Based on the Rockingham County alignment sheets (Appendix B), additional avoidance and minimization of stream and wetland impacts could be achieved. Please review and update all project plan sheets based on the following comments. If additional avoidance and minimization is not practicable in these circumstances, please provide documentation to that effect:**

- a. **The pipeline would presumably be constructed under roadways via conventional bore methods. As such, wetland and stream resources located next to roadways (e.g. W-B18-99/S-B18-99, W-B18-78/S-B18-74, etc.) could be avoided by extending conventional bores slightly beyond roadways. Costs for extending bores already planned should be considerably less than mobilizing for entirely new bores.**
- b. **Several streams are proposed to be trenched through along their channel length rather than near perpendicular (e.g. S-A18-140, S-A18-143, S-A18-147, etc.). Several hundred linear feet of stream disturbance could be avoided by slight redesigns in pipe centerline.**
- c. **The pipe centerline is proposed to trench through several stream confluences (e.g. S-C18-38/S-C18-53, etc.). Prolonged stream disturbance would be expected in these locations due to inherent stream bank instability at stream confluences, difficulty in reconstructing intersecting stream banks in their original location, and lack of woody vegetation along stream banks due to long term maintenance. Slight redesigns in pipe centerline could avoid these issues.**

**Response:** Final design of the Project's route and construction methods are still under development with an emphasis on avoidance and minimization of wetland and stream resources to the extent practicable. Documentation of the revised construction procedures and routes will be provided to the Corps to avoid linear feet of stream disturbance and avoid stream confluences throughout the route development process.

8. **On Appendix M (Section 404/401 Permit Application Proposed Pipeline Route and Impacts) Sheets 1-108, please add the 2018 aerial photo as a background, faded to still allow project details to show clearly. Within the wetland and stream areas, also add shading or hatching to show temporary construction impacts, permanent wetland conversion impacts, and permanent wetland/stream fill impacts. Also clearly note acreages/linear feet of each impact type at each crossing. Provide zoom-ins of crossing locations if necessary to show details. Note that these impacts/details could also be shown on Appendix B plans if the two sets of plans should prove redundant.**

**Response:** Mountain Valley will continue to work with the Corps to provide the necessary mapping that will aid in the evaluation of project impacts.

9. **Given the numerous proposed crossings of wetlands, streams, and open waters, please provide the itemized proposed impact information in digital format to facilitate efficient processing. Once additional delineations and any required field verification are complete and you plan to submit the updated PCN and attachments, please contact David Bailey for the latest ORM upload sheets, as the upload sheets are frequently revised.**

Further, our office is under the impression that all of the delineated wetlands would be classified as either Headwater Forest, Bottomland Hardwood Forest, Floodplain Pool, or Non-Tidal Freshwater Marsh types based on the North Carolina Wetland Assessment Method (NCWAM). As such, for mitigation purposes, the appropriate Wetland Group/Credit Classification would be Riparian non-Riverine or Riparian Riverine. If applicable, please identify any delineated wetlands that you would classify instead as Basin Wetland, Seep, or any other NCWAM type that would better fit the Non-Riparian Wetland Group/Credit Classification.

**Response:** Mountain Valley will submit a completed ORM upload sheet, with the appropriate wetland group/credit classification, once field delineations and field verifications are complete.

10. **Your current proposal is to acquire compensatory mitigation through private mitigation banks. We recommend that you also consider contingencies such as acquiring compensatory mitigation through the North Carolina Division of Mitigation Services (NCDMS) in the event that there are not enough appropriate private mitigation bank credits available. Further, provide letters from private Mitigation Banks and/or NCDMS stating that they are willing to provide the appropriate type and amount of compensatory mitigation credits required for this project. Note that a complete compensatory mitigation plan, including the letters referenced above, is required by our office for review and approval prior to verifying the use of NWP 12. (see PCN Sections D.2 and D.3.).**

Further, although our office typically requires compensatory mitigation for permanent conversion of forested wetlands to another wetland type at a 1:1 ratio, compensatory mitigation for permanent fill of wetlands (see Access Road PA-RO-113A at MP 41.8) is typically required at a 2:1 ratio. Please update section 4.1.2 of your project narrative, as well as your related compliance statement on pages N-2-7 and N-2-8 of your application documents.

**Response:** The amount of compensatory mitigation will be developed in accordance with the above-referenced ratios and will be updated once the Project-design is finalized. Mountain Valley will provide an updated compensatory mitigation plan (including letters of available credit) for permanent fill of wetlands and permanent conversion of forested wetlands to scrub-shrub or emergent wetlands. In the event that not enough credits are available through private mitigation banks, Mountain Valley will also acquire compensatory mitigation through the North Carolina Division of Mitigation Services.

11. We are aware that the FERC (Lead Federal Agency) is preparing an Environmental Impact Statement which addresses the requirements of Section 106 of the National Historic Preservation Act (NHPA) and Section 7 of the Endangered Species Act (ESA).
- a. Their final opinion on whether the proposed activity may affect properties listed, or eligible for listing, in the National Register of Historic Places is needed before the use of a Nationwide Permit can be verified for this project. Please provide documentation showing compliance with Section 106 of the NHPA. (see PCN Sections F.7).
  - b. Their final opinion on whether or not the project "may affect" a listed species or critical habitat is needed before the use of a Nationwide Permit can be verified for this project. Please provide documentation showing compliance with Section 7 of the ESA. (see PCN Sections F.8).

**Response:** Mountain Valley is actively coordinating with the North Carolina State Historic Preservation Office and the U.S. Fish and Wildlife Service. Final documentation of compliance with Section 106 of the NHPA and Section 7 of the ESA for Corps jurisdictional areas is currently anticipated in 4<sup>th</sup> quarter, 2019.

Mountain Valley appreciates the opportunity to provide this information in support of its request for USACE Section 404 authorization of the Project pursuant to Nationwide Permit 12. A complete application is expected in the 2<sup>nd</sup> quarter of 2019<sup>1</sup>. Should you have any additional questions or further information to complete your review of the Project, please do not hesitate to contact Alex Miller at 713-374-1599 or via email at [Alex.Miller@nee.com](mailto:Alex.Miller@nee.com) or me at 561-691-2808 or via email [Matthew.Raffenberg@fpl.com](mailto:Matthew.Raffenberg@fpl.com). Thank you for your continued consideration.

Sincerely,



Matthew Raffenberg  
Senior Director, Environmental Services

CC: Jean Gibby, USACE  
Scott McLendon, USACE  
Henry Wicker, USACE  
Todd Miller, USACE  
Sue Homewood, NC DEQ  
Amanda Mardiney, OEP  
John Ellis, USFWS  
Renee Gledhill-Early, NCDRC



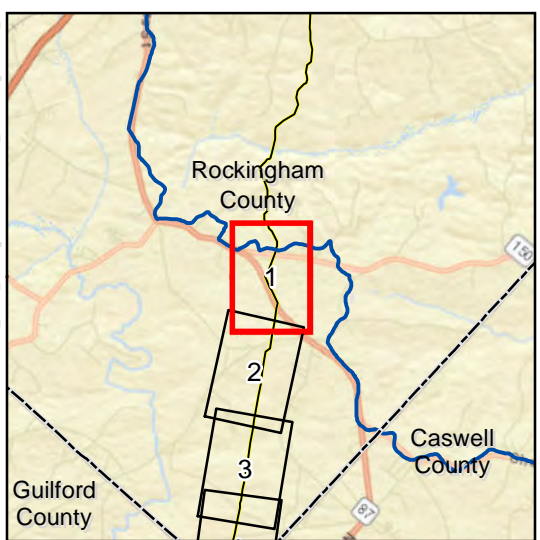


## **MVP Southgate Project**

### **Attachment B Jordan Watershed Published Soil Survey Maps**

February 2019





**Legend**

- Mileposts
- H-650 Pipeline
- ▭ Limits of Construction Right-of-Way
- ▭ Survey Area
- State Removed Resources
- Approximated Soil Survey Stream
- Approximated Surface Water Top Of Bank
- Approximated Stream Centerline
- Delineated Surface Water Top Of Bank
- Delineated Stream Centerline
- ▭ Approximated Surface Water
- ▭ Delineated Surface Water
- Delineated Wetland Boundary
- ▭ Approximated Wetland
- ▭ Delineated Wetland
- ▭ County Boundary

Data Sources: EOT, ESRI, NC OneMap, TRC, USGS  
 Basemap: Published Soil Survey Maps

1 inch = 500 feet  
 When Printed 11x17

**Mountain Valley PIPELINE LLC**

**Section 404/401 Permit Application**

Jordan Lake Watershed  
 Published Soil Survey  
 Response to Additional Information

Rockingham County, NC  
 Sheet 1 of 22

**TRC**  
 Results you can rely on

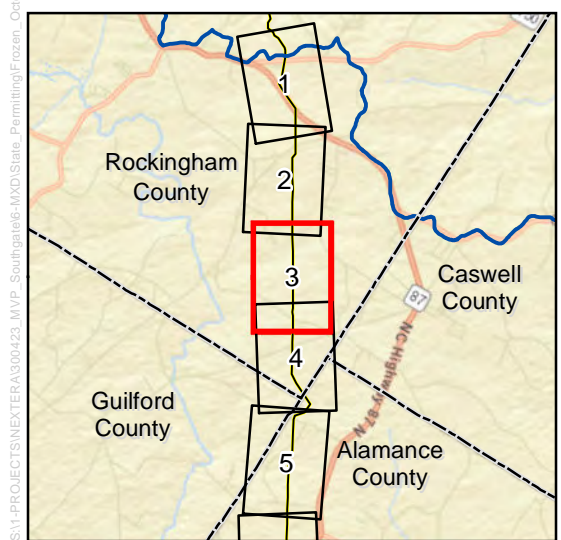
600 Willowbrook Ln  
 West Chester, PA 19382  
 Date: February 2019

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**Legend**

- Mileposts
- H-650 Pipeline
- ▭ Limits of Construction Right-of-Way
- ▭ Survey Area
- State Removed Resources
- Approximated Soil Survey Stream
- Approximated Surface Water Top Of Bank
- Approximated Stream Centerline
- Delineated Surface Water Top Of Bank
- Delineated Stream Centerline
- ▭ Approximated Surface Water
- ▭ Delineated Surface Water
- Delineated Wetland Boundary
- ▭ Approximated Wetland
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- ▭ County Boundary

Data Sources: EOT, ESRI, NC OneMap, TRC, USGS  
 Basemap: Published Soil Survey Maps

1 inch = 500 feet  
 When Printed 11x17

**Mountain Valley**  
 PIPELINE LLC

**Section 404/401 Permit Application**

Jordan Lake Watershed  
 Published Soil Survey  
 Response to Additional Information

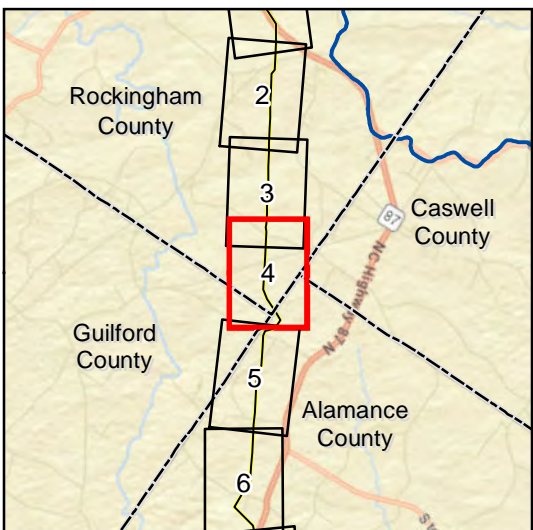
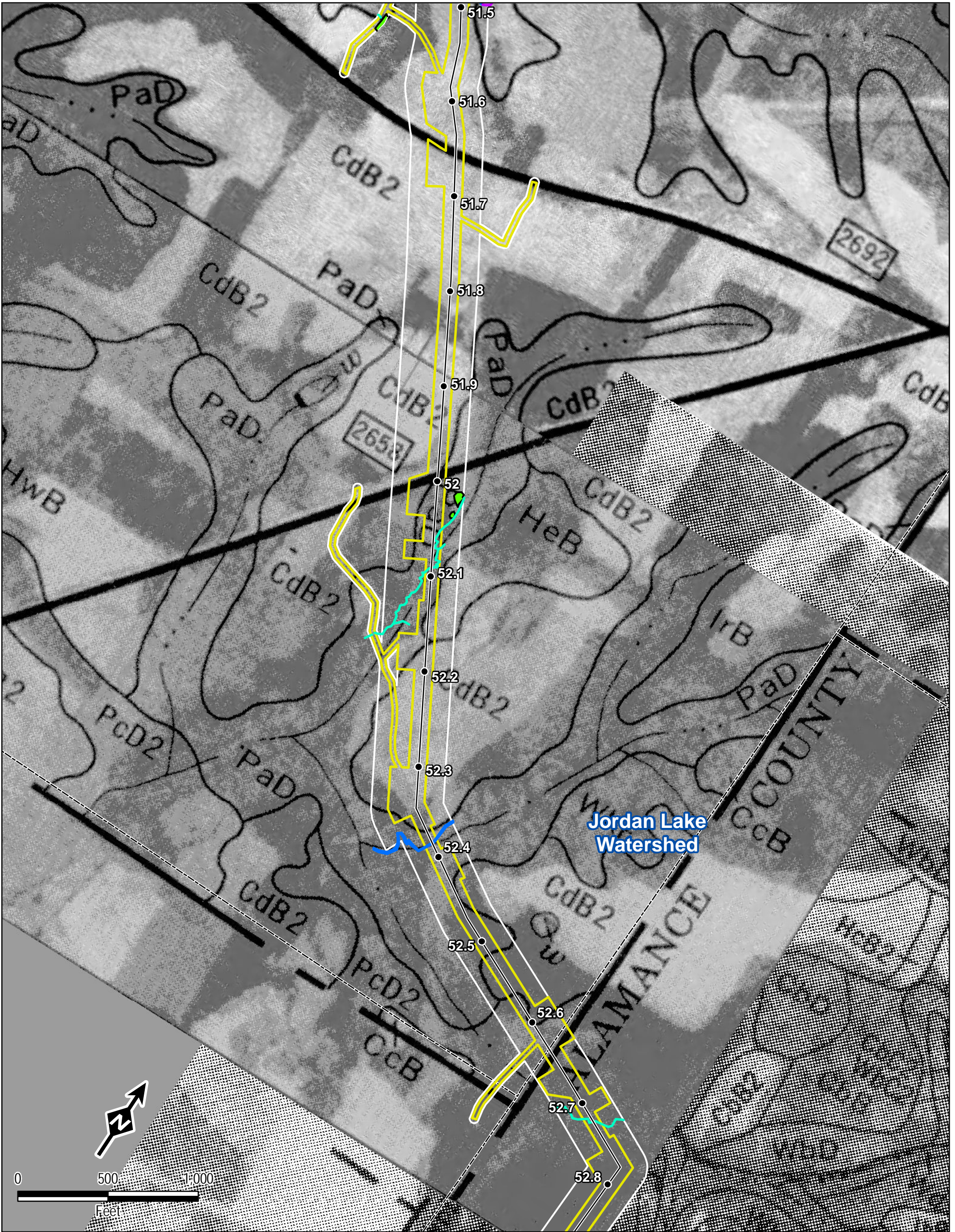
Rockingham County, NC  
 Sheet 3 of 22

**TRC**  
 Results you can rely on

600 Willowbrook Ln  
 West Chester, PA 19382  
 Date: February 2019

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**Legend**

- Mileposts
- H-650 Pipeline
- ▭ Limits of Construction Right-of-Way
- ▭ Survey Area
- State Removed Resources
- Approximated Soil Survey Stream
- Approximated Surface Water Top Of Bank
- Approximated Stream Centerline
- Delineated Surface Water Top Of Bank
- Delineated Stream Centerline
- ▭ Approximated Surface Water
- ▭ Delineated Surface Water
- Delineated Wetland Boundary
- ▭ Approximated Wetland
- ▭ Delineated Wetland
- ▭ County Boundary

Data Sources: EOT, ESRI, NC OneMap, TRC, USGS  
 Basemap: Published Soil Survey Maps

1 inch = 500 feet  
 When Printed 11x17



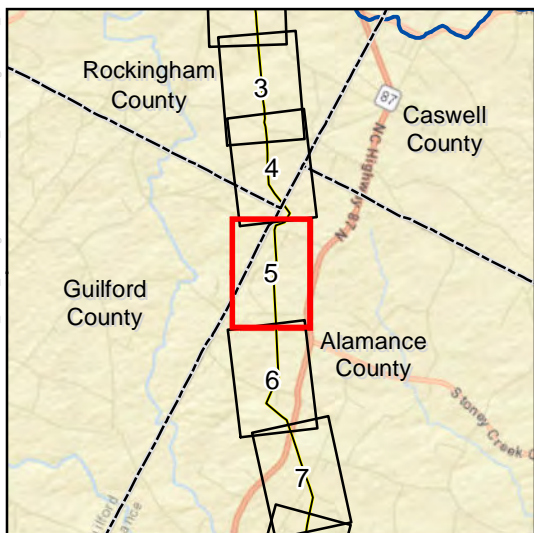
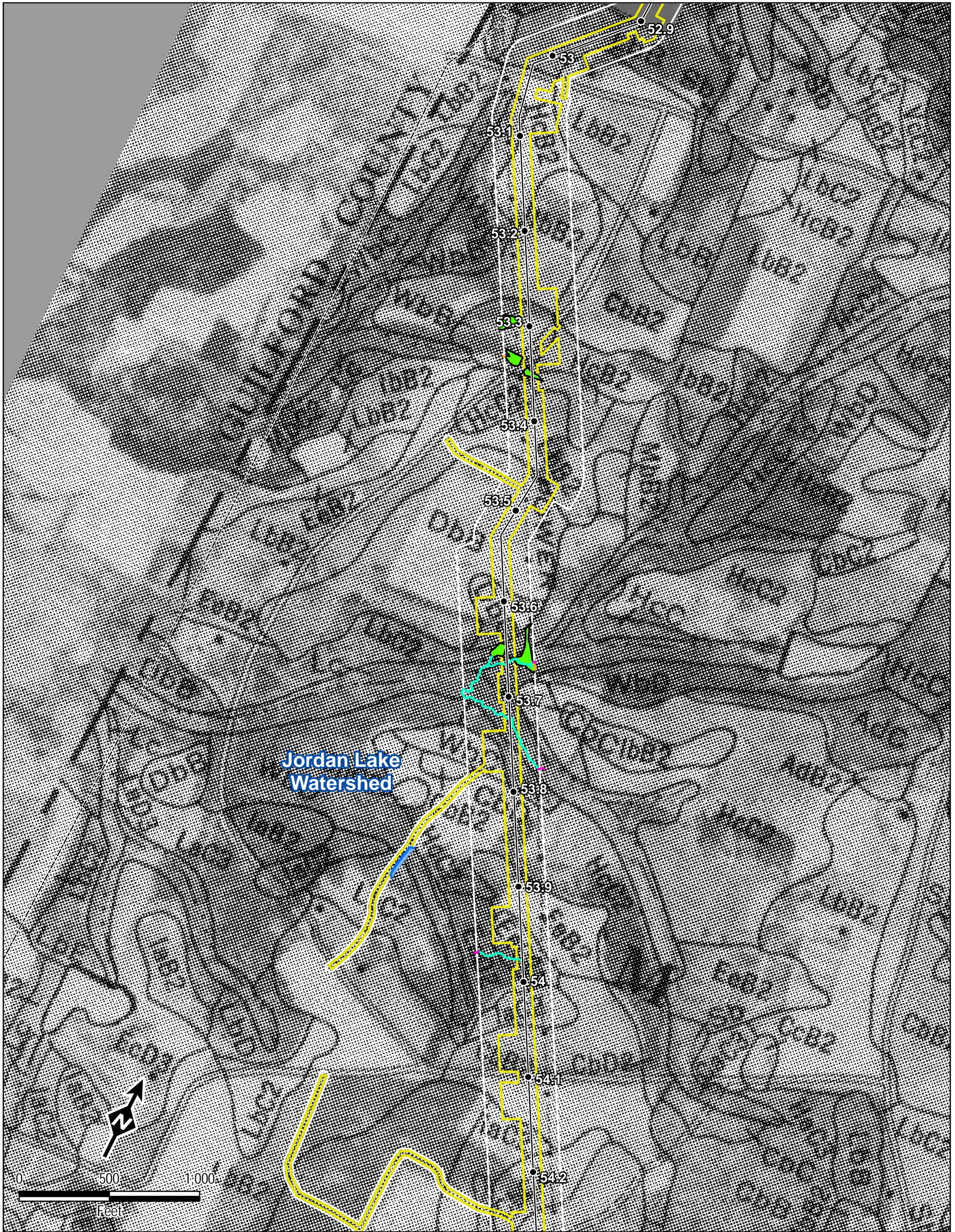
**Section 404/401 Permit Application**

Jordan Lake Watershed  
 Published Soil Survey  
 Response to Additional Information  
 Rockingham, Guilford, & Alamance Counties, NC  
 Sheet 4 of 22



600 Willowbrook Ln  
 West Chester, PA 19382  
 Date: February 2019





**Legend**

- Mileposts
- H-650 Pipeline
- ▭ Limits of Construction Right-of-Way
- ▭ Survey Area
- State Removed Resources
- Approximated Soil Survey Stream
- Approximated Surface Water Top Of Bank
- Approximated Stream Centerline
- Delineated Surface Water Top Of Bank
- Delineated Stream Centerline
- Approximated Surface Water
- Delineated Surface Water
- Delineated Wetland Boundary
- Approximated Wetland
- Delineated Wetland
- ▭ County Boundary

Data Sources: EQT, ESRI, NC OneMap, TRC, USGS  
 Basemap: Published Soil Survey Maps

1 inch = 500 feet  
 When Printed 11x17

**Mountain Valley**  
 PIPELINE LLC

**Section 404/401 Permit Application**

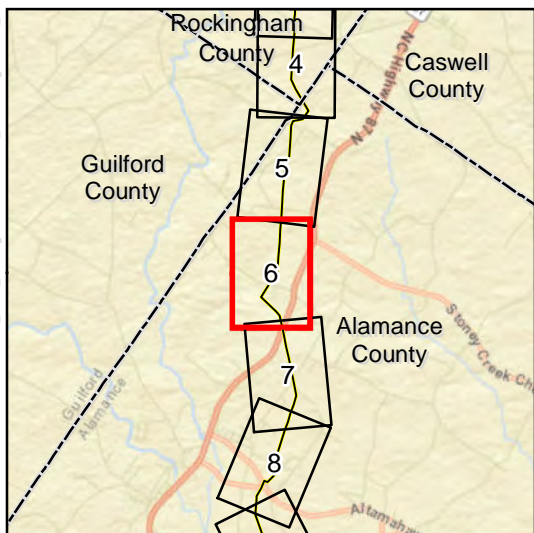
Jordan Lake Watershed  
 Published Soil Survey  
 Response to Additional Information

Alamance County, NC  
 Sheet 5 of 22

**TRC**  
 Results you can rely on

600 Willowbrook Ln  
 West Chester, PA 19382  
 Date: February 2019





**Legend**

- Mileposts
- H-650 Pipeline
- ▭ Limits of Construction Right-of-Way
- ▭ Survey Area
- State Removed Resources
- Approximated Soil Survey Stream
- Approximated Surface Water Top Of Bank
- Approximated Stream Centerline
- Delineated Surface Water Top Of Bank
- Delineated Stream Centerline
- ▭ Approximated Surface Water
- ▭ Delineated Surface Water
- Delineated Wetland Boundary
- ▭ Approximated Wetland
- ▭ Delineated Wetland
- ▭ County Boundary

Data Sources: EQT, ESRI, NC OneMap, TRC, USGS  
 Basemap: Published Soil Survey Maps

1 inch = 500 feet  
 When Printed 11x17



**Section 404/401 Permit Application**

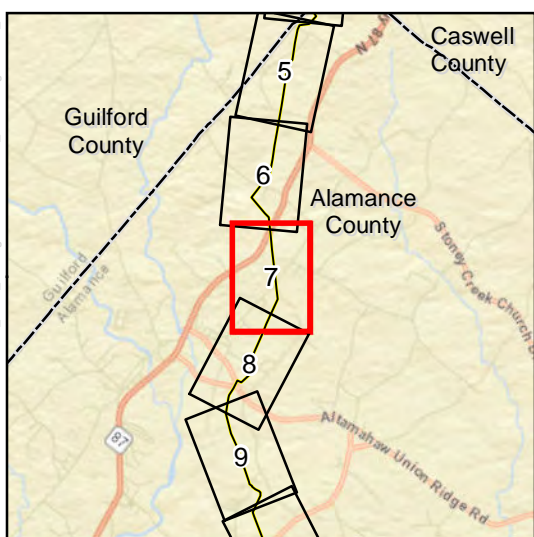
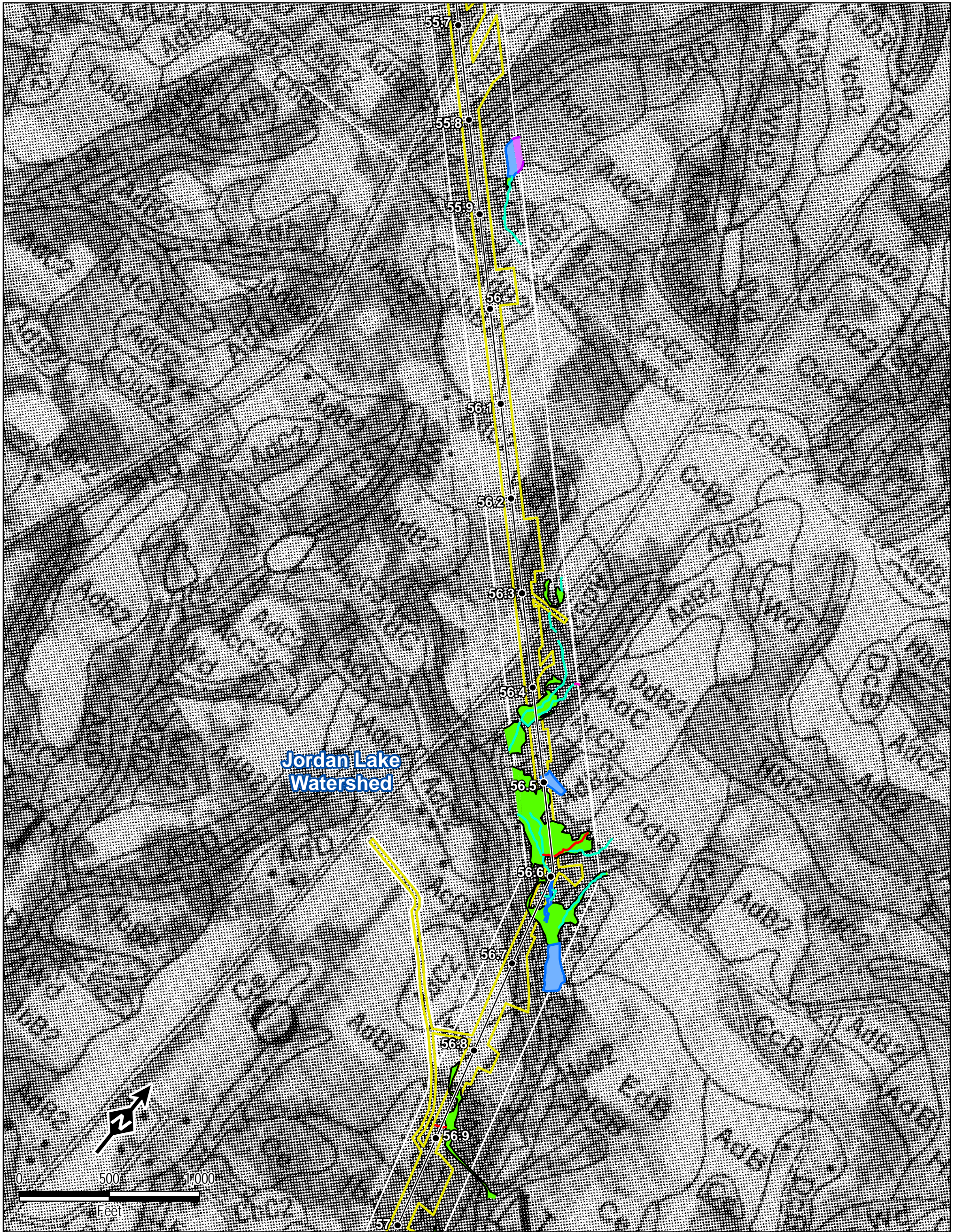
Jordan Lake Watershed  
 Published Soil Survey  
 Response to Additional Information

Alamance County, NC  
 Sheet 6 of 22



600 Willowbrook Ln  
 West Chester, PA 19382  
 Date: February 2019





**Legend**

- Mileposts
- H-650 Pipeline
- ▭ Limits of Construction Right-of-Way
- ▭ Survey Area
- State Removed Resources
- Approximated Soil Survey Stream
- Approximated Surface Water Top Of Bank
- Approximated Stream Centerline
- Delineated Surface Water Top Of Bank
- Delineated Stream Centerline
- ▭ Approximated Surface Water
- ▭ Delineated Surface Water
- ▭ Delineated Wetland Boundary
- ▭ Approximated Wetland
- ▭ Delineated Wetland
- ▭ County Boundary

Data Sources: EOT, ESRI, NC OneMap, TRC, USGS  
 Basemap: Published Soil Survey Maps

1 inch = 500 feet  
 When Printed 11x17

**Mountain Valley PIPELINE LLC**

**Section 404/401 Permit Application**

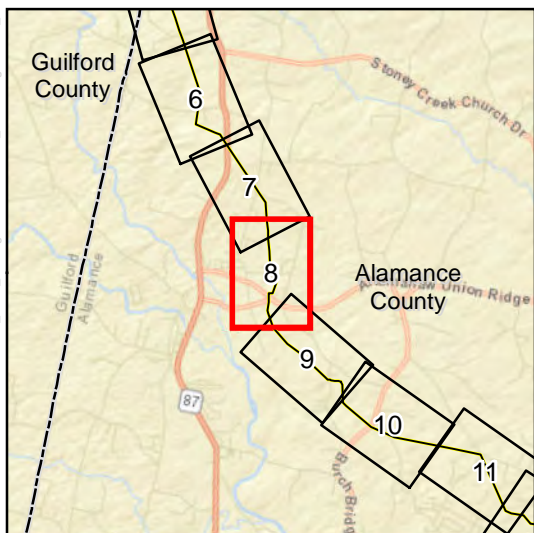
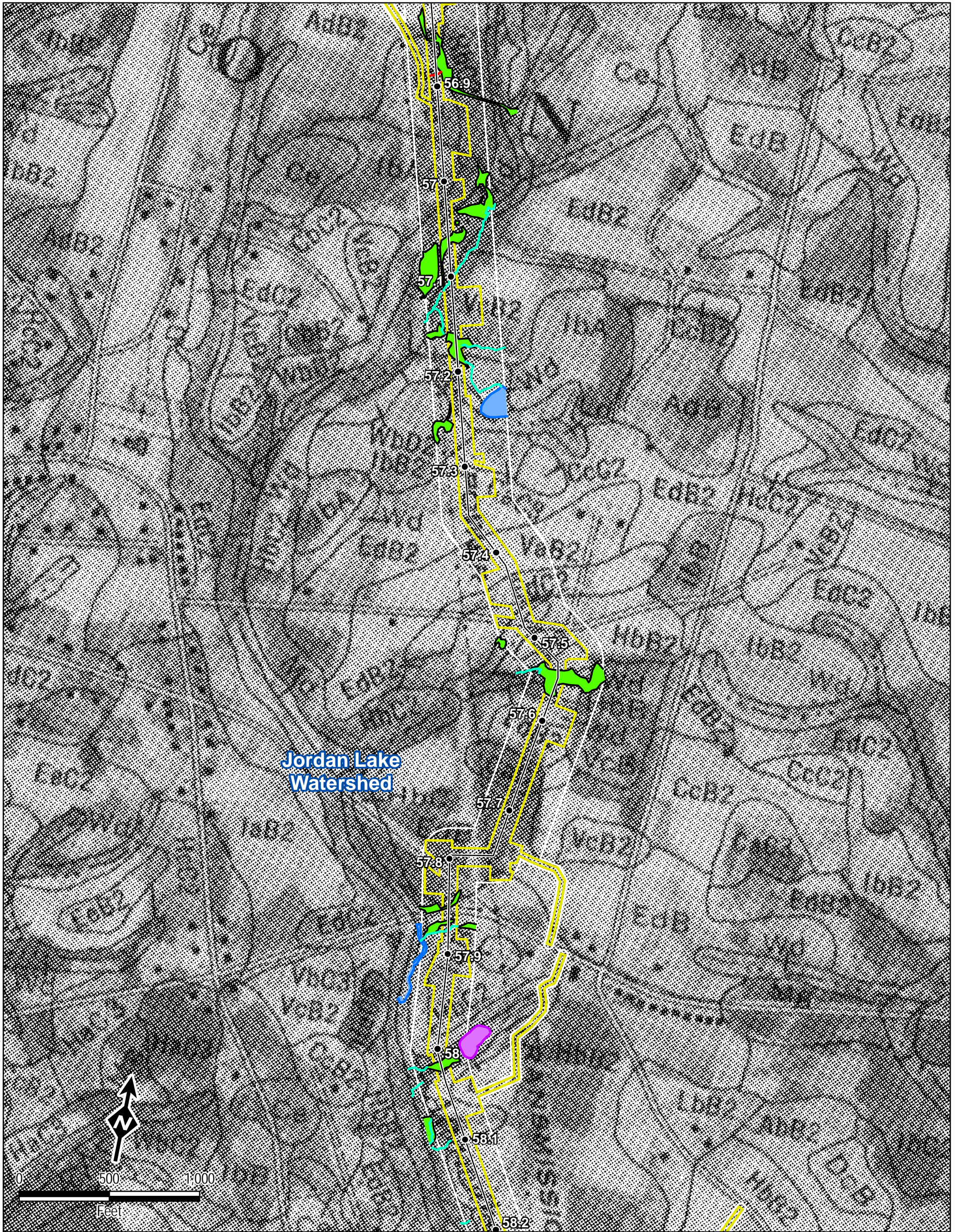
Jordan Lake Watershed  
 Published Soil Survey  
 Response to Additional Information

Alamance County, NC  
 Sheet 7 of 22

**TRC**  
 Results you can rely on

600 Willowbrook Ln  
 West Chester, PA 19382  
 Date: February 2019





**Legend**

- Mileposts
- H-650 Pipeline
- ▭ Limits of Construction Right-of-Way
- ▭ Survey Area
- State Removed Resources
- Approximated Soil Survey Stream
- Approximated Surface Water Top Of Bank
- Approximated Stream Centerline
- Delineated Surface Water Top Of Bank
- Delineated Stream Centerline
- ▭ Approximated Surface Water
- ▭ Delineated Surface Water
- Delineated Wetland Boundary
- ▭ Approximated Wetland
- ▭ Delineated Wetland
- ▭ County Boundary

Data Sources: EQT, ESRI, NC OneMap, TRC, USGS  
 Basemap: Published Soil Survey Maps

1 inch = 500 feet  
 When Printed 11x17

**Mountain Valley PIPELINE LLC**

**Section 404/401 Permit Application**

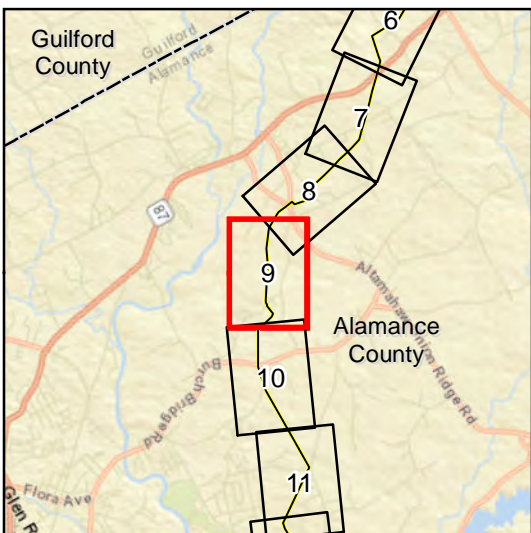
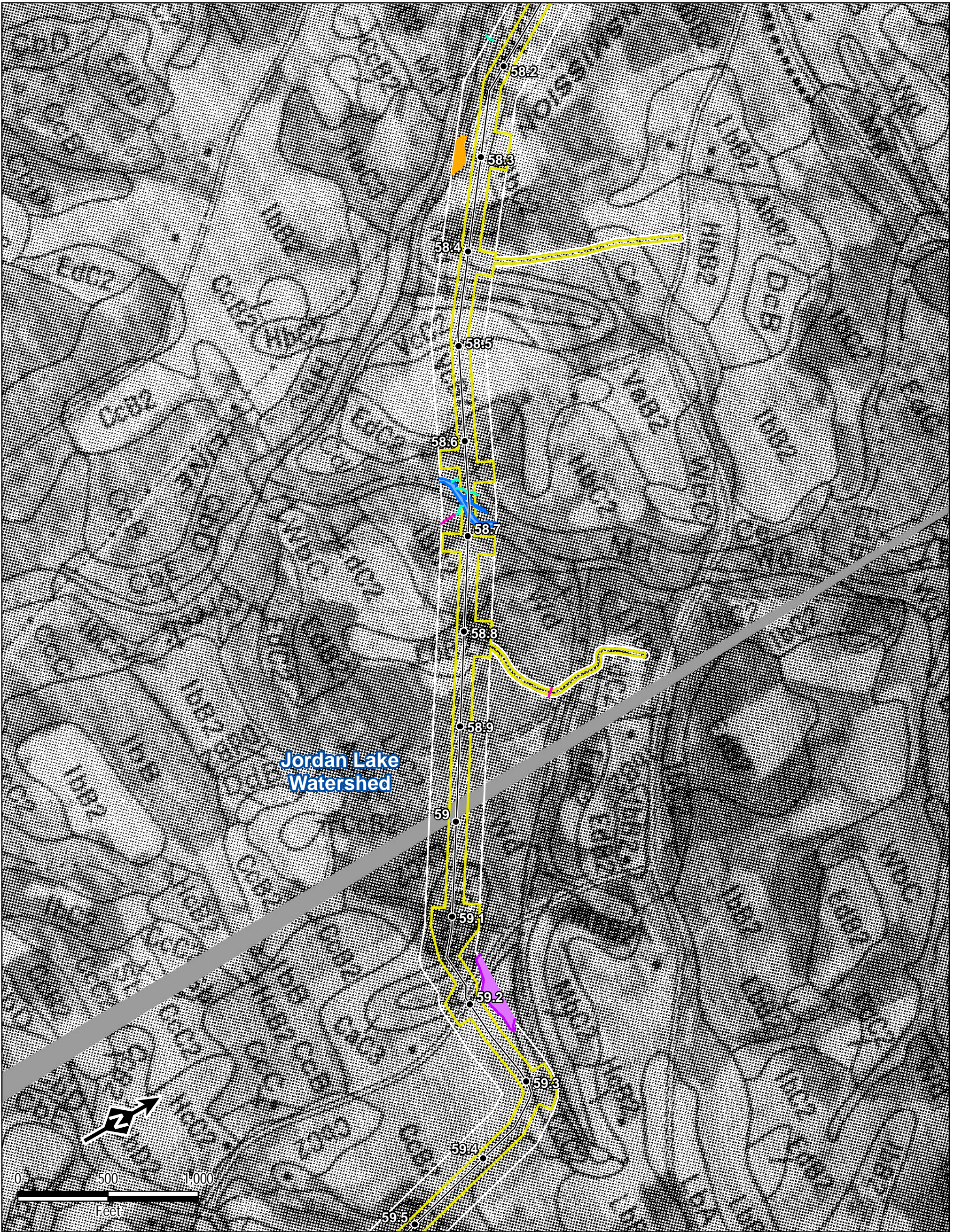
Jordan Lake Watershed  
 Published Soil Survey  
 Response to Additional Information

Alamance County, NC  
 Sheet 8 of 22

**TRC**  
 Results you can rely on

600 Willowbrook Ln  
 West Chester, PA 19382  
 Date: February 2019





**Legend**

- Mileposts
- H-650 Pipeline
- ▭ Limits of Construction Right-of-Way
- ▭ Survey Area
- State Removed Resources
- Approximated Soil Survey Stream
- Approximated Surface Water Top Of Bank
- Approximated Stream Centerline
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- ▭ Delineated Surface Water
- Delineated Wetland Boundary
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- ▭ Delineated Wetland
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Data Sources: EQT, ESRI, NC OneMap, TRC, USGS  
 Basemap: Published Soil Survey Maps

1 inch = 500 feet  
 When Printed 11x17



**Section 404/401 Permit Application**

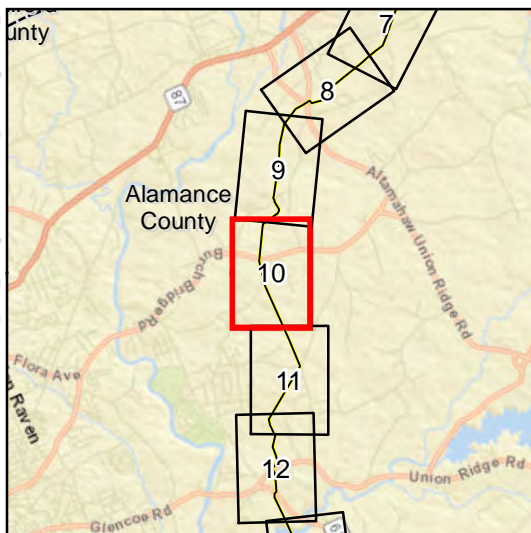
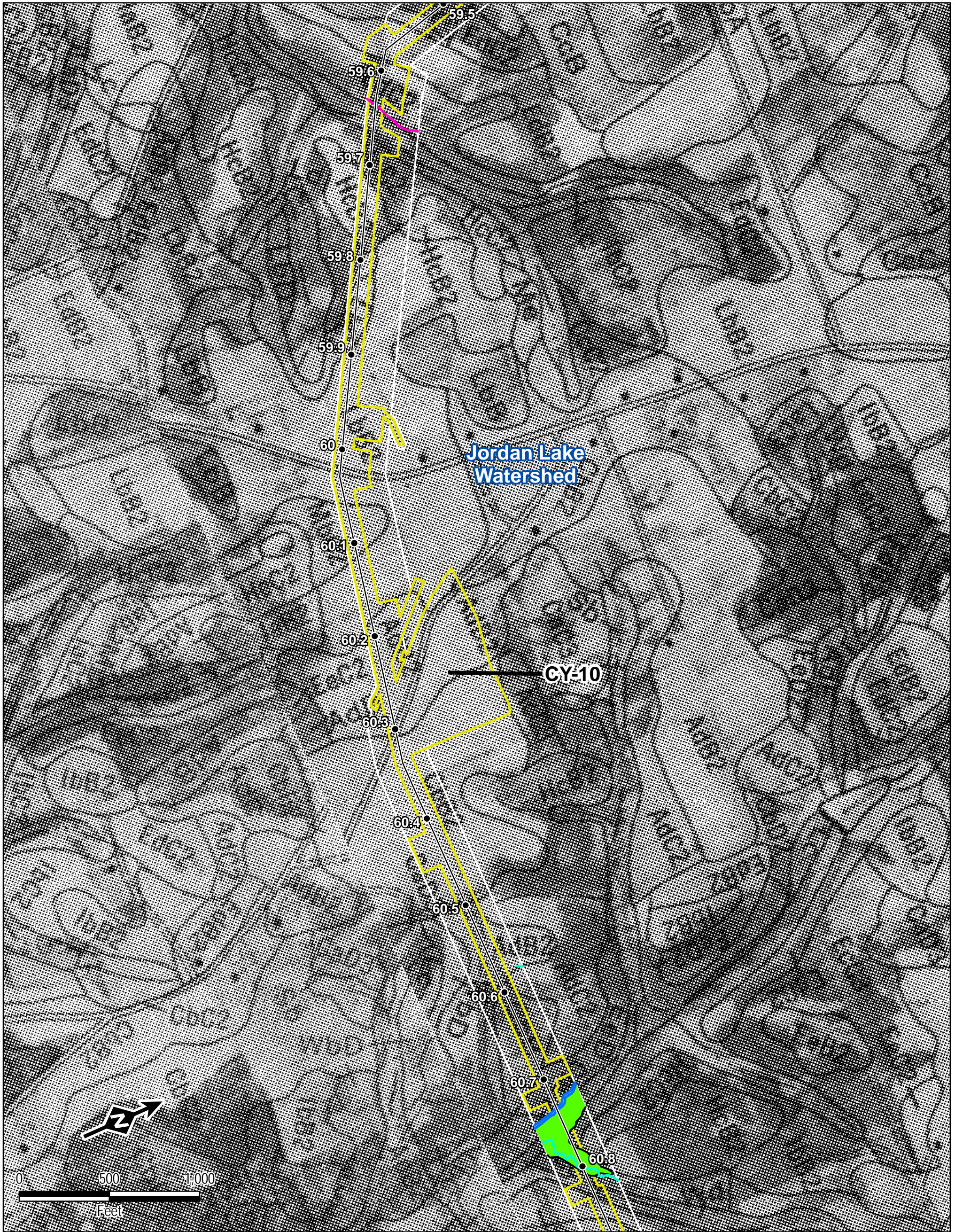
Jordan Lake Watershed  
 Published Soil Survey  
 Response to Additional Information

Alamance County, NC  
 Sheet 9 of 22



600 Willowbrook Ln  
 West Chester, PA 19382  
 Date: February 2019





**Legend**

- Mileposts
- H-650 Pipeline
- ▭ Limits of Construction Right-of-Way
- ▭ Survey Area
- State Removed Resources
- Approximated Soil Survey Stream
- Approximated Surface Water Top Of Bank
- Approximated Stream Centerline
- Delineated Surface Water Top Of Bank
- Delineated Stream Centerline
- Approximated Surface Water
- Delineated Surface Water
- Delineated Wetland Boundary
- Approximated Wetland
- Delineated Wetland
- ▭ County Boundary

Data Sources: EQT, ESRI, NC OneMap, TRC, USGS  
 Basemap: Published Soil Survey Maps

1 inch = 500 feet  
 When Printed 11x17



**Section 404/401 Permit Application**

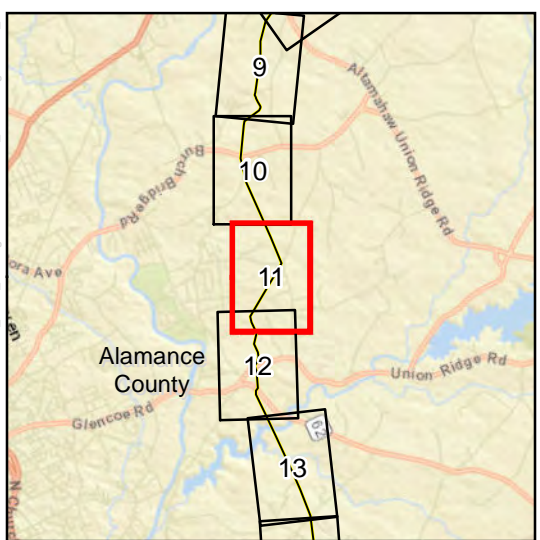
Jordan Lake Watershed  
 Published Soil Survey  
 Response to Additional Information

Alamance County, NC  
 Sheet 10 of 22



600 Willowbrook Ln  
 West Chester, PA 19382  
 Date: February 2019





**Legend**

- Mileposts
- H-650 Pipeline
- ▭ Limits of Construction Right-of-Way
- ▭ Survey Area
- State Removed Resources
- Approximated Soil Survey Stream
- Approximated Surface Water Top Of Bank
- Approximated Stream Centerline
- Delineated Surface Water Top Of Bank
- Delineated Stream Centerline
- ▭ Approximated Surface Water
- ▭ Delineated Surface Water
- Delineated Wetland Boundary
- ▭ Approximated Wetland
- ▭ Delineated Wetland
- ▭ County Boundary

Data Sources: EOT, ESRI, NC OneMap, TRC, USGS  
 Basemap: Published Soil Survey Maps

1 inch = 500 feet  
 When Printed 11x17

**Mountain Valley PIPELINE LLC**

**Section 404/401 Permit Application**

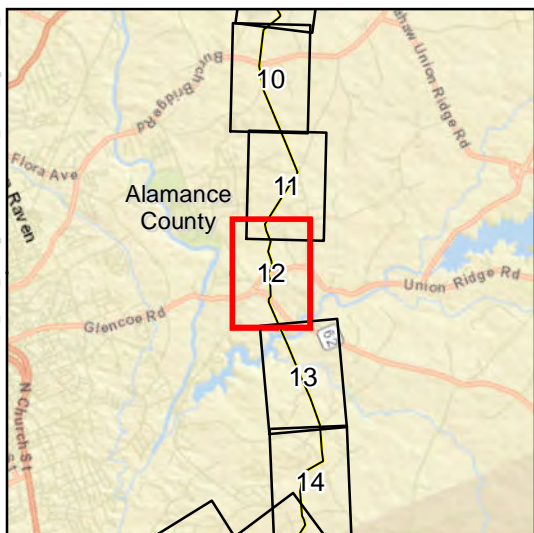
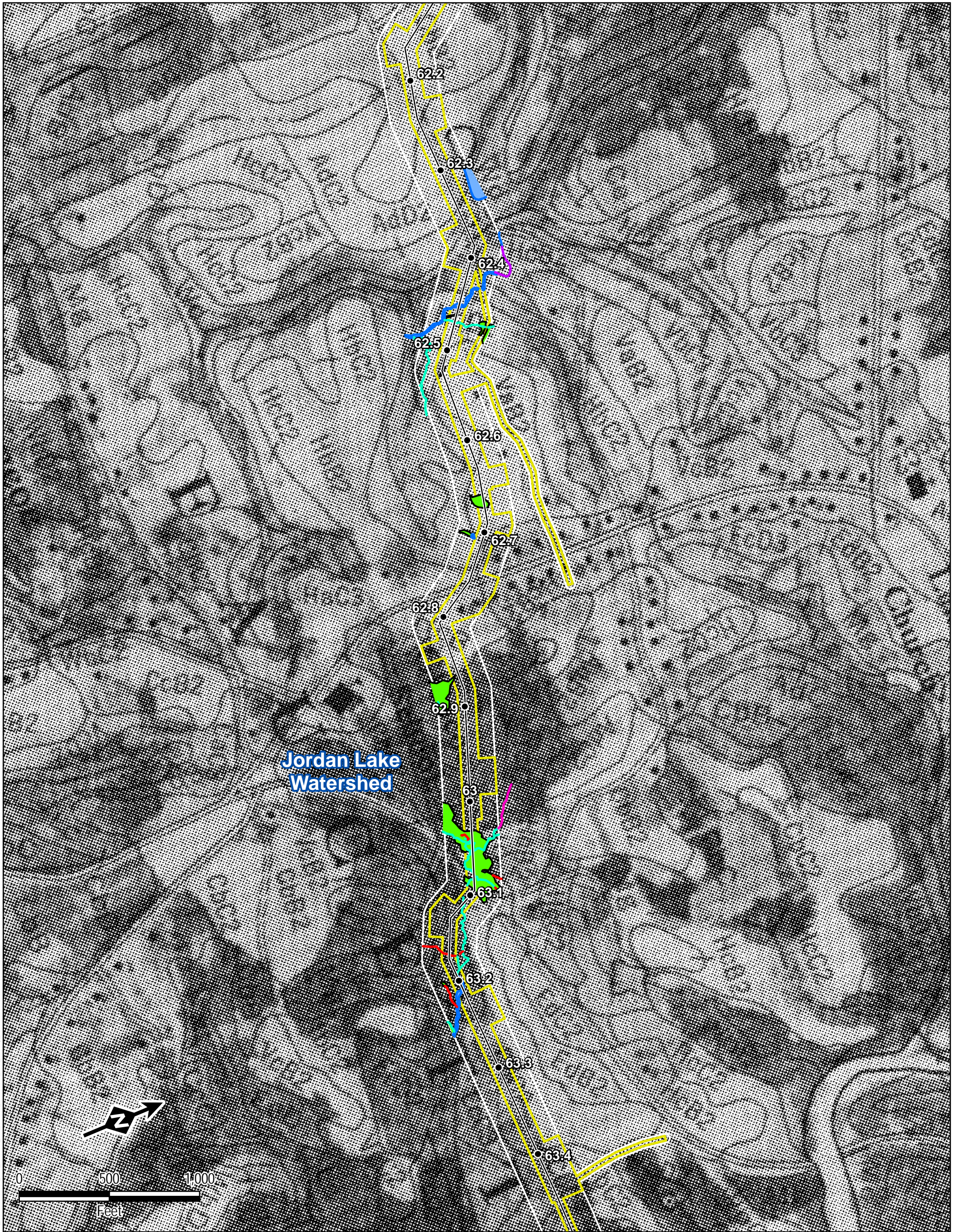
Jordan Lake Watershed  
 Published Soil Survey  
 Response to Additional Information

Alamance County, NC  
 Sheet 11 of 22

**TRC**  
 Results you can rely on

600 Willowbrook Ln  
 West Chester, PA 19382  
 Date: February 2019





**Legend**

● Mileposts	— Delineated Surface Water Top Of Bank
— H-650 Pipeline	— Delineated Stream Centerline
▭ Limits of Construction Right-of-Way	▭ Approximated Surface Water
▭ Survey Area	▭ Delineated Surface Water
— State Removed Resources	— Delineated Wetland Boundary
— Approximated Soil Survey Stream	▭ Approximated Wetland
— Approximated Surface Water Top Of Bank	▭ Delineated Wetland
— Approximated Stream Centerline	▭ County Boundary

Data Sources: EOT, ESRI, NC OneMap, TRC, USGS  
 Basemap: Published Soil Survey Maps

1 inch = 500 feet  
 When Printed 11x17

**Mountain Valley PIPELINE LLC**

**Section 404/401 Permit Application**

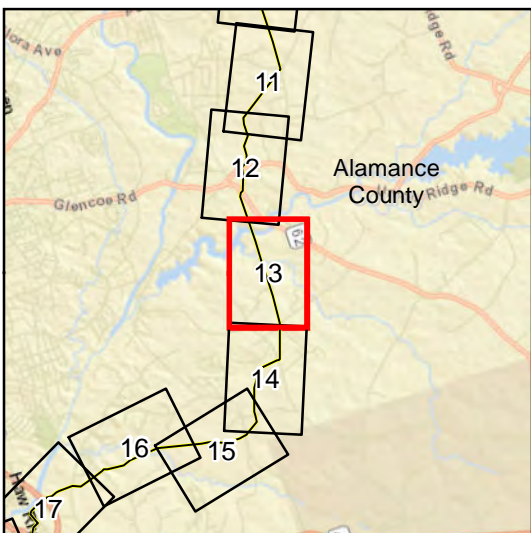
Jordan Lake Watershed  
 Published Soil Survey  
 Response to Additional Information

Alamance County, NC  
 Sheet 12 of 22

**TRC**  
 Results you can rely on

600 Willowbrook Ln  
 West Chester, PA 19382  
 Date: February 2019





**Legend**

- Mileposts
- H-650 Pipeline
- ▭ Limits of Construction Right-of-Way
- ▭ Survey Area
- ▭ State Removed Resources
- ▭ Approximated Soil Survey Stream
- ▭ Approximated Surface Water Top Of Bank
- ▭ Approximated Stream Centerline
- ▭ Delineated Surface Water Top Of Bank
- ▭ Delineated Stream Centerline
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- ▭ Delineated Wetland Boundary
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Data Sources: EQT, ESRI, NC OneMap, TRC, USGS  
 Basemap: Published Soil Survey Maps

1 inch = 500 feet  
 When Printed 11x17

**Mountain Valley**  
 PIPELINE LLC

**Section 404/401 Permit Application**

Jordan Lake Watershed  
 Published Soil Survey  
 Response to Additional Information

Alamance County, NC  
 Sheet 13 of 22

**TRC**  
 Results you can rely on

600 Willowbrook Ln  
 West Chester, PA 19382  
 Date: February 2019