

Final Draft Mitigation Plan

RES Randleman Group A

Randolph County, North Carolina

Cape Fear River Basin

HUC 03030003



DMS Project #: 100046 (Contract #: 7427)

DWR Project #s: 2018-1330

RFP #16-007242

Prepared for:

NC Department of Environmental Quality
Division of Mitigation Services
1652 Mail Service Center
Raleigh, NC 27699-1652

Prepared by:

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January 2019

Mitigation Plan Checklist for Riparian Restoration Mitigation Sites –created 7/15/13

- ☒ DWR Stream Determination
- ☒ DWR Site Viability Letter
- ☒ Site Location
 - ☒ Directions including Lat & Long
 - ☒ 8-digit HUC &/or 14 digit (if applicable)
 - ☒ County
 - ☒ EMC approved Soil map, Topo and Aerial Maps
 - ☒ Sub-watershed where applicable

Project Name:
<u>Bandleman Group A</u>
Reviewed By:
<u>Kate Merritt (DWR)</u>
DWR # <u>2018-1330</u>
Date <u>11/2/18</u>

- ☒ Existing Site Conditions w/ photos *photos dated Spring 2018, please add text indicating any changes since letter*
- ☒ All proposed mitigation activities, including a brief summary of stream and/or wetland mitigation w/ *dates in*
a detailed planting plan *See comments* *2.3.3, 3.3.3, 4.3.3*

- See comments* ☒ Monitoring & Maintenance Plan *- DMS Template, need to provide monitoring plot locations figure for each site.*
- ☒ Financial Assurance (if applicable) *will provide to DMS*
- ☒ Associated buffer and/or nutrient offset credit calcs, which shall include credit generation, service

area, etc.

- ☐ Credit Determination Table/Map *Request adjustments to Required assets are needed. See comments*

- ☒ Verification that the site does not have an impact on threatened or endangered species
- ☒ Verification that the site is not affected by on-site or nearby sources of contamination as provided by Environmental Data Resources, Inc.

- ☒ Verification that the site can be constructed on land if it is an archaeological site;
- ☒ A list of all permits that will be required and obtained prior to constructing the mitigation site for nutrient offset and/or buffer mitigation (e.g. Sediment and Erosion Control Plan from Division of Land Resources, NCG010000 Stormwater Permit from NCDWQ, 404 permit from the Army Corps of Engineers and corresponding 401 Water Quality Certification from NCDWQ).

** Conservation Easement Template needs to be updated to reference DEQ ("formerly DEWR")*
** Div. of Water Resources ("formerly DWQ") throughout*

provided by the Cal Ex forms.

none needed

DWR staff (Katie Merritt) Comments:

1. General comments
 - a. The DWR Project# for this mitigation site is # 2018-1330
 - b. DWR requests that a figure be provided showing proposed monitoring plot locations on each site. When preparing those figures, please note that where Enhancement & Restoration are being provided under 0295 (n), a plot should represent that area. For Enhancement areas provided under 0295 (6) (cattle exclusion), no plots are required.
2. Section 1.2: The conservation easement template needs to be updated to reference DEQ (Formerly DENR) and Division Water Resources (Formerly DWQ).
3. Section 1.3: The photos provided with this mitigation plan are not as recent as we would recommend providing to show existing conditions. Some photos are dated 2016. Therefore, please describe any changes in site conditions or land uses since the time of the stream determinations and site viability assessments for each site.
4. Section 1.4.1 –
 - a. Figure 6 provided with the Cat.Ex. documentation shows a proposed fence line around Sunbeam. Is this fence line accurate? If so, there does not appear to be fencing along the right bank of ZF2, where cattle were observed during the site viability assessment.
5. Section 1.4.2 –
 - a. 3rd paragraph, last sentence: rephrase sentence to read as follows: Note that Restoration and Enhancement areas were also determined by the mitigation determination performed during the viability assessment by DWR
6. Section 1.4.3 –
 - a. To follow the same practices as all other buffer mitigation providers, please commit to collecting vegetation data no earlier than late August of each year. We recommend this practice because it provides a more accurate reflection of mortality in planted stems than if taken earlier in the growing season.
7. Section 1.4.4 –
 - a. Confirm the “entire sunbeam site easement boundary will be fenced” by providing a figure representative of the fencing.
8. Section 1.5.1 – 1st paragraph:
 - a. Add that plots “will be representative of the riparian buffer restoration *and enhancement areas where applicable*”. This is necessary to include since some of the Enhancement areas are not just areas where cattle are being excluded. Some areas were deemed Enhancement in the viability letter because they needed to be supplemental planted to meet stem density.
 - b. Reference the plot maps requested to be provided in previous comments

Pequod

9. Section 2.3.4

- a. Text implies that the easements will comply with the Rule 0295 (l)(4). Figure 5 shows where the easement is in Zone 1 along BF1 but doesn't show where it lies along BF3. Please provide a figure showing where the easement crosses within Zone 1 and Zone 2 of the buffer along BF3 for DWR to determine if it complies with the Rule.
- b. 2nd paragraph: Explain why agricultural crossings are necessary at this site.
- c. 0295 (l)(4)(B) states that the sewer easement is required to be maintained in a condition that meets the vegetative requirements of the collection system permit. This usually means that the vegetation must be maintained such that the permittee can access/maintain the sewer line. Figure 5 (concept map) shows this area as being planted to generate buffer restoration credits, which likely will conflict with the permittee's ability to access & maintain the sewer line. Please explain how RES will comply with this part of the Rule.
- d. Please provide information on who is maintaining the gas easement & sanitary sewer easement.
- e. Please provide documentation where RES has contacted the appropriate permittees regarding their easements. Include any correspondence between permittees and RES pertinent to this mitigation plan.

10. Section 2.4.2 – 4th paragraph

- a. text states that enhancement areas “will include supplemental planting as needed”. The viability letter provides where areas of Enhancement under 0295 (n) were determined. These areas are required to be supplemented with additional trees based on their conditions at the time of the DWR site visit. Therefore, please remove “as needed” from the statement above.
- b. Since no cattle exclusion via the installation of fencing is occurring on this site, RES cannot claim Enhancement credits at 2:1 under the Rule 0295 (o)(6). Therefore, forested areas along BF1 qualify as Preservation at 10:1 and not Enhancement at 2:1. Adjust the assets accordingly and update all figures and tables.
- c. All areas adjacent to BF4 were determined to be “Enhancement” at 2:1 in the viability letter and not Restoration at 1:1. Please adjust assets accordingly and update all figures and tables. Where RES insists areas meet 1:1 for Restoration, RES must provide proper photo documentation along with supporting transect data for DWR review prior to approval. Multiple transects will need to be conducted with data including species composition, height, DBH, and quantity. Photos must clearly represent the transect being conducted and stems must be flagged to be observed in the photo.
- d. Where *Ailanthus altissima* will be removed and the area replanted with native species, RES needs to prepare for a rigorous invasive management plan.

11. Section 2.5, Table 9

- a. Show BF4 as an ephemeral channel
- b. show the acreage of mitigation generated on the ephemeral channel, BF4, as separate areas from the overall acreage. It is recommended that a row be added to this table or a separate table to accommodate for this
- c. Reference the 25% cap for ephemerals under the table (Rule 0295 (o)(7))
- d. Preservation – see comment 9(b)
- e. Please add a column for “Acres” to the right of the “Buffer Width” column and to the right of the “Riparian Buffer Credits (BMU)” column and show each acreage (to the hundredths). It’s the acreage of buffer credits that are used to determine the Eligible Preservation Area, not square footage.

12. Asset Table Appendix F

- a. The Ephemeral channel needs to be shown
- b. Add the rule reference for Ephemerals where the 25% cap was applied
- c. There should be credits in the Preservation table (see comment 9(b))
- d. Assets will likely need to be revised based on comments in #9 above.
- e. I recommend using your Preservation table as the template for the Ephemeral Table. Showing the “eligible ephemeral area” as well.

Schmid Creek

13. Section 3.3.3

- a. The viability letter was dated April 2017 and some of the photos provided in Appendix E are not as recent as DWR recommends when showing existing conditions. Some photos are dated Spring 2017. Therefore, please describe any changes in site conditions or land uses since the time of the stream determinations and site viability assessments for the site.

14. Section 3.5 Table 11:

- a. Please add a column for “Acres” to the right of the “Buffer Width” column and to the right of the “Riparian Buffer Credits (BMU)” column and show each acreage (to the hundredths).

Sunbeam

15. Section 4.2:

- a. Ditch X as referenced in the Viability letter was not addressed in this mitigation plan. Please explain how diffused flow will be maintained through the restored buffer along ZF1 with Ditch X present.
- b. See comment 4(a) and explain how cows will be unable to access the newly restored buffer along ZF2.

16. Section 4.3.3

- a. The viability letter was dated March 2018 and some of the photos provided in Appendix E are not as recent as DWR recommends when showing existing conditions. Some photos are dated Summer 2016. Therefore, please describe any changes in site conditions or land uses since the time of the stream determinations and site viability assessments for the site.

17. Section 4.4.1

- a. Address Ditch X as referenced in the viability letter
- b. RES implies that no 404/401 permit is needed for the stream impacts. However, no response was provided in the mitigation plan from the USACE to Mr. Breslow. Please provide correspondence from the USACE & DWR that no 404 or 401 permits will be required.

18. Section 4.5 Table 13:

- a. Please add a column for “Acres” to the right of the “Buffer Width” column and to the right of the “Riparian Buffer Credits (BMU)” column and show each acreage (to the hundredths).

MEMORANDUM



302 Jefferson Street, Suite 110

Raleigh, North Carolina 27605

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919.829.9913 fax

TO: Katie Merritt, NCDWR and NCDMS

FROM: Brad Breslow - RES

DATE: January 31, 2018

**Response to Randleman Group A Comments received from NCDWR
DMS Project #: 100046 (Contract #: 7427)
DWR Project Number: 2018-1330**

In addition to changes made to the Project Sites based on the comments below, there was also a minor revision to the easement of the Sunbeam Site that resulted from finalizing the closing on the easement. Due to unforeseen circumstances with one of the landowners and the difficulties with the current federal government operation status, RES in conjunction with DMS, determined it was best for the success of the project that a small parcel on the northwest side of the western section of the easement be removed from the Site. This resulted in a loss of 16,936.240 buffer mitigation units. Due to the removal of this section of the easement a very small piece of the buffer along ZF1 now has a buffer that is less than 30 feet but greater than 20 feet and therefore will only receive 75 percent of the credit in that area (see **Sunbeam Figure 5**).

1) General comments

- a. The DWR Project# for this mitigation site is # 2018-1330

[The Project # throughout the document has been updated with this project #.](#)

- b. DWR requests that a figure be provided showing proposed monitoring plot locations on each site. When preparing those figures, please note that where Enhancement & Restoration are being provided under 0295 (n), a plot should represent that area. For Enhancement areas provided under 0295 (6) (cattle exclusion), no plots are required.

[Pequod Figure 4, Schmid Creek Figure 4 and Sunbeam Figure 4 were added to show the proposed monitoring plot locations. Note that for the Pequod site, Enhancement provided under 15A NCAC 02B .0295 \(n\) accounts for .84 acres; therefore, one vegetation monitoring plot is proposed within the Enhancement area along the downstream end of BF3. The remainder of the site is Restoration provided under 15A NCAC 02B .0295 \(n\); therefore, 16 vegetation monitoring plots are proposed within Restoration areas. In total, there will be 17 vegetation plots at the Pequod site. This update is reflected in Section 1.5.1.](#)

- 2) Section 1.2: The conservation easement template needs to be updated to reference DEQ (Formerly DENR) and Division Water Resources (Formerly DWQ).

[Per the DMS Director's email to DWR, a revised Conservation Easement template is pending approval by the State Property Office and the Attorney General's Office and following their](#)

approval it will be sent to the IRT for their review and approval as well. Until these agencies provide their approval, the Conservation Easement template will remain as is.

- 3) Section 1.3: The photos provided with this mitigation plan are not as recent as we would recommend providing to show existing conditions. Some photos are dated 2016. Therefore, please describe any changes in site conditions or land uses since the time of the stream determinations and site viability assessments for each site.

Many of the photos are from Spring of 2018 and still represent the current land use. However, a brief description was added to each Site to clarify that land use has not changed since 2016.

- 4) Section 1.4.1 –

- a. Figure 6 provided with the Cat.Ex. documentation shows a proposed fence line around Sunbeam. Is this fence line accurate? If so, there does not appear to be fencing along the right bank of ZF2, where cattle were observed during the site viability assessment.

The fence line in the Cat Ex document is correct. There will not be a fence line on the right bank of ZF2 because that area is not in the easement, however there is an already existing fence line along the left bank of ZF2 that will be kept to ensure cattle are not present within the protected buffer.

- 5) Section 1.4.2 –

- a. 3rd paragraph, last sentence: rephrase sentence to read as follows: Note that Restoration and Enhancement areas were also determined by the mitigation determination performed during the viability assessment by DWR

The sentence “Restoration and Enhancement areas were also determined by the mitigation determination performed during the viability assessment by DWR (Appendix D).” was added after the last sentence to address this comment.

- 6) Section 1.4.3 –

- a. To follow the same practices as all other buffer mitigation providers, please commit to collecting vegetation data no earlier than late August of each year. We recommend this practice because it provides a more accurate reflection of mortality in planted stems than if taken earlier in the growing season.

The sentence “The vegetation data will be collected no earlier than late August of each year” was added to Section 1.4.3.

- 7) Section 1.4.4 –

- a. Confirm the “entire sunbeam site easement boundary will be fenced” by providing a figure representative of the fencing.

The conceptual map, **Sunbeam Figure 4**, was updated to show the fencing plan and Section 1.4.4 was revised to add the caveat that the fencing will only be around the easement sections in which cattle exclusion is needed. This is because there is no fencing needed for ZF4 because no cattle are present on that side of the highway.

- 8) Section 1.5.1 – 1st paragraph:

- a. Add that plots “will be representative of the riparian buffer restoration and enhancement areas where applicable”. This is necessary to include since some of the Enhancement areas are not just areas where cattle are being excluded. Some areas were deemed Enhancement in the viability letter because they needed to be supplemental planted to meet stem density.
-

The sentence “These plots will be randomly placed throughout the planted riparian buffer mitigation area and will be representative of the riparian buffer restoration **and enhancement** areas **where applicable**” was revised to include the bold text.

- b. Reference the plot maps requested to be provided in previous comments
After the sentence “The Pequod Site will have seventeen (17) monitoring plots, the Schmid Creek site will have eight (8) monitoring plots, and the Sunbeam Site will have twelve (12) monitoring plots” the parenthesis “(see **Pequod Figure 4, Schmid Creek Figure 4 and Sunbeam Figure 4**)” was added.

Pequod

9) Section 2.3.4

- a. Text implies that the easements will comply with the Rule 0295 (l)(4). Figure 5 shows where the easement is in Zone 1 along BF1 but doesn’t show where it lies along BF3. Please provide a figure showing where the easement crosses within Zone 1 and Zone 2 of the buffer along BF3 for DWR to determine if it complies with the Rule.
The Map “**Figure 5. Existing Conditions**” was updated to include Zone 1 and Zone 2 to improve the ability to see where the sewer easement overlaps with what zone. The entire sewer easement was added to **Figure 5** as well.
 - b. 2nd paragraph: Explain why agricultural crossings are necessary at this site.
The use of agricultural crossing in Section 2.3.4 was inaccurate. The word agricultural was removed from this section. The breaks in easement will be due to the current gas easement and to allow for future land use.
 - c. 0295 (l)(4)(B) states that the sewer easement is required to be maintained in a condition that meets the vegetative requirements of the collection system permit. This usually means that the vegetation must be maintained such that the permittee can access/maintain the sewer line. Figure 5 (concept map) shows this area as being planted to generate buffer restoration credits, which likely will conflict with the permittee’s ability to access & maintain the sewer line. Please explain how RES will comply with this part of the Rule.
The Easement boundaries and crossings have been designed so that there are several access points for the permittee to access and maintain the sewer line. There is an access point in the corner, just southeast of the confluence of BF1 and BF3, as well as the crossing at BF1.
 - d. Please provide information on who is maintaining the gas easement & sanitary sewer easement.
The gas easement is Piedmont Natural Gas and the City of Archdale maintains the sanitary sewer easement. This information has been added to Section 2.3.4.
 - e. Please provide documentation where RES has contacted the appropriate permittees regarding their easements. Include any correspondence between permittees and RES pertinent to this mitigation plan.
Correspondence between RES and the City of Archdale has been provided in **Appendix C**. Additional information about correspondence between RES and the appropriate permittee is also provided in Section 2.3.4. RES has also been in verbal communication with Piedmont Natural Gas regarding their existing easement and will continue to be as construction activities occur.
-

10) Section 2.4.2 – 4th paragraph

- a. text states that enhancement areas “will include supplemental planting as needed”. The viability letter provides where areas of Enhancement under 0295 (n) were determined. These areas are required to be supplemented with additional trees based on their conditions at the time of the DWR site visit. Therefore, please remove “as needed” from the statement above.

The “as needed” language was removed from this sentence.

- b. Since no cattle exclusion via the installation of fencing is occurring on this site, RES cannot claim Enhancement credits at 2:1 under the Rule 0295 (o)(6). Therefore, forested areas along BF1 qualify as Preservation at 10:1 and not Enhancement at 2:1. Adjust the assets accordingly and update all figures and tables.

After further evaluation of the Site on December 4th, 2018, RES determined that a small area along BF1 could be considered enhancement. After further discussions with DWR, it was agreed upon that these areas could be used for enhancement under 15A NCAC 02B .0295 (n) with supplemental planting, instead of preservation at 10:1. The assets were adjusted accordingly to include this patch of enhancement.

- c. All areas adjacent to BF4 were determined to be “Enhancement” at 2:1 in the viability letter and not Restoration at 1:1. Please adjust assets accordingly and update all figures and tables. Where RES insists areas meet 1:1 for Restoration, RES must provide proper photo documentation along with supporting transect data for DWR review prior to approval. Multiple transects will need to be conducted with data including species composition, height, DBH, and quantity. Photos must clearly represent the transect being conducted and stems must be flagged to be observed in the photo.

RES conducted multiple transects on December 4th, 2018 and determined that the areas that were already determined to be enhancement should remain as enhancement, at the confluence of BF3 and BF4. And the other areas that were determined to be restoration should remain as restoration. The transect data and photographs have been added to **Appendix F** and further analysis of the results from the vegetation transects are provided in **Section 2.3**.

- d. Where *Ailanthus altissima* will be removed and the area replanted with native species, RES needs to prepare for a rigorous invasive management plan.

Language was added to **Section 2.4.2 Riparian Restoration and Enhancement Activities** to describe in more detail the invasive management plan for the treatment of *Alianthus altissima*. RES intends to visually inspect the areas that previously had *Alianthus altissima* during monitoring events and will re-spray any areas that show new sprouts in accordance to the maintenance plan in **Section 1.5.1**. If during monitoring events it is recommended that further action is required, a more rigorous invasive management plan will be developed.

11) Section 2.5, Table 9

- a. Show BF4 as an ephemeral channel

The description of BF4 was revised in Table 9 to clarify that BF4 is an ephemeral channel.

- b. show the acreage of mitigation generated on the ephemeral channel, BF4, as separate areas from the overall acreage. It is recommended that a row be added to this table or a separate table to accommodate for this
-

More explicit language about the allowable acreage of buffer generated on the ephemeral channel, BF4 was added to Table 9. A separate table was added to **Appendix G; Pequod Asset Table**.

- c. Reference the 25% cap for ephemerals under the table (Rule 0295 (o)(7))
This reference was added to the bottom of Table 9.
- d. Preservation – see comment 9(b)
As stated in 9 (b), after discussions with DWR and further evaluation, a small area is receiving enhancement treatment under 15A NCAC 02B .0295 (n) instead of preservation.
- e. Please add a column for “Acres” to the right of the “Buffer Width” column and to the right of the “Riparian Buffer Credits (BMU)” column and show each acreage (to the hundredths). It’s the acreage of buffer credits that are used to determine the Eligible Preservation Area, not square footage.
These columns were added.

12) Asset Table Appendix F

- a. The Ephemeral channel needs to be shown
The Ephemeral channel was removed from the main table and added as a separate table in the Asset Table. The subjectivity was removed and ephemeral was added to this column.
- b. Add the rule reference for Ephemerals where the 25% cap was applied
The rule reference for Ephemeral channels was added to the Asset Table.
- c. There should be credits in the Preservation table (see comment 9(b))
As stated in 9 (b), after discussions with DWR and further evaluation, a small area is receiving enhancement treatment under 15A NCAC 02B .0295 (n) instead of preservation.
- d. Assets will likely need to be revised based on comments in #9 above.
As stated in 9 (b), after discussions with DWR and further evaluation, a small area is receiving enhancement treatment under 15A NCAC 02B .0295 (n) instead of preservation.
The asset table was revised to reflect this.
- e. I recommend using your Preservation table as the template for the Ephemeral Table. Showing the “eligible ephemeral area” as well.
The Ephemeral channel Table was added as a separate table in the Asset Table.

Schmid Creek

13) Section 3.3.3

- a. The viability letter was dated April 2017 and some of the photos provided in Appendix E are not as recent as DWR recommends when showing existing conditions. Some photos are dated Spring 2017. Therefore, please describe any changes in site conditions or land uses since the time of the stream determinations and site viability assessments for the site.
The sentence “Since the existing conditions photographs found in Appendix E and the viability letter found in Appendix D, the land use conditions have not changed and remain actively grazed pasture” was added to Section 3.3.3 to describe any change in the existing conditions at the site currently.
-

14) Section 3.5 Table 11:

- a. Please add a column for “Acres” to the right of the “Buffer Width” column and to the right of the “Riparian Buffer Credits (BMU)” column and show each acreage (to the hundredths).

The acres columns were added to both the Creditable Area and the Riparian Buffer Credits.

Sunbeam

15) Section 4.2:

- a. Ditch X as referenced in the Viability letter was not addressed in this mitigation plan. Please explain how diffused flow will be maintained through the restored buffer along ZF1 with Ditch X present.

The sentence “there is also a ditch that discharges into ZF1. The ditch will be graded out and a diffuse flow structure will be built outside of the easement to ensure that diffuse flow of runoff is maintained within the riparian buffer” was added to Section 4.2.

- b. See comment 4(a) and explain how cows will be unable to access the newly restored buffer along ZF2.

The centerline of the stream is the property line and the conservation easement boundary. RES and DMS do not have control of the right bank. Although there will not be a fence line on the right bank of ZF2 because that area is not in the easement, there is currently an existing fence-line along the left bank of the stream to protect the riparian buffer that is proposed for restoration (**Sunbeam Figure 3**). **Sunbeam Figure 3** and **Sunbeam Figure 5** was updated to show this existing fence line.

16) Section 4.3.3

- a. The viability letter was dated March 2018 and some of the photos provided in Appendix E are not as recent as DWR recommends when showing existing conditions. Some photos are dated Summer 2016. Therefore, please describe any changes in site conditions or land uses since the time of the stream determinations and site viability assessments for the site. The sentence “Since the existing conditions photographs found in Appendix E and the viability letter found in Appendix D, the land use conditions have not changed and remain actively grazed pasture with a combination of mature hardwood forested areas” was added to explain whether there were any changes in existing conditions.

17) Section 4.4.1

- a. Address Ditch X as referenced in the viability letter

After further site evaluation, it was determined that Ditch X was not a feature of substantial drainage and therefore RES decided that it could be graded out and planted over. With the use of a diffuse flow structure on the outside of the easement, the diffuse flow will be maintained.

The sentence “In order to maintain diffuse flow in the riparian buffer, the ditch that drains to ZF1 will be graded out and a diffuse flow structure will be built along the boundary of the easement (**Sunbeam Figure 3**)” was added to section 4.4.1 to address Ditch X.

- b. RES implies that no 404/401 permit is needed for the stream impacts. However, no response was provided in the mitigation plan from the USACE to Mr. Breslow. Please provide correspondence from the USACE & DWR that no 404 or 401 permits will be required.
-

A buffer authorization approval was given by NCDEQ on January 23rd, 2019 and is found in **Appendix C**.

18) Section 4.5 Table 13:

- a. Please add a column for “Acres” to the right of the “Buffer Width” column and to the right of the “Riparian Buffer Credits (BMU)” column and show each acreage (to the hundredths).

The acres columns were added to both the Creditable Area and the Riparian Buffer Credits.

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Appendix F – Vegetation Survey Results at the Pequod Site
Appendix G – Buffer Project Area and Asset Tables

1 MITIGATION PROJECT SUMMARY

Environmental Banc & Exchange, LLC (“EBX”), a wholly-owned subsidiary of Resource Environmental Solutions (“RES”), is pleased to provide this Mitigation Plan for the RES Randleman Group A Riparian Buffer Mitigation Project (“Project”) as a full-delivery buffer mitigation project for the Division of Mitigation Services (“DMS”) (DMS #100046). The RES Randleman Group A includes three sites: Pequod, Sunbeam, and Schmid Creek (see **Project Service Area Map** and **Figures 1**). These Sites are designed to provide riparian buffer mitigation credits for unavoidable impacts due to development within the Randleman Lake Watershed of the Cape Fear River Basin, United States Geological Survey (USGS) 8-digit Hydrologic Unit Code (HUC – 03030003). This Mitigation Plan is in accordance with the Consolidated Buffer Mitigation Rule 15A NCAC 02B .0295 and the Randleman Lake Water Supply Watershed Buffer Rule 15A NCAC 02B .0250.

1.1 Project Overview

The Project will provide significant functional uplift to the watershed and will assist DMS with achieving its mitigation goals in the Randleman Lake Watershed. The Project presents the opportunity to provide up to 1,671,075.706 ft² (38.36 acres) of riparian buffer mitigation assets (**Table 1**). These will be derived from restoration, enhancement, and preservation of riparian buffers in the Randleman Lake Watershed.

Table 1. RES Randleman Group A Mitigation Assets

Site	Riparian Buffer Credits
Schmid Creek	273,737 ft ² (6.28 ac)
Pequod	811,335 ft ² (18.63 ac)
Sunbeam	586,003 ft ² (13.45 ac)
Total	1,671,075 ft² (38.36 ac)

The conservation easement of the three sites combined will total approximately 50 acres. Primary land use within the watershed is largely residential, agricultural, commercial and forested. The goal of the Project is to restore, enhance and preserve ecological function to the existing stream and riparian buffer by establishing appropriate plant communities while minimizing temporal and land disturbing impacts. Buffer improvements and the removal of livestock will help filter runoff from agricultural fields, thereby reducing nutrient and sediment loads to Project channels and the overall watershed. Restoration, enhancement and preservation of the Randleman Lake riparian buffer (as defined in 15A NCAC 02B .0250) is anticipated to result in a reduction of the water quality stressors currently affecting the Project: livestock access and a lack of riparian buffer. Immediate water quality benefits and pollutant removal within the vicinity of the Project will include the exclusion of livestock access to streams and reduction in nutrient loads from agricultural land-uses. This Project is consistent with the management strategy for maintaining and protecting riparian areas in the Randleman Lake watershed.

1.2 Site Protection Instrument

The land required for the construction, management, and stewardship of the RES Randleman Group A Project Sites includes portions of the parcels listed in **Table 2**. Due to unforeseen circumstances with one of the landowners, a small parcel within the Sunbeam Site (7736591899) was removed from the proposed easement. EBX (a wholly-owned subsidiary of RES) has obtained conservation easements from the current

landowners for each of the Sites. The easement deeds and survey plats have been submitted to DMS and the State Property Office (SPO) for approval and will be held by the State of North Carolina. The easement deeds will follow the DMS Full Delivery Conservation Easement Template dated May 5, 2017 and is included in **Appendix A**. Once recorded, the secured easements will allow EBX to proceed with the Site development and protect the mitigation assets in perpetuity. Once finalized, a copy of the land protection instrument(s) will be included in **Appendix A**.

Table 2. Parcel and Landowner Information

Sites	Landowners	Pin or Tax Parcel ID	County
Pequod	Barbara R. Farlow	7728170374	Randolph
Schmid Creek	Environmental Banc & Exchange LLC	7747630631	Randolph
Sunbeam	Milford C. Farlow, Shirley F. Cecil, Wanda F. Peele, and Elwood S. Hockett, as Trustee of the Hockett Family Trust	7736598356	Randolph
	Milford C. Farlow and Linda V. Farlow	7736498684 7737503165 7737506892	Randolph
	Milford C. Farlow and Linda V. Farlow	7737506892 - portion	Randolph

1.3 Existing Conditions of the Project

1.3.1 Physiography

The Project is located in the Southern Outer Piedmont level IV ecoregion within the Piedmont level III ecoregion. With lower elevations and less relief compared to other areas of the Piedmont, the landforms of this ecoregion consist of irregular, rolling plains. The geologic composition of the region is red, clayey subsoils underlain by deep saprolite and gneiss, schist, and granite bedrock. Interspersed throughout the region are also areas of diabase, diorite, or gabbro bedrock that form alkaline soils. Natural vegetation communities consist of mixed oak forests, while historic land use trends have promoted the establishment of loblolly and shortleaf pine forests (USEPA). The topography of the project is generally rolling with elevations ranging from 700 to 800 feet. The Pequod Site has the highest elevations ranging from 740 to 794 feet (**Pequod Figure 2**) and Schmid Creek has the lowest elevation ranging from 706 feet to 750 feet (**Schmid Creek Figure 2**) (**Sunbeam Figure 2**).

1.3.2 Surface Water Classification

The tributaries within the Pequod Site drain to Muddy Creek. The Muddy Creek current State classification is Class WS-IV. The WS-IV classification is intended to protect waters used as sources of water supply for drinking, culinary, or food processing purposes where a WS-I, II or III classification is not feasible. These waters are also protected for Class C uses. WS-IV waters are generally in moderately to highly developed watersheds or Protected Areas. Muddy Creek flows into the Randleman Reservoir, a drinking water supply with stream buffer protections. This supply has been designated a Nutrient Sensitive Water and DWR has developed a set of rules in order to protect, preserve, and reforest existing riparian buffers in the watersheds that feed into the supply (WS-IV; NCDWQ 2013).

The other two sites, Sunbeam and Schmid Creek drain directly to Randleman Lake. The current State classification for Randleman Lake is Class CA* and WS-IV. Class CA is Critical Area and Class C waters are protected for uses such as secondary recreation, fishing, wildlife, fish consumption, and aquatic life including propagation, survival and maintenance of biological integrity, and agriculture. The * symbol identifies waters that are within a designated Critical Supply Watershed and are subject to a special management strategy specified in 15A NCAC 2B .0248. The WS-IV classification is intended to protect waters used as sources of water supply for drinking, culinary, or food processing purposes where a WS-I, II or III classification is not feasible. WS-IV waters are generally in moderately to highly developed watersheds or Protected Areas.

1.3.3 Regulatory Considerations

Because DMS mitigation sites are considered to be a category of activities that do not individually or cumulatively have an impact on the human environment, they do not require preparation of an environmental assessment or environmental impact statement. To ensure that a site meets the “Categorical Exclusion” criteria, the Federal Highways Administration and DMS have developed a Categorical Exclusion (Cat-Ex) checklist. The Cat-Ex for all three of the RES Randleman Group A Sites were approved by Federal Highways Administration (FHWA) and DMS on May 24, 2018 and are included in **Appendix B**.

The regulatory evaluation for the Cat-Ex focused primarily on the presence of hazardous materials, utilities and restrictive easements, rare/threatened/endangered species or critical habitats, cultural resources, and the potential for hydrologic trespass. The Cat-Ex summarized impacts to natural, cultural, and historical resources and documented coordination with stakeholders and federal and state agencies. The Cat-Ex can be found in **Appendix B** and a summary of its findings are below.

1.3.3.1 Threatened and Endangered Species

Section 7 of the Endangered Species Act (ESA) of 1973 requires federal agencies, in consultation with and with the assistance of the Secretary of the Interior or of Commerce, as appropriate, to ensure that actions they authorize, fund or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. The gold and bald eagles are protected under the Bald and Golden Eagle Protection Act (BGPA) and prohibits take of bald and golden eagles.

A desktop analysis and field investigation were conducted to evaluate federally protected species potentially occurring on the Site. The U.S. Fish & Wildlife Service (USFWS) Information for Planning and Conservation (IPAC) online tool was consulted to determine any resources managed or regulated by the USFWS that may be affected by mitigation-related activities at the Site; the tool queries available databases of endangered species, migratory birds, wildlife refuges, and wetlands. In addition to the USFWS IPAC tool, a query of the July 2017 North Carolina Natural Heritage Program (NCNHP 2017) database of natural heritage element occurrences was also reviewed performed to identify rare species or unique habitats on-site, especially those listed in the USFWS database. According to the USFWS IPAC database review tool (USFWS 2017), Randolph County’s list of threatened and endangered species includes two Federally listed species; Schweinitz’s sunflower (*Helianthus schweinitzii*) and the Cape Fear Shiner (*Notropis mekistocholas*) (**Table 3**).

There is no suitable habitat for the Cape Fear shiner at any of the three Sites. However, it was determined that there is potential habitat present for the Schweinitz's sunflower at both the Pequod Site and the Sunbeam Site. Therefore, a "May Affect, Not Likely to Adversely Affect" determination was made at both the Pequod Site and the Sunbeam Site and a survey will be conducted during the optimal survey window of late-August through October. Upon completion of the survey, if any individuals are found in the site area, RES will follow up with USFWS prior to construction, to make a new Section 7 determination.

It was determined that there is no potential habitat for the Schweinitz's sunflower at the Schmid Creek Site. Documentation is included in **Appendix C**.

Table 3. Federally Protected Species in Randolph County

Common Name	Scientific name	Federal Status	Habitat Present: Pequod	Habitat Present: Schmid Creek	Habitat Present: Sunbeam	Record Status
Birds:						
Bald eagle	<i>Haliaeetus leucocephalus</i>	BGPA	Yes	Yes	Yes	Current
Fish:						
Cape Fear shiner	<i>Notropis mekistocholas</i>	E	No	No	No	Current
Flowering Plant:						
Schweinitz's sunflower	<i>Helianthus schweinitzii</i>	E	Yes	No	Yes	Current

E = Endangered; BGPA = Bald and Golden Eagle Protection Act

The Fish and Wildlife Coordination Act (FWCA) of the United States was enacted to protect fish and wildlife when federal actions result in the control or modification of a natural stream or body of water. Since the Project Sites will include removal and/or replacement of existing culverts as well as stream bank stabilization, RES requested comment from the North Carolina Wildlife Resource Commission (NCWRC). The NCWRC responded on April 20th, 2018 and stated there are no records for any listed aquatic species in the vicinity of the Project Sites. All correspondence is in **Appendix C**.

1.3.3.2 Environmental and Cultural Constraints

Environmental and cultural resources include historic and archeological resources located in or near the Site. RES has evaluated the Project's existing and future conditions to determine any potential mitigation impacts to cultural resources.

A review of properties listed on the North Carolina National Register of Historic Places maintained by the North Carolina State Historic Preservation Office (NCSHPO 2017) was conducted for the Project Sites and surrounding areas. No historic properties listed on the National Register exist on any of the sites and only within Schmid Creek were there any properties within a 1-mile radius of the Site areas. No architectural structures or archeological artifacts have been observed or noted during surveys of the Sites for restoration purposes. RES requested review and comment from the State Historic Preservation Office (SHPO) with respect to any archaeological and architectural resources related to the Project Sites. The

summary of the review pursuant to Section 106 of the National Historic Preservation Act (NHPA) for the three Sites is found in **Table 4** and correspondence with the SHPO can be found in **Appendix C**.

Table 4. Section 106 Review and Findings

Site Name	Requested Review Date	SHPO Response Date	Review Outcome	SHPO Findings
Pequod Site	April 9 th , 2018	May 1 st , 2018	No occurrences	Project will not affect historic resources
Schmid Creek Site	April 10 th , 2018	May 1 st , 2018	No occurrence within the Site area. Four occurrences within 0.5 mile of the Site area; The Nathan Davis Cabin (RD0186), Branson Davis House (RD0049), Branson Davis House II (RD0050), and David S. Davis House & Farm (RD 0051).	Project will not affect historic resources
Sunbeam	April 10 th , 2018	May 1 st , 2018	No occurrences	Project will not affect historic resources

1.3.4 Federal Emergency Management Agency (FEMA) Floodplain/Floodway Mapping

No reaches are located within the FEMA regulated floodplains for either the Schmid Creek Site (**Schmid Creek Figure 3**) or the Sunbeam Site (**Sunbeam Figure 3**). However, a mapped Zone AE FEMA 100-year floodplain and regulated floodway is present on four of the proposed reaches (BF1, BF2, BF3, and BF5) at the Pequod Site (**Pequod Figure 3**), however, no grading or earthwork is being done within the floodplain. Coordination with the Randolph County Floodplain Administrator will occur prior to mitigation work. No hydrologic trespass will be permitted to adjacent properties upstream or downstream of the Site.

Table 5. Summary of Randleman Group A - FEMA Floodplain/Floodway Mapping

	Pequod	Schmid Creek	Sunbeam
Presence of Regulated FEMA Zones	Yes	No	No

1.4 General Project Implementation Plan

Restoration, enhancement, and preservation activities will vary by Site, but there are some activities that will be conducted consistently across the Project. These activities are described below and include Site Preparation, Project Restoration and Enhancement Activities, the Planting Plan and Easement Boundaries. More specific Site restoration, enhancement and preservation activities are described in the appropriate Site Description sections.

1.4.1 Project and Site Preparation

Preparation at the Project Sites will involve spraying undesired fescue grass and exotic invasive species, contoured ripping, seeding, and planting. Livestock will be excluded from the all three of the Project Sites and protected into perpetuity through conservation easements. Livestock will be completely removed from both the Pequod Site and the Schmid Creek Site through a landowner agreement and will be monitored to ensure this agreement is upheld. Livestock removal at the Sunbeam site will be ensured through the placement of a fence surrounding the entire easement area. The establishment of permanent conservation easements will ensure cattle exclusion in perpetuity on all three Sites.

A combination of silt fencing, erosion control wattles, temporary seeding, and erosion control matting will be used to reduce erosion and stabilize soil in riparian areas during any land disturbance activities. These erosion control measures shall be inspected and properly maintained at the end of each working day to ensure measures are functioning properly until permanent vegetation is established. Disturbed areas shall be temporarily seeded within ten working days and upon completion of final grading, permanent vegetation shall be established for all disturbed areas. After construction activities, the subsoil will be scarified and any compaction will be deep tilled before the topsoil is placed back over the site. Any topsoil that is removed during construction will be stockpiled and placed over the site during final soil preparation. This process should provide favorable soil conditions for plant growth. Bare root plantings and live stakes shall be planted according to detail shown in the planting plan. More specific Site preparations are described within the appropriate Site Descriptions below.

1.4.2 Project Restoration and Enhancement Activities

The current land uses for the majority of the Project areas are actively grazed, non-forested pasture and disturbed riparian forest with the presence of invasive species.

The goal of the Project is to restore ecological function to the existing stream and riparian buffer by establishing appropriate stream buffer plant communities where absent and enhancing buffers where minimal vegetation exists, as well as to protect these buffers and stream function into perpetuity. The buffered channels will provide water quality and habitat functions within the Randleman watershed, such as nutrient and sediment removal, filtration of runoff from nearby agricultural fields, and improved aquatic and terrestrial habitat.

All restoration and enhancement activities will begin from the tops of the stream banks and extend a minimum of 50 feet from the stream outward to a maximum of 200 feet perpendicular to the stream channel. Vegetation within riparian buffers can vary depending on disturbance regime and adjacent community types, so the protected buffer easement will be planted with appropriate native species observed in the surrounding forest and species known to occur in similar environments (see **1.4.3 Planting Plan**). In forested areas, the buffer restoration areas are determined based on whether there are less than 25 percent of the tree canopy cover and a lack of dense growth of smaller woody stems (i.e. shrubs or saplings) and enhancement areas are determined as being higher than 25 percent but lower than what is deemed appropriate for the location in accordance with the Consolidated Buffer Mitigation Rule 15A NCAC 02B .0295 (b)(12), 15A NCAC 02B .0295 (b)(4). Restoration and enhancement areas were also determined by the mitigation determination performed during the viability assessment by DWR (**Appendix D**).

Buffer restoration activities will include planting a composition of native bare-root tree species based on reference reach data and excluding livestock from the stream and buffer area. The restoration of plant communities within the Project will not only provide stabilization and improve water quality within the easement limits, but will also provide ecological benefits to the entire watershed

1.4.3 Planting Plan

All riparian restoration areas will be planted from top of bank back at least 50 feet from the stream with bare root tree seedlings on an eight by eight-foot spacing to achieve an initial density of 680 trees per acre. Planting of the Project Sites where riparian buffer restoration is being performed will meet the

performance standards outlined in the Rule 15A NCAC 02B .0295. The vegetation data will be collected no earlier than late August of each year. This includes treating invasive species and planting at least four species of native hardwood bare root trees. Piedmont Alluvial Forest (Schafale 2012) will be the target community type and will be used for all areas within the Project. This forest system is common throughout Piedmont drainages and will provide water quality and ecological benefits. The initial planting of bare root trees will occur before spring 2019. Wherever possible, mature vegetation will be preserved and incorporated into the buffer. Some areas adjacent to the forested areas may require maintenance due to the rapid regeneration of some species, such as red maple (*Acer rubrum*) and sweetgum (*Liquidambar styraciflua*). Tree species specified for planting on all three Sites are shown in **Table 6**.

Table 6. Tree Planting List

Common Name	Scientific Name	Growth Rate	% Composition
American sycamore	<i>Platanus occidentalis</i>	rapid	20
Tulip poplar	<i>Liriodendron tulipifera</i>	rapid	20
River birch	<i>Betula nigra</i>	rapid	20
Willow oak	<i>Quercus phellos</i>	rapid	10
White oak	<i>Quercus alba</i>	slow	10
Water oak	<i>Quercus nigra</i>	rapid	10
Northern red oak	<i>Quercus rubra</i>	moderate	10

1.4.4 Easement Boundaries

Easement boundaries will be identified in the field to ensure clear distinction between the Site and adjacent properties. Boundaries may be identified by marker, bollard, post, tree-blazing, or other means as allowed by site conditions and/or conservation easement. Boundaries will be marked with signs identifying the property as a mitigation site and will include the name of the long-term steward and a contact number. Boundary markers disturbed, damaged, or destroyed will be repaired and/or replaced on an as needed basis. The Sunbeam Site easement boundary will be fenced where needed to ensure cattle are excluded as required by 15A NCAC 02B .0295 (o)(6) (**Figure 4**). The easement boundaries for the Pequot Site and the Schmid Creek Site will not be fenced but will be clearly marked along the boundary.

The easement boundary for all three Sites will be checked annually as part of monitoring activities and the conditions as well as any maintenance performed will be reported in the annual monitoring reports to DWR.

1.5 Project Monitoring and Maintenance Plan

1.5.1 Monitoring Protocol and Success Criteria

Annual vegetation monitoring and visual assessments will be conducted. Riparian buffer vegetation monitoring for all three sites will be based on the “Carolina Vegetation Survey-Ecosystem Enhancement Program Protocol for Recording Vegetation: Level 1-2 Plot Sampling Only Version 4.2”. Monitoring plots will be installed a minimum of 100 meters squared in size and will cover at least two percent of the planted mitigation area. These plots will be randomly placed throughout the planted riparian buffer mitigation area and will be representative of the riparian buffer restoration and enhancement areas where applicable (i.e. when enhancement credit is being generated from supplemental planting under 15A NCAC 02B .0295 (n)). The following data will be recorded for all trees in the plots: species, height, planting date (or

volunteer), and grid location. All stems in plots will be flagged with flagging tape. The Pequod Site will have sixteen (17) monitoring plots (16 designated to restoration, 1 designated to enhancement), the Schmid Creek site will have eight (8) monitoring plots, and the Sunbeam Site will have twelve (12) monitoring plots (see **Pequod Figure 4**, **Schmid Creek Figure 4**, and **Sunbeam 4**).

Photos will be taken from all photo points each monitoring year and provided in the annual reports. Visual inspections and photos will be taken to ensure that enhancement areas are being maintained and compliant. The measures of vegetative success for the Site will be the survival of at least four native hardwood tree species, where no one species is greater than 50 percent of the established stems, established at a density of at least 260 planted trees per acre at the end of Year 5. Native volunteer species may be included to meet the performance standards as determined by NC Division of Water Resources (DWR).

A visual assessment of the conservation easement will also be performed each year to confirm:

- Fencing is in good condition throughout the site (if applicable);
- no cattle access within the conservation easement area;
- no encroachment has occurred;
- no invasive species in areas where invasive species were treated,
- diffuse flow is being maintained in the conservation easement areas; and
- there has not been any cutting, clearing, filling, grading, or similar activities that would negatively affect the functioning of the buffer.

Table 7. Summary of Project Monitoring and Maintenance Activities

Component/ Feature	Monitoring	Maintenance through project close-out
Vegetation	Annual vegetation monitoring	Vegetation shall be maintained to ensure the health and vigor of the targeted plant community. Routine vegetation maintenance and repair activities may include supplemental planting, pruning, mulching, and fertilizing. Exotic invasive plant species shall be treated by mechanical and/or chemical methods. Any vegetation requiring herbicide application will be performed in accordance with NC Department of Agriculture (NCDA) rules and regulations. Vegetation maintenance activities will be documented and reported in annual monitoring reports. Vegetation maintenance will continue through the monitoring period.
Invasive and Nuisance Vegetation	Visual Assessment	Invasive and noxious species will be monitored and treated so that none become dominant or alter the desired community structure of the site. Locations of invasive and nuisance vegetation will be mapped.
Site Boundary	Visual Assessment	Site boundaries shall be identified in the field to ensure clear distinction between the mitigation site and adjacent properties. Boundaries will be marked with signs identifying the property as a mitigation site and will include the name of the long-term steward and a contact number. Boundaries may be identified by fence, marker, bollard, post, tree-blazing, or other means as allowed by site conditions and/or conservation easement. Boundary markers disturbed, damaged, or destroyed will be repaired and/or replaced on an as-needed basis. Easement monitoring and staking/ signage maintenance will continue in perpetuity as a stewardship activity.
Road Crossing	Visual Assessment	Road crossings within the site may be maintained only as allowed by conservation easement or existing easement, deed restrictions, rights of way, or corridor agreements. Crossings in easement breaks are the responsibility of the landowner to maintain.
Livestock Fencing (if applicable)	Visual Assessment	Livestock fencing is to be placed outside the easement limits. Maintenance of fencing is the responsibility of the landowner.

1.5.2 Adaptive Management Plan and Site Maintenance

Adaptive measures will be developed or appropriate remedial actions taken if in the event that the site(s), or a specific component of the site(s), fails to achieve the defined success criteria. DMS must approve all adaptive management plans prior to submittal to DWR.

Remedial actions will be designed to achieve the success criteria specified in this Mitigation Plan, and will include identification of the causes of failure, remedial design approach, work schedule, and monitoring criteria that will take into account physical and climatic conditions.

Initial plant maintenance may include a one-time mowing, prior to initial planting to remove undesirable species. If mowing is deemed necessary by RES during the monitoring period, RES must first receive approval by DMS and then by DWR prior to any mowing activities to ensure that no buffer violations have been performed. Failure to receive approval to mow within the Randleman Lake buffer, as defined in 15A NCAC 02B .0250, by DWR could result in Randleman Lake buffer violations and violations of the conservation easement. If necessary, RES will develop a species-specific control plan.

1.5.3 Long Term Management Plan

The Project will be transferred to the NCDEQ Stewardship Program. NCDEQ Stewardship Program shall serve as the conservation easement holder and entity responsible for long term stewardship of the Project Sites. This party shall serve as conservation easement holder and long-term steward for the property and will conduct periodic inspection of the site to ensure that restrictions required in the conservation easement are upheld. The NCDEQ Stewardship Program is developing an endowment system within the nonreverting, interest-bearing Conservation Lands Conservation Fund Account. The use of funds from the Endowment Account will be governed by North Carolina General Statute GS 113A-232(d)(3). Interest gained by the endowment fund may be used for the purpose of stewardship, monitoring, stewardship administration, and land transaction costs, if applicable.

The Stewardship Program will periodically install signage as needed to identify boundary markings as needed. Any livestock or associated fencing or permanent crossings will be the responsibility of the owner of the underlying fee to maintain.

1.6 Project Financial Assurance

RES will provide security in the form of an acceptable performance bond as described in the RFP (RFP# 16-007242). Although the RFP was a request for mitigation and not construction, the performance bond shall follow the prescribed wording provided in N.C.G.S. § 44A-33. The bond must be for 20 percent of the total value of the contract and must be in effect and submitted with the Task 2 deliverable. The bond must remain in effect until the vendor has received written notification from DMS that the requirements of Task 3 (Vegetative planting completed and submittal of baseline monitoring report) have been met (the financial assurance document must indicate that it is in effect through approval of task 3 and must include the NCDEQ contract number). After the successful completion and approval of Task 3, the bond can be retired.

2 SITE DESCRIPTION – PEQUOD SITE

2.1 Site Location

The Pequod Site is within the Randleman Lake Watershed of the Cape Fear River Basin within the 8-digit Hydrologic Unit Code (HUC) 0303003, 14-digit HUC 03030003010060 and DWR Subbasin Number 03-06-08.

The Pequod Site is located in Randolph County approximately five miles northwest of Archdale, North Carolina (**Pequod Figure 1**). To access the Site head South on Main Street from I-85 and turn immediately left on Aldridge Road, after about a half mile turn right onto Huff Road, in about 0.4 miles the Site is on the left. The coordinates are 35.9107 °N and -79.9381 °W.

2.2 Site Overview

The conservation easement of the Pequod Site will total approximately 22.14 acres and includes six unnamed tributaries that drain into Muddy Creek approximately 1.2 miles downstream of the Site. Land use within the Site is primarily actively grazed, non-forested pasture and disturbed riparian forest with the presence of invasive species. Grazing livestock have historically had access to all stream reaches within the Site. The lack of riparian buffer trees and the long-term presence of cattle has contributed to bank instability and erosional rills within some riparian zones.

The easement is comprised of three sections, separated by two crossings, one of which is co-located with a gas easement. There is also an existing sanitary sewer easement within the Site area (described in **section 2.3.4**) (**Pequod Figure 5**). The Pequod Site is composed of six stream channels: BF1, BF2, BF3, BF4, BF5, and BF6. BF1 flows directly into Muddy Creek approximately one mile downstream of the site. Reaches BF2, BF3, and BF5 drain to BF1. Reach BF6 drains to Reach BF2 and Reach BF4 drains to reach BF3. BF1 is a perennial unnamed tributary that is the primary feature onsite and has a drainage area of approximately 2,295 acres. The channel runs through pasture from the northern property boundary to the south before entering a culvert under Huff Road. BF1 is approximately 1,047 linear feet. A sanitary sewer easement runs parallel to this channel along the right bank. BF1 exhibits portions of bank instability and erosion from continued cattle access and the lack of a riparian buffer. BF2 is a perennial tributary that flows into BF1. This channel runs from the west to east for approximately 1,455 linear feet. BF2 has a drainage area of approximately 34 acres. BF3 is a perennial tributary that flows from northeast to southwest across the Site property and empties into BF1. A sanitary sewer easement runs parallel to this channel along the left bank. BF3 is a perennial stream that is approximately 1,463 linear feet and has a drainage area of approximately 65 acres. BF4 is an ephemeral tributary that runs through pasture from the northern property boundary to the south before draining to reach BF3. BF4 is approximately 233 linear feet and has a drainage area of approximately 11 acres. BF5 is a perennial tributary that originates at the southern property boundary before flowing north to its confluence with BF1. BF5 is approximately 328 linear feet and has a drainage area of approximately 10 acres. Reach BF6 is an intermittent stream that originates just downstream of a farm pond and drains to the north to its confluence with Reach BF2 just upstream of an existing gas easement. BF6 is approximately 418 linear feet and has a drainage area of approximately 11 acres. Stream identifications were verified by the DWR site visit on March 26, 2018. Correspondence regarding this determination is in **Appendix D**.

The Pequod Site involves restoring and enhancing riparian buffers and their functions to compensate, in appropriate circumstances, for unavoidable riparian buffer impacts. The buffer mitigation plan proposed is being submitted for review under the Consolidated Buffer Mitigation Rule 15A NCAC 02B .0295.

DWR staff, with DMS staff onsite as well, performed an onsite viability assessment for buffer mitigation on March 26, 2018. Correspondence regarding this assessment is provided in **Appendix C** and dated April 10, 2018. Of the total 22.14 acres in the conservation easement, the Pequod Site presents the opportunity to provide up to 18.63 buffer mitigation units by establishing a native forested and herbaceous riparian buffer plant community with a minimum width of 50 feet and a maximum of 200 feet from the edge of the channels. These will be derived from 17.55 acres of zero to 100 feet of Restoration, 1.99 acres of 101 to 200 feet of Restoration, and 0.84 acres of zero to 100 feet of Enhancement. This new community will be established in conjunction with the treatment of any existing exotic or undesirable plant species. **Pequod Figure 6** shows the Riparian Buffer Conceptual Design and Credit Determination Map and **Section 2.5** provides details of the mitigation determination on the Pequod Site.

2.3 Pequod– Existing Conditions

2.3.1 Soils

The Pequod Site is located in the Mecklenburg-Wynott-Enon soil association, which is found mainly in the northern part of the county on uplands. These soils formed from mafic rock and are gently sloping to moderately steep, well drained soils that have a loamy surface layer and a clayey subsoil. The major uses of these soils are cropland, pasture and hayland, and woodland.

The Randolph County Soil Survey (United States Department of Agriculture (USDA) - Natural Resources Conservation Service (NRCS), 2006) depicts four mapping units across the Pequod Site (**Pequod Figure 7**). The map units are Appling sandy loam, two to six percent slopes; Appling sandy loam, six to ten percent slopes; Wynott-Enon complex, two to eight percent slopes; and Wynott-Enon complex, eight to 15 percent slopes. The soil characteristics of these map units are summarized in **Table 8**.

Table 8. Site Mapped Soil Series

Map Unit Symbol	Map Unit Name	Percent Hydric	Drainage Class	Hydrologic Soil Group	Landscape Setting
ApB	Appling sandy loam, 2 to 6 percent slopes	0%	Well Drained	B	Summits, Shoulders
ApC	Appling sandy loam, 6 to 10 percent slopes	0%	Well Drained	B	Backslopes on ridges
WtB	Wynott-Enon complex, 2 to 8 percent slopes	0%	Well Drained	D	Summits
WtC	Wynott-Enon complex, 8 to 15 percent slopes	0%	Well Drained	D	Backslopes on ridges

2.3.2 Existing Wetlands

The USFWS National Wetland Inventory Map (NWI) depicts one wetland area within the Site (**Pequod Figure 5**). The pond above Reach BF6 (PUBHh) is the only mapped NWI wetland area within the proposed easement area.

2.3.3 Existing Vegetation Communities

Current land use in the vicinity of the Pequod Site is primarily actively grazed pasture and disturbed riparian forest with the presence of invasives (**Appendix E**). Just outside of the Site there has been an

increase in residential development and a two-lane road runs parallel to the Property. The site viability letter from DWR in **Appendix D** provides details on land-uses within the riparian areas on the Site. Since the existing conditions photographs found in **Appendix E** and the viability letter found in **Appendix D**, the land use conditions have not changed and remain actively grazed pasture and disturbed riparian forest with heavy invasive presence. Per request by DWR, additional vegetation surveys were conducted on this site in the area surrounding BF4 to justify variation in treatments from the buffer viability letter. Photographical documentation of these vegetation surveys can be found in **Appendix F**. Based on the results of the vegetation transect surveys, the riparian area was determined to be suitable for restoration credit as majority of the transects had less than 260 stems per acre and the only transect with greater than 260 stems per acre had only two species of trees and majority of the trees were sweetgum saplings. As can be seen in the photographs, the area would meet the definition of a “Restoration Site” in the 15A NCAC 02B .0295 as the whole area would be characterized by scattered individual trees such that the tree canopy is less than 25 percent of the cover and by a lack of dense growth of smaller woody stems (i.e.; shrubs or saplings).

The majority of the buffer on site consists primarily of herbaceous vegetation and very sparse tree cover that have been heavily disturbed by cattle. Existing tree species within the sparsely forested areas include red cedar (*Juniperus virginiana*), American sycamore, red maple, and sweetgum. Some invasives were noted, including multiflora rose (*Rosa multiflora*), tree of heaven (*Ailanthus altissima*), and Chinese privet (*Ligustrum sinense*).

Riparian Vegetation

In general, all or portions of the reaches within the Pequod Site do not function to their full potential. Current conditions demonstrate significant habitat degradation as a result of impacts from cattle, historic land uses, and water diversion. The long-term presence of cattle has created unstable banks and erosional rills within some riparian zones and along stream banks in which minor bank stabilization efforts and grading will be performed. Throughout the Site there are scattered invasive vines and briars that will be treated to the extent practicable. There is a particularly large area that is densely populated with tree of heaven along Reach BF3 that will be removed and replanted with hardwoods as part of the restoration activities (see **section 2.4.2**). Also, adjacent to Reach BF3 are some patches of scattered saplings and clumps of densely populated early-succession (two to four-year-old) sweetgum saplings that are combined with invasives. The clumps of sweetgums will be thinned to the extent necessary to treat the invasives. In most cases, the riparian buffer is in poor condition where much of the riparian buffer is devoid of trees or shrubs and active pasture is directly adjacent to both banks of the existing channel. Habitat along the majority of the reaches is poor with little woody debris or overhanging vegetation for fish cover or habitat for other aquatic species.

2.3.4 Other Site Constraints: Utilities and Easements

There are some constraints adjacent to the Pequod Site that were noted by DWR (**Appendix D**). This includes a gas line easement and a sanitary sewer easement. A sanitary sewer easement, maintained by the City of Archdale, runs parallel along reaches BF3 and BF1 and crosses reaches BF1, BF2, and BF5. Pursuant to 15A NCAC 02B .0295 (l) (4), sewer easements in Zone 2 may be suitable for buffer mitigation credit if: the applicant or mitigation provider restores or enhances the forested buffer in Zone 1 adjacent to the sewer easement, the sewer easement is maintained in a condition that meets the vegetative requirements of the collection system permit, and diffuse flow is provided across the entire buffer width. As part of the

restoration approach, all of these criteria will be met. Majority of the easement is contained within Zone 2, however due to erosion along BF1, a portion of the sewer easement is contained within Zone 1 along with the perpendicular crossings (**Pequod Figure 5**). These sections within Zone 1 will not be used to generate credit.

There is also an existing gas easement, maintained by Piedmont Natural Gas, that intersects BF2 downstream of the confluence with BF6. One crossing will be established at this gas easement, as well as on BF1 just upstream of the confluence with BF5 to accommodate potential future land use of the surrounding area. Both the City of Archdale and Piedmont Natural Gas have been contacted and the easement was designed to allow access to these areas without encroaching on the site. Correspondence with the City of Archdale is provided in **Appendix C**. RES has contacted Piedmont Natural Gas and will continue to coordinate during the construction of the project as necessary.

2.4 Pequod Riparian Restoration & Enhancement Implementation Plan

2.4.1 Site Preparation

In addition to the general Site Preparation mentioned in **Section 1.4.1**, minimal debris will be removed from the floodplain and within the channel along the upper end of BF2. These areas will be stabilized with coir matting, permanent and temporary seeding, and live stakes. In addition to the removal of these culverts, the existing crossing at the gas easement will be upgraded.

2.4.2 Riparian Restoration and Enhancement Activities

Riparian restoration and enhancement areas adjacent to streams are shown in **Pequod Figure 6**, and were approved by the DWR in the letter dated April 20, 2018 and attached in **Appendix D**.

Since this Site is mostly non-forested pasture, per 15A NCAC 02B .0295 (n), buffer restoration activities will occur in the majority of the Site with a few patches of enhancement. Buffer restoration and enhancement activities will be consistent with the general restoration activities described in **Section 1.4.2** and the planting plan described in **Section 1.4.3**. Along the upstream left bank of BF3, the densely populated cluster of tree-of-heaven will be removed and the area will be replanted with hardwoods. Large individual tree-of-heaven trees will be cut down, smaller trees or saplings will have herbicide applied to the foliage. A rigorous invasive management plan for these areas will be followed during the following monitoring years using the USDA Forest Service “Field Guide for Managing Tree-of-heaven Guidelines”. There will be a fixed vegetation monitoring plot located in this area so that any re-sprouts can be identified quickly (**Pequod Figure 4**).

Some additional restoration activities will be conducted along BF2 to address the observed trash, pipes and culverts found in the streams and a side gully with no flow that enters the stream. These activities will include upgrading the crossing, removing an old box culvert, removing other debris within the buffer, and bank stabilization and grading where banks are compromised, and erosional rills are observed. Other restoration activities will include the removal of the small non-subject pond above reach BF6. The pond will be drained, filled and planted.

A sanitary sewer easement runs parallel to reaches BF3 and BF1 and crosses reaches BF1, BF2, and BF5. The sewer easement along the right bank of BF3 is located outside of Zone 1 and in full compliance with 15A NCAC 02B .0295 (l)(4)(A-C), and therefore will be included in the buffer restoration activities. Pursuant to 15A NCAC 02B .0295 (l) (4), sewer easements in Zone 2 may be suitable for buffer mitigation

credit if: the applicant or mitigation provider restores or enhances the forested buffer in Zone 1 adjacent to the sewer easement, the sewer easement is maintained in a condition that meets the vegetative requirements of the collection system permit, and diffuse flow is provided across the entire buffer width. As part of the restoration approach, all of these criteria will be met. Due to bank instability and erosion there are sections of the sewer easement along the left bank of BF1 that are now within Zone 1, along with the section of the sewer easement that crosses BF1, BF2, and BF5. These 0.1 acres will not be viable for buffer credit (see **Pequod Figure 6**).

Enhancement will occur in the limited forested areas within the Site, found in small patches along BF1, BF3, BF4, and BF5, in accordance with the Consolidated Buffer Mitigation Rule 15A NCAC 02B .0295 (n) (see **Pequod Figure 6**). These areas will include supplemental planting. Enhancement will also occur in BF3 per 15A NCAC 02B .0295 (n) where there is currently clumps of densely populated early-successional (two to four year) sweetgum saplings combined with invasives. The enhancement activities will include thinning the sweetgums to the extent necessary, treating the invasives and planting hardwood stems to add diversity to the riparian buffer. There was also a small area along BF1 that was considered enhancement after further site evaluation conducted by RES on December 4th, 2018. After further discussions with DWR, it was agreed upon that these areas could be used for enhancement under 15A NCAC 02B .0295 (n) with supplemental planting, instead of preservation at 10:1 as was stated in the Site Viability letter.

Reach BF4 was classified as an ephemeral stream (per Buffer Viability in **Appendix D**) and, therefore, the restoration and enhancement of this channel will not comprise more than 25 percent of the total area of buffer mitigation per 15A NCAC 02B .0295 (o)(7) and is shown in **Pequod Figure 6** and **Table 9**. In response to comments from DWR, RES conducted vegetation transect surveys on December 4th, 2018 to ensure that this area was indeed eligible for restoration credit (**Figure 8**). It was determined that the areas that were already enhancement should remain as enhancement, at the confluence of BF3 and BF4, and the other areas that were determined to be restoration should remain as restoration. The results of the vegetation transect surveys are found in **Appendix F**.

2.5 Pequod Mitigation Potential

The RES Randleman Group A - Pequod Mitigation Site presents 22.1 acres of permanent conservation easement in Randolph County, North Carolina. The purpose of this Site is to generate Randleman Lake riparian buffer mitigation credits. Once finalized a conservation easement and final recorded plat will be provided in **Appendix A**.

The width of the riparian buffer credit generation area will begin at the most landward limit of the top of bank or the rooted herbaceous vegetation and extend landward to a maximum distance of 200 feet.

This Site has the potential to generate approximately 793,033.749 ft² (18.21 acres) of riparian buffer restoration credits on existing non-forested pasture and 18,301.374 ft² (0.42 acres) of buffer enhancement credits. The riparian buffer restoration and enhancement adjacent to the ephemeral Reach B4 comprises 0.83 acres (36,110.348 ft²) which is in compliance with 15A NCAC 02B .0295 (o)(7) in that it is only 4.1 percent of the total area of buffer mitigation, which is less than 25 percent of the total area of buffer mitigation (20.38 total acres) that is allowed. The riparian buffer mitigation credits generated will service Randleman Lake buffer impacts within the USGS 8-digit HUC 0303003 of the Cape Fear River Basin. The total potential mitigation credits that the RES Randleman Group A - Pequod Mitigation Site will

generate are summarized in **Table 9; Pequod Figure 6**. A more thorough analysis of the reaches was completed in accordance to the DMS Buffer Project Area and Asset excel template table and is found in **Appendix G**.

Table 9. RES Randleman Group A - Pequod Mitigation Site Credit Summary

Reach ID	Restoration Type	Buffer Width (ft)	Creditable Area (acres)	Creditable Area (sf)	Initial Credit Ratio (x:1)	% Full Credit	Riparian Buffer Credits (acres)	Riparian Buffer Credits (BMU)
BF1 (subject)	Restoration	0-100	3.35	146,014.525	1	1	3.35	146,014.525
		101-200	0.24	10,272.900		0.33	0.08	3,390.057
	Enhancement	0-100	0.05	2,032.170	2	1	0.02	1,016.085
		101-200	0.00	0.000		0.33	0.00	0.000
BF2 (subject)	Restoration	0-100	5.49	239,200.602	1	1	5.49	239,200.602
		101-200	0.18	7,966.210		0.33	0.06	2,628.849
BF3 (subject)	Restoration	0-100	5.05	219,807.000	1	1	5.05	219,807.000
		101-200	1.24	53,946.400		0.33	0.41	17,802.312
	Enhancement	0-100	0.71	31,106.900	2	1	0.36	15,553.450
		101-200	0.00	0.000		0.33	0.00	0.000
BF4 * (non-subject ephemeral)	Restoration	0-100	0.70	30,422.600	1	1	0.70	30,422.600
		101-200	0.13	5,586.290		0.33	0.04	1,843.476
	Enhancement	0-100	0.00	101.458	2	1	0.00	50.729
		101-200	0.00	0.000		0.33	0.00	0.000
BF5 (subject)	Restoration	0-100	1.11	48,418.700	1	1	1.11	48,418.700
		101-200	0.04	1,898.700		0.33	0.01	626.571
	Enhancement	0-100	0.08	3,362.220	2	1	0.04	1,681.110
		101-200	0.00	0.000		0.33	0.00	0.000
BF6 (subject)	Restoration	0-100	1.85	80,602.602	1	1	1.85	80,602.602
		101-200	0.16	6,898.350		0.33	0.05	2,276.456
Restoration Total			19.54	851,034.878			18.21	793,033.749
Enhancement Total			0.84	36,602.748			0.42	18,301.374
Total			20.38	887,637.627			18.63	811,335.123

* Reach BF4 was classified as an ephemeral stream (per Buffer Viability in **Appendix D**) and, therefore, the restoration and enhancement of this channel will not comprise more than 25 percent of the total area of buffer mitigation per 15A NCAC 02B .0295 (o)(7). See Figure 5.

** The total site acreage is 20.38, this allows for 6.52 acres (283,842.46 square feet) to be eligible for restoration or enhancement in the ephemeral stream buffer. The total creditable area surrounding the ephemeral stream is 0.83 acres (36,110.35 square feet) which is not more than the 25 percent allowable area. See the Asset Table in **Appendix G** for a more detailed table.

3 SITE DESCRIPTION – SCHMID CREEK SITE

3.1 Site Location

The Schmid Creek Site is located in the Randleman Lake Watershed of the Cape Fear River Basin within the 8-digit Hydrologic Unit Code (HUC) 0303003, 14-digit HUC 03030003010060 and DWR Subbasin Number 03-06-08.

The Site is located in Randolph County approximately five miles northwest of Randleman, North Carolina (**Schmid Creek Figure 1**). To access the Site head West on Cedar Square Road from I-74 and turn right on Davis Country Road, after about a mile turn right onto Gilbert Davis Drive, in about 0.4 miles the Site is on the left. The coordinates of the Site are 35.8726 °N and -79.8726 °W.

3.2 Site Overview

The conservation easement will total approximately 9.99 acres (217,637 ft²) and includes one tributary that drains to Randleman Lake approximately 1,500 feet downstream of the Site. The majority of the Site is actively grazed, non-forested pasture. The riparian buffer is in poor condition where as it is devoid of trees or shrubs and cattle are allowed access within the existing channels

The easement is comprised of two sections, separated by one farm access crossing (**Schmid Creek Figure 3**). The Schmid Creek Site is comprised of one stream channel, SC1, which begins downstream of a pond and then flows from northeast to the southwest eventually draining directly into Randleman Lake approximately 1,500 feet downstream of the site. SC1 is an intermittent unnamed tributary that is the primary drainage feature onsite and has a drainage area of approximately 57 acres. This channel begins downstream of an existing culvert at the eastern property boundary and runs through active pasture before passing through two more culverts on the property. SC1 is approximately 1,022 linear feet. This channel is mostly stable throughout, however, it does exhibit some areas of active erosion from cattle access. There is one linear wetland onsite that drains directly to SC1. DWR Stream Identification Forms were completed and verified by DWR during a site visit on April 12, 2017 (**Appendix D**).

The Site involves restoring riparian buffers and their functions to compensate, in appropriate circumstances, for unavoidable riparian buffer impacts. The buffer mitigation plan proposed on this Site is being submitted for review under the Consolidated Buffer Mitigation Rule 15A NCAC 02B .0295. DWR staff performed an onsite viability assessment for buffer mitigation on April 12, 2017. Correspondence regarding this assessment is provided in **Appendix D** and dated April 21, 2017. Of the total 9.99 acres in the conservation easement, the Site presents the opportunity to provide up to 6.30 buffer mitigation units (274,283 ft² of Riparian Buffer Credit) by establishing a native forested and herbaceous riparian buffer plant community with a minimum width of 50 feet and a maximum of 200 feet from the edge of the channels. These will be derived from 4.80 acres of zero to 100 feet of Restoration and 4.49 acres of 101 to 200 feet of Restoration. This new community will be established in conjunction with the treatment of any existing exotic or undesirable plant species. **Schmid Creek Figure 5** shows the Riparian Buffer Conceptual Design and Credit Determination Map and **Section 3.5** provides details of the mitigation determination on the Site.

3.3 Schmid Creek– Existing Conditions

3.3.1 Soils

The Randolph County Soil Survey (United States Department of Agriculture (USDA) - Natural Resources Conservation Service (NRCS), 2006) depicts two mapping units across the Schmid Creek Site (**Schmid Creek Figure 6**). The map units are Mecklenburg clay loam, two to eight percent slopes, moderately eroded and Wynott-Enon complex, eight to 15 percent slopes. The soil characteristics of these map units are summarized in **Table 10**.

Table 10. Site Mapped Soil Series

Map Unit Symbol	Map Unit Name	Percent Hydric	Drainage Class	Hydrologic Soil Group	Landscape Setting
MeB2	Mecklenburg clay loam, 2 to 8 percent slopes	0%	Well Drained	C	Summits
WtC	Wynott-Enon complex, 8 to 15 percent slopes	0%	Well Drained	C/D	Backslopes on ridges

3.3.2 Existing Wetlands

The USFWS NWI depicts no wetland areas within the Site (**Schmid Creek Figure 3**). There is approximately a quarter acre of potential jurisdictional wetland mapped within the proposed easement area. This area has not been confirmed by the United States Army Corps of Engineers (USACE).

3.3.3 Existing Vegetation Communities

Current land use in the vicinity of the Site is primarily actively grazed pasture (**Appendix E**). The site viability letter from DWR (**Appendix D**) provides details on land-uses within the Site riparian areas. Since the existing conditions photographs found in **Appendix E** and the viability letter found in **Appendix D**, the land use conditions have not changed and remain actively grazed pasture.

Riparian Vegetation

Current conditions demonstrate significant habitat degradation as a result of impacts from cattle, historic land uses and water diversion. The long-term presence of cattle has created unstable banks. In most cases, the riparian buffer is in poor condition where much of the riparian buffer is devoid of trees or shrubs and cattle are allowed access within the existing channel. Habitat along the reach is poor in that there is little woody debris or overhanging vegetation for fish cover or protection for other aquatic species.

3.4 Schmid Creek Riparian Restoration Implementation Plan

3.4.1 Riparian Restoration Activities

Riparian buffer restoration adjacent to streams are shown in **Schmid Creek Figures 4**, and were approved by the DWR in their letter dated April 21, 2017 and is attached in **Appendix D**.

Site preparation activities described in **Section 1.4.1** will occur prior to restoration activities. Since this Site is all non-forested pasture, per 15A NCAC 02B .0295 (n), buffer restoration activities will occur throughout the entire Site. Buffer restoration activities will be consistent with the general restoration activities described in **Section 1.4.2** and the planting plan described in **Section 1.4.3**. Some additional restoration activities will include the removal of debris found within the Site and updating the farm crossing culvert. Specifically, the debris removal will include the removal of a drain tile and culvert at the

most upstream section of the Reach SC1 and removal of a culvert and earthen berm at the downstream section of Reach SC1 (see **Schmid Creek Figure 4**). The crossing will be improved with properly sized and embedded corrugated pipe, floodplain culverts (if needed), and embankment stabilization in order to facilitate future landowner access to both sides of the property. These areas will be stabilized with coir matting, permanent and temporary seeding, and live stakes after culvert removal.

3.5 Schmid Creek Mitigation Potential

The RES Randleman Group A - Schmid Creek Mitigation Site presents 9.99 acres of permanent conservation easement in Randolph County, North Carolina. The purpose of this Site is to generate Randleman Lake riparian buffer mitigation credits. Once finalized a conservation easement and final recorded plat will be provided in **Appendix B**.

The width of the riparian buffer credit generation area will begin at the most landward limit of the top of bank or the rooted herbaceous vegetation and extend landward to a maximum distance of 200 feet.

This Site has the potential to generate approximately 273,737.545 ft² (6.28 acres) of riparian buffer restoration credits on existing non-forested pasture. The riparian buffer mitigation credits generated will service Randleman Lake buffer impacts within the USGS 8-digit HUC 0303003 of the Cape Fear River Basin. The total potential mitigation credits that the RES Randleman Group A – Schmid Creek Mitigation Site will generate are summarized in **Table 11; Schmid Creek Figure 4**. A more thorough analysis of the reach was completed in accordance to the DMS Buffer Project Area and Asset excel template table and is found in **Appendix G**.

Table 11. RES Randleman Group A - Schmid Creek Mitigation Site Credit Summary

Reach ID	Restoration Type	Buffer Width (ft)	Creditable Area (acres)	Creditable Area (sf)	Initial Credit Ratio (x:1)	% Full Credit	Riparian Buffer Credits (acres)	Riparian Buffer Credits (BMU)
BF1 (subject)	Restoration	0-100	4.80	209,182.414	1	1	4.80	209,182.414
		101-200	4.49	195,621.609		0.33	1.48	64,555.131
TOTAL			9.29	404,804.023			6.28	273,737.545

4 SITE DESCRIPTION – SUNBEAM SITE

4.1 Site Location

The Sunbeam Site is within the Randleman Lake Watershed of the Cape Fear River Basin within the 8-digit Hydrologic Unit Code (HUC) 0303003, 14-digit HUC 03030003010060 and DWR Subbasin Number 03-06-08.

The Site is located in Randolph County approximately six miles southeast of Archdale, North Carolina (**Sunbeam Figure 1**). The easement is located on both sides of Interstate Highway 74. To access the Site from Interstate Highway 85 travel south on US 311 (toward Asheboro), then take exit 79 for Cedar Square Road, then turn right. Travel on Cedar Square Road for approximately a quarter of a mile, then turn left onto SR 1009. Travel on SR 1009 for approximately one and a quarter mile, and the Site will be on the right. The coordinates are 35.8631 °N and -79.8911 °W.

4.2 Site Overview

The conservation easement of the Sunbeam Site will total approximately 18.46 acres and includes four unnamed tributaries that drain to Randleman Lake approximately one mile downstream of the Site. I-74 bisects the Site into two separate easement areas. The primary land use on the Site is actively grazed non-forested pasture. Grazing livestock have historically had access to all stream reaches within the Site. The lack of riparian buffer trees and the long-term presence of cattle has created unstable banks.

The Sunbeam Site easement is made up of four sections, separated by two farm access crossings and a highway, and is comprised of four stream reaches: ZF1, ZF2, ZF3, and ZF4 (**Sunbeam Figure 3**). ZF1 flows directly into Randleman Lake approximately 5,500 linear feet downstream of the Site. Both ZF2 and ZF3 flow into ZF1 near the downstream end of the Site. ZF1 is a perennial unnamed tributary that is the primary drainage feature onsite and has a drainage area of approximately 540 acres. This channel runs through pasture from the western property corner to the east side of the Site before entering a culvert under I-74. ZF1 is approximately 1,614 linear feet. This channel is mostly stable throughout, however, it does exhibit portions of vertical banks and erosion from cattle. There is also a ditch that discharges into ZF1. The ditch will be graded out and a diffuse flow structure will be built on the easement boundary to ensure that diffuse flow of runoff is maintained within the riparian buffer. ZF2 is an intermittent to perennial tributary that begins downstream of a farm pond, roughly 260 linear feet off the Site property and then flows into ZF1. This channel runs from the south to north for approximately 1,530 linear feet. ZF2 has a drainage area of approximately 55 acres. This stream channel is stable and exhibits bedrock features at the downstream end. The stream channel is bound by active cattle pasture on the right bank and agriculture hay fields on the left bank. There is currently an existing fence line along the stream channel of ZF2 to prevent cattle from crossing into the left bank riparian buffer. ZF3 is an intermittent to perennial tributary that flows from northwest to southeast across the Site property and empties into ZF1. ZF3 has a drainage area of approximately 98 acres. ZF3 exhibits multiple segments of bedrock providing grade control and streambed stability. This stable tributary lies within a valley bottom and is bound by active cattle pasture. The channel is approximately 1,224 linear feet. ZF4 is an intermittent tributary located on the Site east of Interstate 74. This channel runs from north to south for approximately 529 linear feet before draining to ZF1 downstream of the Site. The drainage area is approximately 16 acres. This stable channel is bound by a mature forest on the left bank and hay field on the right. Stream identifications were verified by the DWR site visit on March 26, 2018. Correspondence regarding this determination is in **Appendix D**.

The Site involves restoring riparian buffers and their functions to compensate, in appropriate circumstances, for unavoidable riparian buffer impacts. The buffer mitigation plan proposed on this Site is being submitted for review under the Consolidated Buffer Mitigation Rule 15A NCAC 02B .0295 as well as conditions specified in the Randleman Lake Water Supply Watershed Buffer Rule 15A NCAC 02B .0250. DWR staff performed an onsite viability assessment for buffer mitigation on March 26, 2018. Correspondence regarding this assessment is provided in **Appendix D** and dated March 27, 2018. Of the total 18.46 acres in the conservation easement, the Site presents the opportunity to provide up to 13.16 buffer mitigation units by establishing a native forested and herbaceous riparian buffer plant community with a minimum width of 50 feet and a maximum of 200 feet from the edge of the channels. These will be derived from 12.08 acres of buffer restoration from zero to 100 feet out from the top of bank, 2.06 acres of buffer restoration from 101 to 200 feet, 0.26 acres of enhancement zero to 100 feet, 1.01 acres of preservation zero to 100 feet, and 0.83 acres of preservation from 101 to 200 feet. This Site has the potential to generate approximately 12.77 acres (556,116 ft²) of riparian buffer restoration credits on existing non-forested pasture, 0.13 acres (5,663 ft²) of buffer enhancement credits via cattle exclusion, and 0.13 acres (5,605 ft²) of riparian buffer preservation credits. This new community will be established in conjunction with the treatment of any existing exotic or undesirable plant species. **Sunbeam Figure 5** shows the Riparian Buffer Conceptual Design and Credit Determination Map and **Section 4.5** provides details of the mitigation determination on the Site.

4.3 Sunbeam – Existing Conditions

4.3.1 Soils

The Randolph County Soil Survey (USDA NRCS, 2006) depicts four mapping units across the Sunbeam Site (**Sunbeam Figure 6**). Site soils are mapped by the National Resources Conservation Service (NRCS) within the easement as Mecklenburg loam on a C-Slope, Wynott-Enon complex on a B-Slope, two to eight percent slopes, Wynott-Enon complex on a moderately eroded B-slope, two to eight percent slopes, and Wynott-Enon complex on a moderately eroded C-slope, eight to 15 percent. The soil characteristics of these map units are summarized in **Table 12**.

Table 12. Site Mapped Soil Series

Map Unit Symbol	Map Unit Name	Percent Hydric	Drainage Class	Hydrologic Soil Group	Landscape Setting
MaC	Mecklenburg loam, 8 to 15 percent slopes	0%	Well Drained	C	Backslopes on ridges
WtB	Wynott-Enon complex, 2 to 8 percent slopes	0%	Well Drained	C/D	Backslopes on ridges
WvB2	Wynott-Enon complex, 2 to 8 percent slopes, moderately eroded	0%	Well Drained	C/D	Backslopes on ridges
WvC2	Wynott-Enon complex, 8 to 15 percent slopes, moderately eroded	0%	Well Drained	C/D	Backslopes on ridges

4.3.2 Existing Wetland

The USFWS NWI depicts no wetland areas within the site (**Sunbeam Figure 3**). There is approximately one acre of jurisdictional wetland mapped within the proposed easement area. This area has not been confirmed by USACE.

4.3.3 Existing Vegetation Communities

Current land use in the vicinity of the Site is a combination of non-forested cattle pasture and mature hardwoods. See existing photos in **Appendix E**. Just outside of the Site I-74, a four-lane highway, bisects two sections of the Site. The site viability letter from DWR in **Appendix D** provides details on land uses within the riparian areas on the site. Since the existing conditions photographs found in **Appendix E** and the viability letter found in **Appendix D**, the land use conditions have not changed and remain actively grazed pasture with a combination of mature hardwood forested areas.

The majority of the buffer on site consists primarily of herbaceous vegetation and very sparse tree cover. Existing tree species within the sparsely forested areas include shagbark hickory (*Carya ovata*), red maple, and sweetgum. Some exotics were noted, including Chinese privet.

Riparian Vegetation

In most cases, the riparian buffer is in poor condition where much of the riparian buffer is devoid of trees or shrubs and active pasture is directly adjacent to both banks of the existing channel, with the exception of the forested area on the left bank of ZF4. Current conditions demonstrate significant habitat degradation as a result of impacts from cattle and historic land uses, and water diversion. The long-term presence of cattle has created unstable banks in which minor bank stabilization efforts and grading will need to be performed. Restoration activities will include the removal of invasive species, cattle exclusion, and planting appropriate hardwoods. Habitat along the majority of the restoration reaches is poor in that there is little woody debris or overhanging vegetation for fish cover or protection for other aquatic species.

4.4 Sunbeam Riparian Restoration, Enhancement, and Preservation Implementation Plan

4.4.1 Riparian Restoration Activities

Riparian buffer restoration adjacent to streams are shown in **Sunbeam Figure 5** and were approved by DWR in a letter dated April 27, 2018 (**Appendix D**).

Since a majority of the Sunbeam Site is non-forested actively grazed pasture, per 15A NCAC 02B .0295 (n), buffer restoration activities will occur throughout the Site (**Sunbeam Figure 5**). Site preparation activities described in **Section 1.4.1** will occur prior to restoration activities. Buffer restoration and enhancement activities will be consistent with the general restoration activities described in **Section 1.4.2** and the planting plan described in **Section 1.4.3**. Some additional restoration activities will include minor bank stabilization and grading where needed based on compromised banks and where erosional rills and gullies are observed. Minimal grading and benching is proposed to stabilize the confluence of ZF1 and ZF3, and to provide spot stabilization along ZF1. Stabilizing these areas will provide functional uplift to the stream system by stopping the mass bank wasting that is currently a problem and by reducing instream sediment loads. A detail of the proposed work and the buffer authorization for the work being conducted at the confluence of ZF1 and ZF3 is provided in **Appendix C**. In order to maintain diffuse flow in the riparian buffer, the ditch that drains to ZF1 will be graded out and a diffuse flow structure will be built along the boundary of the easement (**Sunbeam Figure 3**). Another restoration activity will include the upgrading of

the existing crossing to a culvert and constructing one additional culvert crossing. These crossings are necessary for property access and will be fenced to prevent cattle access. The crossings will be improved with properly sized and embedded corrugated pipe, floodplain culverts (if needed), and embankment stabilization. The crossings will be constructed such that farm equipment will have access and to prevent future degradation. These areas will be stabilized with coir matting, permanent and temporary seeding, and live stakes after culvert removal.

4.4.2 Riparian Enhancement Activities

Enhancement will occur in the very limited forested areas within the Site, found in small patches along ZF1, where grazing occurs adjacent to the stream in accordance with the Consolidated Buffer Mitigation Rule 15A NCAC 02B .0295 (o)(6) (**Sunbeam Figure 4**). All livestock will be removed from the easement and the fence will be installed to exclude access to riparian areas and their associated streams.

4.4.3 Riparian Preservation Activities

Buffer preservation is proposed along Reach ZF4 in accordance with the Consolidated Buffer Mitigation Rule 15A NCAC 02B .0295 (o)(5) (**Sunbeam Figure 4**). The current land use in this area is mature hardwood in the forested area on the left bank of ZF4. Preservation activities will consist of permanently protecting the buffer from cutting, clearing, filling, grading, and similar activities that would affect the functioning of the buffer through a conservation easement that will have clearly visible easement markers and signs (see **Section 1.4.3** for further description of the easement boundaries).

4.5 Sunbeam Mitigation Potential

The RES Randleman Group A - Sunbeam Riparian Buffer Mitigation Site presents 18.46 acres of permanent conservation easement in Randolph County, North Carolina. The purpose of this Site is to generate Randleman Lake riparian buffer mitigation credits. Once finalized a conservation easement and final recorded plat will be provided in **Appendix A**.

The width of the riparian buffer credit generation area will begin at the most landward limit of the top of bank or the rooted herbaceous vegetation and extend landward to a distance of maximum 200 feet.

This Site has the potential to generate approximately 577,098.433 ft² (13.25 acres) of riparian buffer restoration credits on existing non-forested pasture, 3,311.971 ft² (0.08 acres) of buffer enhancement credits via cattle exclusion, and 5,592.634 ft² (0.13 acres) of riparian buffer preservation credits on subject streams. Due to the removal of a small section of the easement, as mentioned in **Section 1.2**, a very small piece of the buffer along ZF1 now has a buffer that is less than 30 feet but greater than 20 feet and therefore will only receive 75 percent of the credit in that area (see **Table 13** below and **Sunbeam Figure 5**). As shown in the table below and in **Sunbeam Figure 5**, The riparian buffer mitigation credits generated will service Randleman Lake buffer impacts within the USGS 8-digit HUC 0303003 of the Cape Fear River Basin. The total potential mitigation credits that the RES Randleman Group A – Sunbeam Site will generate are summarized in **Table 13; Sunbeam Figure 5**. A more thorough analysis of the reaches was completed in accordance to the DMS Buffer Project Area and Asset excel template table and is found in **Appendix G**.

Table 13. RES Randleman Group A - Sunbeam Mitigation Site Credit Summary

Reach ID	Restoration Type	Buffer Width (ft)	Creditable Area (acres)	Creditable Area (sf)	Initial Credit Ratio (x:1)	% Full Credit	Riparian Buffer Credits (acres)	Riparian Buffer Credits (BMU)
ZF1^	Restoration	0-29	0.06	2,526.573	1	0.75	0.04	1,894.930
		30-100	4.16	181,155.058		1	4.16	181,155.058
		101-200	0.24	10,466.589		0.33	0.08	3,453.974
	Enhancement	0-100	0.15	6,623.942	2	1	0.08	3,311.971
		101-200	0.00	0.000		0.33	0.00	0.000
ZF2^	Restoration	0-100	2.20	95,766.014	1	1	2.20	95,766.014
		101-200	0.00	0.000		0.33	0.00	0.000
ZF3^	Restoration	0-100	4.16	181,231.846	1	1	4.16	181,231.846
		101-200	0.20	8,616.555		0.33	0.07	2,843.463
ZF4^	Restoration	0-100	1.93	83,983.325	1	1	1.93	83,983.325
		101-200	1.86	81,120.676		0.33	0.61	26,769.823
ZF4^	Preservation*	0-100	1.01	44,063.416	10	1	0.10	4,406.342
		101-200	0.83	35,948.262		0.33	0.03	1,186.293
Restoration Subtotal			14.80	644,866.636			13.25	577,098.433
Enhancement Subtotal			0.15	6,623.942			0.08	3,311.971
Preservation Subtotal			1.84	80,011.678			0.13	5,592.634
Grand Total			16.79	731,502.256			13.45	586,003.039

^ All reaches are subject streams

*Area eligible for preservation may be no more than 25% of total area, where total area is back-calculated with the equation R+E/0.75. Total eligible preservation area for Sunbeam is 4.99 acres (217,163.526 square feet) therefore all of the Preservation area is eligible for credit.

5 REFERENCES

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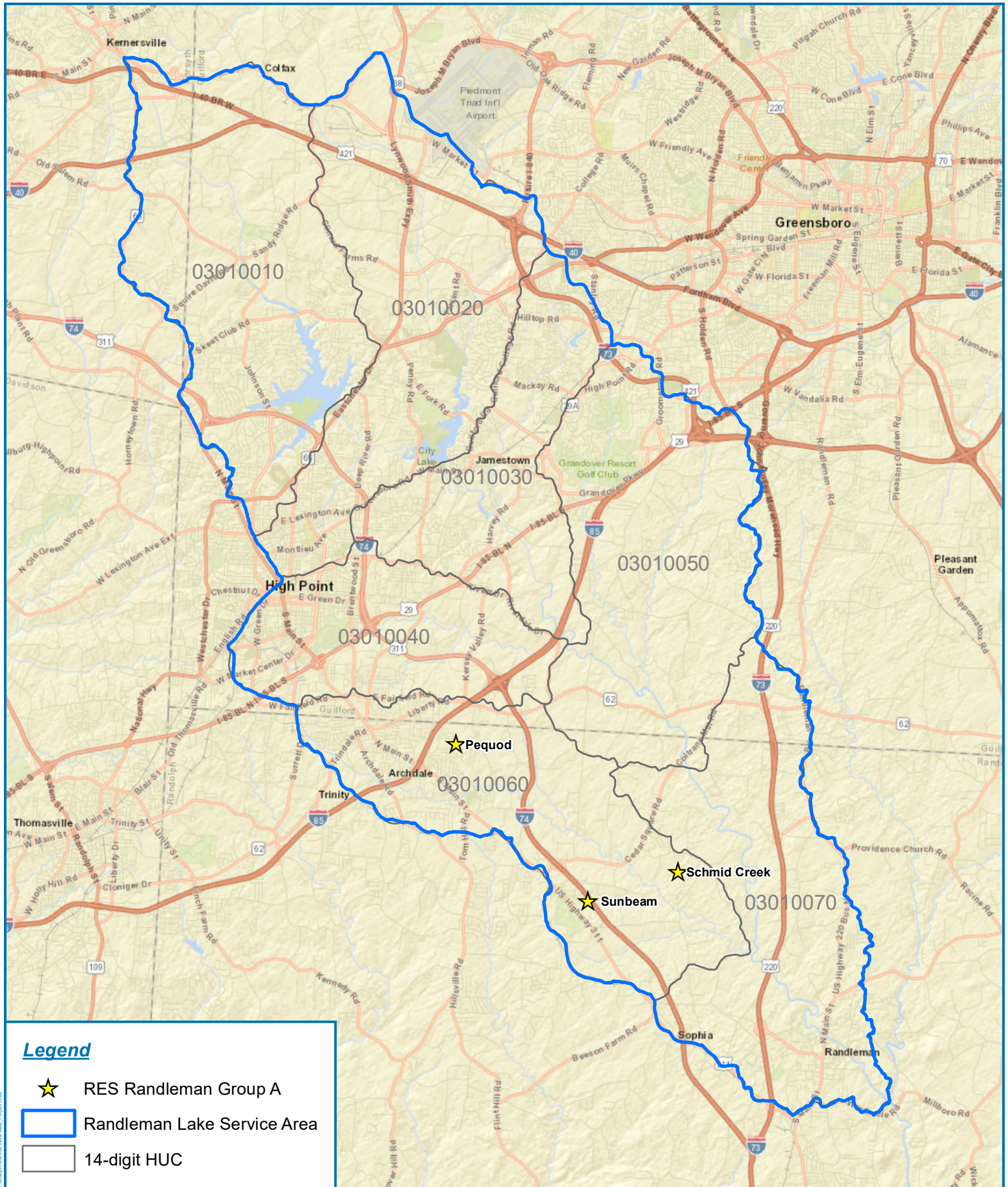
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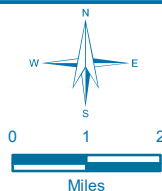
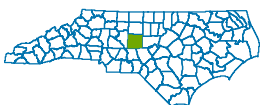
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Legend

- ★ RES Randleman Group A
- Randleman Lake Service Area
- 14-digit HUC



Service Area Map

RES Randleman Group A Sites

Randolph County, North Carolina

Date: 1/30/2019

Drawn by: JRM

Checked by: BPB

1 inch = 3 miles



Pequod Mitigation Site Figures

Figure 1. Site Vicinity Map

Figure 2. USGS Topographic Map

Figure 3. FEMA Map

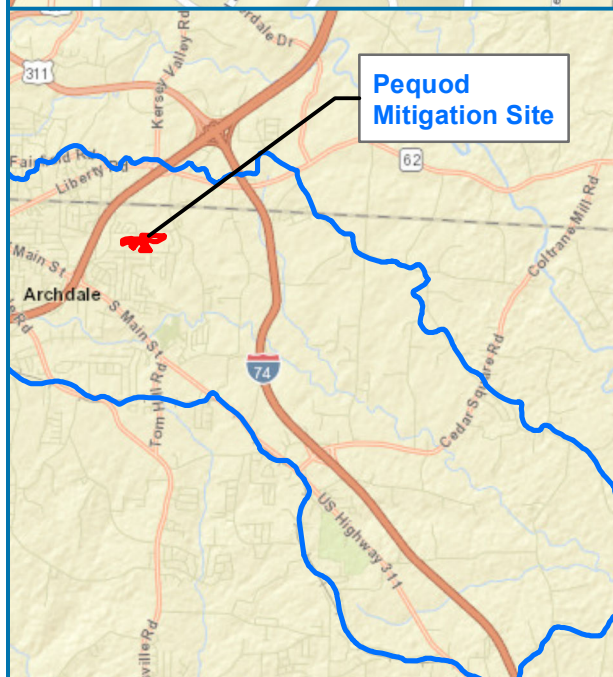
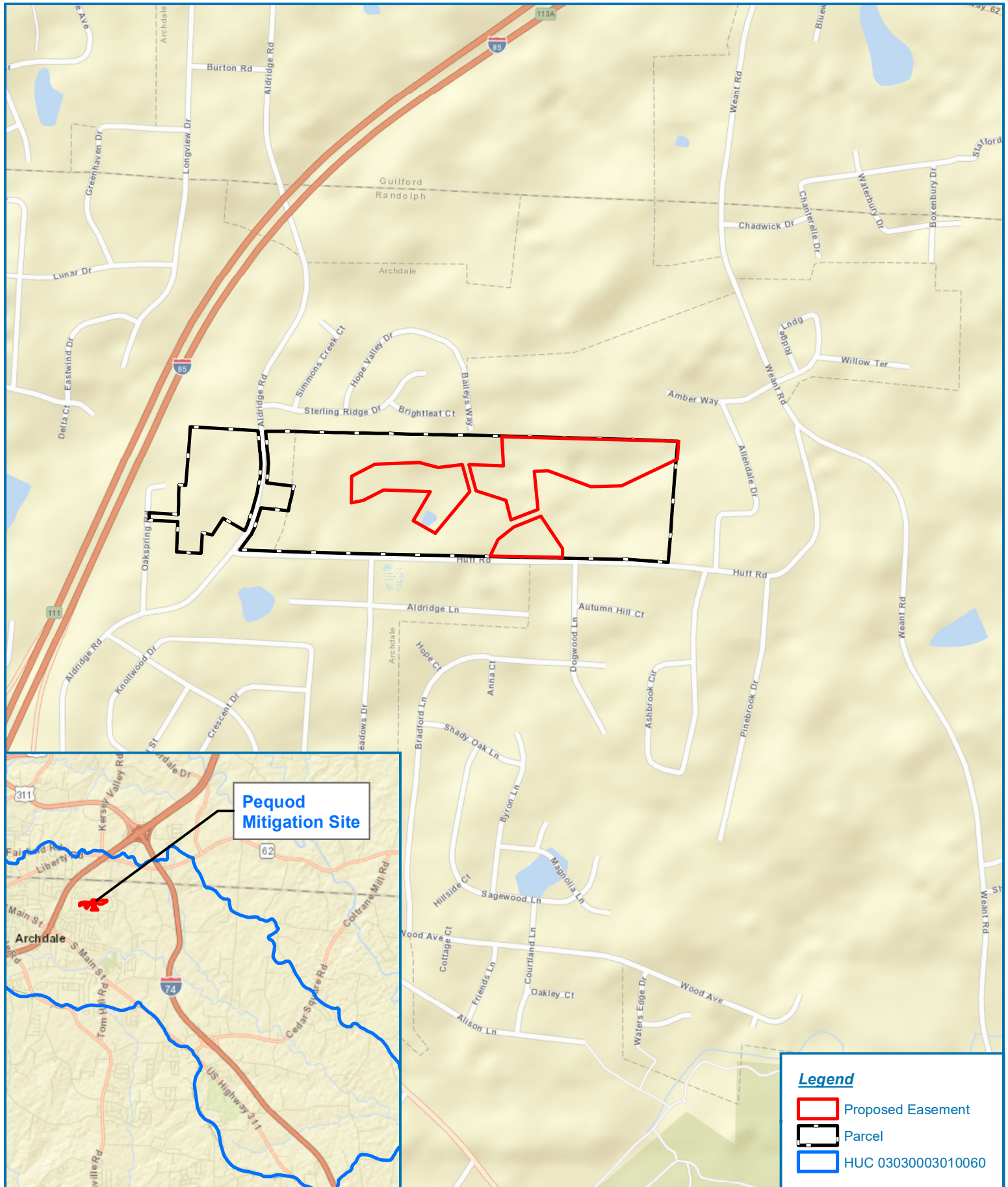
Figure 4. Monitoring Map

Figure 5. Existing Conditions Map

Figure 6. Riparian Buffer Conceptual Design and Credit Determination Map

Figure 7. Soils Map

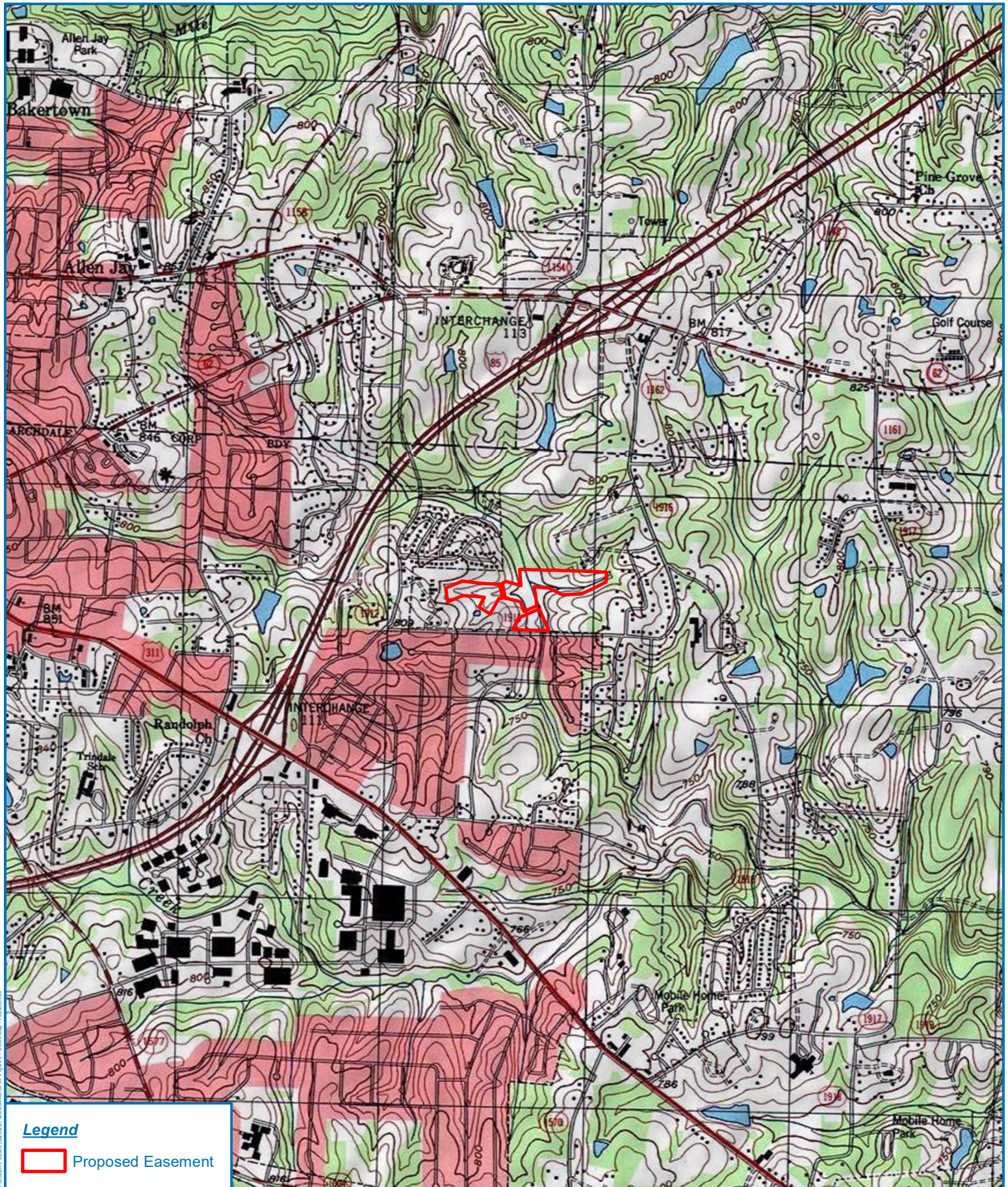
Figure 8. Vegetation Transect Survey Map



Legend

- Proposed Easement
- Parcel
- HUC 03030003010060

		<p align="center">Figure 1 - Vicinity Map</p> <p align="center">RES Randleman Group A -</p> <p align="center">Pequod Mitigation Site</p> <p align="center">Randolph County, North Carolina</p>	<p>Date: 1/16/2019</p> <p>Drawn by: JRM</p> <p>Checked by: BPB</p> <p>1 inch = 1,000 feet</p>	



Legend

Proposed Easement

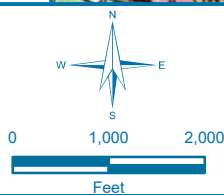
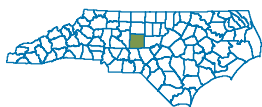


Figure 2 - USGS Map

RES Randleman Group A- Pequod Mitigation Site

Randolph County, North Carolina

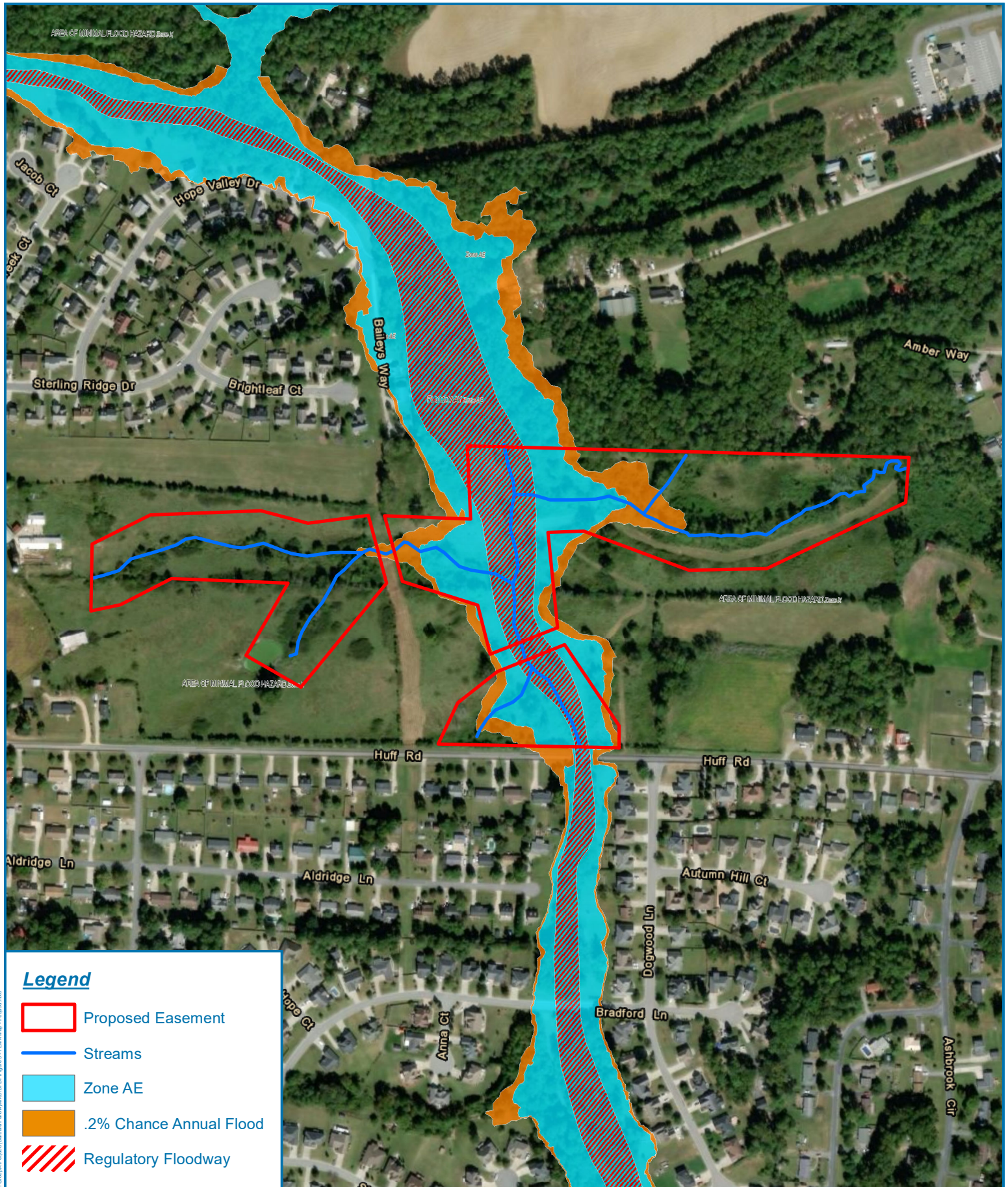
Date: 1/16/2019

Drawn by: JRM

Checked by: BB

1 inch = 2,000 feet





Legend

- Proposed Easement
- Streams
- Zone AE
- .2% Chance Annual Flood
- Regulatory Floodway

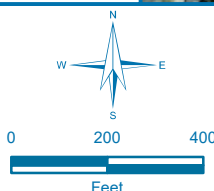
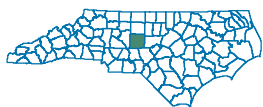


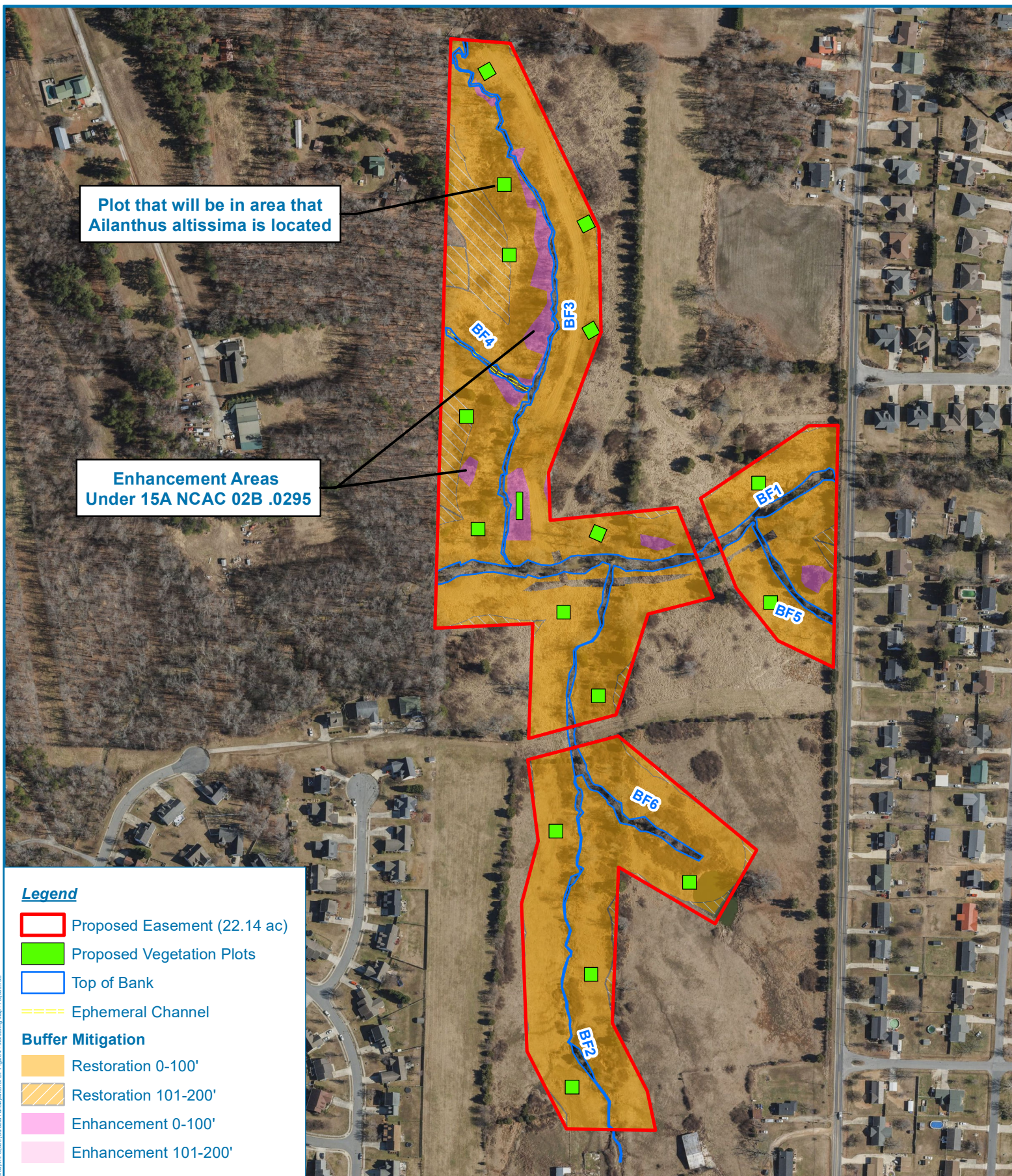
Figure 3 - FEMA Floodplain/Floodway Map

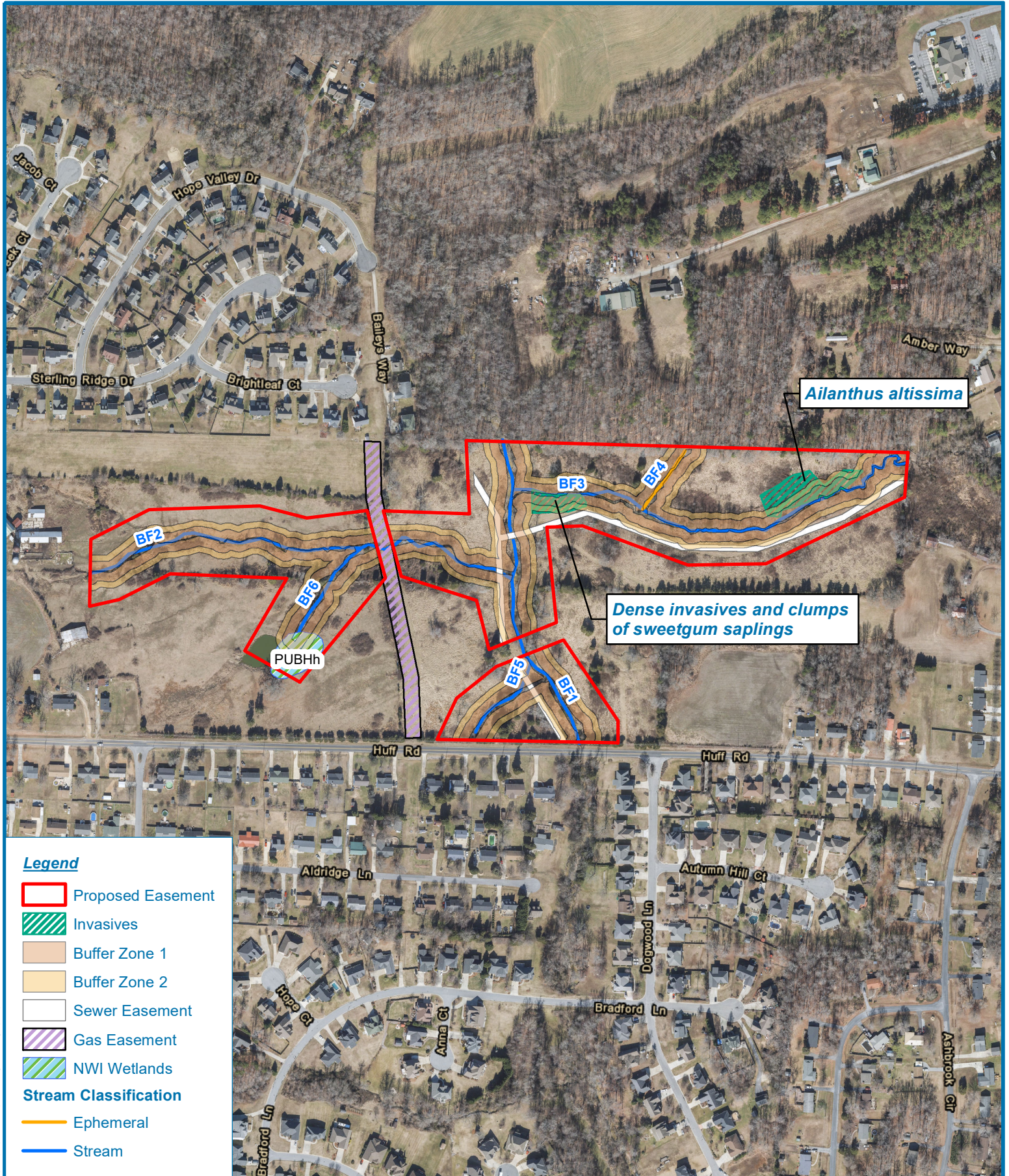
**RES Randleman Group A -
Pequod Mitigation Site**

Randolph County, North Carolina

Date: 1/16/2019
Drawn by: JRM
Checked by: BPB
1 inch = 400 feet







Legend

- Proposed Easement
- Invasives
- Buffer Zone 1
- Buffer Zone 2
- Sewer Easement
- Gas Easement
- NWI Wetlands
- Stream Classification**
- Ephemeral
- Stream

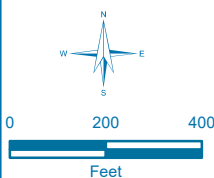
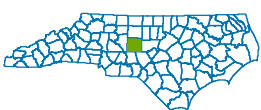


Figure 5 - Existing Conditions Map
RES Randleman Group A -
Pequod Mitigation Site
 Randolph County, North Carolina

Date: 1/16/2019

Drawn by: MDE

Checked by: BPB

1 inch = 400 feet



Reach ID	Jurisdictional Streams	Restoration Type	Buffer Width (ft)	Creditable Area (acres)	Creditable Area (sf)	Initial Credit Ratio (x:1)	% Full Credit	Riparian Buffer Credits (acres)	Riparian Buffer Credits (BMU)
BF1	Subject	Restoration	0-100	3.35	146,014.525	1	1	3.35	146,014.525
			101-200	0.24	10,272.900		0.33	0.08	3,390.057
		Enhancement	0-100	0.05	2,032.170	2	1	0.02	1,016.085
			101-200	0.00	0.000		0.33	0.00	0.000
BF2	Subject	Restoration	0-100	5.49	239,200.602	1	1	5.49	239,200.602
			101-200	0.18	7,966.210		0.33	0.06	2,628.849
BF3	Subject	Restoration	0-100	5.05	219,807.000	1	1	5.05	219,807.000
			101-200	1.24	53,946.400		0.33	0.41	17,802.31
	Subject	Enhancement	0-100	0.71	31,106.900	2	1	0.36	15,553.450
			101-200	0.00	0.000		0.33	0.00	0.000
BF4	Non subject (ephemeral)	Restoration	0-100	0.70	30,422.600	1	1	0.70	30,422.600
			101-200	0.13	5,586.290		0.33	0.04	1,843.476
		Enhancement	0-100	0.00	101.458	2	1	0.00	50.729
			101-200	0.00	0.000		0.33	0.00	0.000
BF5	Subject	Restoration	0-100	1.11	48,418.700	1	1	1.11	48,418.700
			101-200	0.04	1,898.700		0.33	0.01	626.571
	Subject	Enhancement	0-100	0.08	3,362.220	2	1	0.04	1,681.110
			101-200	0.00	0.000		0.33	0.00	0.000
BF6	Subject	Restoration	0-100	1.85	80,602.602	1	1	1.85	80,602.602
			101-200	0.16	6,898.350		0.33	0.05	2,276.456
Restoration Total				19.54	851,034.878			18.21	793,033.749
Enhancement Total				0.84	36,602.748			0.42	18,301.374
Total				20.38	887,637.627			18.63	811,335.123

Ephemeral Acreage Used:
36,110.367 feet squared (0.829 acres)
(4.1% of the 22.14 total mitigation area)

0.10 acres of Sewer Easement in Zone 1.
Rest of Sewer Easement contained in Zone 2.

Upgrade Crossing

Remove Box Culvert

Remove Debris

Non-subject pond to be removed

Legend

- Proposed Easement (22.14 ac)
- Parcels
- Top of Bank
- Ephemeral Buffer Credit
- No Credit (Sewer Easement)
- Ephemeral Channel
- Buffer Mitigation**
 - Restoration 0-100'
 - Restoration 101-200'
 - Enhancement 0-100'
 - Enhancement 101-200'

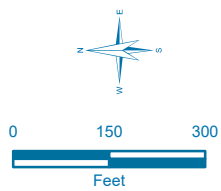
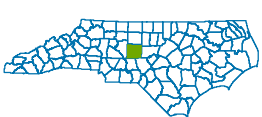


Figure 6 - Conceptual Map
RES Randleman Group A -
Pequod Mitigation Site
 Randolph County, North Carolina

Date: 1/21/2019
 Drawn by: JRM
 Checked by: BPB
 1 inch = 300 feet



Document Path: S:\RES GIS\Project\NC\Randman Group A\Pequod\Map\B01\Fig6 - Conceptual Map - Pequod.mxd



Symbol	Name
ApB	Appling sandy loam, 2-6% slopes
ApC	Appling sandy loam, 6-10% slopes
WtB	Wynott-Enon complex, 2-8% slopes
WtC	Wynott-Enon complex, 8-15% slopes

Legend

- Proposed Easement
- Hydric (100%)
- Predominantly Hydric (66-99%)
- Partially Hydric (33-65%)
- Predominantly Nonhydric (1-32%)
- Nonhydric (0%)

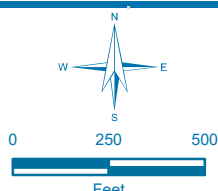
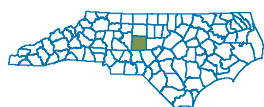
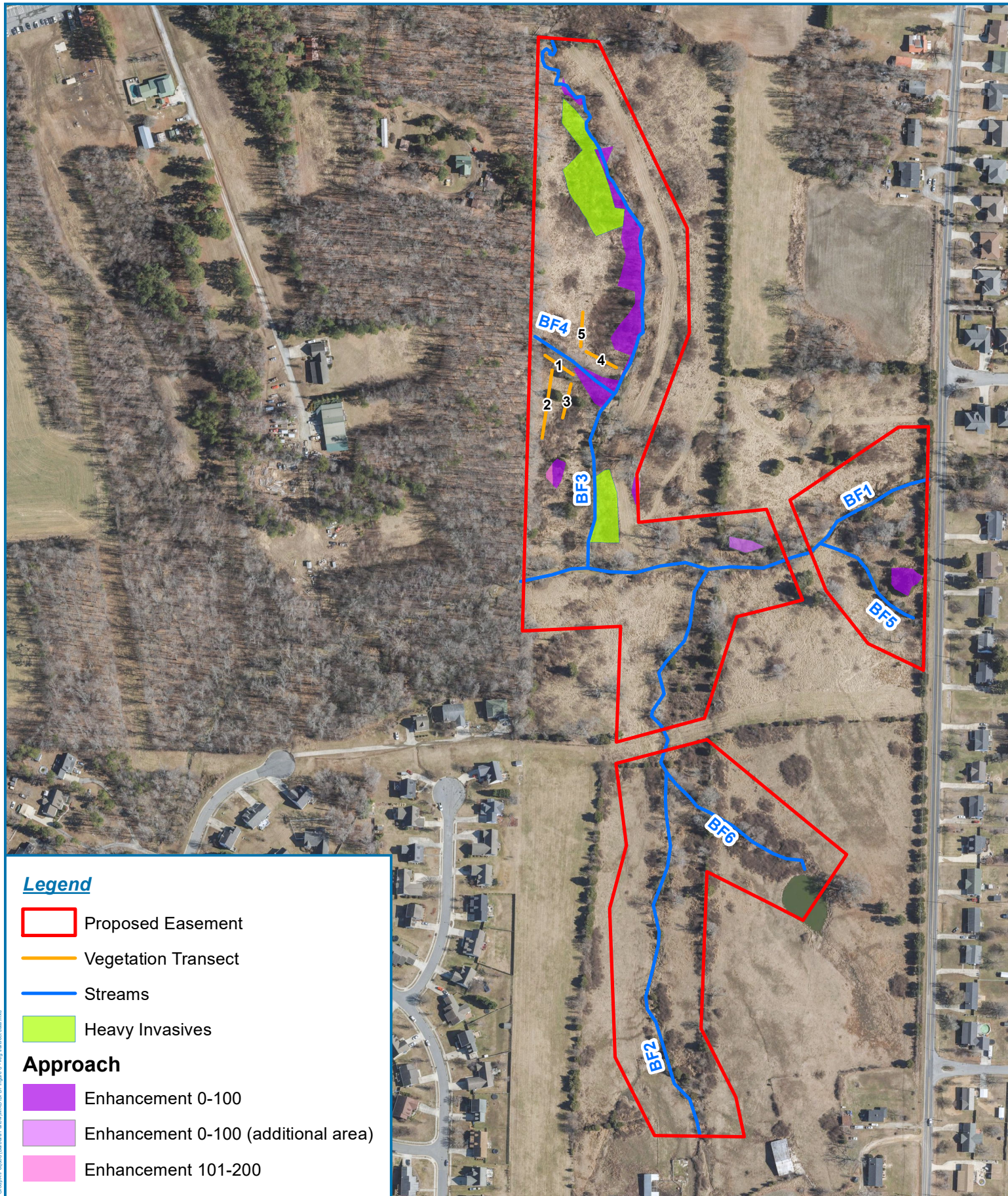


Figure 7 - Soils Map
RES Randleman Group A -
Pequod Mitigation Site
 Randolph County, North Carolina

Date: 1/16/2019
 Drawn by: JRM
 Checked by: BPB
 1 inch = 500 feet





Legend

- Proposed Easement
- Vegetation Transect
- Streams
- Heavy Invasives

Approach

- Enhancement 0-100
- Enhancement 0-100 (additional area)
- Enhancement 101-200

Figure 8 - Vegetation Transect Survey

**RES Randleman Group A -
Pequod Mitigation Site**

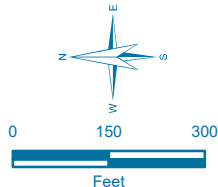
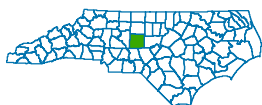
Randolph County, North Carolina

Date: 1/16/2019

Drawn by: MDE

Checked by: JRM

1 inch = 300 feet



Schmid Creek Mitigation Site Figures

Figure 1. Site Vicinity Map

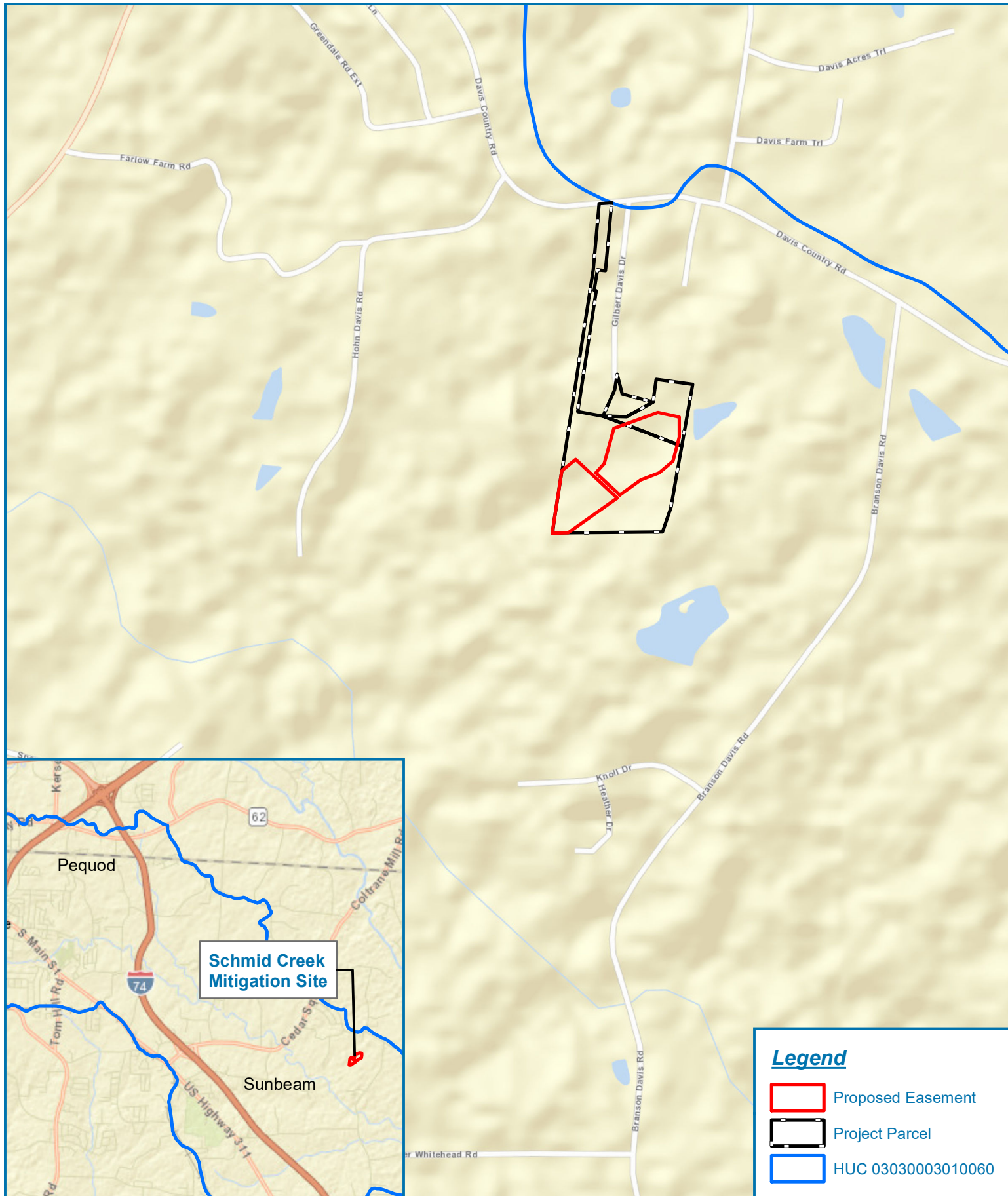
Figure 2. USGS Topographic Map

Figure 3. Existing Conditions Map

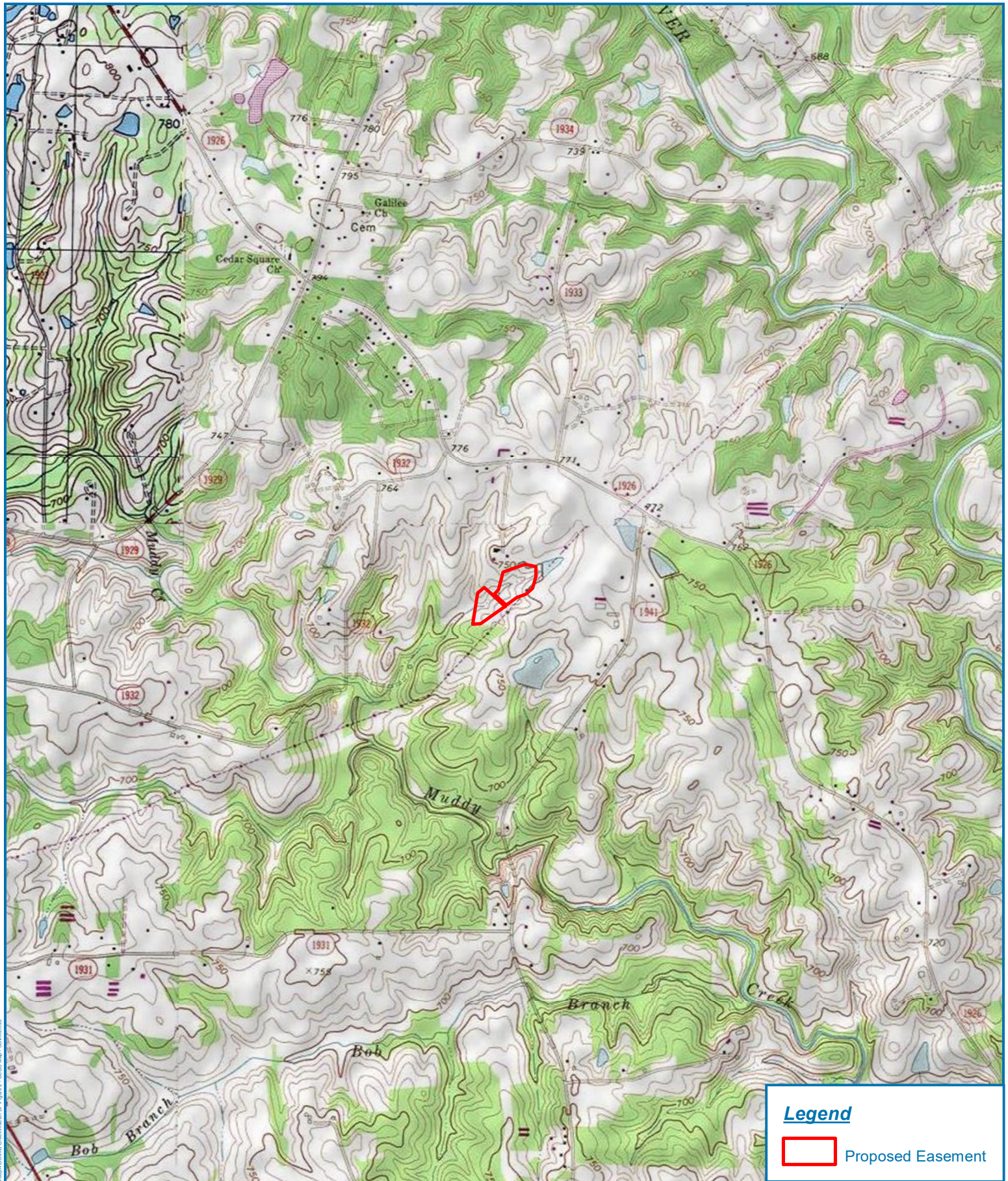
Figure 4. Monitoring Map

Figure 5. Riparian Buffer Conceptual Design and Credit Determination Map

Figure 6. Soils Map



		<p align="center">Figure 1 - Vicinity Map</p> <p align="center">RES Randleman Group A - Schmid Creek Mitigation Site</p> <p align="center">Randolph County, North Carolina</p>	<p>Date: 1/16/2019</p> <p>Drawn by: MDD</p> <p>Checked by: BPB</p> <p>1 inch = 1,000 feet</p>	
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Legend

 Proposed Easement

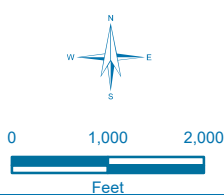
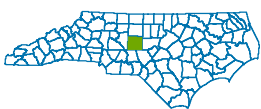


Figure 2 - USGS Map

RES Randleman Group A - Schmid Creek Site

Randolph County, North Carolina

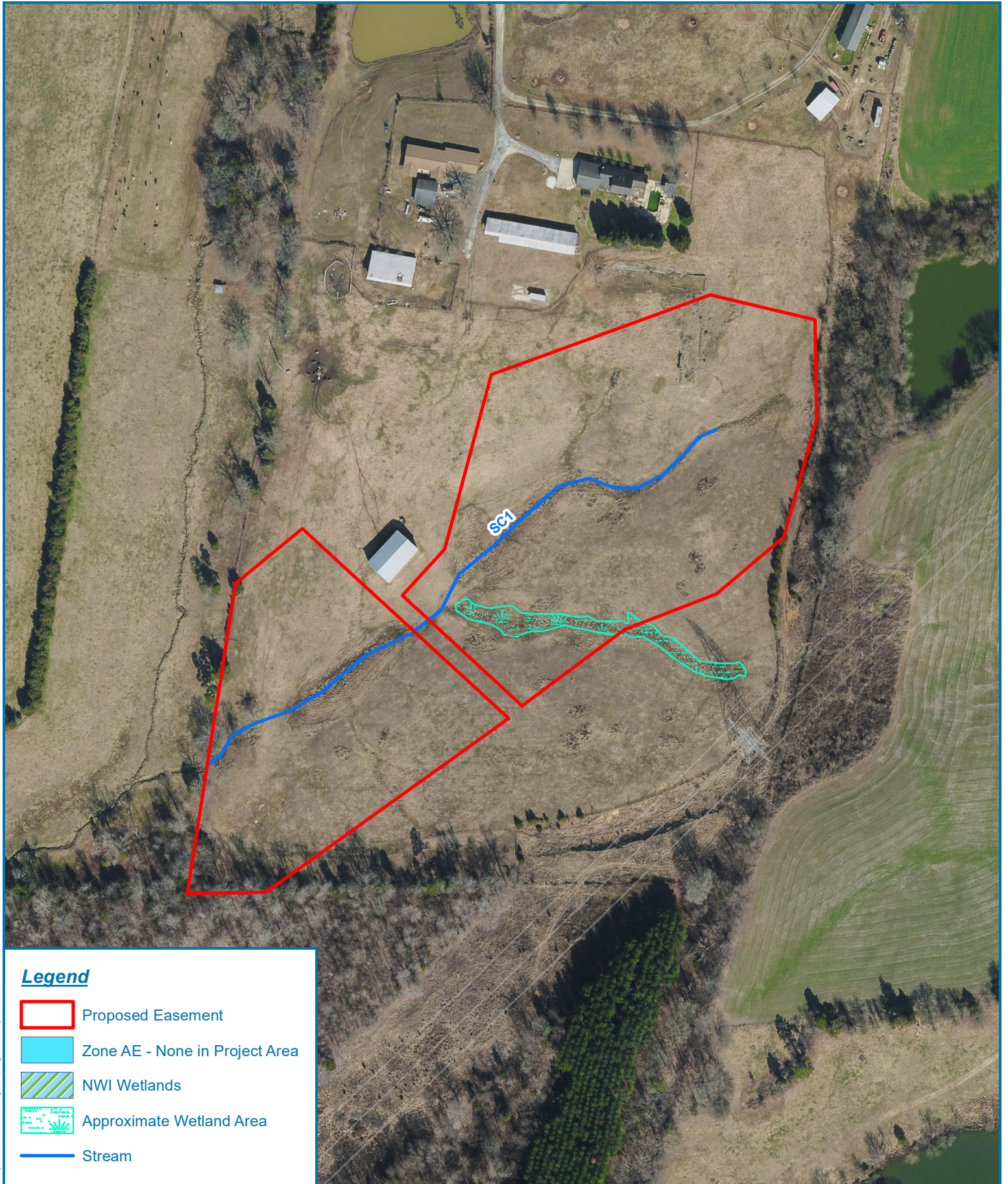
Date: 1/16/2019

Drawn by: MDD

Checked By: BPB

1 inch = 2,000 feet





Legend

- Proposed Easement
- Zone AE - None in Project Area
- NWI Wetlands
- Approximate Wetland Area
- Stream

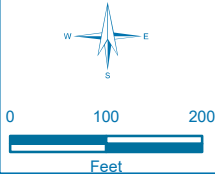
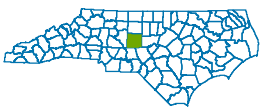


Figure 3 - Existing Conditions Map

RES Randleman Group A - Schmid Creek Mitigation Site

Randolph County, North Carolina

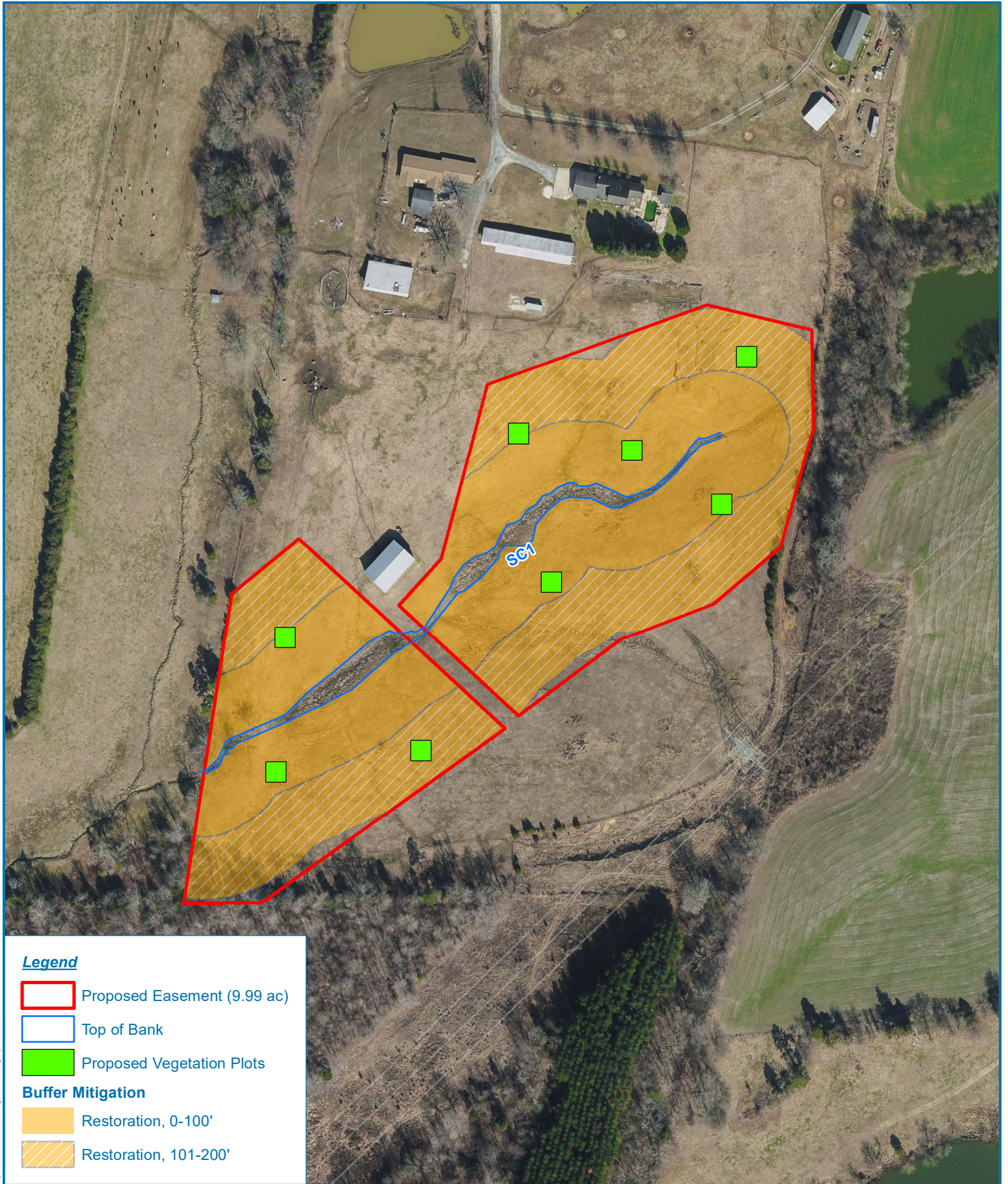
Date: 1/16/2019

Drawn by: MDD

Checked by: BPB

1 inch = 200 feet





Legend

- Proposed Easement (9.99 ac)
- Top of Bank
- Proposed Vegetation Plots
- Buffer Mitigation**
- Restoration, 0-100'
- Restoration, 101-200'

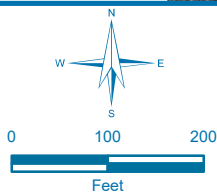
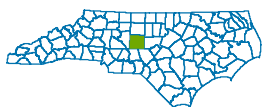


Figure 4 - Monitoring Map

**RES Randleman Group A -
Schmid Creek Mitigation Site**

Randolph County, North Carolina

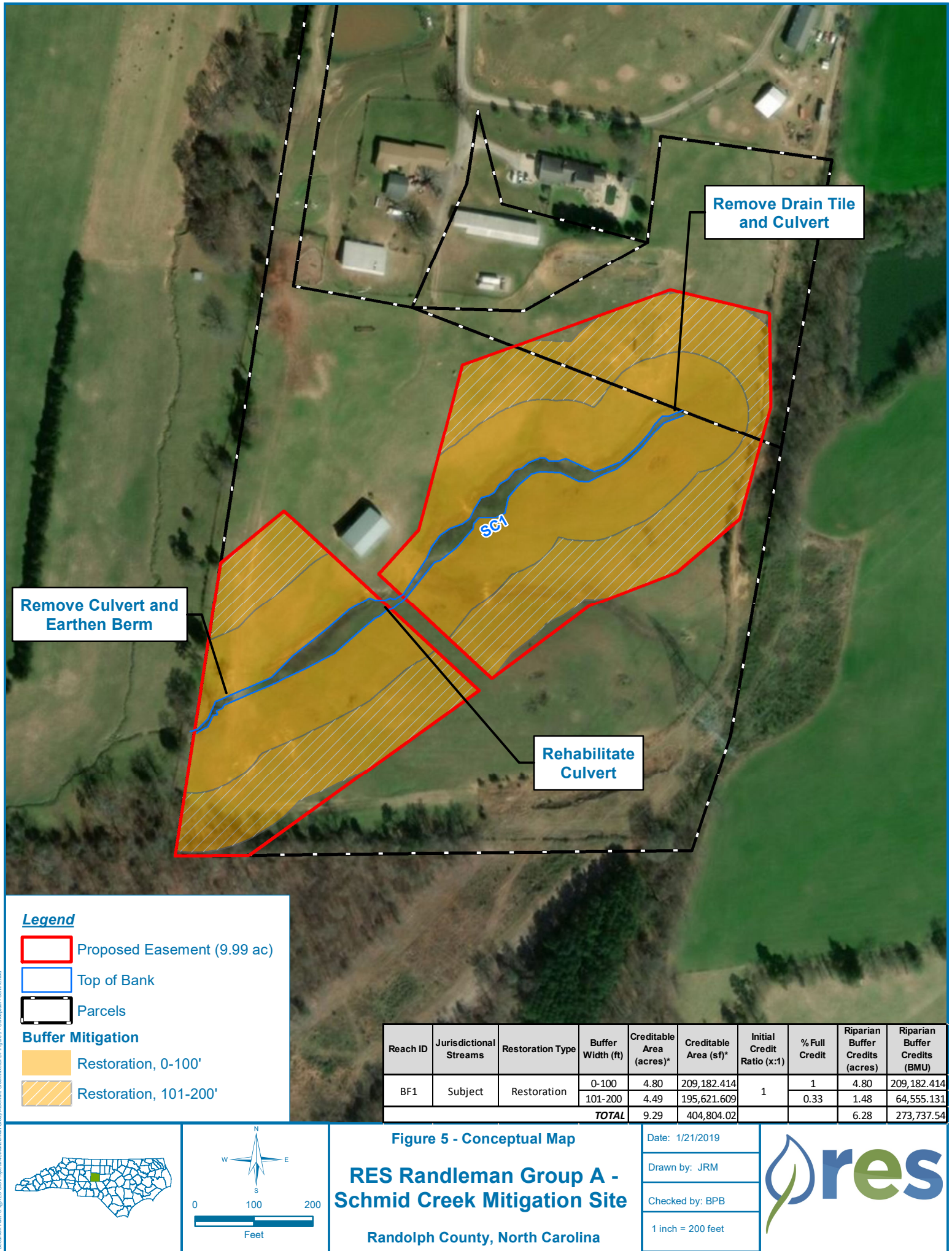
Date: 1/16/2019

Drawn by: MDD

Checked by: BPB

1 inch = 200 feet







Symbol	Name
MeB2	Mecklenburg clay loam, 2-8% slopes, moderately eroded
WtC	Wynott-Enon complex, 8-15% slopes

Legend

- Proposed Easement
- Hydric (100%)
- Predominantly Hydric (66-99%)
- Partially Hydric (33-65%)
- Predominantly Nonhydric (1-32%)
- Nonhydric (0%)

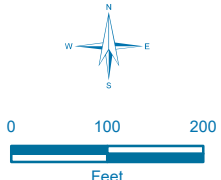
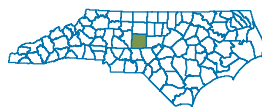


Figure 6 - Soils Map
RES Randleman Group A -
Schmid Creek Mitigation Site
Randolph County, North Carolina

Date: 1/16/2019

Drawn by: MDD

Check by: BPB

1 inch = 200 feet



Sunbeam Mitigation Site Figures

Figure 1. Site Vicinity Map

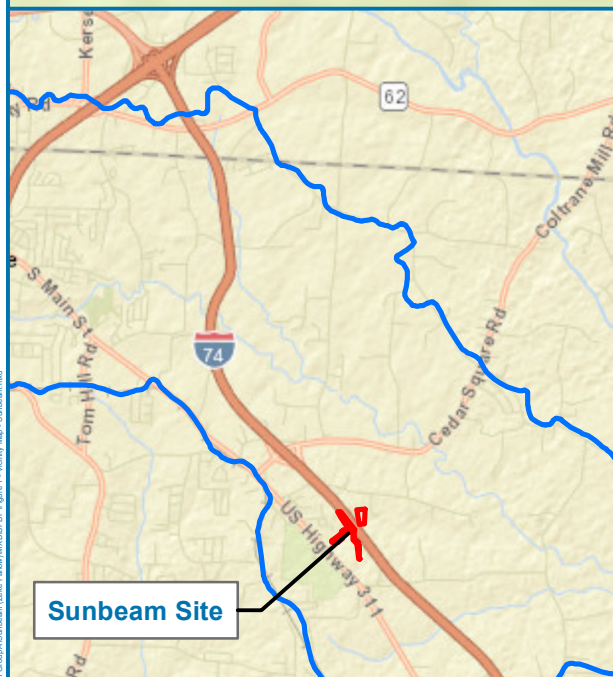
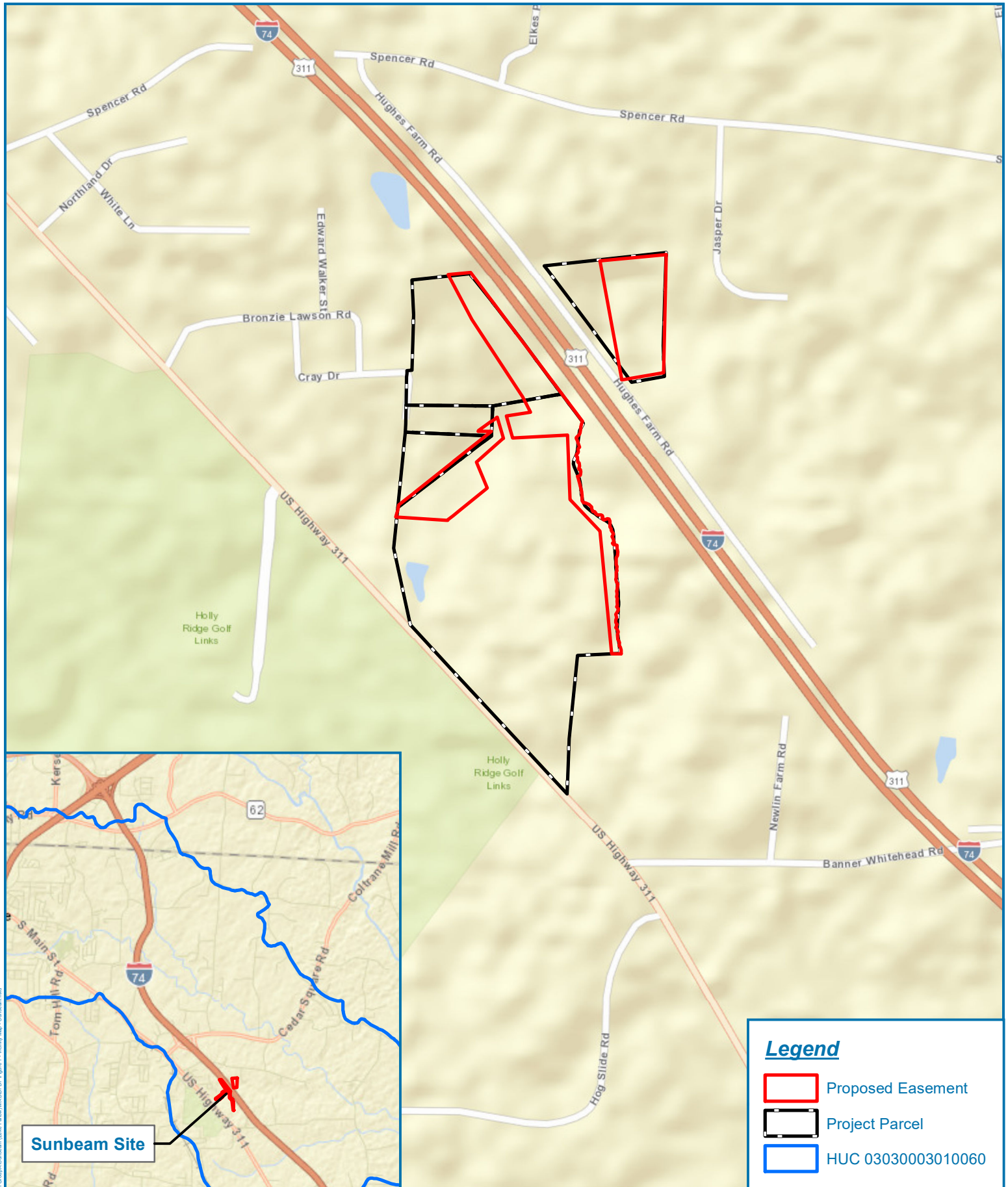
Figure 2. USGS Topographic Map

Figure 3. Existing Conditions Map

Figure 4. Monitoring Map

Figure 5. Riparian Buffer Conceptual Design and Credit Determination Map

Figure 6. Soils Map



Legend

- Proposed Easement
- Project Parcel
- HUC 03030003010060

0 400 800
Feet

Figure 1 - Vicinity Map

**RES Randleman Group A -
Sunbeam Mitigation Site**

Randolph County, North Carolina

Date: 1/16/2019

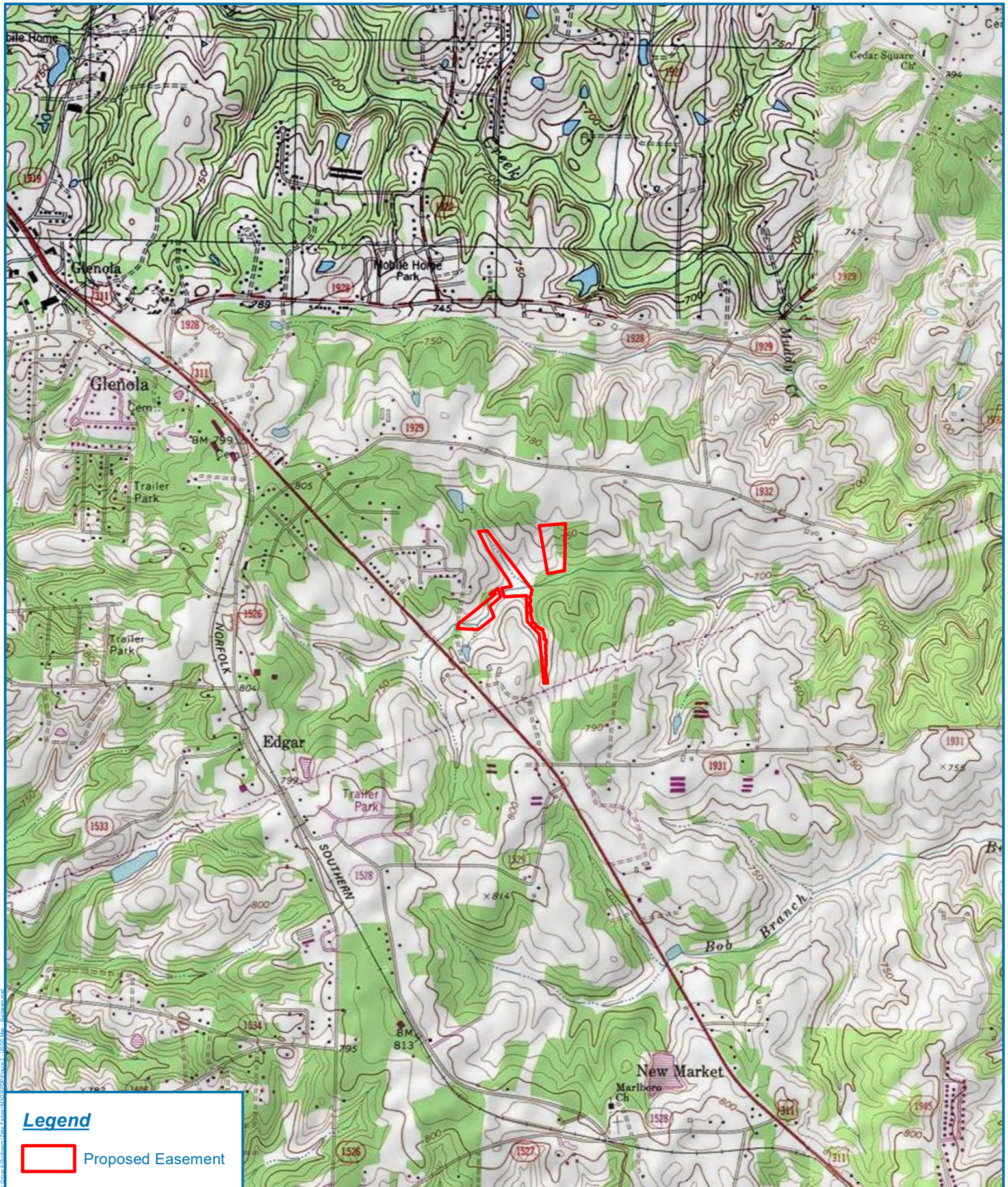
Drawn by: MDD

Checked by: BPB

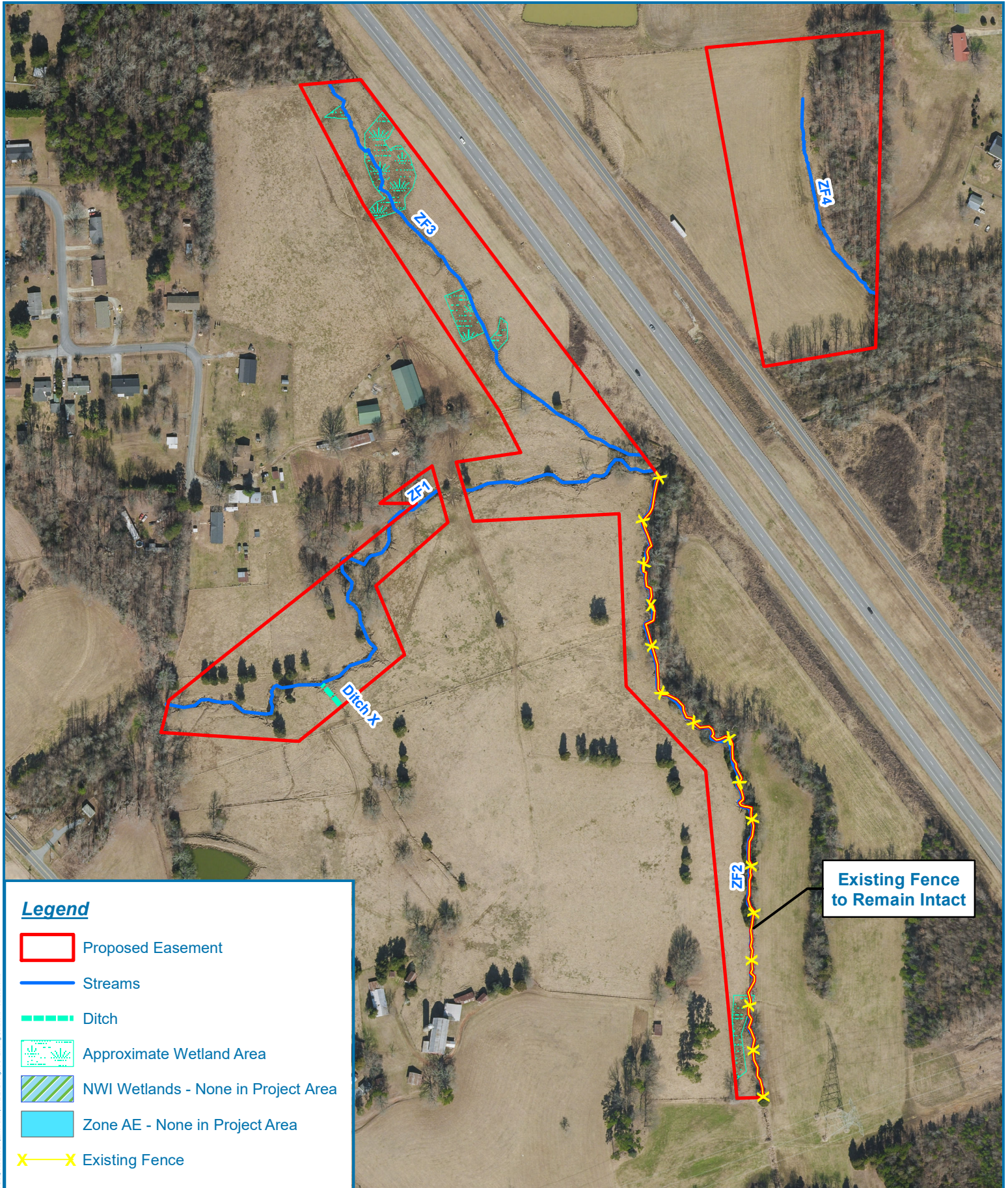
1 inch = 800 feet



Document Path: S:\RES GIS\Projects\NCE\Randeman Group A\Sunbeam\GIS\Figure 1 - Vicinity Map - Sunbeam.mxd



		<p>Figure 2 - USGS Map</p> <p>RES Randleman Group A - Sunbeam Mitigation Site</p> <p>Randolph County, North Carolina</p>	<p>Date: 1/16/2019</p> <p>Drawn by: EWT</p> <p>Checked by: BPB</p> <p>1 inch = 2,000 feet</p>	
--	--	---	---	--



Legend

- Proposed Easement
- Streams
- Ditch
- Approximate Wetland Area
- NWI Wetlands - None in Project Area
- Zone AE - None in Project Area
- X Existing Fence

Figure 3 - Existing Conditions Map

**RES Randleman Group A -
Sunbeam Mitigation Site**

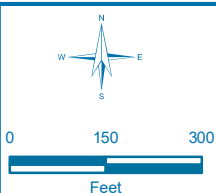
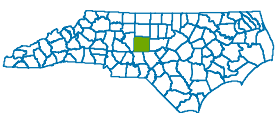
Randolph County, North Carolina

Date: 1/30/2019

Drawn by: MDE

Checked by: BPB

1 inch = 300 feet



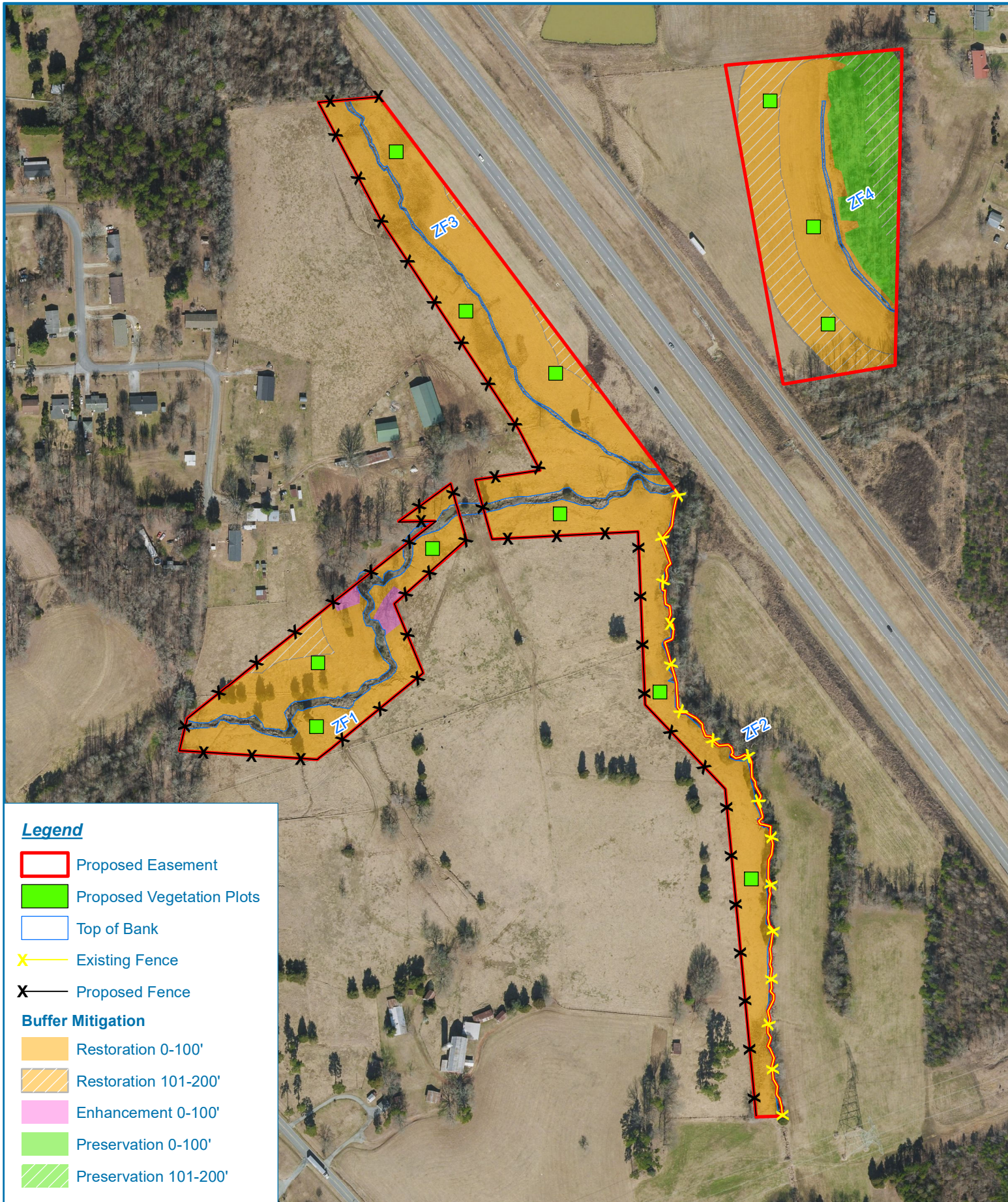


Figure 4 - Monitoring Map

**RES Randleman Group A:
Sunbeam Mitigation Site**

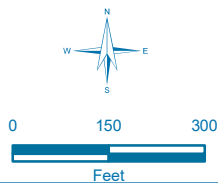
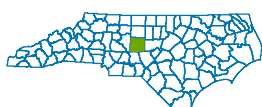
Randolph County, North Carolina

Date: 1/30/2019

Drawn by: MDD

Checked by: BPB

1 inch = 300 feet

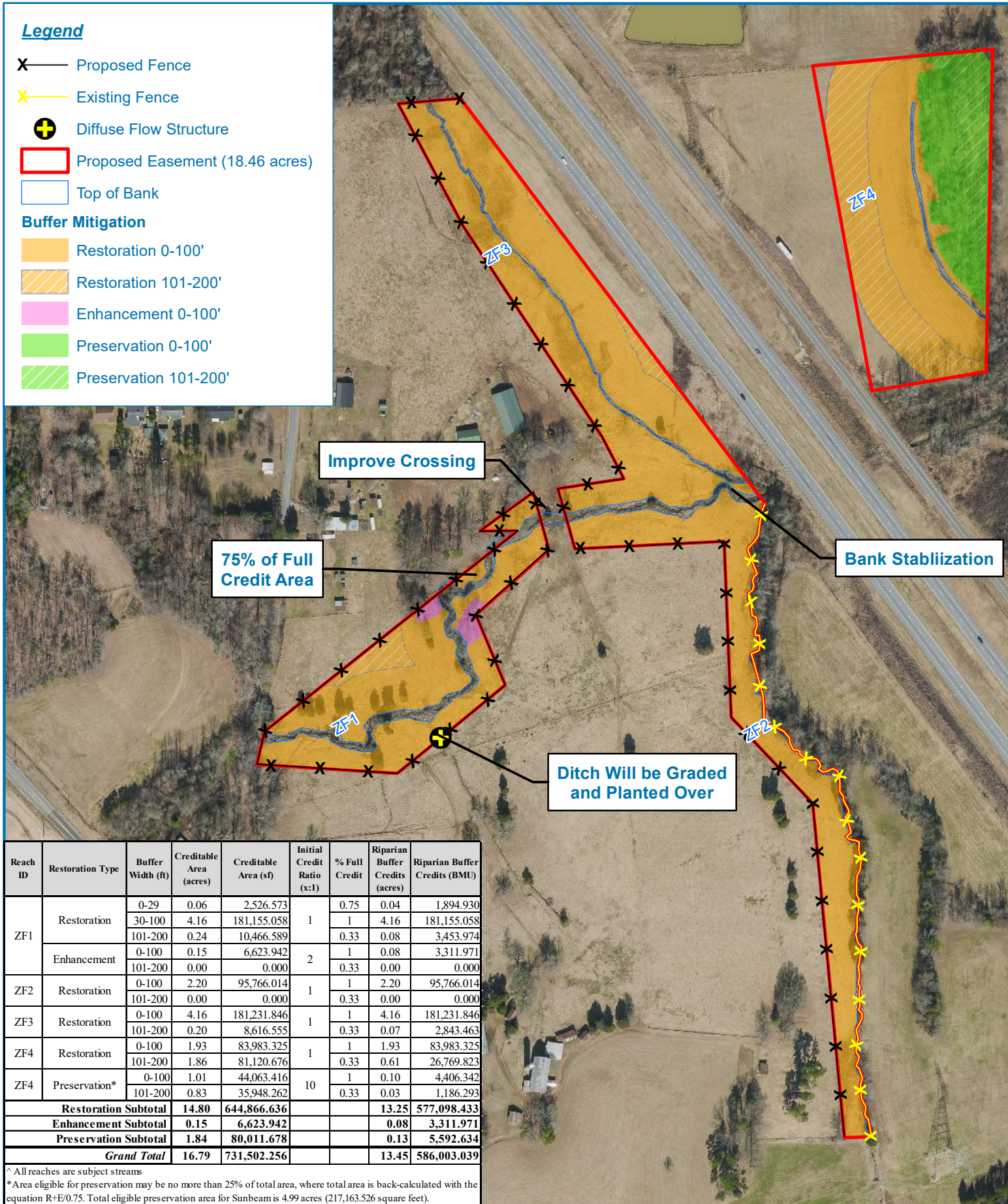


Legend

- Proposed Fence
- Existing Fence
- Diffuse Flow Structure
- Proposed Easement (18.46 acres)
- Top of Bank

Buffer Mitigation

- Restoration 0-100'
- Restoration 101-200'
- Enhancement 0-100'
- Preservation 0-100'
- Preservation 101-200'



Reach ID	Restoration Type	Buffer Width (ft)	Creditable Area (acres)	Creditable Area (sf)	Initial Credit Ratio (x:1)	% Full Credit	Riparian Buffer Credits (acres)	Riparian Buffer Credits (BMU)
ZF1	Restoration	0-29	0.06	2,526.573	1	0.75	0.04	1,894.930
		30-100	4.16	181,155.058		1	4.16	181,155.058
		101-200	0.24	10,466.589		0.33	0.08	3,453.974
	Enhancement	0-100	0.15	6,623.942	2	1	0.08	3,311.971
		101-200	0.00	0.000		0.33	0.00	0.000
ZF2	Restoration	0-100	2.20	95,766.014	1	1	2.20	95,766.014
		101-200	0.00	0.000		0.33	0.00	0.000
ZF3	Restoration	0-100	4.16	181,231.846	1	1	4.16	181,231.846
		101-200	0.20	8,616.555		0.33	0.07	2,843.463
ZF4	Restoration	0-100	1.93	83,983.325	1	1	1.93	83,983.325
		101-200	1.86	81,120.676		0.33	0.61	26,769.823
ZF4	Preservation*	0-100	1.01	44,063.416	10	1	0.10	4,406.342
		101-200	0.83	35,948.262		0.33	0.03	1,186.293
Restoration Subtotal			14.80	644,866.636			13.25	577,098.433
Enhancement Subtotal			0.15	6,623.942			0.08	3,311.971
Preservation Subtotal			1.84	80,011.678			0.13	5,592.634
Grand Total			16.79	731,502.256			13.45	586,003.039

* All reaches are subject streams

* Area eligible for preservation may be no more than 25% of total area, where total area is back-calculated with the equation $R+E/0.75$. Total eligible preservation area for Sunbeam is 4.99 acres (217,163.526 square feet).

Figure 5 - Conceptual Map

RES Randleman Group A:
Sunbeam Mitigation Site

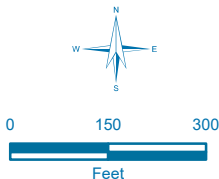
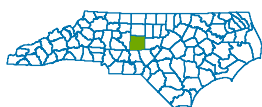
Randolph County, North Carolina

Date: 1/31/2019

Drawn by: MDE

Checked by: BPB

1 inch = 295 feet





Symbol	Name
MaC	Mecklenburg loam, 8-15% slopes
WtB	Wynott-Enon complex, 2-8% slopes
WvB2	Wynott-Enon complex, 2-8% slopes, moderately eroded
WvBC2	Wynott-Enon complex, 8-15% slopes, moderately eroded

Legend

- Proposed Easement
- Hydric (100%)
- Predominantly Hydric (66-99%)
- Partially Hydric (33-65%)
- Predominantly Nonhydric (1-32%)
- Nonhydric (0%)

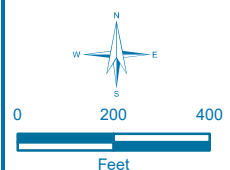
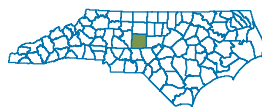


Figure 6 - Soils Map

**RES Randleman Group A -
Sunbeam Mitigation Site**

Randolph County, North Carolina

Date: 1/16/2019

Drawn by: MDE

Checked by: BPB

1 inch = 400 feet



Appendix A

- Site Protection Instruments
 - Pequod Site
 - Recorded Plat
 - Recorded Conservation Easement(s)
 - Schmid Creek Site
 - Recorded Plat
 - Recorded Conservation Easement(s)
 - Pequod Site
 - Recorded Plat
 - Recorded Conservation Easement(s)

Pequod

- Recorded Plat
- Recorded Conservation Easement(s)

This document presented and filed:

11/28/2018 03:41:06 PM

DEED

Fee \$26.00 Excise Tax: \$1,240.00



20070340

Randolph County North Carolina
Krista M. Lowe, Register of Deeds

STATE OF NORTH CAROLINA

**DEED OF CONSERVATION EASEMENT
AND RIGHT OF ACCESS PROVIDED
PURSUANT TO
FULL DELIVERY
MITIGATION CONTRACT**

RANDOLPH COUNTY

SPO File Number: 76-CA
DMS Project Number: 100046

Revenue Stamps
\$1240.00

Prepared by: Office of the Attorney General (Gary M. Teague)
Property Control Section
Return to: NC Department of Administration
State Property Office
1321 Mail Service Center
Raleigh, NC 27699-1321

THIS DEED OF CONSERVATION EASEMENT AND RIGHT OF ACCESS, made this 27 day of November, 2018, by Barbara R. Farlow ("Grantor"), whose mailing address is 409 Aldridge Road, Archdale, NC 27263 to the State of North Carolina, ("Grantee"), whose mailing address is State of North Carolina, Department of Administration, State Property Office, 1321 Mail Service Center, Raleigh, NC 27699-1321. The designations of Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine, or neuter as required by context.

WITNESSETH:

WHEREAS, pursuant to the provisions of N.C. Gen. Stat. § 143-214.8 et seq., the State of North Carolina has established the Division of Mitigation Services (formerly known as the Ecosystem Enhancement Program and Wetlands Restoration Program) within the Department of Environment and Natural Resources for the purposes of acquiring, maintaining, restoring, enhancing, creating and preserving wetland and riparian resources that contribute to the protection and improvement of water quality, flood prevention, fisheries, aquatic habitat, wildlife habitat, and recreational opportunities; and

WHEREAS, this Conservation Easement from Grantor to Grantee has been negotiated, arranged and provided for as a condition of a full delivery contract between Environmental Banc & Exchange, LLC and the North Carolina Department of Environmental Quality, to provide stream, wetland and/or buffer mitigation pursuant to the North Carolina Department of Environmental Quality Purchase and Services Contract Number 7427.

WHEREAS, The State of North Carolina is qualified to be the Grantee of a Conservation Easement pursuant to N.C. Gen. Stat. § 121-35; and

WHEREAS, the Department of Environment and Natural Resources and the United States Army Corps of Engineers, Wilmington District entered into a Memorandum of Understanding, (MOU) duly executed by all parties on November 4, 1998. This MOU recognized that the Wetlands Restoration Program was to provide effective compensatory mitigation for authorized impacts to wetlands, streams and other aquatic resources by restoring, enhancing and preserving the wetland and riparian areas of the State; and

WHEREAS, the Department of Environment and Natural Resources, the North Carolina Department of Transportation and the United States Army Corps of Engineers, Wilmington District entered into a Memorandum of Agreement, (MOA) duly executed by all parties in Greensboro, NC on July 22, 2003, which recognizes that the Division of Mitigation Services (formerly Ecosystem Enhancement Program) is to provide for compensatory mitigation by effective protection of the land, water and natural resources of the State by restoring, enhancing and preserving ecosystem functions; and

WHEREAS, the Department of Environment and Natural Resources, the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the North Carolina Wildlife Resources Commission, the North Carolina Division of Water Quality, the North Carolina Division of Coastal Management, and the National Marine Fisheries Service entered into an agreement to continue the In-Lieu Fee operations of the North Carolina Department of Natural Resources' Division of Mitigation Services (formerly Ecosystem Enhancement Program) with an effective date of 28 July, 2010, which supersedes and replaces the previously effective MOA and MOU referenced above; and

WHEREAS, the acceptance of this instrument for and on behalf of the State of North Carolina was granted to the Department of Administration by resolution as approved by the Governor and Council of State adopted at a meeting held in the City of Raleigh, North Carolina, on the 8th day of February 2000; and

WHEREAS, the Division of Mitigation Services in the Department of Environmental Quality, which has been delegated the authority authorized by the Governor and Council of State to the Department of Administration, has approved acceptance of this instrument; and

WHEREAS, Grantor owns in fee simple certain real property situated, lying, and being in Trinity Township, Randolph County, North Carolina (the "**Property**"), and being more particularly described as that certain parcel of land containing approximately 79.36 acres and

being conveyed to the Grantor by deed as recorded in **Deed Book 1120 at Page 791** of the Randolph County Registry, North Carolina; and

WHEREAS, Grantor is willing to grant a Conservation Easement and Right of Access over the herein described areas of the Property, thereby restricting and limiting the use of the areas of the Property subject to the Conservation Easement to the terms and conditions and purposes hereinafter set forth, and Grantee is willing to accept said Easement and Access Rights. The Conservation Easement shall be for the protection and benefit of the waters of Randleman Lake, Cape Fear 03030003.

NOW, THEREFORE, in consideration of the mutual covenants, terms, conditions, and restrictions hereinafter set forth, Grantor unconditionally and irrevocably hereby grants and conveys unto Grantee, its successors and assigns, forever and in perpetuity, a Conservation Easement along with a general Right of Access.

The Conservation Easement Area consists of the following:

Area 1 containing a total of **6.41 acres** as shown on the plats of survey entitled "Final Plat, Conservation Easement for North Carolina Division of Mitigation Services, Project Name: Pequod, SPO File No. 76-CA, EEP Site No. 100046, Property of Barbara R. Farlow," dated June 28, 2018 GC Mapping, PLLC., PLS Number L-4596 and recorded in the Randolph County, North Carolina Register of Deeds at **Plat Book 158 Page 53**.

Area 2 containing a total of **12.90 acres** as shown on the plats of survey entitled "Final Plat, Conservation Easement for North Carolina Division of Mitigation Services, Project Name: Pequod, SPO File No. 76-CA, EEP Site No. 100046, Property of Barbara R. Farlow," dated June 28, 2018 by GC Mapping, PLLC., PLS Number L-4596 and recorded in the Randolph County, North Carolina Register of Deeds at **Plat Book 158 Page 53**.

Area 3 containing a total of **2.82 acres** as shown on the plats of survey entitled "Final Plat, Conservation Easement for North Carolina Division of Mitigation Services, Project Name: Pequod, SPO File No. 76-CA, EEP Site No. 100046, Property of Barbara R. Farlow," dated June 28, 2018 by GC Mapping, PLLC., PLS Number L-4596 and recorded in the Randolph County, North Carolina Register of Deeds at **Plat Book 158 Page 53**.

See attached "**Exhibit A**", Legal Description of area of the Property hereinafter referred to as the "Conservation Easement Area"

The purposes of this Conservation Easement are to maintain, restore, enhance, construct, create and preserve wetland and/or riparian resources in the Conservation Easement Area that contribute to the protection and improvement of water quality, flood prevention, fisheries, aquatic habitat, wildlife habitat, and recreational opportunities; to maintain permanently the Conservation Easement Area in its natural condition, consistent with these purposes; and to

prevent any use of the Easement Area that will significantly impair or interfere with these purposes. To achieve these purposes, the following conditions and restrictions are set forth:

I. DURATION OF EASEMENT

Pursuant to law, including the above referenced statutes, this Conservation Easement and Right of Access shall be perpetual and it shall run with, and be a continuing restriction upon the use of, the Property, and it shall be enforceable by the Grantee against the Grantor and against Grantor's heirs, successors and assigns, personal representatives, agents, lessees, and licensees.

II. GRANTOR RESERVED USES AND RESTRICTED ACTIVITIES

The Conservation Easement Area shall be restricted from any development or usage that would impair or interfere with the purposes of this Conservation Easement. Unless expressly reserved as a compatible use herein, any activity in, or use of, the Conservation Easement Area by the Grantor is prohibited as inconsistent with the purposes of this Conservation Easement. Any rights not expressly reserved hereunder by the Grantor have been acquired by the Grantee. Any rights not expressly reserved hereunder by the Grantor, including the rights to all mitigation credits, including, but not limited to, stream, wetland, and riparian buffer mitigation units, derived from each site within the area of the Conservation Easement, are conveyed to and belong to the Grantee. Without limiting the generality of the foregoing, the following specific uses are prohibited, restricted, or reserved as indicated:

A. Recreational Uses. Grantor expressly reserves the right to undeveloped recreational uses, including hiking, bird watching, hunting and fishing, and access to the Conservation Easement Area for the purposes thereof.

B. Motorized Vehicle Use. Motorized vehicle use in the Conservation Easement Area is prohibited except within a Crossing Area(s) or Road or Trail as shown on the recorded survey plat.

C. Educational Uses. The Grantor reserves the right to engage in and permit others to engage in educational uses in the Conservation Easement Area not inconsistent with this Conservation Easement, and the right of access to the Conservation Easement Area for such purposes including organized educational activities such as site visits and observations. Educational uses of the property shall not alter vegetation, hydrology or topography of the site.

D. Damage to Vegetation. Except within Crossing Area(s) as shown on the recorded survey plat and as related to the removal of non-native plants, diseased or damaged trees, or vegetation that destabilizes or renders unsafe the Conservation Easement Area to persons or natural habitat, all cutting, removal, mowing, harming, or destruction of any trees and vegetation in the Conservation Easement Area is prohibited.

E. Industrial, Residential and Commercial Uses. All industrial, residential and commercial uses are prohibited in the Conservation Easement Area.

F. Agricultural Use. All agricultural uses are prohibited within the Conservation Easement Area including any use for cropland, waste lagoons, or pastureland.

G. New Construction. There shall be no building, facility, mobile home, antenna, utility pole, tower, or other structure constructed or placed in the Conservation Easement Area.

H. Roads and Trails. There shall be no construction or maintenance of new roads, trails, walkways, or paving in the Conservation Easement.

All existing roads, trails and crossings within the Conservation Easement Area shall be shown on the recorded survey plat.

I. Signs. No signs shall be permitted in the Conservation Easement Area except interpretive signs describing restoration activities and the conservation values of the Conservation Easement Area, signs identifying the owner of the Property and the holder of the Conservation Easement, signs giving directions, or signs prescribing rules and regulations for the use of the Conservation Easement Area.

J. Dumping or Storing. Dumping or storage of soil, trash, ashes, garbage, waste, abandoned vehicles, appliances, machinery, or any other material in the Conservation Easement Area is prohibited.

K. Grading, Mineral Use, Excavation, Dredging. There shall be no grading, filling, excavation, dredging, mining, drilling, hydraulic fracturing; removal of topsoil, sand, gravel, rock, peat, minerals, or other materials.

L. Water Quality and Drainage Patterns. There shall be no diking, draining, dredging, channeling, filling, leveling, pumping, impounding or diverting, causing, allowing or permitting the diversion of surface or underground water in the Conservation Easement Area. No altering or tampering with water control structures or devices, or disruption or alteration of the restored, enhanced, or created drainage patterns is allowed. All removal of wetlands, polluting or discharging into waters, springs, seeps, or wetlands, or use of pesticide or biocides in the Conservation Easement Area is prohibited. In the event of an emergency interruption or shortage of all other water sources, water from within the Conservation Easement Area may temporarily be withdrawn for good cause shown as needed for the survival of livestock on the Property.

M. Subdivision and Conveyance. Grantor voluntarily agrees that no further subdivision, partitioning, or dividing of the Conservation Easement Area portion of the Property owned by the Grantor in fee simple ("fee") that is subject to this Conservation Easement is allowed. Any future transfer of the Property shall be subject to this Conservation Easement and Right of Access and to the Grantee's right of unlimited and repeated ingress and egress over and across the Property to the Conservation Easement Area for the purposes set forth herein.

N. Development Rights. All development rights are permanently removed from the Conservation Easement Area and are non-transferrable.

O. Disturbance of Natural Features. Any change, disturbance, alteration or impairment of the natural features of the Conservation Easement Area or any intentional introduction of non-native plants, trees and/or animal species by Grantor is prohibited.

The Grantor may request permission to vary from the above restrictions for good cause shown, provided that any such request is not inconsistent with the purposes of this Conservation Easement, and the Grantor obtains advance written approval from the Division of Mitigation Services, 1652 Mail Services Center, Raleigh, NC 27699-1652.

III. GRANTEE RESERVED USES

A. Right of Access, Construction, and Inspection. The Grantee, its employees and agents, successors and assigns, receive a perpetual Right of Access to the Conservation Easement Area over the Property at reasonable times to undertake any activities on the property to restore, construct, manage, maintain, enhance, protect, and monitor the stream, wetland and any other riparian resources in the Conservation Easement Area, in accordance with restoration activities or a long-term management plan. Unless otherwise specifically set forth in this Conservation Easement, the rights granted herein do not include or establish for the public any access rights.

B. Restoration Activities. These activities include planting of trees, shrubs and herbaceous vegetation, installation of monitoring wells, utilization of heavy equipment to grade, fill, and prepare the soil, modification of the hydrology of the site, and installation of natural and manmade materials as needed to direct in-stream, above ground, and subterranean water flow.

C. Signs. The Grantee, its employees and agents, successors or assigns, shall be permitted to place signs and witness posts on the Property to include any or all of the following: describe the project, prohibited activities within the Conservation Easement, or identify the project boundaries and the holder of the Conservation Easement.

D. Fences. Conservation Easements are purchased to protect the investments by the State (Grantee) in natural resources. Livestock within conservation easements damages the investment and can result in reductions in natural resource value and mitigation credits which would cause financial harm to the State. Therefore, Landowners (Grantor) with livestock are required to restrict livestock access to the Conservation Easement area. Repeated failure to do so may result in the State (Grantee) repairing or installing livestock exclusion devices (fences) within the conservation area for the purpose of restricting livestock access. In such cases, the landowner (Grantor) must provide access to the State (Grantee) to make repairs.

E. Crossing Area(s). The Grantee is not responsible for maintenance of crossing area(s), however, the Grantee, its employees and agents, successors or assigns, reserve the right to repair crossing area(s), at its sole discretion and to recover the cost of such repairs from the Grantor if such repairs are needed as a result of activities of the Grantor, his successors or assigns.

IV. ENFORCEMENT AND REMEDIES

A. Enforcement. To accomplish the purposes of this Conservation Easement, Grantee is allowed to prevent any activity within the Conservation Easement Area that is inconsistent with the purposes of this Conservation Easement and to require the restoration of such areas or features in the Conservation Easement Area that may have been damaged by such unauthorized activity or use. Upon any breach of the terms of this Conservation Easement by Grantor, the Grantee shall, except as provided below, notify the Grantor in writing of such breach and the Grantor shall have ninety (90) days after receipt of such notice to correct the damage caused by such breach. If the breach and damage remains uncured after ninety (90) days, the Grantee may enforce this Conservation Easement by bringing appropriate legal proceedings including an action to recover damages, as well as injunctive and other relief. The Grantee shall also have the power and authority, consistent with its statutory authority: (a) to prevent any impairment of the Conservation Easement Area by acts which may be unlawful or in violation of this Conservation Easement; (b) to otherwise preserve or protect its interest in the Property; or (c) to seek damages from any appropriate person or entity. Notwithstanding the foregoing, the Grantee reserves the immediate right, without notice, to obtain a temporary restraining order, injunctive or other appropriate relief, if the breach is or would irreversibly or otherwise materially impair the benefits to be derived from this Conservation Easement, and the Grantor and Grantee acknowledge that the damage would be irreparable and remedies at law inadequate. The rights and remedies of the Grantee provided hereunder shall be in addition to, and not in lieu of, all other rights and remedies available to Grantee in connection with this Conservation Easement.

B. Inspection. The Grantee, its employees and agents, successors and assigns, have the right, with reasonable notice, to enter the Conservation Easement Area over the Property at reasonable times for the purpose of inspection to determine whether the Grantor is complying with the terms, conditions and restrictions of this Conservation Easement.

C. Acts Beyond Grantor's Control. Nothing contained in this Conservation Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury or change in the Conservation Easement Area caused by third parties, resulting from causes beyond the Grantor's control, including, without limitation, fire, flood, storm, and earth movement, or from any prudent action taken in good faith by the Grantor under emergency conditions to prevent, abate, or mitigate significant injury to life or damage to the Property resulting from such causes.

D. Costs of Enforcement. Beyond regular and typical monitoring expenses, any costs incurred by Grantee in enforcing the terms of this Conservation Easement against Grantor, including, without limitation, any costs of restoration necessitated by Grantor's acts or omissions in violation of the terms of this Conservation Easement, shall be borne by Grantor.

E. No Waiver. Enforcement of this Easement shall be at the discretion of the Grantee and any forbearance, delay or omission by Grantee to exercise its rights hereunder in the event of any breach of any term set forth herein shall not be construed to be a waiver by Grantee.

V. MISCELLANEOUS

A. This instrument sets forth the entire agreement of the parties with respect to the Conservation Easement and supersedes all prior discussions, negotiations, understandings or

agreements relating to the Conservation Easement. If any provision is found to be invalid, the remainder of the provisions of the Conservation Easement, and the application of such provision to persons or circumstances other than those as to which it is found to be invalid, shall not be affected thereby.

B. Grantor is responsible for any real estate taxes, assessments, fees, or charges levied upon the Property. Grantee shall not be responsible for any costs or liability of any kind related to the ownership, operation, insurance, upkeep, or maintenance of the Property, except as expressly provided herein. Upkeep of any constructed bridges, fences, or other amenities on the Property are the sole responsibility of the Grantor. Nothing herein shall relieve the Grantor of the obligation to comply with federal, state or local laws, regulations and permits that may apply to the exercise of the Reserved Rights.

C. Any notices shall be sent by registered or certified mail, return receipt requested to the parties at their addresses shown herein or to other addresses as either party establishes in writing upon notification to the other.

D. Grantor shall notify Grantee in writing of the name and address and any party to whom the Property or any part thereof is to be transferred at or prior to the time said transfer is made. Grantor further agrees that any subsequent lease, deed, or other legal instrument by which any interest in the Property is conveyed is subject to the Conservation Easement herein created.

E. The Grantor and Grantee agree that the terms of this Conservation Easement shall survive any merger of the fee and easement interests in the Property or any portion thereof.

F. This Conservation Easement and Right of Access may be amended, but only in writing signed by all parties hereto, or their successors or assigns, if such amendment does not affect the qualification of this Conservation Easement or the status of the Grantee under any applicable laws, and is consistent with the purposes of the Conservation Easement. The owner of the Property shall notify the State Property Office and the U.S. Army Corps of Engineers in writing sixty (60) days prior to the initiation of any transfer of all or any part of the Property or of any request to void or modify this Conservation Easement. Such notifications and modification requests shall be addressed to:

Division of Mitigation Services Program Manager
NC State Property Office
1321 Mail Service Center
Raleigh, NC 27699-1321

and

General Counsel
US Army Corps of Engineers
69 Darlington Avenue
Wilmington, NC 28403

G. The parties recognize and agree that the benefits of this Conservation Easement are in gross and assignable provided, however, that the Grantee hereby covenants and agrees, that in the event it transfers or assigns this Conservation Easement, the organization receiving the interest will be a qualified holder under N.C. Gen. Stat. § 121-34 et seq. and § 170(h) of the Internal Revenue Code, and the Grantee further covenants and agrees that the terms of the transfer or assignment will be such that the transferee or assignee will be required to continue in perpetuity the conservation purposes described in this document.

VI. QUIET ENJOYMENT

Grantor reserves all remaining rights accruing from ownership of the Property, including the right to engage in or permit or invite others to engage in only those uses of the Conservation Easement Area that are expressly reserved herein, not prohibited or restricted herein, and are not inconsistent with the purposes of this Conservation Easement. Without limiting the generality of the foregoing, the Grantor expressly reserves to the Grantor, and the Grantor's invitees and licensees, the right of access to the Conservation Easement Area, and the right of quiet enjoyment of the Conservation Easement Area,

TO HAVE AND TO HOLD, the said rights and easements perpetually unto the State of North Carolina for the aforesaid purposes,

AND Grantor covenants that Grantor is seized of said premises in fee and has the right to convey the permanent Conservation Easement herein granted; that the same is free from encumbrances and that Grantor will warrant and defend title to the same against the claims of all persons whomsoever.

IN TESTIMONY WHEREOF, the Grantor has hereunto set his hand and seal, the day and year first above written.

Barbara R. Farlow (SEAL)

NORTH CAROLINA
COUNTY OF RANDOLPH

I, Cathy Ashcraft-Edley, a Notary Public in and for the County and State aforesaid, do hereby certify that Barbara R. Farlow, Grantor, personally appeared before me this day and acknowledged the execution of the foregoing instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and Notary Seal this the 27 day of November, 2018.

Cathy Ashcraft-Edley
Notary Public

My commission expires:

07/24/2023

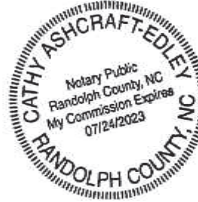


Exhibit A

Exhibit A

ALL OF THAT CERTAIN PARCEL OF LAND NOW OR FORMERLY OWNED BY BARBARA R. FARLOW WITH PIN 7728170374 FOUND IN DEED BOOK 1120 PAGE 791 OF THE RANDOLPH COUNTY REGISTRY, LYING AND BEING SITUATED IN THE TOWNSHIP OF TRINITY, COUNTY OF RANDOLPH, STATE OF NORTH CAROLINA, CONTAINING IN AGGREGATE 22.14 ACRES (964,403 SQ FT.), AS SHOWN ON THE PLAT ENTITLED "RES RANDLEMAN GROUP-A PEQUOD", PREPARED BY GUY V. COOKE OF GC MAPPING, PLLC NCPLS L-4596, DATED 10-11-2018, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

EASEMENT AREA 1

COMMENCING AT AN IRON PIPE FOUND LABELED CONTROL CORNER WITH NORTH CAROLINA GRID COORDINATES N: 787923.25 E: 1721129.97, THENCE S 65°50'47" W A DISTANCE OF 801.87' TO AN IRON ROD LABELED #60 WHICH IS THE POINT OF BEGINNING; THENCE N 63°05'28" E A DISTANCE OF 208.77' TO AN IRON ROD LABELED #61; THENCE N 87°56'28" E A DISTANCE OF 354.93' TO AN IRON ROD LABELED #62; THENCE S 75°08'22" E A DISTANCE OF 155.87' TO AN IRON ROD LABELED #63; THENCE N 82°36'51" E A DISTANCE OF 196.25' TO AN IRON ROD LABELED #64 THENCE S 14°50'54" E A DISTANCE OF 224.52' TO AN IRON ROD LABELED #65; THENCE S 39°24'58" W A DISTANCE OF 431.13' TO AN IRON ROD LABELED #66; THENCE N 60°22'58" W A DISTANCE OF 203.63' TO AN IRON ROD LABELED #67; THENCE N 30°21'18" E A DISTANCE OF 268.83' TO AN IRON ROD LABELED #68; THENCE N 87°46'26" W A DISTANCE OF 374.01' TO AN IRON ROD LABELED #69; THENCE S 63°06'46" W A DISTANCE OF 184.84' TO AN IRON ROD LABELED #70; THENCE S 77°52'55" W A DISTANCE OF 96.07' TO AN IRON ROD LABELED #71; THENCE N 01°00'16" E A DISTANCE OF 214.26' TO AN IRON ROD LABELED #60 WHICH IS THE POINT AND PLACE OF BEGINNING AND CONTAINING 279,253 SQ FT OR 6.41 ACRES.

EASEMENT AREA 2

COMMENCING AT AN IRON PIPE FOUND LABELED CONTROL CORNER WITH NORTH CAROLINA GRID COORDINATES N: 787923.25 E: 1721129.97, THENCE N 88°27'13" E A DISTANCE OF 470.70' TO AN IRON ROD LABELED #74 WHICH IS THE POINT OF BEGINNING; THENCE S 88°27'13" E A DISTANCE OF 1416.71' TO AN IRON PIPE FOUND; THENCE S 04°15'53" W A DISTANCE OF 143.32' TO AN IRON ROD LABELED #75; THENCE S 64°29'12" W A DISTANCE OF 493.39' TO AN IRON ROD LABELED #76; THENCE S 88°47'52" W A DISTANCE OF 248.55' TO AN IRON ROD LABELED #77; THENCE N 69°33'44" W A DISTANCE OF 359.84' TO AN IRON ROD LABELED #78; THENCE S 87°57'12" W A DISTANCE OF 115.22' TO AN IRON ROD

LABELED #79; THENCE S 05°43'52" E A DISTANCE OF 306.57' TO AN IRON ROD LABELED #80; THENCE S 68°17'28" W A DISTANCE OF 232.48' TO AN IRON ROD LABELED #81; THENCE N 14°15'10" W A DISTANCE OF 161.75' TO AN IRON ROD LABELED #82; THENCE N 72°23'57" W A DISTANCE OF 253.92' TO AN IRON ROD LABELED #83; THENCE N 15°03'16" W A DISTANCE OF 217.34' TO AN IRON ROD LABELED #72; THENCE S 87°56'34" E A DISTANCE OF 275.92' TO AN IRON ROD LABELED #73; THENCE N 02°47'48" W A DISTANCE OF 235.13' TO AN IRON ROD LABELED #74; WHICH IS THE POINT AND PLACE OF BEGINNING AND CONTAINING 562,093 SQ FT OR 12.90 ACRES.

EASEMENT AREA 3

COMMENCING AT AN IRON PIPE FOUND LABELED CONTROL CORNER WITH NORTH CAROLINA GRID COORDINATES N: 786939.78 E: 1722228.81, THENCE N 88°52'58" W A DISTANCE OF 140.77' TO AN IRON ROD LABELED #89 WHICH IS THE POINT OF BEGINNING; THENCE N 88°52'58" W A DISTANCE OF 580.88' TO AN IRON ROD LABELED #84 THENCE N 25°35'31" E A DISTANCE OF 146.81' TO AN IRON ROD LABELED #85; THENCE N 51°28'23" E A DISTANCE OF 161.05' TO AN IRON ROD LABELED #86; THENCE N 68°17'28" E A DISTANCE OF 232.26' TO AN IRON ROD LABELED #87; THENCE S 34°01'07" E A DISTANCE OF 312.22' TO AN IRON ROD LABELED #88; THENCE S 00°43'10" E A DISTANCE OF 71.18' TO AN IRON ROD LABELED #89; WHICH IS THE POINT AND PLACE OF BEGINNING AND CONTAINING 123,056 SQ FT OR 2.82 ACRES.

Schmid Creek

- Recorded Plat
- Recorded Conservation Easement(s)

This document presented and filed:

02/20/2019 01:57:54 PM

DEED

Fee \$26.00 Excise Tax: \$0.00



20074175

Randolph County North Carolina
Krista M. Lowe, Register of Deeds

STATE OF NORTH CAROLINA

**DEED OF CONSERVATION EASEMENT
AND RIGHT OF ACCESS PROVIDED
PURSUANT TO
FULL DELIVERY
MITIGATION CONTRACT**

NTC

RANDOLPH COUNTY

SPO File Number: 76-BZ

DMS Project Number: 100046

Prepared by: Office of the Attorney General (GARY M. TEAGUE)

Property Control Section

Return to: NC Department of Administration

State Property Office

1321 Mail Service Center

Raleigh, NC 27699-1321

THIS DEED OF CONSERVATION EASEMENT AND RIGHT OF ACCESS, made this 20th day of February, 2019, by Environmental Banc & Exchange, LLC, a Maryland limited liability company ("**Grantor**"), whose mailing address is 302 Jefferson Street Suite 110, Raleigh, NC 27605, to the State of North Carolina, ("**Grantee**"), whose mailing address is State of North Carolina, Department of Administration, State Property Office, 1321 Mail Service Center, Raleigh, NC 27699-1321. The designations of Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine, or neuter as required by context.

WITNESSETH:

WHEREAS, pursuant to the provisions of N.C. Gen. Stat. § 143-214.8 et seq., the State of North Carolina has established the Division of Mitigation Services (formerly known as the Ecosystem Enhancement Program and Wetlands Restoration Program) within the Department of Environment and Natural Resources for the purposes of acquiring, maintaining, restoring, enhancing, creating and preserving wetland and riparian resources that contribute to the

protection and improvement of water quality, flood prevention, fisheries, aquatic habitat, wildlife habitat, and recreational opportunities; and

WHEREAS, this Conservation Easement from Grantor to Grantee has been negotiated, arranged and provided for as a condition of a full delivery contract between Environmental Banc & Exchange, LLC and the North Carolina Department of Environmental Quality, to provide stream, wetland and/or buffer mitigation pursuant to the North Carolina Department of Environmental Quality Purchase and Services Contract Number 7427.

WHEREAS, The State of North Carolina is qualified to be the Grantee of a Conservation Easement pursuant to N.C. Gen. Stat. § 121-35; and

WHEREAS, the Department of Environment and Natural Resources and the United States Army Corps of Engineers, Wilmington District entered into a Memorandum of Understanding, (MOU) duly executed by all parties on November 4, 1998. This MOU recognized that the Wetlands Restoration Program was to provide effective compensatory mitigation for authorized impacts to wetlands, streams and other aquatic resources by restoring, enhancing and preserving the wetland and riparian areas of the State; and

WHEREAS, the Department of Environment and Natural Resources, the North Carolina Department of Transportation and the United States Army Corps of Engineers, Wilmington District entered into a Memorandum of Agreement, (MOA) duly executed by all parties in Greensboro, NC on July 22, 2003, which recognizes that the Division of Mitigation Services (formerly Ecosystem Enhancement Program) is to provide for compensatory mitigation by effective protection of the land, water and natural resources of the State by restoring, enhancing and preserving ecosystem functions; and

WHEREAS, the Department of Environment and Natural Resources, the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the North Carolina Wildlife Resources Commission, the North Carolina Division of Water Quality, the North Carolina Division of Coastal Management, and the National Marine Fisheries Service entered into an agreement to continue the In-Lieu Fee operations of the North Carolina Department of Natural Resources' Division of Mitigation Services (formerly Ecosystem Enhancement Program) with an effective date of 28 July, 2010, which supersedes and replaces the previously effective MOA and MOU referenced above; and

WHEREAS, the acceptance of this instrument for and on behalf of the State of North Carolina was granted to the Department of Administration by resolution as approved by the Governor and Council of State adopted at a meeting held in the City of Raleigh, North Carolina, on the 8th day of February 2000; and

WHEREAS, the Division of Mitigation Services in the Department of Environmental Quality, which has been delegated the authority authorized by the Governor and Council of State to the Department of Administration, has approved acceptance of this instrument; and

WHEREAS, Grantor owns in fee simple certain real property situated, lying, and being in New Market Township, Randolph County, North Carolina (the "**Property**"), and being more particularly described as that certain parcel of land containing approximately 24.0 acres and being conveyed to the Grantor by deed as recorded in **Deed Book 2551 at Page 1051** of the Randolph County Registry, North Carolina; and

WHEREAS, Grantor is willing to grant a Conservation Easement and Right of Access over the herein described areas of the Property, thereby restricting and limiting the use of the areas of the Property subject to the Conservation Easement to the terms and conditions and purposes hereinafter set forth, and Grantee is willing to accept said Easement and Access Rights. The Conservation Easement shall be for the protection and benefit of the waters of Randleman Lake, Cape Fear 03030003.

NOW, THEREFORE, in consideration of the mutual covenants, terms, conditions, and restrictions hereinafter set forth, Grantor unconditionally and irrevocably hereby grants and conveys unto Grantee, its successors and assigns, forever and in perpetuity, a Conservation Easement along with a general Right of Access.

The Conservation Easement Area consists of the following:

Easement A containing a total of **3.804 acres** as shown on the plats of survey entitled "Final Plat, Conservation Easement for North Carolina Division of Mitigation Services, Project Name: Schmid Creek, SPO File No. 76-BZ, DMS Site No. 100046, Property of Environmental Banc & Exchange, LLC," dated February 15, 2019 by Ascension Land Surveying, P.C., PLS Number L-5008 and recorded in the Randolph County, North Carolina Register of Deeds at **Plat Book 159 Page 43**.

Easement B containing a total of **6.186 acres** as shown on the plats of survey entitled "Final Plat, Conservation Easement for North Carolina Division of Mitigation Services, Project Name: Schmid Creek, SPO File No. 76-BZ, DMS Site No. 100046, Property of Environmental Banc & Exchange, LLC," dated February 15, 2019 by Ascension Land Surveying, P.C., PLS Number L-5008 and recorded in the Randolph County, North Carolina Register of Deeds at **Plat Book 159 Page 43**.

See attached "**Exhibit A**", Legal Description of area of the Property hereinafter referred to as the "Conservation Easement Area"

The purposes of this Conservation Easement are to maintain, restore, enhance, construct, create and preserve wetland and/or riparian resources in the Conservation Easement Area that contribute to the protection and improvement of water quality, flood prevention, fisheries, aquatic habitat, wildlife habitat, and recreational opportunities; to maintain permanently the Conservation Easement Area in its natural condition, consistent with these purposes; and to prevent any use of the Easement Area that will significantly impair or interfere with these purposes. To achieve these purposes, the following conditions and restrictions are set forth:

I. DURATION OF EASEMENT

Pursuant to law, including the above referenced statutes, this Conservation Easement and Right of Access shall be perpetual and it shall run with, and be a continuing restriction upon the use of, the Property, and it shall be enforceable by the Grantee against the Grantor and against Grantor's heirs, successors and assigns, personal representatives, agents, lessees, and licensees.

II. GRANTOR RESERVED USES AND RESTRICTED ACTIVITIES

The Conservation Easement Area shall be restricted from any development or usage that would impair or interfere with the purposes of this Conservation Easement. Unless expressly reserved as a compatible use herein, any activity in, or use of, the Conservation Easement Area by the Grantor is prohibited as inconsistent with the purposes of this Conservation Easement. Any rights not expressly reserved hereunder by the Grantor have been acquired by the Grantee. Any rights not expressly reserved hereunder by the Grantor, including the rights to all mitigation credits, including, but not limited to, stream, wetland, and riparian buffer mitigation units, derived from each site within the area of the Conservation Easement, are conveyed to and belong to the Grantee. Without limiting the generality of the foregoing, the following specific uses are prohibited, restricted, or reserved as indicated:

A. Recreational Uses. Grantor expressly reserves the right to undeveloped recreational uses, including hiking, bird watching, hunting and fishing, and access to the Conservation Easement Area for the purposes thereof.

B. Motorized Vehicle Use. Motorized vehicle use in the Conservation Easement Area is prohibited except within a Crossing Area(s) or Road or Trail as shown on the recorded survey plat.

C. Educational Uses. The Grantor reserves the right to engage in and permit others to engage in educational uses in the Conservation Easement Area not inconsistent with this Conservation Easement, and the right of access to the Conservation Easement Area for such purposes including organized educational activities such as site visits and observations. Educational uses of the property shall not alter vegetation, hydrology or topography of the site.

D. Damage to Vegetation. Except within Crossing Area(s) as shown on the recorded survey plat and as related to the removal of non-native plants, diseased or damaged trees, or vegetation that destabilizes or renders unsafe the Conservation Easement Area to persons or natural habitat, all cutting, removal, mowing, harming, or destruction of any trees and vegetation in the Conservation Easement Area is prohibited.

E. Industrial, Residential and Commercial Uses. All industrial, residential and commercial uses are prohibited in the Conservation Easement Area.

F. Agricultural Use. All agricultural uses are prohibited within the Conservation Easement Area including any use for cropland, waste lagoons, or pastureland.

G. New Construction. There shall be no building, facility, mobile home, antenna, utility pole, tower, or other structure constructed or placed in the Conservation Easement Area.

H. Roads and Trails. There shall be no construction or maintenance of new roads, trails, walkways, or paving in the Conservation Easement.

All existing roads, trails and crossings within the Conservation Easement Area shall be shown on the recorded survey plat.

I. Signs. No signs shall be permitted in the Conservation Easement Area except interpretive signs describing restoration activities and the conservation values of the Conservation Easement Area, signs identifying the owner of the Property and the holder of the Conservation Easement, signs giving directions, or signs prescribing rules and regulations for the use of the Conservation Easement Area.

J. Dumping or Storing. Dumping or storage of soil, trash, ashes, garbage, waste, abandoned vehicles, appliances, machinery, or any other material in the Conservation Easement Area is prohibited.

K. Grading, Mineral Use, Excavation, Dredging. There shall be no grading, filling, excavation, dredging, mining, drilling, hydraulic fracturing; removal of topsoil, sand, gravel, rock, peat, minerals, or other materials.

L. Water Quality and Drainage Patterns. There shall be no diking, draining, dredging, channeling, filling, leveling, pumping, impounding or diverting, causing, allowing or permitting the diversion of surface or underground water in the Conservation Easement Area. No altering or tampering with water control structures or devices, or disruption or alteration of the restored, enhanced, or created drainage patterns is allowed. All removal of wetlands, polluting or discharging into waters, springs, seeps, or wetlands, or use of pesticide or biocides in the Conservation Easement Area is prohibited. In the event of an emergency interruption or shortage of all other water sources, water from within the Conservation Easement Area may temporarily be withdrawn for good cause shown as needed for the survival of livestock on the Property.

M. Subdivision and Conveyance. Grantor voluntarily agrees that no further subdivision, partitioning, or dividing of the Conservation Easement Area portion of the Property owned by the Grantor in fee simple ("fee") that is subject to this Conservation Easement is allowed. Any future transfer of the Property shall be subject to this Conservation Easement and Right of Access and to the Grantee's right of unlimited and repeated ingress and egress over and across the Property to the Conservation Easement Area for the purposes set forth herein.

N. Development Rights. All development rights are permanently removed from the Conservation Easement Area and are non-transferrable.

O. Disturbance of Natural Features. Any change, disturbance, alteration or impairment of the natural features of the Conservation Easement Area or any intentional introduction of non-native plants, trees and/or animal species by Grantor is prohibited.

The Grantor may request permission to vary from the above restrictions for good cause shown, provided that any such request is not inconsistent with the purposes of this Conservation Easement, and the Grantor obtains advance written approval from the Division of Mitigation Services, 1652 Mail Services Center, Raleigh, NC 27699-1652.

III. GRANTEE RESERVED USES

A. Right of Access, Construction, and Inspection. The Grantee, its employees and agents, successors and assigns, receive a perpetual Right of Access to the Conservation Easement Area over the Property at reasonable times to undertake any activities on the property to restore, construct, manage, maintain, enhance, protect, and monitor the stream, wetland and any other riparian resources in the Conservation Easement Area, in accordance with restoration activities or a long-term management plan. Unless otherwise specifically set forth in this Conservation Easement, the rights granted herein do not include or establish for the public any access rights.

B. Restoration Activities. These activities include planting of trees, shrubs and herbaceous vegetation, installation of monitoring wells, utilization of heavy equipment to grade, fill, and prepare the soil, modification of the hydrology of the site, and installation of natural and manmade materials as needed to direct in-stream, above ground, and subterranean water flow.

C. Signs. The Grantee, its employees and agents, successors or assigns, shall be permitted to place signs and witness posts on the Property to include any or all of the following: describe the project, prohibited activities within the Conservation Easement, or identify the project boundaries and the holder of the Conservation Easement.

D. Fences. Conservation Easements are purchased to protect the investments by the State (Grantee) in natural resources. Livestock within conservations easements damages the investment and can result in reductions in natural resource value and mitigation credits which would cause financial harm to the State. Therefore, Landowners (Grantor) with livestock are required to restrict livestock access to the Conservation Easement area. Repeated failure to do so may result in the State (Grantee) repairing or installing livestock exclusion devices (fences) within the conservation area for the purpose of restricting livestock access. In such cases, the landowner (Grantor) must provide access to the State (Grantee) to make repairs.

E. Crossing Area(s). The Grantee is not responsible for maintenance of crossing area(s), however, the Grantee, its employees and agents, successors or assigns, reserve the right to repair crossing area(s), at its sole discretion and to recover the cost of such repairs from the Grantor if such repairs are needed as a result of activities of the Grantor, his successors or assigns.

IV. ENFORCEMENT AND REMEDIES

A. Enforcement. To accomplish the purposes of this Conservation Easement, Grantee is allowed to prevent any activity within the Conservation Easement Area that is inconsistent with the purposes of this Conservation Easement and to require the restoration of such areas or features in the Conservation Easement Area that may have been damaged by such unauthorized

activity or use. Upon any breach of the terms of this Conservation Easement by Grantor, the Grantee shall, except as provided below, notify the Grantor in writing of such breach and the Grantor shall have ninety (90) days after receipt of such notice to correct the damage caused by such breach. If the breach and damage remains uncured after ninety (90) days, the Grantee may enforce this Conservation Easement by bringing appropriate legal proceedings including an action to recover damages, as well as injunctive and other relief. The Grantee shall also have the power and authority, consistent with its statutory authority: (a) to prevent any impairment of the Conservation Easement Area by acts which may be unlawful or in violation of this Conservation Easement; (b) to otherwise preserve or protect its interest in the Property; or (c) to seek damages from any appropriate person or entity. Notwithstanding the foregoing, the Grantee reserves the immediate right, without notice, to obtain a temporary restraining order, injunctive or other appropriate relief, if the breach is or would irreversibly or otherwise materially impair the benefits to be derived from this Conservation Easement, and the Grantor and Grantee acknowledge that the damage would be irreparable and remedies at law inadequate. The rights and remedies of the Grantee provided hereunder shall be in addition to, and not in lieu of, all other rights and remedies available to Grantee in connection with this Conservation Easement.

B. Inspection. The Grantee, its employees and agents, successors and assigns, have the right, with reasonable notice, to enter the Conservation Easement Area over the Property at reasonable times for the purpose of inspection to determine whether the Grantor is complying with the terms, conditions and restrictions of this Conservation Easement.

C. Acts Beyond Grantor's Control. Nothing contained in this Conservation Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury or change in the Conservation Easement Area caused by third parties, resulting from causes beyond the Grantor's control, including, without limitation, fire, flood, storm, and earth movement, or from any prudent action taken in good faith by the Grantor under emergency conditions to prevent, abate, or mitigate significant injury to life or damage to the Property resulting from such causes.

D. Costs of Enforcement. Beyond regular and typical monitoring expenses, any costs incurred by Grantee in enforcing the terms of this Conservation Easement against Grantor, including, without limitation, any costs of restoration necessitated by Grantor's acts or omissions in violation of the terms of this Conservation Easement, shall be borne by Grantor.

E. No Waiver. Enforcement of this Easement shall be at the discretion of the Grantee and any forbearance, delay or omission by Grantee to exercise its rights hereunder in the event of any breach of any term set forth herein shall not be construed to be a waiver by Grantee.

V. MISCELLANEOUS

A. This instrument sets forth the entire agreement of the parties with respect to the Conservation Easement and supersedes all prior discussions, negotiations, understandings or agreements relating to the Conservation Easement. If any provision is found to be invalid, the remainder of the provisions of the Conservation Easement, and the application of such provision to persons or circumstances other than those as to which it is found to be invalid, shall not be affected thereby.

B. Grantor is responsible for any real estate taxes, assessments, fees, or charges levied upon the Property. Grantee shall not be responsible for any costs or liability of any kind related to the ownership, operation, insurance, upkeep, or maintenance of the Property, except as expressly provided herein. Upkeep of any constructed bridges, fences, or other amenities on the Property are the sole responsibility of the Grantor. Nothing herein shall relieve the Grantor of the obligation to comply with federal, state or local laws, regulations and permits that may apply to the exercise of the Reserved Rights.

C. Any notices shall be sent by registered or certified mail, return receipt requested to the parties at their addresses shown herein or to other addresses as either party establishes in writing upon notification to the other.

D. Grantor shall notify Grantee in writing of the name and address and any party to whom the Property or any part thereof is to be transferred at or prior to the time said transfer is made. Grantor further agrees that any subsequent lease, deed, or other legal instrument by which any interest in the Property is conveyed is subject to the Conservation Easement herein created.

E. The Grantor and Grantee agree that the terms of this Conservation Easement shall survive any merger of the fee and easement interests in the Property or any portion thereof.

F. This Conservation Easement and Right of Access may be amended, but only in writing signed by all parties hereto, or their successors or assigns, if such amendment does not affect the qualification of this Conservation Easement or the status of the Grantee under any applicable laws, and is consistent with the purposes of the Conservation Easement. The owner of the Property shall notify the State Property Office and the U.S. Army Corps of Engineers in writing sixty (60) days prior to the initiation of any transfer of all or any part of the Property or of any request to void or modify this Conservation Easement. Such notifications and modification requests shall be addressed to:

Division of Mitigation Services Program Manager
NC State Property Office
1321 Mail Service Center
Raleigh, NC 27699-1321

and

General Counsel
US Army Corps of Engineers
69 Darlington Avenue
Wilmington, NC 28403

G. The parties recognize and agree that the benefits of this Conservation Easement are in gross and assignable provided, however, that the Grantee hereby covenants and agrees, that in the event it transfers or assigns this Conservation Easement, the organization receiving the interest will be a qualified holder under N.C. Gen. Stat. § 121-34 et seq. and § 170(h) of the

Internal Revenue Code, and the Grantee further covenants and agrees that the terms of the transfer or assignment will be such that the transferee or assignee will be required to continue in perpetuity the conservation purposes described in this document.

VI. QUIET ENJOYMENT

Grantor reserves all remaining rights accruing from ownership of the Property, including the right to engage in or permit or invite others to engage in only those uses of the Conservation Easement Area that are expressly reserved herein, not prohibited or restricted herein, and are not inconsistent with the purposes of this Conservation Easement. Without limiting the generality of the foregoing, the Grantor expressly reserves to the Grantor, and the Grantor's invitees and licensees, the right of access to the Conservation Easement Area, and the right of quiet enjoyment of the Conservation Easement Area,

TO HAVE AND TO HOLD, the said rights and easements perpetually unto the State of North Carolina for the aforesaid purposes,

AND Grantor covenants that Grantor is seized of said premises in fee and has the right to convey the permanent Conservation Easement herein granted; that the same is free from encumbrances and that Grantor will warrant and defend title to the same against the claims of all persons whomsoever.

IN TESTIMONY WHEREOF, the Grantor has hereunto set his hand and seal, the day and year first above written.

ENVIRONMENTAL BANC & EXCHANGE,
LLC, a Maryland limited liability company

By: Resource Environmental Solutions, LLC, a
Louisiana limited liability company, its
manager

By: [Signature]
Name: Duncan Heyward
Title: General Manager

STATE OF Virginia
City
COUNTY OF Richmond

On February 4, 2019, before me, a Notary Public for the State aforesaid, personally appeared Duncan Heyward, who acknowledged himself to be the General Manager of Resource Environmental Solutions, LLC, a Louisiana limited liability company, as manager of Environmental Banc & Exchange, LLC, a Maryland limited liability company, and that he, in the capacity set forth above, on behalf of Grantor, being authorized to do so, executed, in my presence, the within instrument, and acknowledged that he executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I have set my hand and official seal.



Claire Wolanski
Signature of Notary Public
Claire Wolanski
Printed Name of Notary Public

My commission expires: 9/30/2021

Exhibit A**EASEMENT "A"**
165,720 S.F. +/- 3.804 ACRES

BEGINNING AT A SET #4 REBAR BEING THE MOST NORTHERN CORNER OF "EASEMENT A" AND ALSO BEING S50°42'45"W 391.39' FROM THE POINT OF BEGINNING OF "EASEMENT B"; THENCE S47°23'30"E 449.82' TO A SET #4 REBAR, SAID REBAR BEING S46°17'16"W 29.59' FROM THE MOST SOUTHERN POINT OF "EASEMENT B"; THENCE S54°22'20"W 479.77' TO A SET #4 REBAR BEING IN THE NORTHERN BOUNDARY LINE OF (NOW OR FORMERLY) PATRICIA RICHARDSON, DB 2161 PG 679; THENCE ALONG THE NORTHERN BOUNDARY LINE OF THE AFOREMENTIONED RICHARDSON TRACT S89°22'16"W 125.91' TO AN EXISTING IRON PIPE, SAID PIPE BEING THE MOST SOUTHWESTERN CORNER OF (NOW OR FORMERLY) ENVIRONMENTAL BANC & EXCHANGE, LLC (LOT-B), DB 2551 PG 1051 AND ALSO BEING THE MOST SOUTHEASTERN CORNER OF (NOW OR FORMERLY) JAY AND LINDA HOHN (DB 1745 PG 179 & DB 1744 PG 1730); THENCE WITH THE EASTERN LINE OF THE AFORMENTIONED HOHN TRACT N08°49'34"E 503.46' TO A SET #4 REBAR; THENCE LEAVING THE EASTERN LINE OF THE HOHN TRACT N50°44'53"E 138.89' TO THE POINT AND PLACE OF BEGINNING.

DESCRIPTION BASED ON A SURVEY TITLED "CONSERVATION EASEMENT SURVEY FOR THE STATE OF NORTH CAROLINA, DIVISION OF MITIGATION SERVICES" AS SHOWN ON THE PLAT PREPARED BY ASCENSION LAND SURVEYING, PC, PROJECT #17-04-30.

EASEMENT "B"
269,451 S.F. +/- 6.186 ACRES

BEGINNING AT A SET #4 REBAR BEING THE MOST NORTHWESTERN CORNER OF "EASEMENT B" AND ALSO BEING N50°42'45"E 391.39' FROM THE POINT OF BEGINNING OF "EASEMENT A"; THENCE N70°06'42"E 374.83' TO A SET #4 REBAR; THENCE S76°42'50"E 172.60' TO A SET #4 REBAR; THENCE S00°49'14"E 158.40' TO A SET #4 REBAR; THENCE S15°20'43"W 197.38' TO A SET #4 REBAR; THENCE S49°44'28"W 141.66' TO A SET #4 REBAR; THENCE S68°58'12"W 158.58' TO A SET #4 REBAR; THENCE S53°21'51"W 205.42' TO A SET #4 REBAR, SAID REBAR BEING N46°17'16"E 29.59' FROM THE MOST EASTERN POINT OF "EASEMENT A"; THENCE N47°16'48"W 261.15' TO A SET #4 REBAR; THENCE N42°11'55"E 100.83' TO A SET #4 REBAR; THENCE N14°54'59"E 289.81' TO THE POINT AND PLACE OF BEGINNING.

DESCRIPTION BASED ON A SURVEY TITLED "CONSERVATION EASEMENT SURVEY FOR THE STATE OF NORTH CAROLINA, DIVISION OF MITIGATION SERVICES" AS SHOWN ON THE PLAT PREPARED BY ASCENSION LAND SURVEYING, PC, PROJECT #17-04-30.

Sunbeam

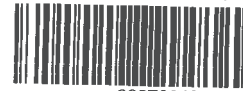
- Recorded Plat
- Recorded Conservation Easement(s)

This document presented and filed:

11/28/2018 04:05:57 PM

DEED

Fee \$26.00 Excise Tax: \$252.00



20070349

Randolph County North Carolina
 Krista M. Lowe, Register of Deeds

STATE OF NORTH CAROLINA

**DEED OF CONSERVATION EASEMENT
 AND RIGHT OF ACCESS PROVIDED
 PURSUANT TO
 FULL DELIVERY
 MITIGATION CONTRACT**

RANDOLPH COUNTY

SPO File Number: 76-CC
 DMS Project Number: 100046

Revenue Stamps
 \$252.00

Prepared by: Office of the Attorney General
 Property Control Section
 Return to: NC Department of Administration
 State Property Office
 1321 Mail Service Center
 Raleigh, NC 27699-1321

(Gary M. Teague)
 Plus Tax EV

THIS DEED OF CONSERVATION EASEMENT AND RIGHT OF ACCESS, made this 27 day of November, 2018, by Milford C. Farlow and wife, Linda V. Farlow; Shirley F. Cecil and husband, Ervin Ray Cecil; Wanda F. Peele; and Elwood S. Hockett, as Trustee of the Janice F. Hockett Family Trust ("**Grantor**"), whose mailing address is 2768 Bronzie Lawson Road, Archdale, NC 27263 to the State of North Carolina, ("**Grantee**"), whose mailing address is State of North Carolina, Department of Administration, State Property Office, 1321 Mail Service Center, Raleigh, NC 27699-1321. The designations of Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine, or neuter as required by context.

WITNESSETH:

WHEREAS, pursuant to the provisions of N.C. Gen. Stat. § 143-214.8 et seq., the State of North Carolina has established the Division of Mitigation Services (formerly known as the Ecosystem Enhancement Program and Wetlands Restoration Program) within the Department of Environment and Natural Resources for the purposes of acquiring, maintaining, restoring, enhancing, creating and preserving wetland and riparian resources that contribute to the

protection and improvement of water quality, flood prevention, fisheries, aquatic habitat, wildlife habitat, and recreational opportunities; and

WHEREAS, this Conservation Easement from Grantor to Grantee has been negotiated, arranged and provided for as a condition of a full delivery contract between Environmental Banc & Exchange, LLC and the North Carolina Department of Environmental Quality, to provide stream, wetland and/or buffer mitigation pursuant to the North Carolina Department of Environmental Quality Purchase and Services Contract Number 7427.

WHEREAS, The State of North Carolina is qualified to be the Grantee of a Conservation Easement pursuant to N.C. Gen. Stat. § 121-35; and

WHEREAS, the Department of Environment and Natural Resources and the United States Army Corps of Engineers, Wilmington District entered into a Memorandum of Understanding, (MOU) duly executed by all parties on November 4, 1998. This MOU recognized that the Wetlands Restoration Program was to provide effective compensatory mitigation for authorized impacts to wetlands, streams and other aquatic resources by restoring, enhancing and preserving the wetland and riparian areas of the State; and

WHEREAS, the Department of Environment and Natural Resources, the North Carolina Department of Transportation and the United States Army Corps of Engineers, Wilmington District entered into a Memorandum of Agreement, (MOA) duly executed by all parties in Greensboro, NC on July 22, 2003, which recognizes that the Division of Mitigation Services (formerly Ecosystem Enhancement Program) is to provide for compensatory mitigation by effective protection of the land, water and natural resources of the State by restoring, enhancing and preserving ecosystem functions; and

WHEREAS, the Department of Environment and Natural Resources, the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the North Carolina Wildlife Resources Commission, the North Carolina Division of Water Quality, the North Carolina Division of Coastal Management, and the National Marine Fisheries Service entered into an agreement to continue the In-Lieu Fee operations of the North Carolina Department of Natural Resources' Division of Mitigation Services (formerly Ecosystem Enhancement Program) with an effective date of 28 July, 2010, which supersedes and replaces the previously effective MOA and MOU referenced above; and

WHEREAS, the acceptance of this instrument for and on behalf of the State of North Carolina was granted to the Department of Administration by resolution as approved by the Governor and Council of State adopted at a meeting held in the City of Raleigh, North Carolina, on the 8th day of February 2000; and

WHEREAS, the Division of Mitigation Services in the Department of Environmental Quality, which has been delegated the authority authorized by the Governor and Council of State to the Department of Administration, has approved acceptance of this instrument; and

WHEREAS, Grantor owns in fee simple certain real property situated, lying, and being in New Market Township, Randolph County, North Carolina (the "**Property**"), and being more particularly described as that certain parcel of land containing approximately 50.17 acres and being transferred to the Grantor by last will and testament as recorded in **Deed Book 282, Page 430** of the Randolph County Registry, North Carolina; and

WHEREAS, Grantor is willing to grant a Conservation Easement and Right of Access over the herein described areas of the Property, thereby restricting and limiting the use of the areas of the Property subject to the Conservation Easement to the terms and conditions and purposes hereinafter set forth, and Grantee is willing to accept said Easement and Access Rights. The Conservation Easement shall be for the protection and benefit of the waters of Randleman Lake, Cape Fear 03030003.

NOW, THEREFORE, in consideration of the mutual covenants, terms, conditions, and restrictions hereinafter set forth, Grantor unconditionally and irrevocably hereby grants and conveys unto Grantee, its successors and assigns, forever and in perpetuity, a Conservation Easement along with a general Right of Access.

The Conservation Easement Area consists of the following:

Area 2B containing a total of **4.72 acres** as shown on the plats of survey entitled "Final Plat, Conservation Easement for North Carolina Division of Mitigation Services, Project Name: Sunbeam, SPO File No. 76-CC, DMS Site No. 100046, Property of Milford C. Farlow and wife, Linda V. Farlow; Shirley F. Cecil and husband, Ervin Ray Cecil; Wanda F. Peele; and Elwood S. Hockett, as Trustee of the Janice F. Hockett Family Trust," dated October 14, 2018 GC Mapping, PLLC., PLS Number L-4596 and recorded in the Randolph County, North Carolina Register of Deeds at **Plat Book 58 Page 55** (the "Survey").

Area 3B containing a total of **3.66 acres** as shown on the Survey.

See attached "**Exhibit A**", Legal Description of area of the Property hereinafter referred to as the "Conservation Easement Area"

The purposes of this Conservation Easement are to maintain, restore, enhance, construct, create and preserve wetland and/or riparian resources in the Conservation Easement Area that contribute to the protection and improvement of water quality, flood prevention, fisheries, aquatic habitat, wildlife habitat, and recreational opportunities; to maintain permanently the Conservation Easement Area in its natural condition, consistent with these purposes; and to prevent any use of the Easement Area that will significantly impair or interfere with these purposes. To achieve these purposes, the following conditions and restrictions are set forth:

I. DURATION OF EASEMENT

Pursuant to law, including the above referenced statutes, this Conservation Easement and Right of Access shall be perpetual and it shall run with, and be a continuing restriction upon the

use of, the Property, and it shall be enforceable by the Grantee against the Grantor and against Grantor's heirs, successors and assigns, personal representatives, agents, lessees, and licensees.

II. GRANTOR RESERVED USES AND RESTRICTED ACTIVITIES

The Conservation Easement Area shall be restricted from any development or usage that would impair or interfere with the purposes of this Conservation Easement. Unless expressly reserved as a compatible use herein, any activity in, or use of, the Conservation Easement Area by the Grantor is prohibited as inconsistent with the purposes of this Conservation Easement. Any rights not expressly reserved hereunder by the Grantor have been acquired by the Grantee. Any rights not expressly reserved hereunder by the Grantor, including the rights to all mitigation credits, including, but not limited to, stream, wetland, and riparian buffer mitigation units, derived from each site within the area of the Conservation Easement, are conveyed to and belong to the Grantee. Without limiting the generality of the foregoing, the following specific uses are prohibited, restricted, or reserved as indicated:

A. Recreational Uses. Grantor expressly reserves the right to undeveloped recreational uses, including hiking, bird watching, hunting and fishing, and access to the Conservation Easement Area for the purposes thereof.

B. Motorized Vehicle Use. Motorized vehicle use in the Conservation Easement Area is prohibited except within a Crossing Area(s) or Road or Trail as shown on the recorded survey plat.

C. Educational Uses. The Grantor reserves the right to engage in and permit others to engage in educational uses in the Conservation Easement Area not inconsistent with this Conservation Easement, and the right of access to the Conservation Easement Area for such purposes including organized educational activities such as site visits and observations. Educational uses of the property shall not alter vegetation, hydrology or topography of the site.

D. Damage to Vegetation. Except within Crossing Area(s) as shown on the recorded survey plat and as related to the removal of non-native plants, diseased or damaged trees, or vegetation that destabilizes or renders unsafe the Conservation Easement Area to persons or natural habitat, all cutting, removal, mowing, harming, or destruction of any trees and vegetation in the Conservation Easement Area is prohibited.

E. Industrial, Residential and Commercial Uses. All industrial, residential and commercial uses are prohibited in the Conservation Easement Area.

F. Agricultural Use. All agricultural uses are prohibited within the Conservation Easement Area including any use for cropland, waste lagoons, or pastureland.

G. New Construction. There shall be no building, facility, mobile home, antenna, utility pole, tower, or other structure constructed or placed in the Conservation Easement Area.

H. Roads and Trails. There shall be no construction or maintenance of new roads, trails, walkways, or paving in the Conservation Easement.

All existing roads, trails and crossings within the Conservation Easement Area shall be shown on the recorded survey plat.

I. Signs. No signs shall be permitted in the Conservation Easement Area except interpretive signs describing restoration activities and the conservation values of the Conservation Easement Area, signs identifying the owner of the Property and the holder of the Conservation Easement, signs giving directions, or signs prescribing rules and regulations for the use of the Conservation Easement Area.

J. Dumping or Storing. Dumping or storage of soil, trash, ashes, garbage, waste, abandoned vehicles, appliances, machinery, or any other material in the Conservation Easement Area is prohibited.

K. Grading, Mineral Use, Excavation, Dredging. There shall be no grading, filling, excavation, dredging, mining, drilling, hydraulic fracturing; removal of topsoil, sand, gravel, rock, peat, minerals, or other materials.

L. Water Quality and Drainage Patterns. There shall be no diking, draining, dredging, channeling, filling, leveling, pumping, impounding or diverting, causing, allowing or permitting the diversion of surface or underground water in the Conservation Easement Area. No altering or tampering with water control structures or devices, or disruption or alteration of the restored, enhanced, or created drainage patterns is allowed. All removal of wetlands, polluting or discharging into waters, springs, seeps, or wetlands, or use of pesticide or biocides in the Conservation Easement Area is prohibited. In the event of an emergency interruption or shortage of all other water sources, water from within the Conservation Easement Area may temporarily be withdrawn for good cause shown as needed for the survival of livestock on the Property.

M. Subdivision and Conveyance. Grantor voluntarily agrees that no further subdivision, partitioning, or dividing of the Conservation Easement Area portion of the Property owned by the Grantor in fee simple ("fee") that is subject to this Conservation Easement is allowed. Any future transfer of the Property shall be subject to this Conservation Easement and Right of Access and to the Grantee's right of unlimited and repeated ingress and egress over and across the Property to the Conservation Easement Area for the purposes set forth herein.

N. Development Rights. All development rights are permanently removed from the Conservation Easement Area and are non-transferrable.

O. Disturbance of Natural Features. Any change, disturbance, alteration or impairment of the natural features of the Conservation Easement Area or any intentional introduction of non-native plants, trees and/or animal species by Grantor is prohibited.

The Grantor may request permission to vary from the above restrictions for good cause shown, provided that any such request is not inconsistent with the purposes of this Conservation

Easement, and the Grantor obtains advance written approval from the Division of Mitigation Services, 1652 Mail Services Center, Raleigh, NC 27699-1652.

III. GRANTEE RESERVED USES

A. Right of Access, Construction, and Inspection. The Grantee, its employees and agents, successors and assigns, receive a perpetual Right of Access to the Conservation Easement Area over the Property at reasonable times to undertake any activities on the property to restore, construct, manage, maintain, enhance, protect, and monitor the stream, wetland and any other riparian resources in the Conservation Easement Area, in accordance with restoration activities or a long-term management plan. Unless otherwise specifically set forth in this Conservation Easement, the rights granted herein do not include or establish for the public any access rights.

B. Restoration Activities. These activities include planting of trees, shrubs and herbaceous vegetation, installation of monitoring wells, utilization of heavy equipment to grade, fill, and prepare the soil, modification of the hydrology of the site, and installation of natural and manmade materials as needed to direct in-stream, above ground, and subterraneous water flow.

C. Signs. The Grantee, its employees and agents, successors or assigns, shall be permitted to place signs and witness posts on the Property to include any or all of the following: describe the project, prohibited activities within the Conservation Easement, or identify the project boundaries and the holder of the Conservation Easement.

D. Fences. Conservation Easements are purchased to protect the investments by the State (Grantee) in natural resources. Livestock within conservations easements damages the investment and can result in reductions in natural resource value and mitigation credits which would cause financial harm to the State. Therefore, Landowners (Grantor) with livestock are required to restrict livestock access to the Conservation Easement area. Repeated failure to do so may result in the State (Grantee) repairing or installing livestock exclusion devices (fences) within the conservation area for the purpose of restricting livestock access. In such cases, the landowner (Grantor) must provide access to the State (Grantee) to make repairs.

E. Crossing Area(s). The Grantee is not responsible for maintenance of crossing area(s), however, the Grantee, its employees and agents, successors or assigns, reserve the right to repair crossing area(s), at its sole discretion and to recover the cost of such repairs from the Grantor if such repairs are needed as a result of activities of the Grantor, his successors or assigns.

IV. ENFORCEMENT AND REMEDIES

A. Enforcement. To accomplish the purposes of this Conservation Easement, Grantee is allowed to prevent any activity within the Conservation Easement Area that is inconsistent with the purposes of this Conservation Easement and to require the restoration of such areas or features in the Conservation Easement Area that may have been damaged by such unauthorized activity or use. Upon any breach of the terms of this Conservation Easement by Grantor, the Grantee shall, except as provided below, notify the Grantor in writing of such breach and the Grantor shall have ninety (90) days after receipt of such notice to correct the damage caused by

such breach. If the breach and damage remains uncured after ninety (90) days, the Grantee may enforce this Conservation Easement by bringing appropriate legal proceedings including an action to recover damages, as well as injunctive and other relief. The Grantee shall also have the power and authority, consistent with its statutory authority: (a) to prevent any impairment of the Conservation Easement Area by acts which may be unlawful or in violation of this Conservation Easement; (b) to otherwise preserve or protect its interest in the Property; or (c) to seek damages from any appropriate person or entity. Notwithstanding the foregoing, the Grantee reserves the immediate right, without notice, to obtain a temporary restraining order, injunctive or other appropriate relief, if the breach is or would irreversibly or otherwise materially impair the benefits to be derived from this Conservation Easement, and the Grantor and Grantee acknowledge that the damage would be irreparable and remedies at law inadequate. The rights and remedies of the Grantee provided hereunder shall be in addition to, and not in lieu of, all other rights and remedies available to Grantee in connection with this Conservation Easement.

B. Inspection. The Grantee, its employees and agents, successors and assigns, have the right, with reasonable notice, to enter the Conservation Easement Area over the Property at reasonable times for the purpose of inspection to determine whether the Grantor is complying with the terms, conditions and restrictions of this Conservation Easement.

C. Acts Beyond Grantor's Control. Nothing contained in this Conservation Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury or change in the Conservation Easement Area caused by third parties, resulting from causes beyond the Grantor's control, including, without limitation, fire, flood, storm, and earth movement, or from any prudent action taken in good faith by the Grantor under emergency conditions to prevent, abate, or mitigate significant injury to life or damage to the Property resulting from such causes.

D. Costs of Enforcement. Beyond regular and typical monitoring expenses, any costs incurred by Grantee in enforcing the terms of this Conservation Easement against Grantor, including, without limitation, any costs of restoration necessitated by Grantor's acts or omissions in violation of the terms of this Conservation Easement, shall be borne by Grantor.

E. No Waiver. Enforcement of this Easement shall be at the discretion of the Grantee and any forbearance, delay or omission by Grantee to exercise its rights hereunder in the event of any breach of any term set forth herein shall not be construed to be a waiver by Grantee.

V. MISCELLANEOUS

A. This instrument sets forth the entire agreement of the parties with respect to the Conservation Easement and supersedes all prior discussions, negotiations, understandings or agreements relating to the Conservation Easement. If any provision is found to be invalid, the remainder of the provisions of the Conservation Easement, and the application of such provision to persons or circumstances other than those as to which it is found to be invalid, shall not be affected thereby.

B. Grantor is responsible for any real estate taxes, assessments, fees, or charges levied upon the Property. Grantee shall not be responsible for any costs or liability of any kind related to the

ownership, operation, insurance, upkeep, or maintenance of the Property, except as expressly provided herein. Upkeep of any constructed bridges, fences, or other amenities on the Property are the sole responsibility of the Grantor. Nothing herein shall relieve the Grantor of the obligation to comply with federal, state or local laws, regulations and permits that may apply to the exercise of the Reserved Rights.

C. Any notices shall be sent by registered or certified mail, return receipt requested to the parties at their addresses shown herein or to other addresses as either party establishes in writing upon notification to the other.

D. Grantor shall notify Grantee in writing of the name and address and any party to whom the Property or any part thereof is to be transferred at or prior to the time said transfer is made. Grantor further agrees that any subsequent lease, deed, or other legal instrument by which any interest in the Property is conveyed is subject to the Conservation Easement herein created.

E. The Grantor and Grantee agree that the terms of this Conservation Easement shall survive any merger of the fee and easement interests in the Property or any portion thereof.

F. This Conservation Easement and Right of Access may be amended, but only in writing signed by all parties hereto, or their successors or assigns, if such amendment does not affect the qualification of this Conservation Easement or the status of the Grantee under any applicable laws, and is consistent with the purposes of the Conservation Easement. The owner of the Property shall notify the State Property Office and the U.S. Army Corps of Engineers in writing sixty (60) days prior to the initiation of any transfer of all or any part of the Property or of any request to void or modify this Conservation Easement. Such notifications and modification requests shall be addressed to:

Division of Mitigation Services Program Manager
NC State Property Office
1321 Mail Service Center
Raleigh, NC 27699-1321

and

General Counsel
US Army Corps of Engineers
69 Darlington Avenue
Wilmington, NC 28403

G. The parties recognize and agree that the benefits of this Conservation Easement are in gross and assignable provided, however, that the Grantee hereby covenants and agrees, that in the event it transfers or assigns this Conservation Easement, the organization receiving the interest will be a qualified holder under N.C. Gen. Stat. § 121-34 et seq. and § 170(h) of the Internal Revenue Code, and the Grantee further covenants and agrees that the terms of the transfer or assignment will be such that the transferee or assignee will be required to continue in perpetuity the conservation purposes described in this document.

VI. QUIET ENJOYMENT

Grantor reserves all remaining rights accruing from ownership of the Property, including the right to engage in or permit or invite others to engage in only those uses of the Conservation Easement Area that are expressly reserved herein, not prohibited or restricted herein, and are not inconsistent with the purposes of this Conservation Easement. Without limiting the generality of the foregoing, the Grantor expressly reserves to the Grantor, and the Grantor's invitees and licensees, the right of access to the Conservation Easement Area, and the right of quiet enjoyment of the Conservation Easement Area,

TO HAVE AND TO HOLD, the said rights and easements perpetually unto the State of North Carolina for the aforesaid purposes,

AND Grantor covenants that Grantor is seized of said premises in fee and has the right to convey the permanent Conservation Easement herein granted; that the same is free from encumbrances and that Grantor will warrant and defend title to the same against the claims of all persons whomsoever.

IN TESTIMONY WHEREOF, the Grantor has hereunto set his hand and seal, the day and year first above written.

GRANTOR:

Milford C. Farlow
MILFORD C. FARLOW

Linda V. Farlow
LINDA V. FARLOW

STATE OF NORTH CAROLINA
COUNTY OF Randolph

I, Cathy Ashcraft-Ealey, a Notary Public in and for the County and State aforesaid, do hereby certify that Milford C. Farlow, and Linda V. Farlow, Grantor, each personally appeared before me this day and acknowledged the execution of the foregoing instrument.

Witness my hand and official stamp or seal, this the 27 day of November, 2018.

[SEAL]



Cathy Ashcraft-Ealey
Signature of Notary Public

Cathy Ashcraft-Ealey
Printed Name of Notary Public

My commission expires: 07/24/2023

IN TESTIMONY WHEREOF, the Grantor has hereunto set his hand and seal, the day and year first above written.

GRANTOR:

Shirley E. Cecil
SHIRLEY E. CECIL

Ervin Ray Cecil
ERVIN RAY CECIL

STATE OF NORTH CAROLINA
COUNTY OF Randolph

I, Cathy Ashcraft Edley, a Notary Public in and for the County and State aforesaid, do hereby certify that Shirley E. Cecil and Ervin Ray Cecil, Grantor, each personally appeared before me this day and acknowledged the execution of the foregoing instrument.

Witness my hand and official stamp or seal, this the 27 day of November, 2018.

[SEAL]



Cathy Ashcraft Edley
Signature of Notary Public

Cathy Ashcraft Edley
Printed Name of Notary Public

My commission expires: 07/24/2023

IN TESTIMONY WHEREOF, the Grantor has hereunto set his hand and seal, the day and year first above written.

GRANTOR:

Wanda F. Peele

WANDA F. PEELE

STATE OF NORTH CAROLINA
COUNTY OF Randolph

I, Cathy Ashcraft Edley, a Notary Public in and for the County and State aforesaid, do hereby certify that Wanda F. Peele, Grantor, each personally appeared before me this day and acknowledged the execution of the foregoing instrument.

Witness my hand and official stamp or seal, this the 17 day of November, 2018.

[SEAL]



Cathy Ashcraft Edley
Signature of Notary Public

Cathy Ashcraft Edley
Printed Name of Notary Public

My commission expires: 07/24/2023

IN TESTIMONY WHEREOF, the Grantor has hereunto set his hand and seal, the day and year first above written.

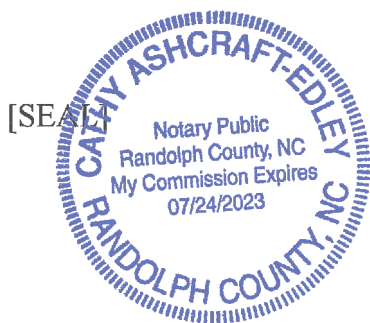
GRANTOR:

Elwood S. Hockett
ELWOOD S. HOCKETT, as Trustee of the
Janice F. Hockett Family Trust

STATE OF NORTH CAROLINA
COUNTY OF Randolph

I, Cathy Ashcraft Edley, a Notary Public in and for the County and State aforesaid, do hereby certify that Elwood S. Hockett, as Trustee of the Janice F. Hockett Family Trust, Grantor, personally appeared before me this day and acknowledged the execution of the foregoing instrument.

Witness my hand and official stamp or seal, this the 11 day of November, 2018.



Cathy Ashcraft Edley
Signature of Notary Public
Cathy Ashcraft Edley
Printed Name of Notary Public
My commission expires: 07/24/2023

Exhibit A

ALL OF THAT CERTAIN ^{Exhibit A} ~~TRUSTEE~~ ^{etal. Julie H. Monism, closing attorney} PARCEL OF LAND NOW OR FORMERLY OWNED BY MILFORD C. FARLOW, ~~TRUSTEE~~ WITH PIN 7736598356 FOUND IN DEED BOOK 282 PAGE 430 IN THE RANDOLPH COUNTY REGISTRY, LYING AND BEING SITUATED IN THE TOWNSHIP OF NEW MARKET, COUNTY OF RANDOLPH, STATE OF NORTH CAROLINA, CONTAINING IN AGGREGATE 8.39 ACRES (365,323 SQ FT), AS SHOWN ON THE PLAT ENTITLED "RES RANDLEMAN GROUP A-SUNBEAM", PREPARED BY GUY V. COOKE OF GC MAPPING, PLLC NCPLS L-4596, DATED 7-14-2018, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

EASEMENT AREA 2B

COMMENCING AT A CHISELED ROCK FOUND LABELED CONTROL CORNER WITH NORTH CAROLINA GRID COORDINATES N: 770338.75 E: 1735696.38; THENCE N 80°20'01" E A DISTANCE OF 202.52' TO AN IRON ROD FOUND LABELED #38 WHICH IS THE POINT OF BEGINNING; THENCE N 80°20'01" E A DISTANCE OF 238.47' TO AN IRON ROD FOUND LABELED #37; THENCE S 36°55'45" E A DISTANCE OF 246.45' TO AN IRON ROD FOUND LABELED #41; THENCE ALONG A REFERENCE LINE WHICH MEANDERS UP A STREAM, THE CENTERLINE OF WHICH IS THE ACTUAL PROPERTY AND EASEMENT LINE S 25°17'22" W A DISTANCE OF 34.19' TO AN IRON ROD FOUND LABELED #42; THENCE S 06°40'06" W A DISTANCE OF 201.64' TO AN IRON ROD FOUND LABELED #43; THENCE S 08°21'02" E A DISTANCE OF 287.65' TO AN IRON ROD FOUND LABELED #44; THENCE S 54°55'50" E A DISTANCE OF 183.80' TO AN IRON ROD FOUND LABELED #45; THENCE S 17°25'57" E A DISTANCE OF 184.29' TO AN IRON ROD FOUND LABELED #46; THENCE S 02°55'58" E A DISTANCE OF 694.09' TO AN IRON ROD FOUND LABELED #47; THENCE LEAVING SAID STREAM N 84°16'28" W A DISTANCE OF 2.88' TO AN IRON PIPE FOUND; THENCE S 88°46'32" W A DISTANCE OF 55.59' TO AN IRON ROD FOUND LABELED #48; THENCE N 05°25'18" W A DISTANCE OF 789.59' TO AN IRON ROD FOUND LABELED #49; THENCE N 43°26'38" W A DISTANCE OF 278.53' TO AN IRON ROD FOUND LABELED #50; THENCE N 02°21'05" W A DISTANCE OF 414.42' TO AN IRON ROD FOUND LABELED #51; THENCE S 87°11'14" W A DISTANCE OF 350.65' TO AN IRON ROD FOUND LABELED #52; THENCE N 15°55'00" W A DISTANCE OF 147.01' TO AN IRON ROD FOUND LABELED #53; THENCE N 81°21'31" E A DISTANCE OF 156.80'; TO AN IRON ROD FOUND LABELED #54 THENCE N 27°25'44" W A DISTANCE OF 110.62' TO AN IRON ROD FOUND LABELED #38 WHICH IS THE POINT AND PLACE OF BEGINNING AND CONTAINING 205,758 SQ FT OR 4.72 ACRES.

EASEMENT AREA 3B

COMMENCING AT A CHISELED ROCK FOUND LABELED CONTROL CORNER WITH NORTH CAROLINA GRID COORDINATES N: 770338.75 E: 1735696.38; THENCE S 00°18'35" W A DISTANCE OF 123.71' TO AN IRON ROD FOUND LABELED #65 WHICH IS THE POINT OF BEGINNING; THENCE N 54°11'24" E A DISTANCE OF 46.18' TO AN IRON ROD FOUND LABELED #55; THENCE S 15°39'46" E A DISTANCE OF 140.67' TO AN IRON ROD FOUND LABELED #56; THENCE S 48°32'28" W A DISTANCE OF 230.19' TO AN IRON ROD FOUND LABELED #57; THENCE S 22°38'58" E A DISTANCE OF 179.46' TO AN IRON ROD FOUND LABELED #58; THENCE S 50°41'37" W A DISTANCE OF 327.73' TO AN IRON ROD FOUND LABELED #69;

THENCE N 86°21'13" W A DISTANCE OF 331.86' TO AN IRON ROD FOUND LABELED #70; THENCE N 13°30'30" E A DISTANCE OF 79.46' TO AN IRON ROD FOUND LABELED #71; THENCE N 51°29'06" E A DISTANCE OF 758.93' TO AN IRON ROD FOUND LABELED #66; THENCE N 00°18'35" E A DISTANCE OF 63.07' TO AN IRON ROD FOUND LABELED #65; WHICH IS THE POINT AND PLACE OF BEGINNING AND CONTAINING 159,565 SQ FT OR 3.66 ACRES.

This document presented and filed:

11/28/2018 03:47:33 PM

DEED

Fee \$26.00 Excise Tax: \$119.00



20070342

Randolph County North Carolina
Krista M. Lowe, Register of Deeds

STATE OF NORTH CAROLINA

**DEED OF CONSERVATION EASEMENT
AND RIGHT OF ACCESS PROVIDED
PURSUANT TO
FULL DELIVERY
MITIGATION CONTRACT**

RANDOLPH COUNTY

SPO File Number: 76-CB and 76-CD

DMS Project Number: 100046

Prepared by: Office of the Attorney General
Property Control Section
Return to: NC Department of Administration
State Property Office
1321 Mail Service Center
Raleigh, NC 27699-1321

(Gary M. Teague) Revenue Stamps
✓ PluIRE \$119.00

THIS DEED OF CONSERVATION EASEMENT AND RIGHT OF ACCESS, made this 21 day of November, 2018, by Milford C. Farlow and wife Linda V. Farlow ("**Grantor**"), whose mailing address is 2768 Bronzie Lawson Road, Archdale, NC 27263 to the State of North Carolina, ("**Grantee**"), whose mailing address is State of North Carolina, Department of Administration, State Property Office, 1321 Mail Service Center, Raleigh, NC 27699-1321. The designations of Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine, or neuter as required by context.

WITNESSETH:

WHEREAS, pursuant to the provisions of N.C. Gen. Stat. § 143-214.8 et seq., the State of North Carolina has established the Division of Mitigation Services (formerly known as the Ecosystem Enhancement Program and Wetlands Restoration Program) within the Department of Environment and Natural Resources for the purposes of acquiring, maintaining, restoring, enhancing, creating and preserving wetland and riparian resources that contribute to the

protection and improvement of water quality, flood prevention, fisheries, aquatic habitat, wildlife habitat, and recreational opportunities; and

WHEREAS, this Conservation Easement from Grantor to Grantee has been negotiated, arranged and provided for as a condition of a full delivery contract between Environmental Banc & Exchange, LLC and the North Carolina Department of Environmental Quality, to provide stream, wetland and/or buffer mitigation pursuant to the North Carolina Department of Environmental Quality Purchase and Services Contract Number 7427.

WHEREAS, The State of North Carolina is qualified to be the Grantee of a Conservation Easement pursuant to N.C. Gen. Stat. § 121-35; and

WHEREAS, the Department of Environment and Natural Resources and the United States Army Corps of Engineers, Wilmington District entered into a Memorandum of Understanding, (MOU) duly executed by all parties on November 4, 1998. This MOU recognized that the Wetlands Restoration Program was to provide effective compensatory mitigation for authorized impacts to wetlands, streams and other aquatic resources by restoring, enhancing and preserving the wetland and riparian areas of the State; and

WHEREAS, the Department of Environment and Natural Resources, the North Carolina Department of Transportation and the United States Army Corps of Engineers, Wilmington District entered into a Memorandum of Agreement, (MOA) duly executed by all parties in Greensboro, NC on July 22, 2003, which recognizes that the Division of Mitigation Services (formerly Ecosystem Enhancement Program) is to provide for compensatory mitigation by effective protection of the land, water and natural resources of the State by restoring, enhancing and preserving ecosystem functions; and

WHEREAS, the Department of Environment and Natural Resources, the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the North Carolina Wildlife Resources Commission, the North Carolina Division of Water Quality, the North Carolina Division of Coastal Management, and the National Marine Fisheries Service entered into an agreement to continue the In-Lieu Fee operations of the North Carolina Department of Natural Resources' Division of Mitigation Services (formerly Ecosystem Enhancement Program) with an effective date of 28 July, 2010, which supersedes and replaces the previously effective MOA and MOU referenced above; and

WHEREAS, the acceptance of this instrument for and on behalf of the State of North Carolina was granted to the Department of Administration by resolution as approved by the Governor and Council of State adopted at a meeting held in the City of Raleigh, North Carolina, on the 8th day of February 2000; and

WHEREAS, the Division of Mitigation Services in the Department of Environmental Quality, which has been delegated the authority authorized by the Governor and Council of State to the Department of Administration, has approved acceptance of this instrument; and

WHEREAS, Grantor owns in fee simple certain real property situated, lying, and being in New Market Township, Randolph County, North Carolina (the "**Property**"), and being more particularly described as that certain parcel of land containing approximately 22.11 acres and being transferred to the Grantor by last will and testament as recorded in Deed Book 05E Page 298 of the Randolph County Registry, North Carolina; and

WHEREAS, Grantor is willing to grant a Conservation Easement and Right of Access over the herein described areas of the Property, thereby restricting and limiting the use of the areas of the Property subject to the Conservation Easement to the terms and conditions and purposes hereinafter set forth, and Grantee is willing to accept said Easement and Access Rights. The Conservation Easement shall be for the protection and benefit of the waters of Randleman Lake, Cape Fear 03030003.

NOW, THEREFORE, in consideration of the mutual covenants, terms, conditions, and restrictions hereinafter set forth, Grantor unconditionally and irrevocably hereby grants and conveys unto Grantee, its successors and assigns, forever and in perpetuity, a Conservation Easement along with a general Right of Access.

The Conservation Easement Area consists of the following:

Area 2A containing a total of **3.90 acres** as shown on the plats of survey entitled "Final Plat, Conservation Easement for North Carolina Division of Mitigation Services, Project Name: RES Randleman Group A-Sunbeam, SPO File No. 76-CB, SPO # 76-CC, DMS Site No. 100046, Property of Milford C. Farlow," dated October 14, 2018 GC Mapping, PLLC., PLS Number L-4596 and recorded in the Randolph County, North Carolina Register of Deeds at **Plat Book Page 55** (the "Survey"). **158**

Area 1 containing a total of **6.11 acres** as shown on the Survey.

Area 3A containing a total of **.06 acres** the Survey.

See attached "**Exhibit A**", Legal Description of area of the Property hereinafter referred to as the "Conservation Easement Area"

The purposes of this Conservation Easement are to maintain, restore, enhance, construct, create and preserve wetland and/or riparian resources in the Conservation Easement Area that contribute to the protection and improvement of water quality, flood prevention, fisheries, aquatic habitat, wildlife habitat, and recreational opportunities; to maintain permanently the Conservation Easement Area in its natural condition, consistent with these purposes; and to prevent any use of the Easement Area that will significantly impair or interfere with these purposes. To achieve these purposes, the following conditions and restrictions are set forth:

I. DURATION OF EASEMENT

Pursuant to law, including the above referenced statutes, this Conservation Easement and Right of Access shall be perpetual and it shall run with, and be a continuing restriction upon the use of, the Property, and it shall be enforceable by the Grantee against the Grantor and against Grantor's heirs, successors and assigns, personal representatives, agents, lessees, and licensees.

II. GRANTOR RESERVED USES AND RESTRICTED ACTIVITIES

The Conservation Easement Area shall be restricted from any development or usage that would impair or interfere with the purposes of this Conservation Easement. Unless expressly reserved as a compatible use herein, any activity in, or use of, the Conservation Easement Area by the Grantor is prohibited as inconsistent with the purposes of this Conservation Easement. Any rights not expressly reserved hereunder by the Grantor have been acquired by the Grantee. Any rights not expressly reserved hereunder by the Grantor, including the rights to all mitigation credits, including, but not limited to, stream, wetland, and riparian buffer mitigation units, derived from each site within the area of the Conservation Easement, are conveyed to and belong to the Grantee. Without limiting the generality of the foregoing, the following specific uses are prohibited, restricted, or reserved as indicated:

A. Recreational Uses. Grantor expressly reserves the right to undeveloped recreational uses, including hiking, bird watching, hunting and fishing, and access to the Conservation Easement Area for the purposes thereof.

B. Motorized Vehicle Use. Motorized vehicle use in the Conservation Easement Area is prohibited except within a Crossing Area(s) or Road or Trail as shown on the recorded survey plat.

C. Educational Uses. The Grantor reserves the right to engage in and permit others to engage in educational uses in the Conservation Easement Area not inconsistent with this Conservation Easement, and the right of access to the Conservation Easement Area for such purposes including organized educational activities such as site visits and observations. Educational uses of the property shall not alter vegetation, hydrology or topography of the site.

D. Damage to Vegetation. Except within Crossing Area(s) as shown on the recorded survey plat and as related to the removal of non-native plants, diseased or damaged trees, or vegetation that destabilizes or renders unsafe the Conservation Easement Area to persons or natural habitat, all cutting, removal, mowing, harming, or destruction of any trees and vegetation in the Conservation Easement Area is prohibited.

E. Industrial, Residential and Commercial Uses. All industrial, residential and commercial uses are prohibited in the Conservation Easement Area.

F. Agricultural Use. All agricultural uses are prohibited within the Conservation Easement Area including any use for cropland, waste lagoons, or pastureland.

G. New Construction. There shall be no building, facility, mobile home, antenna, utility pole, tower, or other structure constructed or placed in the Conservation Easement Area.

H. Roads and Trails. There shall be no construction or maintenance of new roads, trails, walkways, or paving in the Conservation Easement.

All existing roads, trails and crossings within the Conservation Easement Area shall be shown on the recorded survey plat.

I. Signs. No signs shall be permitted in the Conservation Easement Area except interpretive signs describing restoration activities and the conservation values of the Conservation Easement Area, signs identifying the owner of the Property and the holder of the Conservation Easement, signs giving directions, or signs prescribing rules and regulations for the use of the Conservation Easement Area.

J. Dumping or Storing. Dumping or storage of soil, trash, ashes, garbage, waste, abandoned vehicles, appliances, machinery, or any other material in the Conservation Easement Area is prohibited.

K. Grading, Mineral Use, Excavation, Dredging. There shall be no grading, filling, excavation, dredging, mining, drilling, hydraulic fracturing; removal of topsoil, sand, gravel, rock, peat, minerals, or other materials.

L. Water Quality and Drainage Patterns. There shall be no diking, draining, dredging, channeling, filling, leveling, pumping, impounding or diverting, causing, allowing or permitting the diversion of surface or underground water in the Conservation Easement Area. No altering or tampering with water control structures or devices, or disruption or alteration of the restored, enhanced, or created drainage patterns is allowed. All removal of wetlands, polluting or discharging into waters, springs, seeps, or wetlands, or use of pesticide or biocides in the Conservation Easement Area is prohibited. In the event of an emergency interruption or shortage of all other water sources, water from within the Conservation Easement Area may temporarily be withdrawn for good cause shown as needed for the survival of livestock on the Property.

M. Subdivision and Conveyance. Grantor voluntarily agrees that no further subdivision, partitioning, or dividing of the Conservation Easement Area portion of the Property owned by the Grantor in fee simple ("fee") that is subject to this Conservation Easement is allowed. Any future transfer of the Property shall be subject to this Conservation Easement and Right of Access and to the Grantee's right of unlimited and repeated ingress and egress over and across the Property to the Conservation Easement Area for the purposes set forth herein.

N. Development Rights. All development rights are permanently removed from the Conservation Easement Area and are non-transferrable.

O. Disturbance of Natural Features. Any change, disturbance, alteration or impairment of the natural features of the Conservation Easement Area or any intentional introduction of non-native plants, trees and/or animal species by Grantor is prohibited.

The Grantor may request permission to vary from the above restrictions for good cause shown, provided that any such request is not inconsistent with the purposes of this Conservation Easement, and the Grantor obtains advance written approval from the Division of Mitigation Services, 1652 Mail Services Center, Raleigh, NC 27699-1652.

III. GRANTEE RESERVED USES

A. Right of Access, Construction, and Inspection. The Grantee, its employees and agents, successors and assigns, receive a perpetual Right of Access to the Conservation Easement Area over the Property at reasonable times to undertake any activities on the property to restore, construct, manage, maintain, enhance, protect, and monitor the stream, wetland and any other riparian resources in the Conservation Easement Area, in accordance with restoration activities or a long-term management plan. Unless otherwise specifically set forth in this Conservation Easement, the rights granted herein do not include or establish for the public any access rights.

B. Restoration Activities. These activities include planting of trees, shrubs and herbaceous vegetation, installation of monitoring wells, utilization of heavy equipment to grade, fill, and prepare the soil, modification of the hydrology of the site, and installation of natural and manmade materials as needed to direct in-stream, above ground, and subterranean water flow.

C. Signs. The Grantee, its employees and agents, successors or assigns, shall be permitted to place signs and witness posts on the Property to include any or all of the following: describe the project, prohibited activities within the Conservation Easement, or identify the project boundaries and the holder of the Conservation Easement.

D. Fences. Conservation Easements are purchased to protect the investments by the State (Grantee) in natural resources. Livestock within conservations easements damages the investment and can result in reductions in natural resource value and mitigation credits which would cause financial harm to the State. Therefore, Landowners (Grantor) with livestock are required to restrict livestock access to the Conservation Easement area. Repeated failure to do so may result in the State (Grantee) repairing or installing livestock exclusion devices (fences) within the conservation area for the purpose of restricting livestock access. In such cases, the landowner (Grantor) must provide access to the State (Grantee) to make repairs.

E. Crossing Area(s). The Grantee is not responsible for maintenance of crossing area(s), however, the Grantee, its employees and agents, successors or assigns, reserve the right to repair crossing area(s), at its sole discretion and to recover the cost of such repairs from the Grantor if such repairs are needed as a result of activities of the Grantor, his successors or assigns.

IV. ENFORCEMENT AND REMEDIES

A. Enforcement. To accomplish the purposes of this Conservation Easement, Grantee is allowed to prevent any activity within the Conservation Easement Area that is inconsistent with the purposes of this Conservation Easement and to require the restoration of such areas or features in the Conservation Easement Area that may have been damaged by such unauthorized activity or use. Upon any breach of the terms of this Conservation Easement by Grantor, the

Grantee shall, except as provided below, notify the Grantor in writing of such breach and the Grantor shall have ninety (90) days after receipt of such notice to correct the damage caused by such breach. If the breach and damage remains uncured after ninety (90) days, the Grantee may enforce this Conservation Easement by bringing appropriate legal proceedings including an action to recover damages, as well as injunctive and other relief. The Grantee shall also have the power and authority, consistent with its statutory authority: (a) to prevent any impairment of the Conservation Easement Area by acts which may be unlawful or in violation of this Conservation Easement; (b) to otherwise preserve or protect its interest in the Property; or (c) to seek damages from any appropriate person or entity. Notwithstanding the foregoing, the Grantee reserves the immediate right, without notice, to obtain a temporary restraining order, injunctive or other appropriate relief, if the breach is or would irreversibly or otherwise materially impair the benefits to be derived from this Conservation Easement, and the Grantor and Grantee acknowledge that the damage would be irreparable and remedies at law inadequate. The rights and remedies of the Grantee provided hereunder shall be in addition to, and not in lieu of, all other rights and remedies available to Grantee in connection with this Conservation Easement.

B. Inspection. The Grantee, its employees and agents, successors and assigns, have the right, with reasonable notice, to enter the Conservation Easement Area over the Property at reasonable times for the purpose of inspection to determine whether the Grantor is complying with the terms, conditions and restrictions of this Conservation Easement.

C. Acts Beyond Grantor's Control. Nothing contained in this Conservation Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury or change in the Conservation Easement Area caused by third parties, resulting from causes beyond the Grantor's control, including, without limitation, fire, flood, storm, and earth movement, or from any prudent action taken in good faith by the Grantor under emergency conditions to prevent, abate, or mitigate significant injury to life or damage to the Property resulting from such causes.

D. Costs of Enforcement. Beyond regular and typical monitoring expenses, any costs incurred by Grantee in enforcing the terms of this Conservation Easement against Grantor, including, without limitation, any costs of restoration necessitated by Grantor's acts or omissions in violation of the terms of this Conservation Easement, shall be borne by Grantor.

E. No Waiver. Enforcement of this Easement shall be at the discretion of the Grantee and any forbearance, delay or omission by Grantee to exercise its rights hereunder in the event of any breach of any term set forth herein shall not be construed to be a waiver by Grantee.

V. MISCELLANEOUS

A. This instrument sets forth the entire agreement of the parties with respect to the Conservation Easement and supersedes all prior discussions, negotiations, understandings or agreements relating to the Conservation Easement. If any provision is found to be invalid, the remainder of the provisions of the Conservation Easement, and the application of such provision to persons or circumstances other than those as to which it is found to be invalid, shall not be affected thereby.

B. Grantor is responsible for any real estate taxes, assessments, fees, or charges levied upon the Property. Grantee shall not be responsible for any costs or liability of any kind related to the ownership, operation, insurance, upkeep, or maintenance of the Property, except as expressly provided herein. Upkeep of any constructed bridges, fences, or other amenities on the Property are the sole responsibility of the Grantor. Nothing herein shall relieve the Grantor of the obligation to comply with federal, state or local laws, regulations and permits that may apply to the exercise of the Reserved Rights.

C. Any notices shall be sent by registered or certified mail, return receipt requested to the parties at their addresses shown herein or to other addresses as either party establishes in writing upon notification to the other.

D. Grantor shall notify Grantee in writing of the name and address and any party to whom the Property or any part thereof is to be transferred at or prior to the time said transfer is made. Grantor further agrees that any subsequent lease, deed, or other legal instrument by which any interest in the Property is conveyed is subject to the Conservation Easement herein created.

E. The Grantor and Grantee agree that the terms of this Conservation Easement shall survive any merger of the fee and easement interests in the Property or any portion thereof.

F. This Conservation Easement and Right of Access may be amended, but only in writing signed by all parties hereto, or their successors or assigns, if such amendment does not affect the qualification of this Conservation Easement or the status of the Grantee under any applicable laws, and is consistent with the purposes of the Conservation Easement. The owner of the Property shall notify the State Property Office and the U.S. Army Corps of Engineers in writing sixty (60) days prior to the initiation of any transfer of all or any part of the Property or of any request to void or modify this Conservation Easement. Such notifications and modification requests shall be addressed to:

Division of Mitigation Services Program Manager
NC State Property Office
1321 Mail Service Center
Raleigh, NC 27699-1321

and

General Counsel
US Army Corps of Engineers
69 Darlington Avenue
Wilmington, NC 28403

G. The parties recognize and agree that the benefits of this Conservation Easement are in gross and assignable provided, however, that the Grantee hereby covenants and agrees, that in the event it transfers or assigns this Conservation Easement, the organization receiving the interest will be a qualified holder under N.C. Gen. Stat. § 121-34 et seq. and § 170(h) of the Internal Revenue Code, and the Grantee further covenants and agrees that the terms of the

transfer or assignment will be such that the transferee or assignee will be required to continue in perpetuity the conservation purposes described in this document.

VI. QUIET ENJOYMENT

Grantor reserves all remaining rights accruing from ownership of the Property, including the right to engage in or permit or invite others to engage in only those uses of the Conservation Easement Area that are expressly reserved herein, not prohibited or restricted herein, and are not inconsistent with the purposes of this Conservation Easement. Without limiting the generality of the foregoing, the Grantor expressly reserves to the Grantor, and the Grantor's invitees and licensees, the right of access to the Conservation Easement Area, and the right of quiet enjoyment of the Conservation Easement Area,

TO HAVE AND TO HOLD, the said rights and easements perpetually unto the State of North Carolina for the aforesaid purposes,

AND Grantor covenants that Grantor is seized of said premises in fee and has the right to convey the permanent Conservation Easement herein granted; that the same is free from encumbrances and that Grantor will warrant and defend title to the same against the claims of all persons whomsoever.

IN TESTIMONY WHEREOF, the Grantor has hereunto set his hand and seal, the day and year first above written.

Milford C. Farlow (SEAL)

Linda V Farlow (SEAL)

NORTH CAROLINA
COUNTY OF RANDOLPH

I, Cathy Ashcraft-Edley, a Notary Public in and for the County and State aforesaid, do hereby certify that Milford C. Farlow and wife Linda V. Farlow, Grantor, each personally appeared before me this day and acknowledged the execution of the foregoing instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and Notary Seal this the 27 day of November, 2018

Cathy Ashcraft-Edley
Notary Public

My commission expires:

07/24/2023



Exhibit A

ALL OF THAT CERTAIN PARCEL OF LAND NOW OR FORMERLY OWNED BY MILFORD C. FARLOW WITH PIN 7737506892 FOUND IN DEED BOOK 05E PAGE 298 IN THE RANDOLPH COUNTY REGISTRY, LYING AND BEING SITUATED IN THE TOWNSHIP OF NEW MARKET, COUNTY OF RANDOLPH, STATE OF NORTH CAROLINA, CONTAINING IN AGGREGATE 10.01 ACRES (435,919 SQ FT), AS SHOWN ON THE PLAT ENTITLED "RES RANDLEMAN GROUP A-SUNBEAM", PREPARED BY GUY V. COOKE OF GC MAPPING, PLLC NCPLS L-4596, DATED 10-14-2018, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

EASEMENT AREA 1

BEGINING AT AN IRON PIPE FOUND LABELED CONTROL CORNER WITH NORTH CAROLINA GRID COORDINATES N: 770526.52 E: 1736798.82 LABELED #30; THENCE S 80°20'01" W A DISTANCE OF 267.98' TO AN IRON ROD FOUND LABELED #31; THENCE N 36°49'28" W A DISTANCE OF 9.78' TO AN IRON ROD FOUND LABELED #32; THENCE N 10°18'42" W A DISTANCE OF 768.79' TO AN IRON ROD FOUND LABELED #33; THENCE N 84°44'54" E A DISTANCE OF 425.42' TO AN IRON ROD FOUND LABELED #34; THENCE S 01°12'29" W A DISTANCE OF 758.31' TO AN IRON ROD FOUND LABELED #30 WHICH IS THE POINT AND PLACE OF BEGINNING AND CONTAINING 266,126 SQ FT OR 6.11 ACRES.

EASEMENT AREA 2A

COMMENCING AT A CHISELED ROCK FOUND LABELED CONTROL CORNER WITH NORTH CAROLINA GRID COORDINATES N: 770338.75 E: 1735696.38; THENCE N 80°20'01" E A DISTANCE OF 202.52' TO AN IRON ROD FOUND LABELED #38 WHICH IS THE POINT OF BEGINNING; THENCE N 33°23'05" W A DISTANCE OF 594.48' TO AN IRON ROD FOUND LABELED #40; THENCE N 27°58'49" W A DISTANCE OF 324.99' TO AN IRON ROD FOUND LABELED #35; THENCE N 84°44'54" E A DISTANCE OF 146.50' TO AN IRON ROD FOUND LABELED #36; THENCE S 36°55'45" E A DISTANCE OF 946.68' TO AN IRON ROD FOUND LABELED #37; THENCE S 80°20'01" W A DISTANCE OF 238.47' TO AN IRON ROD FOUND LABELED #38 WHICH IS THE POINT AND PLACE OF BEGINNING AND CONTAINING 169,793 SQ FT OR 3.90 ACRES.

ALL OF THAT CERTAIN PARCEL OF LAND NOW OR FORMERLY OWNED BY MILFORD & LINDA FARLOW WITH PIN 7737503165 FOUND IN DEED BOOK 1157 PAGE 467 IN THE RANDOLPH COUNTY REGISTRY, LYING AND BEING SITUATED IN THE TOWNSHIP OF NEW MARKET, COUNTY OF RANDOLPH, STATE OF NORTH CAROLINA, CONTAINING IN AGGREGATE 0.06 ACRES (2,742 SQ FT), AS SHOWN ON THE PLAT ENTITLED "RES RANDLEMAN GROUP A-SUNBEAM", PREPARED BY GUY

V. COOKE OF GC MAPPING, PLLC NCPLS L-4596, DATED 7-14-2018, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

EASEMENT AREA 3A


COMMENCING AT A CHISELED ROCK FOUND LABELED CONTROL CORNER WITH NORTH CAROLINA GRID COORDINATES N: 770338.75 E: 1735696.38; THENCE S 00°18'35" W A DISTANCE OF 123.71' TO AN IRON ROD FOUND LABELED #65 WHICH IS THE POINT OF BEGINNING; THENCE S 00°18'35" W A DISTANCE OF 63.07' TO AN IRON ROD FOUND LABELED #66; THENCE N 89°56'49" W A DISTANCE OF 86.96' TO AN IRON ROD FOUND LABELED #64; THENCE N 54°11'17" E A DISTANCE OF 107.65' TO AN IRON ROD FOUND LABELED #65 WHICH IS THE POINT AND PLACE OF BEGINNING AND CONTAINING 2,742 SQ FT OR 0.06 ACRES.

Appendix B

Approved Categorical Exclusion for:

- Pequod,
- Schmid Creek, and
- Sunbeam.

Categorical Exclusion Form for Division of Mitigation Services
Projects
Version 1.4

Part 1: General Project Information	
Project Name:	Pequod
County Name:	Randolph
DMS ID Number:	100046
Project Sponsor:	Resource Environmental Solutions LLC
Project Contact Name:	Brad Breslow
Project Contact Address:	302 Jefferson Street Suite 110, Raleigh, NC 27605
Project Contact E-mail:	bbreslow@res.us
DMS Project Manager:	Jeff Schaffer
Project Description	
<small>The Pequod site is located in the Cape Fear River Basin within Cataloging Unit 03030003 and includes six unnamed tributaries that drain into Muddy Creek. The Project presents the opportunity to provide up to 19.14 buffer mitigation units. These will be derived from 17.8 acres of 0-100' Restoration, 3.02 acres of 101-200' Restoration, 0.67 acres of 0-100' Enhancement, and 0.02 acres of 101-200' Enhancement. Additionally, the project will provide approximately 19.14 acres of riparian buffer restoration by establishing a native forested and herbaceous riparian buffer plant community with a minimum width of 50 feet and maximum of 200 feet from the edge of the channels. This new community will be established in conjunction with the treatment of any existing exotic or undesirable plant species.</small>	
For Official Use Only	
<div style="display: flex; justify-content: space-between;"><div style="width: 45%;">Reviewed By: <div style="border-bottom: 1px solid black; margin-top: 10px; display: inline-block; width: 150px;">5/24/18</div> Date</div><div style="width: 45%; text-align: right;"><div style="border-bottom: 1px solid black; margin-top: 10px; display: inline-block; width: 150px;"></div> DMS Project Manager</div></div> <div style="margin-top: 20px;">Conditional Approved By: <div style="border-bottom: 1px solid black; margin-top: 10px; display: inline-block; width: 150px;"></div> Date</div> <div style="text-align: right; margin-top: 20px;">For Division Administrator FHWA</div>	

☐ Check this box if there are outstanding issues**Final Approval By:**

5-24-18

Date



**For Division Administrator
FHWA**

Part 2: All Projects Regulation/Question		Response
Coastal Zone Management Act (CZMA)		
1. Is the project located in a CAMA county?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2. Does the project involve ground-disturbing activities within a CAMA Area of Environmental Concern (AEC)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
3. Has a CAMA permit been secured?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
4. Has NCDPCM agreed that the project is consistent with the NC Coastal Management Program?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)		
1. Is this a "full-delivery" project?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
2. Has the zoning/land use of the subject property and adjacent properties ever been designated as commercial or industrial?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
3. As a result of a limited Phase I Site Assessment, are there known or potential hazardous waste sites within or adjacent to the project area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
4. As a result of a Phase I Site Assessment, are there known or potential hazardous waste sites within or adjacent to the project area?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
5. As a result of a Phase II Site Assessment, are there known or potential hazardous waste sites within the project area?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
6. Is there an approved hazardous mitigation plan?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
National Historic Preservation Act (Section 106)		
1. Are there properties listed on, or eligible for listing on, the National Register of Historic Places in the project area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2. Does the project affect such properties and does the SHPO/THPO concur?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
3. If the effects are adverse, have they been resolved?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act)		
1. Is this a "full-delivery" project?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
2. Does the project require the acquisition of real estate?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
3. Was the property acquisition completed prior to the intent to use federal funds?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
4. Has the owner of the property been informed: * prior to making an offer that the agency does not have condemnation authority; and * what the fair market value is believed to be?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

Part 3: Ground-Disturbing Activities Regulation/Question		Response
American Indian Religious Freedom Act (AIRFA)		
1. Is the project located in a county claimed as "territory" by the Eastern Band of Cherokee Indians?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2. Is the site of religious importance to American Indians?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
3. Is the project listed on, or eligible for listing on, the National Register of Historic Places?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
4. Have the effects of the project on this site been considered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Antiquities Act (AA)		
1. Is the project located on Federal lands?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2. Will there be loss or destruction of historic or prehistoric ruins, monuments or objects of antiquity?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
3. Will a permit from the appropriate Federal agency be required?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
4. Has a permit been obtained?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Archaeological Resources Protection Act (ARPA)		
1. Is the project located on federal or Indian lands (reservation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2. Will there be a loss or destruction of archaeological resources?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
3. Will a permit from the appropriate Federal agency be required?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
4. Has a permit been obtained?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Endangered Species Act (ESA)		
1. Are federal Threatened and Endangered species and/or Designated Critical Habitat listed for the county?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
2. Is Designated Critical Habitat or suitable habitat present for listed species?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
3. Are T&E species present or is the project being conducted in Designated Critical Habitat?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
4. Is the project "likely to adversely affect" the species and/or "likely to adversely modify" Designated Critical Habitat?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
5. Does the USFWS/NOAA-Fisheries concur in the effects determination?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
6. Has the USFWS/NOAA-Fisheries rendered a "jeopardy" determination?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

Executive Order 13007 (Indian Sacred Sites)	
1. Is the project located on Federal lands that are within a county claimed as "territory" by the EBCI?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Has the EBCI indicated that Indian sacred sites may be impacted by the proposed project?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
3. Have accommodations been made for access to and ceremonial use of Indian sacred sites?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Farmland Protection Policy Act (FPPA)	
1. Will real estate be acquired?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Has NRCS determined that the project contains prime, unique, statewide or locally important farmland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
3. Has the completed Form AD-1006 been submitted to NRCS?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Fish and Wildlife Coordination Act (FWCA)	
1. Will the project impound, divert, channel deepen, or otherwise control/modify any water body?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Have the USFWS and the NCWRC been consulted?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Land and Water Conservation Fund Act (Section 6(f))	
1. Will the project require the conversion of such property to a use other than public, outdoor recreation?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Has the NPS approved of the conversion?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Magnuson-Stevens Fishery Conservation and Management Act (Essential Fish Habitat)	
1. Is the project located in an estuarine system?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Is suitable habitat present for EFH-protected species?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
3. Is sufficient design information available to make a determination of the effect of the project on EFH?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
4. Will the project adversely affect EFH?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
5. Has consultation with NOAA-Fisheries occurred?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Migratory Bird Treaty Act (MBTA)	
1. Does the USFWS have any recommendations with the project relative to the MBTA?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Have the USFWS recommendations been incorporated?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Wilderness Act	
1. Is the project in a Wilderness area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Has a special use permit and/or easement been obtained from the maintaining federal agency?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A

Categorical Exclusion Summary

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, created a tax on the chemical and petroleum industries to clean up abandoned or uncontrolled hazardous waste sites.

As a part of the ERTR and CERCLA compliance, an EDR Radius Map Report with Geotcheck was ordered for the Pequod Mitigation Site through Environmental Data Resources, Inc (EDR) on April 9th, 2018. According to the EDR report, there were no listed sites located within 1 mile of the project site. In addition to the EDR search, a visual inspection of the Pequod site was conducted to assess the potential for the occurrence of recognized environmental conditions on the property that might not have been revealed in the EDR report. The inspection was conducted to locate and identify any obvious use, storage, or generation of hazardous materials. No hazardous storage containers or substances were observed.

Overall, the EDR assessment revealed no evidence of “recognized environmental conditions” in connection with the target property. The summary of the EDR report is enclosed.

National Historical Preservation Act (Section 106)

The National Historical Preservation Act (NHPA) is legislation intended to preserve historical and archaeological sites in the United States of America. RES requested review and comment from the State Historic Preservation Office (SHPO) with respect to any archaeological and architectural resources related to the Pequod Mitigation Site on April 9th, 2018. SHPO responded on May 1st, 2018 and had no objections to the Pequod Project. The correspondence with SHPO can be found in the enclosed documents.

Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act)

The Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act) provides important protections and assistance for those people affected by federally funded projects. The Uniform Act applies to the acquisition, rehabilitation, or demolition of real property for federally funded projects. The Pequod Mitigation Site is a full-delivery project that includes land acquisition. Notification of fair market value of the property and the lack of condemnation authority was completed by RES. The landowner was notified of fair market value and condemnation authority was listed in the option agreement.

Endangered Species Act (ESA)

Section 7 of the ESA requires federal agencies, in consultation with and with the assistance of the Secretary of the Interior or of Commerce, as appropriate, to ensure that actions they authorize, fund or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species.

Randolph County’s list of threatened and endangered species includes Schweinitz’s sunflower (*Helianthus schweinitzii*) and the Cape Fear Shiner (*Notropis mekistocholas*). The Pequod Mitigation Site does not contain any habitat for Cape Fear shiner, but may contain potential habitat for Schweinitz’s sunflower. Therefore, a “May Affect, Not Likely to Adversely Affect” determination was made, although a survey will still be conducted for Schweinitz’s sunflower during the optimal survey window of late-August through October. Upon completion of the survey, if any individuals are found in the project area, RES will follow up with USFWS to determine if a new Section 7 Determination is necessary.

The Bald and Golden Eagle Protection Act (BGPA)

The Bald and Golden Eagle Protection Act (BGPA) is a federal status that protects two species of Eagle. The BGPA provides protection for the bald eagle and golden eagle by prohibiting the take, possession, sale,

purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16 U.S.C. 668(a) (BGPA, 1940). The Bald Eagle (*Haliaeetus leucocephalus*), has been identified in Randolph county; buffer mitigation practices will have a “No Effect” result on the Bald Eagle.

Farmland Protection Policy Act (FPPA)

The Farmland Protection Policy Act (FPPA) is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. The Pequod Mitigation Site includes the conversion of prime farmland. As such, Form AD-1006 has been completed and submitted to the Natural Resource Conservation Service (NRCS). The completed form and correspondence documenting the submittal is enclosed.

Fish and Wildlife Coordination Act (FWCA)

The Fish and Wildlife Coordination Act (FWCA) of the United States was enacted to protect fish and wildlife when federal actions result in the control or modification of a natural stream or body of water. Since the Pequod Mitigation Site may include removal and/or replacement of existing culverts as well as stream bank stabilization, RES requested comment from the North Carolina Fish and Wildlife Resource Commission (NCWRC). The NCWRC responded on April 20th, 2018 and stated there are no records for any listed aquatic species in the vicinity of the project. All correspondence is enclosed.

Migratory Bird Treaty Act (MBTA)

The MBTA makes it unlawful for anyone to kill, capture, collect, possess, buy, sell, trade, ship import, or extort and migratory bird. The indirect killing of birds by destroying their nests and eggs is covered by the MBTA, so construction in nesting areas during nesting seasons can constitute at taking.

RES consulted the USFWS’s Information for Planning and Consultation (IPAC) tool on May 3rd, 2018 to generate a list of migratory birds that are expected to occur at the Pequod site. The results concluded that no migratory birds of conservation concern occur at the Site.

EXHIBITS



Legend

Proposed Easement

Figure 1 - Vicinity Map

Pequod Site

Randolph County, North Carolina

Date: 4/12/2018

Drawn by: MDD

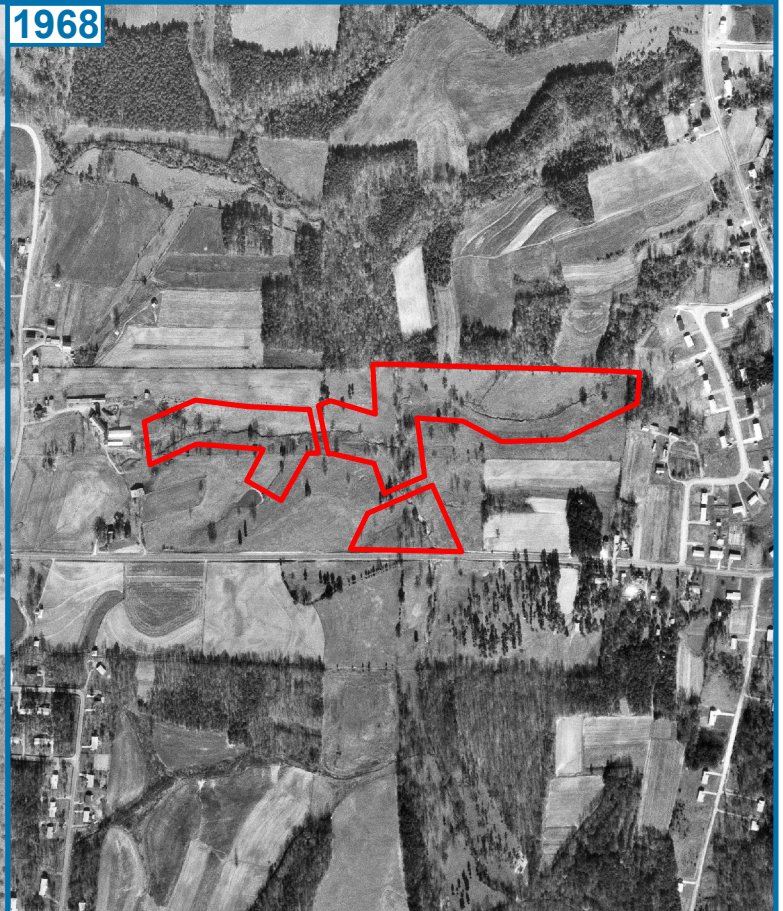


Document Path: S:\RES GIS\Projects\NCT\RandCo\Gis\Map\Pequod\Barbara Folwell\MOO\ESTR\Figure 1 - Vicinity Map - Pequod.mxd

1948



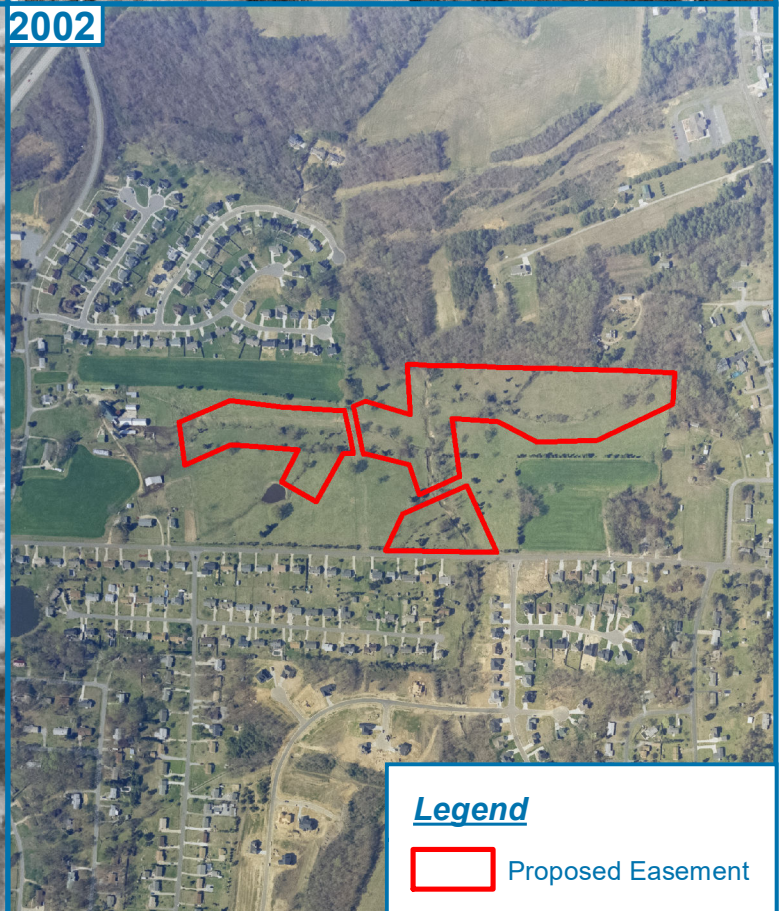
1968




1980



2002



Legend

 Proposed Easement



0 500 1,000
Feet

Figure 3 - Historical Aerial Photography

Pequod Mitigation Site

Randolph County, North Carolina

Date: 4/16/2018

Drawn by: MDE





Symbol	Name
ApB	Appling sandy loam, 2-6% slopes
ApC	Appling sandy loam, 6-10% slopes
WtB	Wynott-Enon complex, 2-8% slopes
WtC	Wynott-Enon complex, 8-15% slopes

Legend

- Proposed Easement
- Hydric (100%)
- Predominantly Hydric (66-99%)
- Partially Hydric (33-65%)
- Predominantly Nonhydric (1-32%)
- Nonhydric (0%)



0 500 1,000
Feet

Figure 4 - Soils Map

Pequod Mitigation Site

Randolph County, North Carolina

Date: 4/16/2018

Drawn by: MDD





Legend

- Proposed Easement
- NWI Wetlands
- Streams



0 200 400
Feet

Figure 5 - Existing Conditions Map
Pequod Mitigation Site
Randolph County, North Carolina

Date: 4/16/2018

Drawn by: MDD



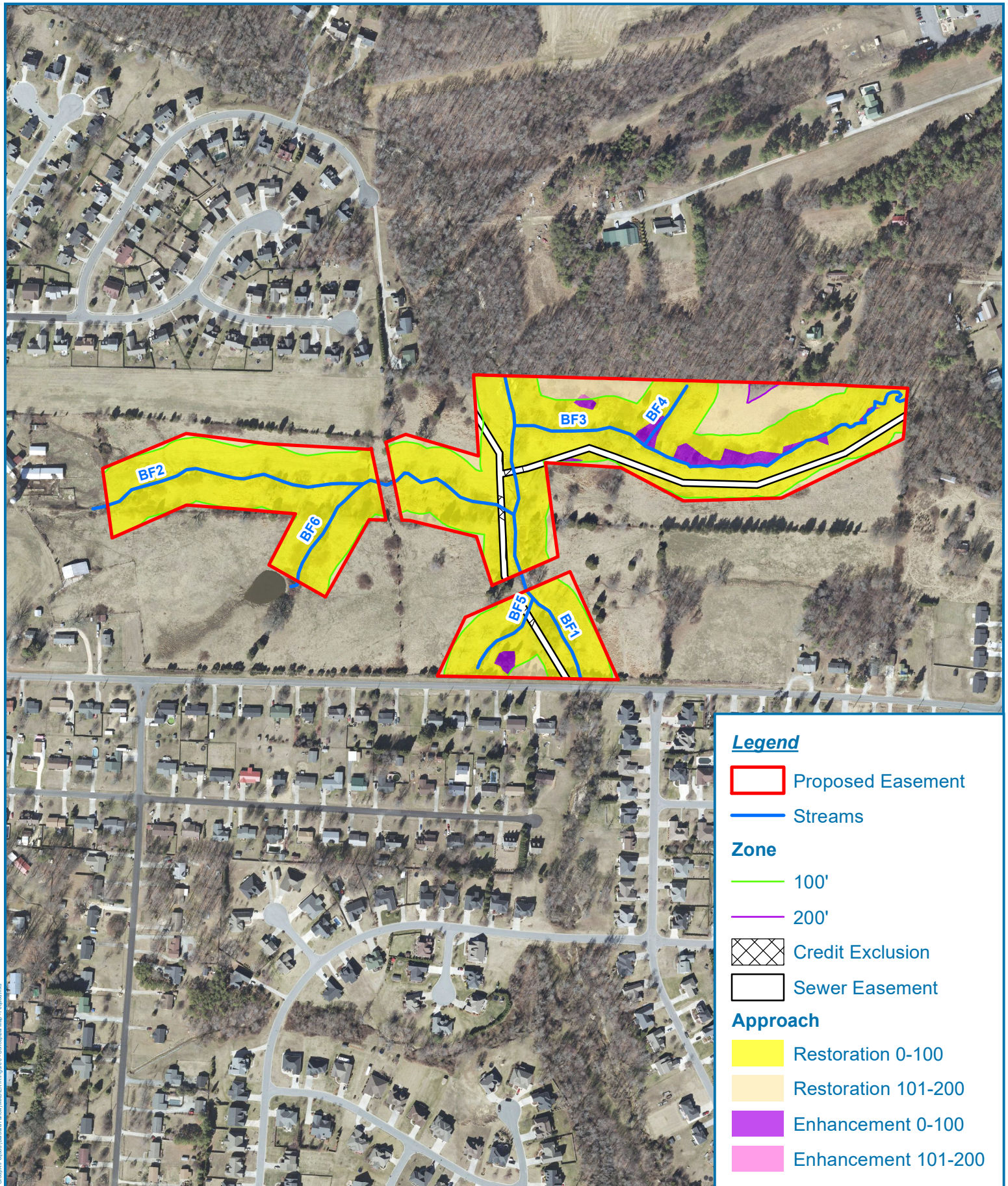


Figure 6 - Conceptual Map

Pequod Mitigation Site

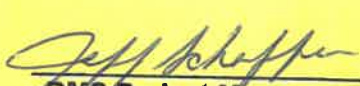
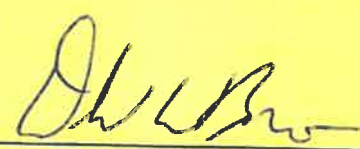
Randolph County, North Carolina

Date: 4/16/2018

Drawn by: MDD



Categorical Exclusion Form for Division of Mitigation Services Projects Version 1.4

Part 1: General Project Information	
Project Name:	Schmid Creek
County Name:	Randolph
DMS ID Number:	100046
Project Sponsor:	Resource Environmental Solutions LLC
Project Contact Name:	Brad Breslow
Project Contact Address:	302 Jefferson Street Suite 110, Raleigh, NC 27605
Project Contact E-mail:	bbreslow@res.us
DMS Project Manager:	Jeff Schaffer
Project Description	
<p>The Schmid Creek site is located in the Cape Fear River Basin within Cataloging Unit 03030003 and TLW 03030003010060. The Project area includes one unnamed tributary that drains into Randleman Lake approximately 1,000 feet downstream of the project. The Project presents the opportunity to provide up to 6.23 buffer mitigation units. These will be derived from 4.8 acres of 0-100' Restoration, and 4.2 acres of 101-200' Restoration. Additionally, the project will provide approximately 9.8 acres of riparian buffer restoration by establishing a native forested and herbaceous riparian buffer plant community with a minimum width of 50 feet and maximum of 200 feet from the edge of the channels. This new community will be established in conjunction with the eradication of any existing exotic or undesirable plant species</p>	
For Official Use Only	
Reviewed By:	
<div style="border-bottom: 1px solid black; display: inline-block; width: 150px; margin-bottom: 5px;">5/24/18</div> Date	 DMS Project Manager
Conditional Approved By:	
<div style="border-bottom: 1px solid black; display: inline-block; width: 150px; margin-bottom: 5px;"></div> Date	For Division Administrator FHWA
<input type="checkbox"/> Check this box if there are outstanding issues	
Final Approval By:	
<div style="border-bottom: 1px solid black; display: inline-block; width: 150px; margin-bottom: 5px;">5-24-18</div> Date	 For Division Administrator FHWA

Part 2: All Projects Regulation/Question		Response
Coastal Zone Management Act (CZMA)		
1. Is the project located in a CAMA county?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Does the project involve ground-disturbing activities within a CAMA Area of Environmental Concern (AEC)?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
3. Has a CAMA permit been secured?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
4. Has NCDCCM agreed that the project is consistent with the NC Coastal Management Program?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)		
1. Is this a "full-delivery" project?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Has the zoning/land use of the subject property and adjacent properties ever been designated as commercial or industrial?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
3. As a result of a limited Phase I Site Assessment, are there known or potential hazardous waste sites within or adjacent to the project area?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
4. As a result of a Phase I Site Assessment, are there known or potential hazardous waste sites within or adjacent to the project area?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
5. As a result of a Phase II Site Assessment, are there known or potential hazardous waste sites within the project area?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
6. Is there an approved hazardous mitigation plan?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
National Historic Preservation Act (Section 106)		
1. Are there properties listed on, or eligible for listing on, the National Register of Historic Places in the project area?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Does the project affect such properties and does the SHPO/THPO concur?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
3. If the effects are adverse, have they been resolved?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act)		
1. Is this a "full-delivery" project?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Does the project require the acquisition of real estate?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
3. Was the property acquisition completed prior to the intent to use federal funds?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
4. Has the owner of the property been informed: * prior to making an offer that the agency does not have condemnation authority; and * what the fair market value is believed to be?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

Part 3: Ground-Disturbing Activities Regulation/Question		Response
American Indian Religious Freedom Act (AIRFA)		
1. Is the project located in a county claimed as "territory" by the Eastern Band of Cherokee Indians?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2. Is the site of religious importance to American Indians?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
3. Is the project listed on, or eligible for listing on, the National Register of Historic Places?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
4. Have the effects of the project on this site been considered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Antiquities Act (AA)		
1. Is the project located on Federal lands?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2. Will there be loss or destruction of historic or prehistoric ruins, monuments or objects of antiquity?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
3. Will a permit from the appropriate Federal agency be required?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
4. Has a permit been obtained?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Archaeological Resources Protection Act (ARPA)		
1. Is the project located on federal or Indian lands (reservation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2. Will there be a loss or destruction of archaeological resources?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
3. Will a permit from the appropriate Federal agency be required?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
4. Has a permit been obtained?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Endangered Species Act (ESA)		
1. Are federal Threatened and Endangered species and/or Designated Critical Habitat listed for the county?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
2. Is Designated Critical Habitat or suitable habitat present for listed species?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
3. Are T&E species present or is the project being conducted in Designated Critical Habitat?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
4. Is the project "likely to adversely affect" the species and/or "likely to adversely modify" Designated Critical Habitat?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
5. Does the USFWS/NOAA-Fisheries concur in the effects determination?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
6. Has the USFWS/NOAA-Fisheries rendered a "jeopardy" determination?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

Executive Order 13007 (Indian Sacred Sites)	
1. Is the project located on Federal lands that are within a county claimed as "territory" by the EBCI?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Has the EBCI indicated that Indian sacred sites may be impacted by the proposed project?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
3. Have accommodations been made for access to and ceremonial use of Indian sacred sites?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Farmland Protection Policy Act (FPPA)	
1. Will real estate be acquired?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Has NRCS determined that the project contains prime, unique, statewide or locally important farmland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
3. Has the completed Form AD-1006 been submitted to NRCS?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Fish and Wildlife Coordination Act (FWCA)	
1. Will the project impound, divert, channel deepen, or otherwise control/modify any water body?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Have the USFWS and the NCWRC been consulted?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Land and Water Conservation Fund Act (Section 6(f))	
1. Will the project require the conversion of such property to a use other than public, outdoor recreation?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Has the NPS approved of the conversion?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Magnuson-Stevens Fishery Conservation and Management Act (Essential Fish Habitat)	
1. Is the project located in an estuarine system?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Is suitable habitat present for EFH-protected species?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
3. Is sufficient design information available to make a determination of the effect of the project on EFH?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
4. Will the project adversely affect EFH?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
5. Has consultation with NOAA-Fisheries occurred?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Migratory Bird Treaty Act (MBTA)	
1. Does the USFWS have any recommendations with the project relative to the MBTA?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Have the USFWS recommendations been incorporated?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Wilderness Act	
1. Is the project in a Wilderness area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Has a special use permit and/or easement been obtained from the maintaining federal agency?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A

Categorical Exclusion Summary

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, created a tax on the chemical and petroleum industries to clean up abandoned or uncontrolled hazardous waste sites.

As a part of the ERTR and CERCLA compliance, an EDR Radius Map Report with Geocheck was ordered for the Schmid Creek Mitigation Site through Environmental Data Resources, Inc (EDR) on April 9th, 2018. According to the EDR report, there were not listed sites located within 1 mile of the project site. In addition to the EDR search, a visual inspection of the Schmid Creek site was conducted to assess the potential for the occurrence of recognized environmental conditions on the property that might not have been revealed in the EDR report. The inspection was conducted to locate and identify any obvious use, storage, or generation of hazardous materials. No hazardous storage containers or substances were observed.

Overall, the EDR assessment revealed no evidence of “recognized environmental conditions” in connection with the target property. The summary of the EDR report is enclosed.

National Historical Preservation Act (Section 106)

The National Historical Preservation Act (NHPA) is legislation intended to preserve historical and archaeological sites in the United States of America. RES requested review and comment from the State Historic Preservation Office (SHPO) with respect to any archaeological and architectural resources related to the Schmid Creek Mitigation Site on April 9th, 2018. SHPO responded on May 1st, 2018 and had no objections to the Schmid Creek Project. The correspondence with SHPO is enclosed.

Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act)

The Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act) provides important protections and assistance for those people affected by federally funded projects. The Uniform Act applies to the acquisition, rehabilitation, or demolition of real property for federally funded projects. The Schmid Creek Mitigation Site is a full-delivery project that includes land acquisition. Notification of fair market value of the property and the lack of condemnation authority was completed by RES. Environmental Banc & Exchange, LLC (“EBX”), as owner of the property, acknowledges that NCDMS does not have the authority to acquire the property by eminent domain. EBX also acknowledges that the compensation to be received from NCDMS for the conservation easement to be placed on the property represents the fair market value.

Endangered Species Act (ESA)

Section 7 of the ESA requires federal agencies, in consultation with and with the assistance of the Secretary of the Interior or of Commerce, as appropriate, to ensure that actions they authorize, fund or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species.

Randolph County’s list of threatened and endangered species includes Schweinitz’s sunflower (*Helianthus schweinitzii*) and the Cape Fear Shiner (*Notropis mekistocholas*). The Schmid Creek Mitigation Site does not support any habitat related to any of the threatened or endangered species listed above. U.S. Fish and Wildlife Service (USFWS) correspondence is enclosed.

The Bald and Golden Eagle Protection Act (BGPA)

The Bald and Golden Eagle Protection Act (BGPA) is a federal status that protects two species of Eagle. The BGPA provides protection for the bald eagle and golden eagle by prohibiting the take, possession, sale,

purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16 U.S.C. 668(a) (BGPA, 1940). The Bald Eagle (*Haliaeetus leucocephalus*), has been identified in Randolph county; buffer mitigation practices will have a “No Effect” result on the Bald Eagle.

Farmland Protection Policy Act (FPPA)

The Farmland Protection Policy Act (FPPA) is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. The Schmid Creek Mitigation Site includes the conversion of prime farmland. As such, Form AD-1006 has been completed and submitted to the Natural Resource Conservation Service (NRCS). The completed form and correspondence documenting the submittal is enclosed.

Fish and Wildlife Coordination Act (FWCA)

The Fish and Wildlife Coordination Act (FWCA) of the United States was enacted to protect fish and wildlife when federal actions result in the control or modification of a natural stream or body of water. Since the Schmid Creek Mitigation Site includes stream restoration RES requested comment from the North Carolina Fish and Wildlife Resource Commission (NCWRC). The NCWRC responded on April 20th, 2018 and stated there are no records for any listed aquatic species in the vicinity of the project. All correspondence is enclosed.

Migratory Bird Treaty Act (MBTA)

The MBTA makes it unlawful for anyone to kill, capture, collect, possess, buy, sell, trade, ship import, or extort and migratory bird. The indirect killing of birds by destroying their nests and eggs is covered by the MBTA, so construction in nesting areas during nesting seasons can constitute at taking.

RES consulted the USFWS’s Information for Planning and Consultation (IPAC) tool on May 3rd, 2018 to generate a list of migratory birds that are expected to occur at the Pequod site. The results listed several migratory birds of conservation concern for the project area; however, buffer mitigation activities will provide a net benefit for migratory bird habitat.

EXHIBITS

1948



1964



1980



2002



Legend

 Proposed Easement



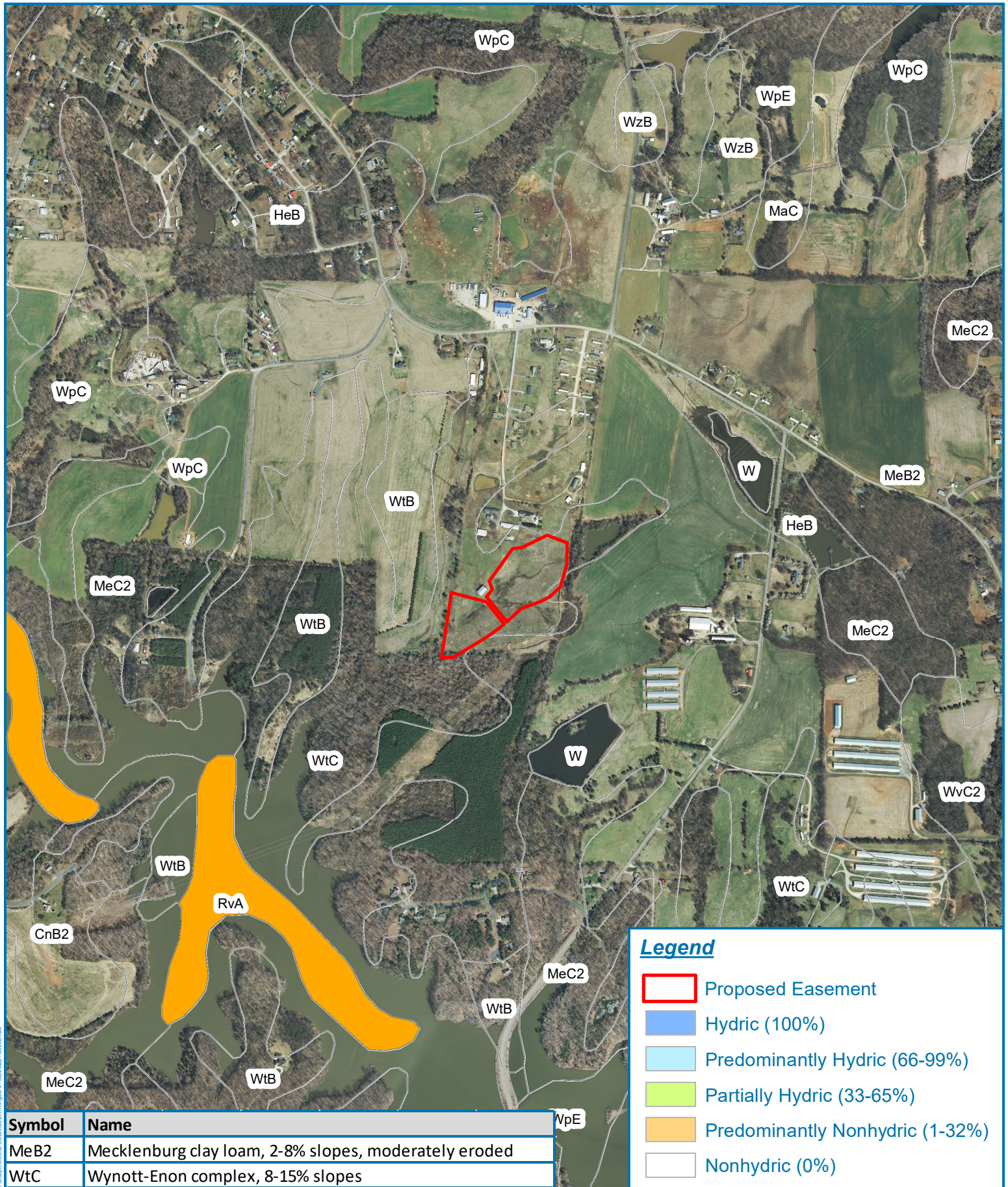
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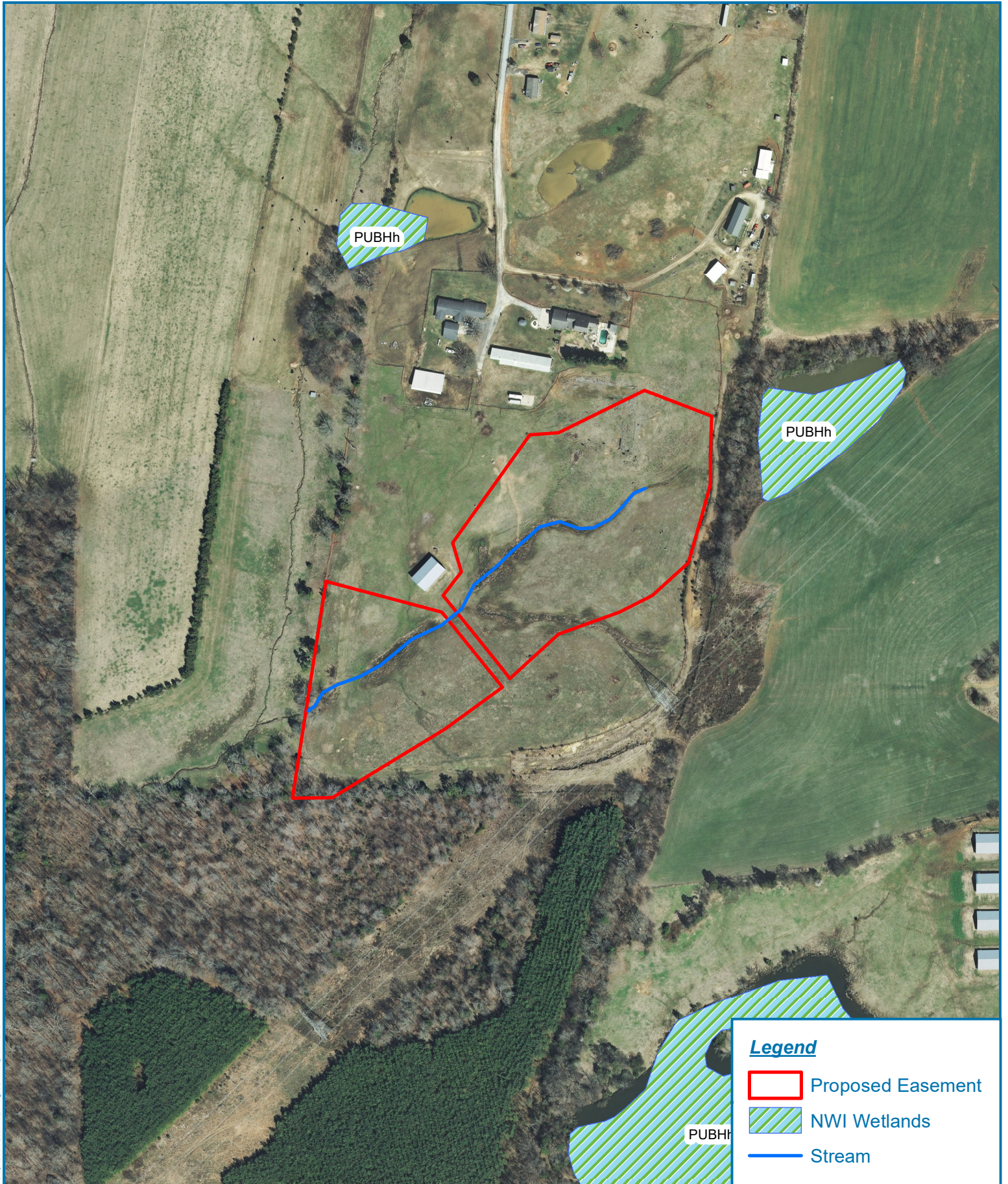
Figure 3 - Historical Aerial Photography
Schmid Creek Mitigation Site
Randolph County, North Carolina

Date: 4/24/2018

Drawn by: MDD







Legend

- Proposed Easement
- NWI Wetlands
- Stream

PUBHh



0 150 300
Feet

Figure 5 - Existing Conditions Map
Schmid Creek Mitigation Site
Randolph County, North Carolina

Date: 5/7/2018

Drawn by: MDD



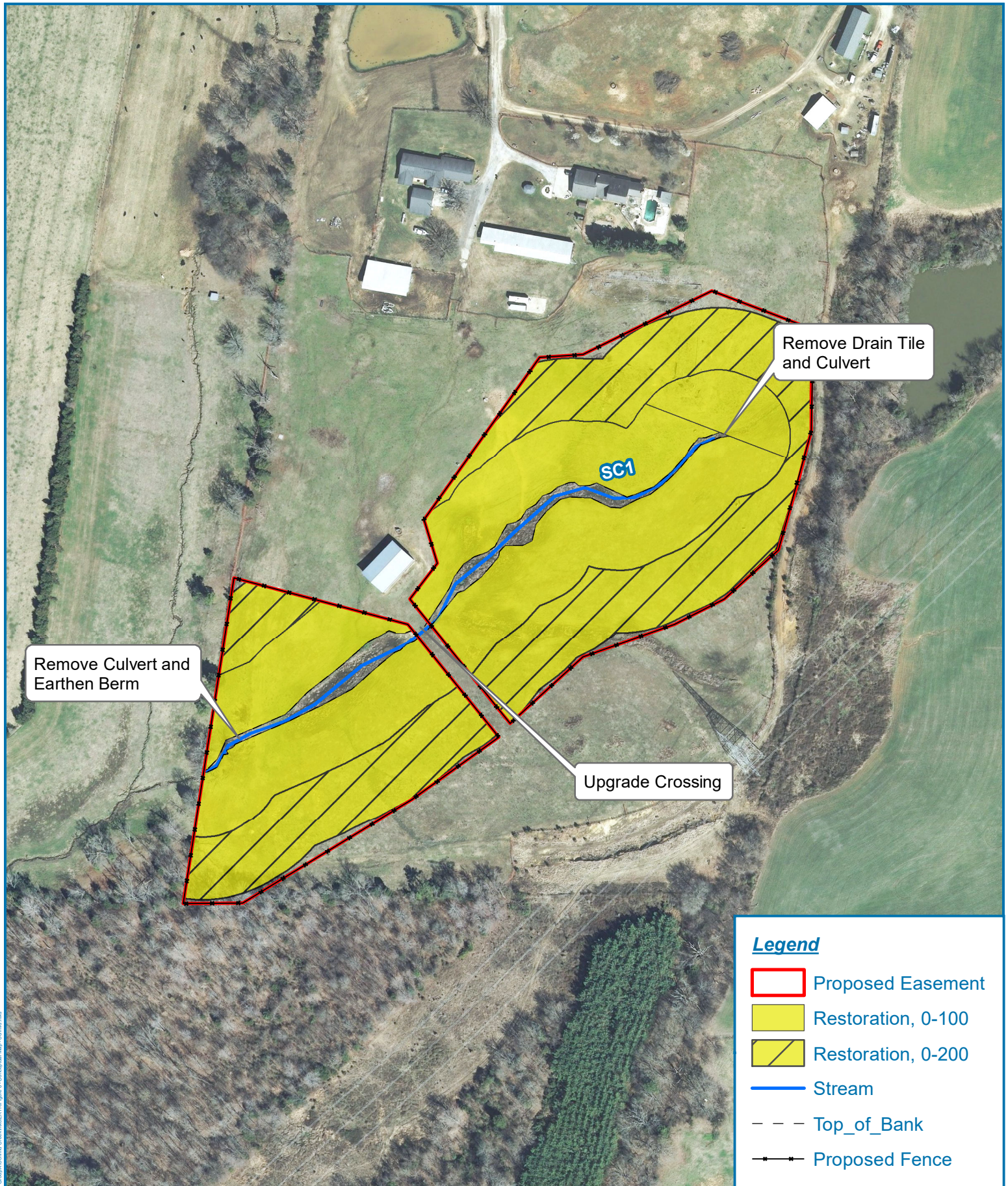




Figure 6 - Conceptual Map
Schmid Creek Mitigation Site
 Randolph County, North Carolina

Date: 5/7/2018

Drawn by: MDD



Categorical Exclusion Form for Division of Mitigation Services Projects Version 1.4

Part 1: General Project Information	
Project Name:	Sunbeam
County Name:	Randolph
DMS ID Number:	100046
Project Sponsor:	Resource Environmental Solutions LLC
Project Contact Name:	Brad Breslow
Project Contact Address:	302 Jefferson Street Suite 110, Raleigh, NC 27605
Project Contact E-mail:	bbreslow@res.us
DMS Project Manager:	Jeff Schaffer
Project Description	
<p>The Sunbeam site is located in the Cape Fear River Basin within Cataloging Unit 03030003 and TLW 03030003010060 and includes four unnamed tributaries that drain into Randleman Lake approximately 1 mile downstream of the project. The Project presents the opportunity to provide up to 13.13 buffer mitigation units. These will be derived from 11.94 acres of 0-100' Restoration, 2.33 acres of 101-200' Restoration, 0.32 acres of 0-100' Enhancement, 0.98 acres of 0-100' preservation, and 0.90 acres of 101-200'. Additionally, the project will provide approximately 16.47 acres of riparian buffer restoration, enhancement, and preservation by establishing a native forested and herbaceous riparian buffer plant community with a minimum width of 50 feet and maximum of 200 feet from the edge of the channels. This new community will be established in conjunction with the eradication of any existing exotic or undesirable plant species.</p>	
For Official Use Only	
<p>Reviewed By:</p> <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="width: 45%;"> <p><u>5/24/18</u></p> <p>Date</p> </div> <div style="width: 45%; text-align: center;">  <p>DMS Project Manager</p> </div> </div> <p>Conditional Approved By:</p> <div style="display: flex; justify-content: space-between; align-items: flex-end; margin-top: 20px;"> <div style="width: 45%;"> <p>_____</p> <p>Date</p> </div> <div style="width: 45%; text-align: center;"> <p>For Division Administrator FHWA</p> </div> </div> <p><input type="checkbox"/> Check this box if there are outstanding issues</p> <p>Final Approval By:</p> <div style="display: flex; justify-content: space-between; align-items: flex-end; margin-top: 20px;"> <div style="width: 45%;"> <p><u>5-24-18</u></p> <p>Date</p> </div> <div style="width: 45%; text-align: center;">  <p>For Division Administrator FHWA</p> </div> </div>	

Part 2: All Projects Regulation/Question		Response
Coastal Zone Management Act (CZMA)		
1. Is the project located in a CAMA county?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2. Does the project involve ground-disturbing activities within a CAMA Area of Environmental Concern (AEC)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
3. Has a CAMA permit been secured?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
4. Has NCDPCM agreed that the project is consistent with the NC Coastal Management Program?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)		
1. Is this a "full-delivery" project?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
2. Has the zoning/land use of the subject property and adjacent properties ever been designated as commercial or industrial?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
3. As a result of a limited Phase I Site Assessment, are there known or potential hazardous waste sites within or adjacent to the project area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
4. As a result of a Phase I Site Assessment, are there known or potential hazardous waste sites within or adjacent to the project area?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
5. As a result of a Phase II Site Assessment, are there known or potential hazardous waste sites within the project area?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
6. Is there an approved hazardous mitigation plan?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
National Historic Preservation Act (Section 106)		
1. Are there properties listed on, or eligible for listing on, the National Register of Historic Places in the project area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2. Does the project affect such properties and does the SHPO/THPO concur?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
3. If the effects are adverse, have they been resolved?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act)		
1. Is this a "full-delivery" project?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
2. Does the project require the acquisition of real estate?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
3. Was the property acquisition completed prior to the intent to use federal funds?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
4. Has the owner of the property been informed: * prior to making an offer that the agency does not have condemnation authority; and * what the fair market value is believed to be?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

Part 3: Ground-Disturbing Activities Regulation/Question		Response
American Indian Religious Freedom Act (AIRFA)		
1. Is the project located in a county claimed as "territory" by the Eastern Band of Cherokee Indians?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2. Is the site of religious importance to American Indians?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
3. Is the project listed on, or eligible for listing on, the National Register of Historic Places?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
4. Have the effects of the project on this site been considered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Antiquities Act (AA)		
1. Is the project located on Federal lands?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2. Will there be loss or destruction of historic or prehistoric ruins, monuments or objects of antiquity?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
3. Will a permit from the appropriate Federal agency be required?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
4. Has a permit been obtained?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Archaeological Resources Protection Act (ARPA)		
1. Is the project located on federal or Indian lands (reservation)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2. Will there be a loss or destruction of archaeological resources?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
3. Will a permit from the appropriate Federal agency be required?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
4. Has a permit been obtained?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Endangered Species Act (ESA)		
1. Are federal Threatened and Endangered species and/or Designated Critical Habitat listed for the county?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
2. Is Designated Critical Habitat or suitable habitat present for listed species?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
3. Are T&E species present or is the project being conducted in Designated Critical Habitat?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
4. Is the project "likely to adversely affect" the species and/or "likely to adversely modify" Designated Critical Habitat?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
5. Does the USFWS/NOAA-Fisheries concur in the effects determination?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
6. Has the USFWS/NOAA-Fisheries rendered a "jeopardy" determination?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

Executive Order 13007 (Indian Sacred Sites)	
1. Is the project located on Federal lands that are within a county claimed as "territory" by the EBCI?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Has the EBCI indicated that Indian sacred sites may be impacted by the proposed project?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
3. Have accommodations been made for access to and ceremonial use of Indian sacred sites?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Farmland Protection Policy Act (FPPA)	
1. Will real estate be acquired?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Has NRCS determined that the project contains prime, unique, statewide or locally important farmland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
3. Has the completed Form AD-1006 been submitted to NRCS?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Fish and Wildlife Coordination Act (FWCA)	
1. Will the project impound, divert, channel deepen, or otherwise control/modify any water body?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Have the USFWS and the NCWRC been consulted?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Land and Water Conservation Fund Act (Section 6(f))	
1. Will the project require the conversion of such property to a use other than public, outdoor recreation?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Has the NPS approved of the conversion?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Magnuson-Stevens Fishery Conservation and Management Act (Essential Fish Habitat)	
1. Is the project located in an estuarine system?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Is suitable habitat present for EFH-protected species?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
3. Is sufficient design information available to make a determination of the effect of the project on EFH?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
4. Will the project adversely affect EFH?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
5. Has consultation with NOAA-Fisheries occurred?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Migratory Bird Treaty Act (MBTA)	
1. Does the USFWS have any recommendations with the project relative to the MBTA?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Have the USFWS recommendations been incorporated?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Wilderness Act	
1. Is the project in a Wilderness area?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Has a special use permit and/or easement been obtained from the maintaining federal agency?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A

Categorical Exclusion Summary

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, created a tax on the chemical and petroleum industries to clean up abandoned or uncontrolled hazardous waste sites.

As a part of the ERTR and CERCLA compliance, an EDR Radius Map Report with Geotcheck was ordered for the Sunbeam Mitigation Site through Environmental Data Resources, Inc (EDR) on April 9th, 2018. According to the EDR report, there were no listed sites located within 1 mile of the project site. In addition to the EDR search, a visual inspection of the Sunbeam site was conducted to assess the potential for the occurrence of recognized environmental conditions on the property that might not have been revealed in the EDR report. The inspection was conducted to locate and identify any obvious use, storage, or generation of hazardous materials. No hazardous storage containers or substances were observed.

Overall, the EDR assessment revealed no evidence of “recognized environmental conditions” in connection with the target property. The summary of the EDR report is included in the Appendix.

National Historical Preservation Act (Section 106)

The National Historical Preservation Act (NHPA) is legislation intended to preserve historical and archaeological sites in the United States of America. RES requested review and comment from the State Historic Preservation Office (SHPO) with respect to any archaeological and architectural resources related to the Pequod Mitigation Site on April 9th, 2018. SHPO responded on May 1st, 2018 and had no objections to the Pequod Project. The correspondence with SHPO can be found in the Appendix.

Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act)

The Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act) provides important protections and assistance for those people affected by federally funded projects. The Uniform Act applies to the acquisition, rehabilitation, or demolition of real property for federally funded projects. The Sunbeam Mitigation Site is a full-delivery project that includes land acquisition. Notification of fair market value of the property and the lack of condemnation authority was completed by RES. The landowner was notified of fair market value and condemnation authority was listed in the option agreement.

Endangered Species Act (ESA)

Section 7 of the ESA requires federal agencies, in consultation with and with the assistance of the Secretary of the Interior or of Commerce, as appropriate, to ensure that actions they authorize, fund or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species.

Randolph County’s list of threatened and endangered species includes Schweinitz’s sunflower (*Helianthus schweinitzii*) and the Cape Fear Shiner (*Notropis mekistocholas*). The Sunbeam Mitigation Site does not contain any habitat for Cape Fear shiner, but may contain potential habitat for Schweinitz’s sunflower. Therefore, a “May Affect, Not Likely to Adversely Affect” determination was made, although a survey will still be conducted for Schweinitz’s sunflower during the optimal survey window of late-August through October. Upon completion of the survey, if any individuals are found in the project area, RES will follow up with USFWS to determine if a new Section 7 Determination is necessary.

The Bald and Golden Eagle Protection Act (BGPA)

The Bald and Golden Eagle Protection Act (BGPA) is a federal status that protects two species of Eagle. The BGPA provides protection for the bald eagle and golden eagle by prohibiting the take, possession, sale,

purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16 U.S.C. 668(a) (BGPA, 1940). The Bald Eagle (*Haliaeetus leucocephalus*), has been identified in Randolph county; buffer mitigation practices will have a “No Effect” result on the Bald Eagle.

Farmland Protection Policy Act (FPPA)

The Farmland Protection Policy Act (FPPA) is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. The Sunbeam Mitigation Site includes the conversion of prime farmland. As such, Form AD-1006 has been completed and submitted to the Natural Resource Conservation Service (NRCS). The completed form and correspondence documenting the submittal is included in the Appendix.

Fish and Wildlife Coordination Act (FWCA)

The Fish and Wildlife Coordination Act (FWCA) of the United States was enacted to protect fish and wildlife when federal actions result in the control or modification of a natural stream or body of water. Since the Sunbeam Mitigation Site may include removal and/or replacement of existing culverts and/or berms as well as stream bank stabilization, RES requested comment from the North Carolina Fish and Wildlife Resource Commission (NCWRC). The NCWRC responded on April 20th, 2018 and stated there are no records for any listed aquatic species in the vicinity of the project. All correspondence can be found in the Appendix.

Migratory Bird Treaty Act (MBTA)

The MBTA makes it unlawful for anyone to kill, capture, collect, possess, buy, sell, trade, ship import, or extort and migratory bird. The indirect killing of birds by destroying their nests and eggs is covered by the MBTA, so construction in nesting areas during nesting seasons can constitute at taking.

RES consulted the USFWS’s Information for Planning and Consultation (IPAC) tool on May 3rd, 2018 to generate a list of migratory birds that are expected to occur at the Pequod site. The results listed several migratory birds of conservation concern for the project area; however, buffer mitigation activities will provide a net benefit for migratory bird habitat.

EXHIBITS



Legend

Proposed Easement

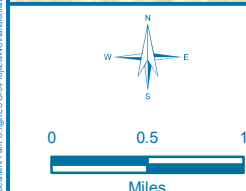


Figure 1 - Vicinity Map

Sunbeam Site

Randolph County, North Carolina

Date: 5/7/2018
Drawn by: EWT



Document Path: S:\GIS\GISProjects\W\Randolph\Group AS\Sunbeam\2018\Farley\MOD\RT\Figure 1 - Vicinity Map - Sunbeam.mxd

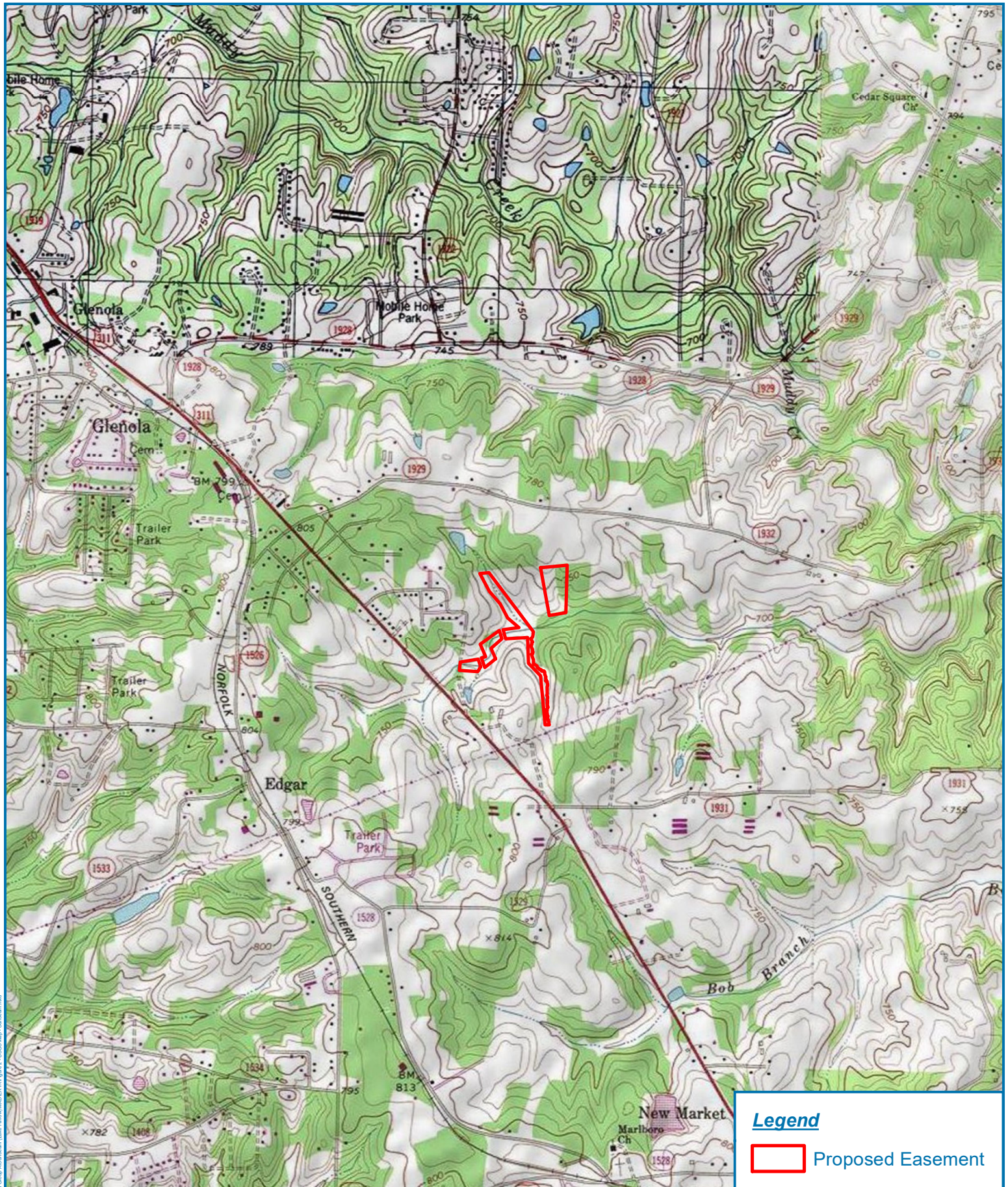


Figure 2 - USGS Map (Glenola Quad)

Sunbeam Site

Randolph County, North Carolina

0 1,000 2,000
Feet

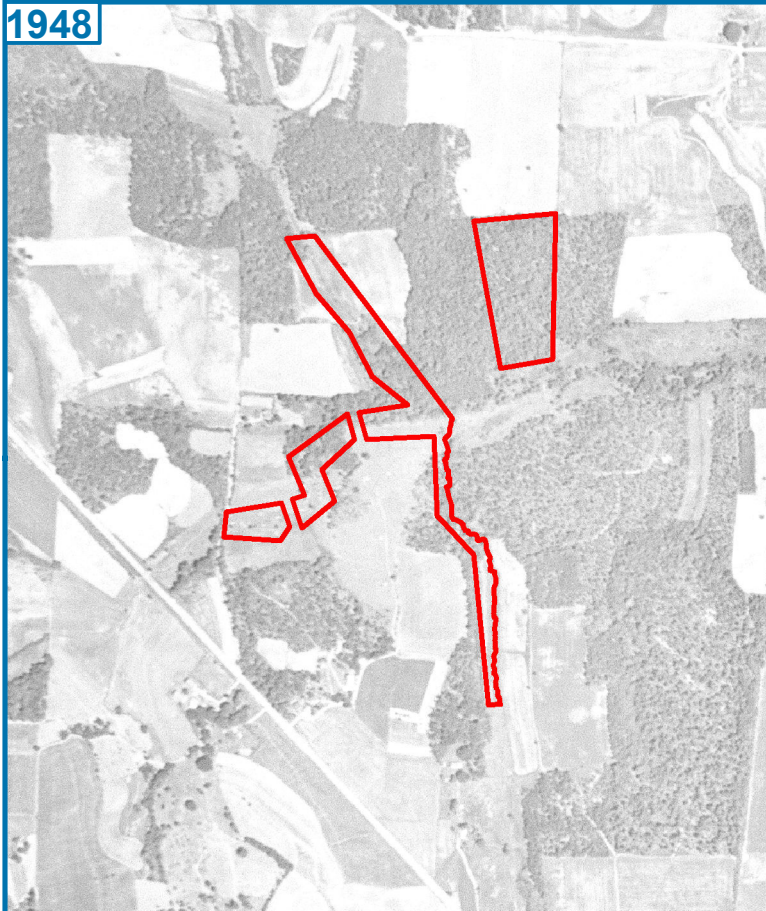
Date: 5/7/2018

Drawn by: EWT

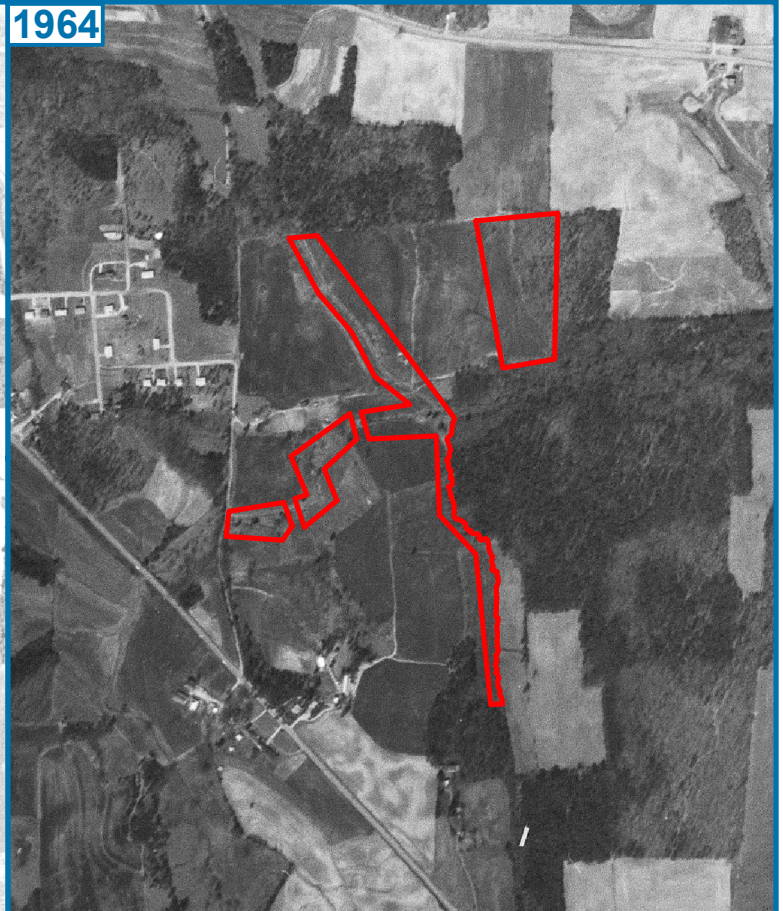


Document Path: S:\GIS\GISProjects\BNC\BNC\BNC_Group_A\GIS\BNC\BNC_Figure2-USGS_Map_Sunbeam.mxd

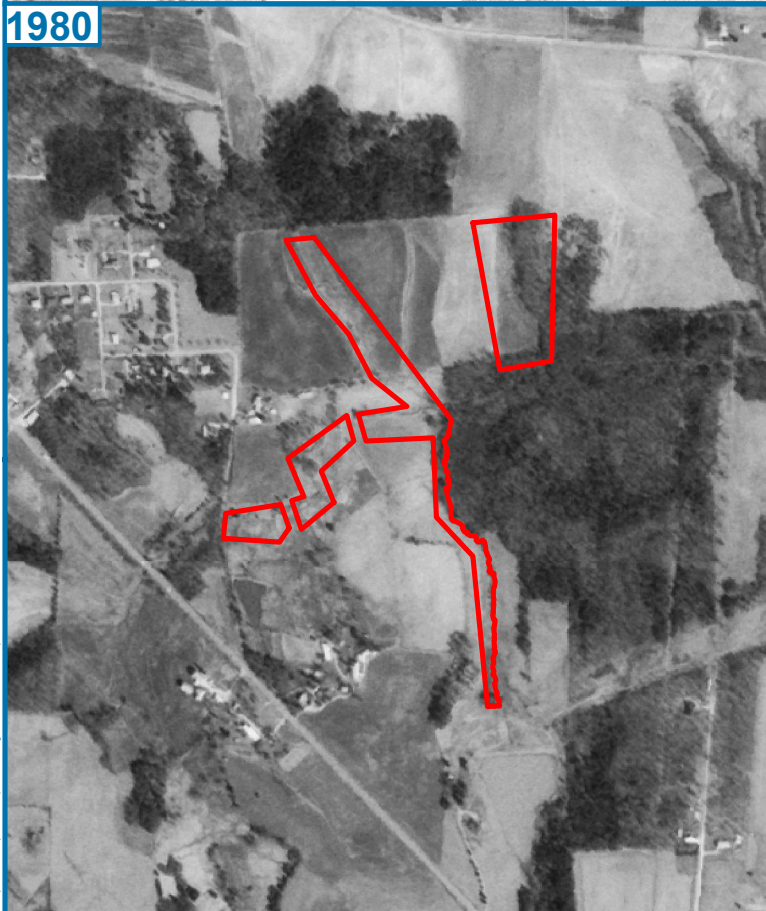
1948



1964



1980



2010



Legend

 Proposed Easement



0 500 1,000
Feet

Figure 3 - Historical Aerial Photography

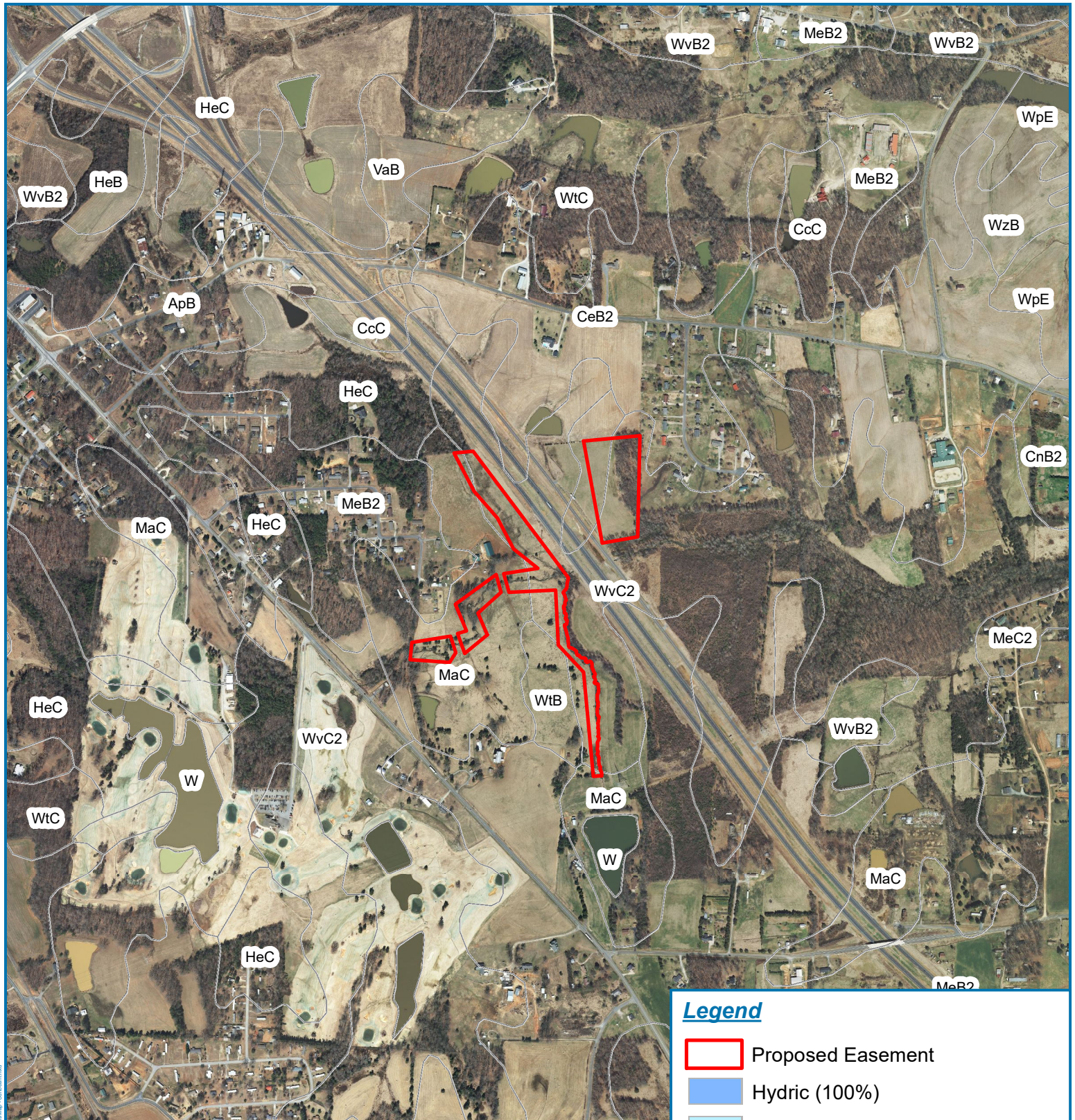
Sunbeam Mitigation Site

Randolph County, North Carolina

Date: 5/7/2018

Drawn by: EWT



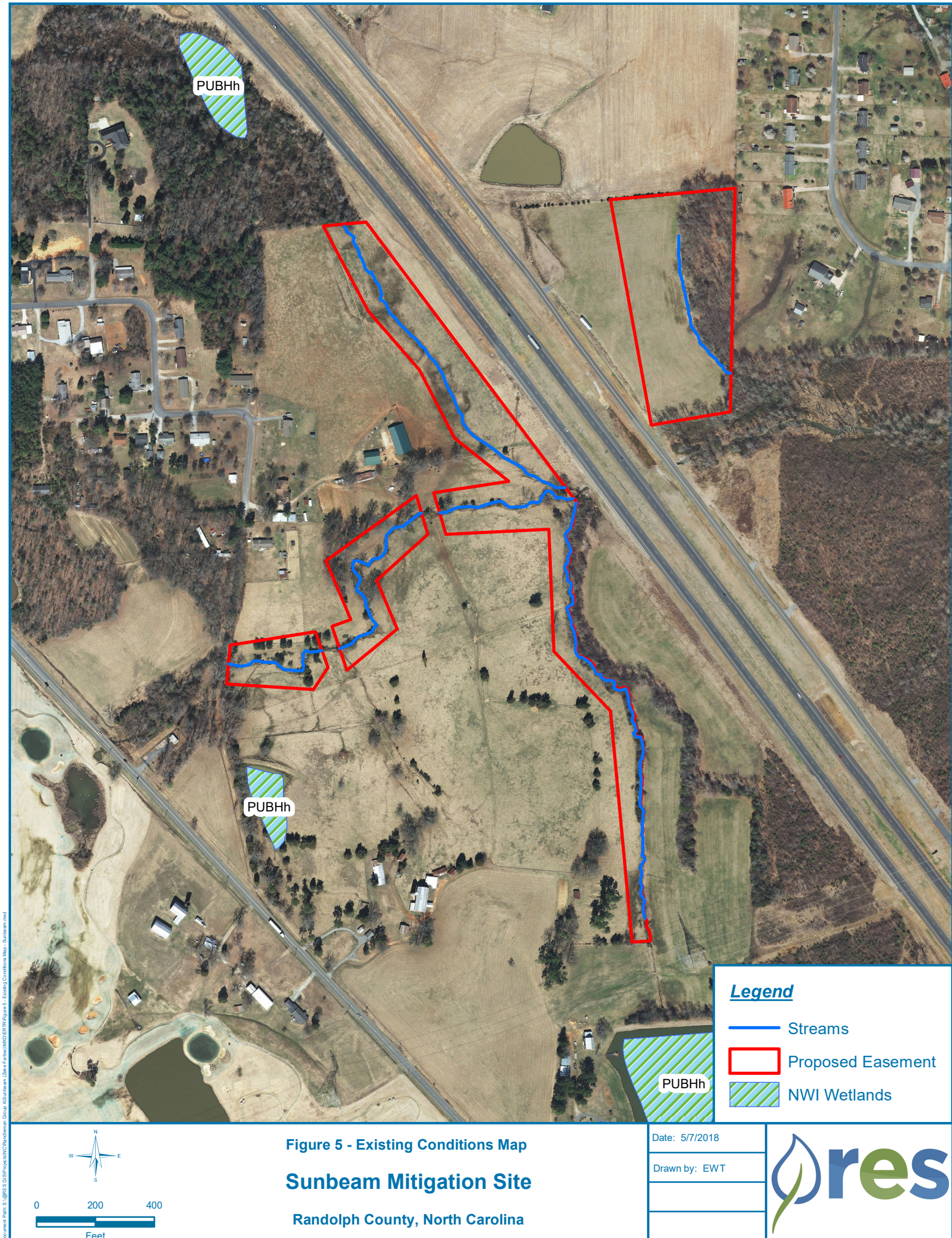


Symbol	Name
MaC	Mecklenburg loam, 8-15% slopes
WtB	Wynott-Enon complex, 2-8% slopes
WvB2	Wynott-Enon complex, 2-8% slopes, moderately eroded
WvBC2	Wynott-Enon complex, 8-15% slopes, moderately eroded

Legend

- Proposed Easement
- Hydric (100%)
- Predominantly Hydric (66-99%)
- Partially Hydric (33-65%)
- Predominantly Nonhydric (1-32%)
- Nonhydric (0%)

Document Path: S:\GIS\Projects\Watersheds\Group A\Sunbeam\2018\Figure 4 - Soils Map - Sunbeam.mxd



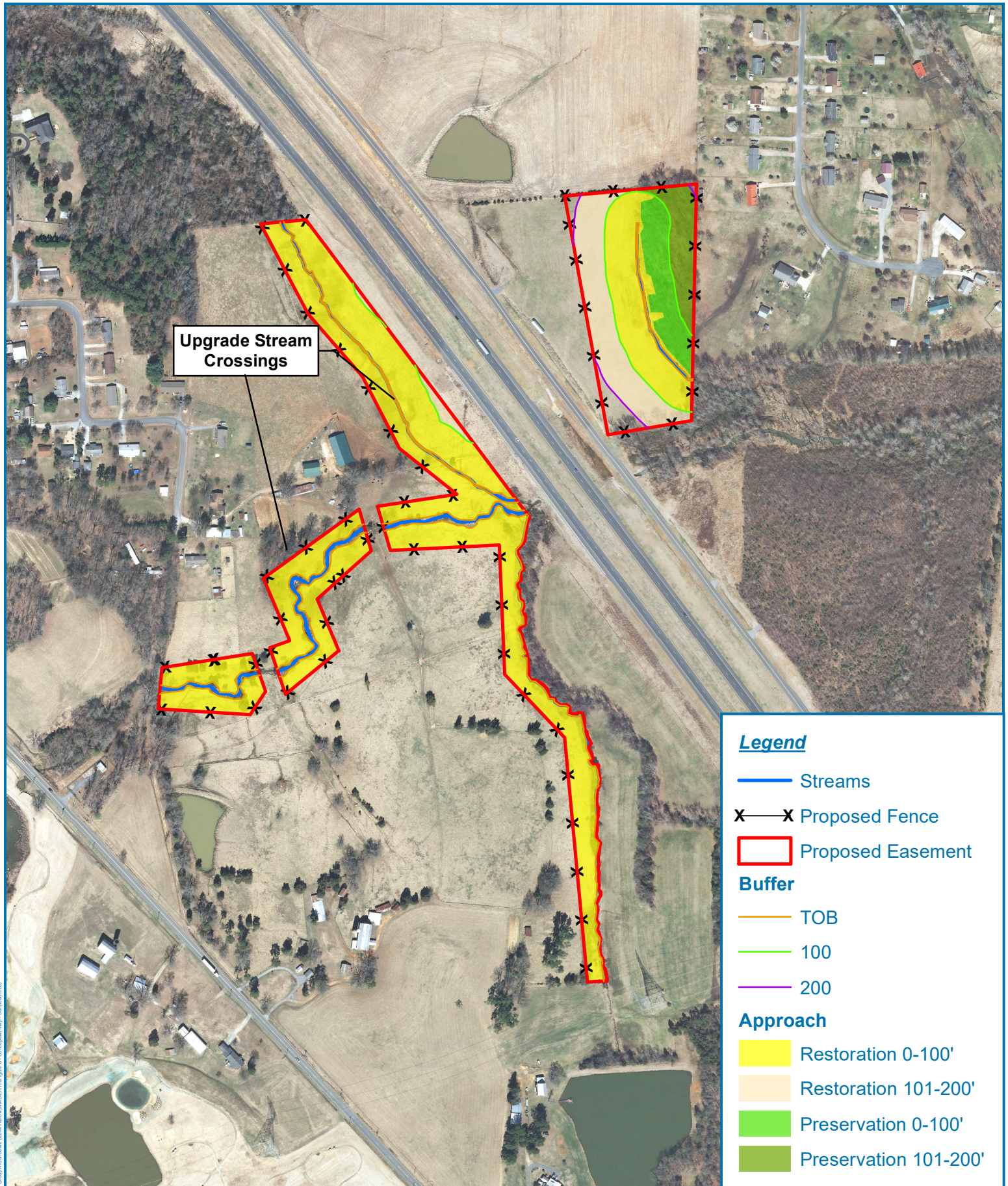
Document Path: S:\GIS\Projects\Wetlands\Group A\Sunbeam\Take a Fairway\MODER\Figures 5 - Existing Conditions Map - Sunbeam.mxd

Figure 5 - Existing Conditions Map
Sunbeam Mitigation Site
Randolph County, North Carolina

Date: 5/7/2018

Drawn by: EWT





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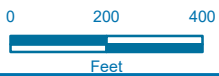


Figure 6 - Conceptual Map
Sunbeam Mitigation Site
 Randolph County, North Carolina

Date: 5/10/2018

Drawn by: EWT



Appendix C

- Pequod
 - USFWS Correspondence
 - SHPO Correspondence
 - City of Archdale Sewer Easement Correspondence
- Schmid Creek
 - USFWS Correspondence
 - SHPO Correspondence
- Sunbeam
 - USFWS Correspondence
 - SHPO Correspondence
 - Buffer Authorization Approval
- NCWRC Correspondence



United States Department of the Interior

FISH AND WILDLIFE SERVICE



Raleigh Field Office
P.O. Box 33726
Raleigh, NC 27636-3726

Date: 5/10/2018

Self-Certification Letter

Project Name Pequod Buffer Mitigation Site

Dear Applicant:

Thank you for using the U.S. Fish and Wildlife Service (Service) Raleigh Ecological Services online project review process. By printing this letter in conjunction with your project review package, you are certifying that you have completed the online project review process for the project named above in accordance with all instructions provided, using the best available information to reach your conclusions. This letter, and the enclosed project review package, completes the review of your project in accordance with the Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884), as amended (ESA), and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c, 54 Stat. 250), as amended (Eagle Act). This letter also provides information for your project review under the National Environmental Policy Act of 1969 (P.L. 91-190, 42 U.S.C. 4321-4347, 83 Stat. 852), as amended. A copy of this letter and the project review package must be submitted to this office for this certification to be valid. This letter and the project review package will be maintained in our records.

The species conclusions table in the enclosed project review package summarizes your ESA and Eagle Act conclusions. Based on your analysis, mark all the determinations that apply:

- ☐ “no effect” determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- ☒ “may affect, not likely to adversely affect” determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- ☐ “may affect, likely to adversely affect” determination for the Northern long-eared bat (*Myotis septentrionalis*) and relying on the findings of the January 5, 2016, Programmatic Biological Opinion for the Final 4(d) Rule on the Northern long-eared bat;
- ☒ “no Eagle Act permit required” determinations for eagles.

We certify that use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package results in reaching the appropriate determinations. Therefore, we concur with the “no effect” or “not likely to adversely affect” determinations for proposed and listed species and proposed and designated critical habitat; the “may affect” determination for Northern long-eared bat; and/or the “no Eagle Act permit required” determinations for eagles. Additional coordination with this office is not needed. Candidate species are not legally protected pursuant to the ESA. However, the Service encourages consideration of these species by avoiding adverse impacts to them. Please contact this office for additional coordination if your project action area contains candidate species. Should project plans change or if additional information on the distribution of proposed or listed species, proposed or designated critical habitat, or bald eagles becomes available, this determination may be reconsidered. This certification letter is valid for 1 year. Information about the online project review process including instructions, species information, and other information regarding project reviews within North Carolina is available at our website <http://www.fws.gov/raleigh/pp.html>. If you have any questions, you can write to us at Raleigh@fws.gov or please contact Leigh Mann of this office at 919-856-4520, ext. 10.

Sincerely,

/s/Pete Benjamin

Pete Benjamin
Field Supervisor
Raleigh Ecological Services

Enclosures - project review package

Species Conclusions Table

Project Name: Pequod Buffer Mitigation Site

Date: 5/10/2018

Species / Resource Name	Conclusion	ESA Section 7 / Eagle Act Determination	Notes / Documentation
Schweinitz's Sunflower (<i>Helianthus schweinitzii</i>)	Potential habitat present and no current survey conducted	May Affect, Not Likely to Adversely Affect	Survey will be conducted during the optimal survey window of late-August through October. However, buffer mitigation practices should have no effect on any potential populations.
Critical habitat	No critical habitat present	No Effect	
Bald eagle	Unlikely to disturb nesting bald eagles	No Eagle Act Permit Required	

Acknowledgement: I agree that the above information about my proposed project is true. I used all of the provided resources to make an informed decision about impacts in the immediate and surrounding areas.

Matthew DeAngelo Ecologist
Signature /Title

5/10/2018
Date



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh Ecological Services Field Office
Post Office Box 33726
Raleigh, NC 27636-3726
Phone: (919) 856-4520 Fax: (919) 856-4556



In Reply Refer To:
Consultation Code: 04EN2000-2018-SLI-0559
Event Code: 04EN2000-2018-E-01189
Project Name: Pequod

April 09, 2018

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The species list generated pursuant to the information you provided identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

Section 7 of the Act requires that all federal agencies (or their designated non-federal representative), in consultation with the Service, insure that any action federally authorized, funded, or carried out by such agencies is not likely to jeopardize the continued existence of any federally-listed endangered or threatened species. A biological assessment or evaluation may be prepared to fulfill that requirement and in determining whether additional consultation with the Service is necessary. In addition to the federally-protected species list, information on the species' life histories and habitats and information on completing a biological assessment or

evaluation and can be found on our web page at <http://www.fws.gov/raleigh>. Please check the web site often for updated information or changes

If your project contains suitable habitat for any of the federally-listed species known to be present within the county where your project occurs, the proposed action has the potential to adversely affect those species. As such, we recommend that surveys be conducted to determine the species' presence or absence within the project area. The use of North Carolina Natural Heritage program data should not be substituted for actual field surveys.

If you determine that the proposed action may affect (i.e., likely to adversely affect or not likely to adversely affect) a federally-protected species, you should notify this office with your determination, the results of your surveys, survey methodologies, and an analysis of the effects of the action on listed species, including consideration of direct, indirect, and cumulative effects, before conducting any activities that might affect the species. If you determine that the proposed action will have no effect (i.e., no beneficial or adverse, direct or indirect effect) on federally listed species, then you are not required to contact our office for concurrence (unless an Environmental Impact Statement is prepared). However, you should maintain a complete record of the assessment, including steps leading to your determination of effect, the qualified personnel conducting the assessment, habitat conditions, site photographs, and any other related articles.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

Not all Threatened and Endangered Species that occur in North Carolina are subject to section 7 consultation with the U.S Fish and Wildlife Service. Atlantic and shortnose sturgeon, sea turtles, when in the water, and certain marine mammals are under purview of the National Marine Fisheries Service. If your project occurs in marine, estuarine, or coastal river systems you should also contact the National Marine Fisheries Service, <http://www.nmfs.noaa.gov/>

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office. If you have any questions or comments, please contact John Ellis of this office at john_ellis@fws.gov.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Raleigh Ecological Services Field Office

Post Office Box 33726

Raleigh, NC 27636-3726

(919) 856-4520

Project Summary

Consultation Code: 04EN2000-2018-SLI-0559

Event Code: 04EN2000-2018-E-01189

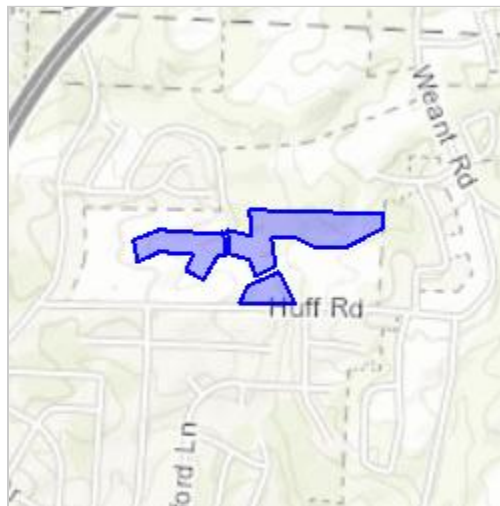
Project Name: Pequod

Project Type: LAND - RESTORATION / ENHANCEMENT

Project Description: Archdale in Randolph County, NC. Approximately 20 acres. Buffer Restoration and Enhancement. Spring 2019.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/35.91033406931456N79.93730973019339W>



Counties: Randolph, NC

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

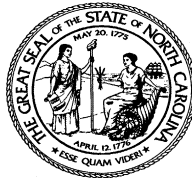
-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Flowering Plants

NAME	STATUS
Schweinitz's Sunflower <i>Helianthus schweinitzii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3849	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



**North Carolina Department of Natural and Cultural Resources
State Historic Preservation Office**

Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary Susi H. Hamilton

Office of Archives and History
Deputy Secretary Kevin Cherry

May 1, 2018

Matt DeAngelo
RES
302 Jefferson Street, Suite 110
Raleigh, NC 27605

Re: Pequod Buffer Mitigation Site, Randolph County, ER 18-0740

Dear Mr. DeAngelo:

Thank you for your submission of April 9, 2018, concerning the above project.

We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

A handwritten signature in blue ink that reads "Renee Gledhill-Earley".

for Ramona M. Bartos

From: [Brian Hockett](#)
To: [Lloyd Wilson](#); [Chris Davis](#)
Cc: [Brad Breslow](#); [Jamey McEachran](#)
Subject: RE: Huff Road City of Archdale Sewer Easement and RES Conservation Easement Understanding
Date: Friday, January 18, 2019 3:08:06 PM

Thanks Lloyd. Have a great weekend.

Brian Hockett, PLS
Construction Administrator

RES | res.us
Direct: 919.209.1054 | Mobile: 336.601.3246

From: Lloyd Wilson [mailto:lwilson@archdale-nc.gov]
Sent: Friday, January 18, 2019 2:54 PM
To: Brian Hockett <bhockett@res.us>; Chris Davis <cdavis@archdale-nc.gov>
Cc: Brad Breslow <bbreslow@res.us>; Jamey McEachran <jmceachran@res.us>
Subject: [EXTERNAL] Re: Huff Road City of Archdale Sewer Easement and RES Conservation Easement Understanding

Thanks Brian

Lloyd Wilson
Interim Public Works Director
City of Archdale
336-434-7364 (office)
336-861-1179 (fax)
lwilson@archdale-nc.gov

From: Brian Hockett <bhockett@res.us>
Sent: Friday, January 18, 2019 2:34 PM
To: Lloyd Wilson; Chris Davis
Cc: Brad Breslow; Jamey McEachran
Subject: Huff Road City of Archdale Sewer Easement and RES Conservation Easement Understanding

Lloyd and Chris,

Great speaking with both of you this week. Thanks for getting the sewer lines/utilities marked so we can have a better understanding of where everything is.

Per our conversations; we have an understanding that RES will be establishing a buffer restoration project adjacent to the City of Archdale's sewer easement. The City of Archdale reserves the rights to the maintenance corridor and rights to maintain (mow 20 foot within the sewer easement). RES will be planting trees on both sides of the sewer easement to restore the buffer on the streams. To establish a barrier and visual line, RES will be installing t-posts and nylon ribbon on the edges of the sewer easement. The City of Archdale will be able to mow within the barrier but should not encroach outside of the sewer

maintenance easement. I have attached a few maps to help you better understand these areas. Please feel free to give me a call or email should you have any questions.

Chris – As we discussed, since you primarily are the person in charge of mowing and maintaining the sewer easement, I can meet you onsite to explain and give a general overview of our work.

Also, please respond that you have read this email for our records. North Carolina Department of Water Resources has asked that we coordinate with the City of Archdale so everyone understands the importance of the Conservation Easement.

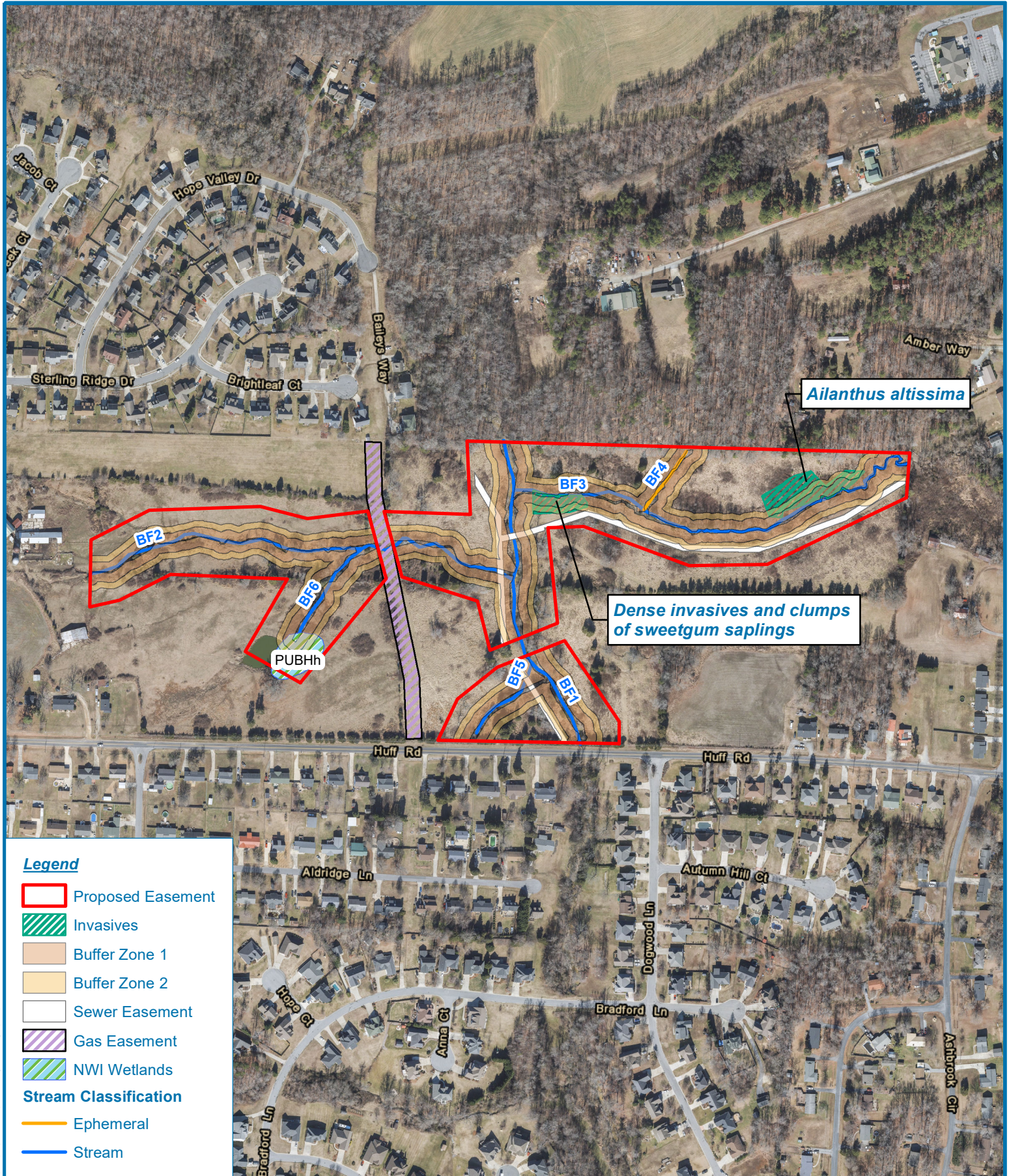
Thank you and have a great weekend.

Brian Hockett, PLS

Construction Administrator

RES | res.us

Direct: 919.209.1054 | Mobile: 336.601.3246



Legend

- Proposed Easement
- Invasives
- Buffer Zone 1
- Buffer Zone 2
- Sewer Easement
- Gas Easement
- NWI Wetlands
- Stream Classification**
- Ephemeral
- Stream

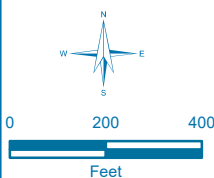
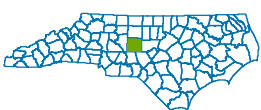


Figure 5 - Existing Conditions Map
RES Randleman Group A -
Pequod Mitigation Site
 Randolph County, North Carolina

Date: 1/16/2019

Drawn by: MDE

Checked by: BPB

1 inch = 400 feet







United States Department of the Interior

FISH AND WILDLIFE SERVICE



Raleigh Field Office
P.O. Box 33726
Raleigh, NC 27636-3726

Date: 5/7/2018

Self-Certification Letter

Project Name Schmid Creek Buffer Mitigation Site

Dear Applicant:

Thank you for using the U.S. Fish and Wildlife Service (Service) Raleigh Ecological Services online project review process. By printing this letter in conjunction with your project review package, you are certifying that you have completed the online project review process for the project named above in accordance with all instructions provided, using the best available information to reach your conclusions. This letter, and the enclosed project review package, completes the review of your project in accordance with the Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884), as amended (ESA), and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c, 54 Stat. 250), as amended (Eagle Act). This letter also provides information for your project review under the National Environmental Policy Act of 1969 (P.L. 91-190, 42 U.S.C. 4321-4347, 83 Stat. 852), as amended. A copy of this letter and the project review package must be submitted to this office for this certification to be valid. This letter and the project review package will be maintained in our records.

The species conclusions table in the enclosed project review package summarizes your ESA and Eagle Act conclusions. Based on your analysis, mark all the determinations that apply:

- ☒ “no effect” determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- ☐ “may affect, not likely to adversely affect” determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- ☐ “may affect, likely to adversely affect” determination for the Northern long-eared bat (*Myotis septentrionalis*) and relying on the findings of the January 5, 2016, Programmatic Biological Opinion for the Final 4(d) Rule on the Northern long-eared bat;
- ☒ “no Eagle Act permit required” determinations for eagles.

We certify that use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package results in reaching the appropriate determinations. Therefore, we concur with the “no effect” or “not likely to adversely affect” determinations for proposed and listed species and proposed and designated critical habitat; the “may affect” determination for Northern long-eared bat; and/or the “no Eagle Act permit required” determinations for eagles. Additional coordination with this office is not needed. Candidate species are not legally protected pursuant to the ESA. However, the Service encourages consideration of these species by avoiding adverse impacts to them. Please contact this office for additional coordination if your project action area contains candidate species. Should project plans change or if additional information on the distribution of proposed or listed species, proposed or designated critical habitat, or bald eagles becomes available, this determination may be reconsidered. This certification letter is valid for 1 year. Information about the online project review process including instructions, species information, and other information regarding project reviews within North Carolina is available at our website <http://www.fws.gov/raleigh/pp.html>. If you have any questions, you can write to us at Raleigh@fws.gov or please contact Leigh Mann of this office at 919-856-4520, ext. 10.

Sincerely,

/s/Pete Benjamin

Pete Benjamin
Field Supervisor
Raleigh Ecological Services

Enclosures - project review package

Species Conclusions Table

Project Name: Schmid Creek Buffer Mitigation Site

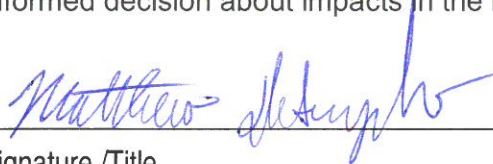
Date: 5/7/2018

Species / Resource Name	Conclusion	ESA Section 7 / Eagle Act Determination	Notes / Documentation
Schweinitz's Sunflower (<i>Helianthus schweinitzii</i>)	No suitable habitat present	No Effect	Field observations conclude that no suitable habitat is present.
Critical habitat	No critical habitat present	No Effect	
Bald eagle	Unlikely to disturb nesting bald eagles	No Eagle Act Permit Required	

Acknowledgement: I agree that the above information about my proposed project is true. I used all of the provided resources to make an informed decision about impacts in the immediate and surrounding areas.

Signature /Title

Date



5/7/2018



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh Ecological Services Field Office
Post Office Box 33726
Raleigh, NC 27636-3726
Phone: (919) 856-4520 Fax: (919) 856-4556



In Reply Refer To:
Consultation Code: 04EN2000-2018-SLI-0719
Event Code: 04EN2000-2018-E-01557
Project Name: Schmid Creek

May 07, 2018

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The species list generated pursuant to the information you provided identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

Section 7 of the Act requires that all federal agencies (or their designated non-federal representative), in consultation with the Service, insure that any action federally authorized, funded, or carried out by such agencies is not likely to jeopardize the continued existence of any federally-listed endangered or threatened species. A biological assessment or evaluation may be prepared to fulfill that requirement and in determining whether additional consultation with the Service is necessary. In addition to the federally-protected species list, information on the species' life histories and habitats and information on completing a biological assessment or

evaluation and can be found on our web page at <http://www.fws.gov/raleigh>. Please check the web site often for updated information or changes

If your project contains suitable habitat for any of the federally-listed species known to be present within the county where your project occurs, the proposed action has the potential to adversely affect those species. As such, we recommend that surveys be conducted to determine the species' presence or absence within the project area. The use of North Carolina Natural Heritage program data should not be substituted for actual field surveys.

If you determine that the proposed action may affect (i.e., likely to adversely affect or not likely to adversely affect) a federally-protected species, you should notify this office with your determination, the results of your surveys, survey methodologies, and an analysis of the effects of the action on listed species, including consideration of direct, indirect, and cumulative effects, before conducting any activities that might affect the species. If you determine that the proposed action will have no effect (i.e., no beneficial or adverse, direct or indirect effect) on federally listed species, then you are not required to contact our office for concurrence (unless an Environmental Impact Statement is prepared). However, you should maintain a complete record of the assessment, including steps leading to your determination of effect, the qualified personnel conducting the assessment, habitat conditions, site photographs, and any other related articles.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

Not all Threatened and Endangered Species that occur in North Carolina are subject to section 7 consultation with the U.S Fish and Wildlife Service. Atlantic and shortnose sturgeon, sea turtles, when in the water, and certain marine mammals are under purview of the National Marine Fisheries Service. If your project occurs in marine, estuarine, or coastal river systems you should also contact the National Marine Fisheries Service, <http://www.nmfs.noaa.gov/>

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office. If you have any questions or comments, please contact John Ellis of this office at john_ellis@fws.gov.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Raleigh Ecological Services Field Office

Post Office Box 33726

Raleigh, NC 27636-3726

(919) 856-4520

Project Summary

Consultation Code: 04EN2000-2018-SLI-0719

Event Code: 04EN2000-2018-E-01557

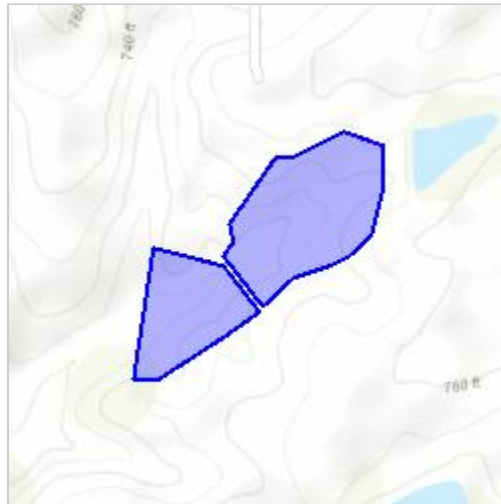
Project Name: Schmid Creek

Project Type: LAND - RESTORATION / ENHANCEMENT

Project Description: Buffer Restoration

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/35.87247776724227N79.85676821233042W>



Counties: Randolph, NC

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

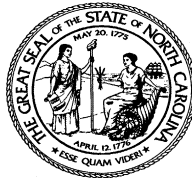
-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Flowering Plants

NAME	STATUS
Schweinitz's Sunflower <i>Helianthus schweinitzii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3849	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



**North Carolina Department of Natural and Cultural Resources
State Historic Preservation Office**

Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary Susi H. Hamilton

Office of Archives and History
Deputy Secretary Kevin Cherry

May 1, 2018

Matt DeAngelo
RES
302 Jefferson Street, Suite 110
Raleigh, NC 27605

Re: Schmid Creek Buffer Mitigation Site, Randolph County, ER 18-0743

Dear Mr. DeAngelo:

Thank you for your submission of April 10, 2018, concerning the above project.

We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

A handwritten signature in blue ink that reads "Renee Gledhill-Earley".

for Ramona M. Bartos



United States Department of the Interior

FISH AND WILDLIFE SERVICE



Raleigh Field Office
P.O. Box 33726
Raleigh, NC 27636-3726

Date: 5/10/2018

Self-Certification Letter

Project Name Sunbeam Buffer Mitigation Site

Dear Applicant:

Thank you for using the U.S. Fish and Wildlife Service (Service) Raleigh Ecological Services online project review process. By printing this letter in conjunction with your project review package, you are certifying that you have completed the online project review process for the project named above in accordance with all instructions provided, using the best available information to reach your conclusions. This letter, and the enclosed project review package, completes the review of your project in accordance with the Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884), as amended (ESA), and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c, 54 Stat. 250), as amended (Eagle Act). This letter also provides information for your project review under the National Environmental Policy Act of 1969 (P.L. 91-190, 42 U.S.C. 4321-4347, 83 Stat. 852), as amended. A copy of this letter and the project review package must be submitted to this office for this certification to be valid. This letter and the project review package will be maintained in our records.

The species conclusions table in the enclosed project review package summarizes your ESA and Eagle Act conclusions. Based on your analysis, mark all the determinations that apply:

- ☐ “no effect” determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- ☒ “may affect, not likely to adversely affect” determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- ☐ “may affect, likely to adversely affect” determination for the Northern long-eared bat (*Myotis septentrionalis*) and relying on the findings of the January 5, 2016, Programmatic Biological Opinion for the Final 4(d) Rule on the Northern long-eared bat;
- ☒ “no Eagle Act permit required” determinations for eagles.

We certify that use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package results in reaching the appropriate determinations. Therefore, we concur with the “no effect” or “not likely to adversely affect” determinations for proposed and listed species and proposed and designated critical habitat; the “may affect” determination for Northern long-eared bat; and/or the “no Eagle Act permit required” determinations for eagles. Additional coordination with this office is not needed. Candidate species are not legally protected pursuant to the ESA. However, the Service encourages consideration of these species by avoiding adverse impacts to them. Please contact this office for additional coordination if your project action area contains candidate species. Should project plans change or if additional information on the distribution of proposed or listed species, proposed or designated critical habitat, or bald eagles becomes available, this determination may be reconsidered. This certification letter is valid for 1 year. Information about the online project review process including instructions, species information, and other information regarding project reviews within North Carolina is available at our website <http://www.fws.gov/raleigh/pp.html>. If you have any questions, you can write to us at Raleigh@fws.gov or please contact Leigh Mann of this office at 919-856-4520, ext. 10.

Sincerely,

/s/Pete Benjamin

Pete Benjamin
Field Supervisor
Raleigh Ecological Services

Enclosures - project review package

Species Conclusions Table

Project Name: Sunbeam Buffer Mitigation Site

Date: 5/10/2018

Species / Resource Name	Conclusion	ESA Section 7 / Eagle Act Determination	Notes / Documentation
Schweinitz's Sunflower (<i>Helianthus schweinitzii</i>)	Potential habitat present and no current survey conducted	May Affect, Not Likely to Adversely Affect	Survey will be conducted during the optimal survey window of late-August through October. However, buffer mitigation practices should have no effect on any potential populations.
Critical habitat	No critical habitat present	No Effect	
Bald eagle	Unlikely to disturb nesting bald eagles	No Eagle Act Permit Required	

Acknowledgement: I agree that the above information about my proposed project is true. I used all of the provided resources to make an informed decision about impacts in the immediate and surrounding areas.

Matthew D. Hingle Ecologist
Signature / Title

5/10/2018
Date



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh Ecological Services Field Office
Post Office Box 33726
Raleigh, NC 27636-3726
Phone: (919) 856-4520 Fax: (919) 856-4556



In Reply Refer To:
Consultation Code: 04EN2000-2018-SLI-0742
Event Code: 04EN2000-2018-E-01609
Project Name: Sunbeam

May 10, 2018

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The species list generated pursuant to the information you provided identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

Section 7 of the Act requires that all federal agencies (or their designated non-federal representative), in consultation with the Service, insure that any action federally authorized, funded, or carried out by such agencies is not likely to jeopardize the continued existence of any federally-listed endangered or threatened species. A biological assessment or evaluation may be prepared to fulfill that requirement and in determining whether additional consultation with the Service is necessary. In addition to the federally-protected species list, information on the species' life histories and habitats and information on completing a biological assessment or

evaluation and can be found on our web page at <http://www.fws.gov/raleigh>. Please check the web site often for updated information or changes

If your project contains suitable habitat for any of the federally-listed species known to be present within the county where your project occurs, the proposed action has the potential to adversely affect those species. As such, we recommend that surveys be conducted to determine the species' presence or absence within the project area. The use of North Carolina Natural Heritage program data should not be substituted for actual field surveys.

If you determine that the proposed action may affect (i.e., likely to adversely affect or not likely to adversely affect) a federally-protected species, you should notify this office with your determination, the results of your surveys, survey methodologies, and an analysis of the effects of the action on listed species, including consideration of direct, indirect, and cumulative effects, before conducting any activities that might affect the species. If you determine that the proposed action will have no effect (i.e., no beneficial or adverse, direct or indirect effect) on federally listed species, then you are not required to contact our office for concurrence (unless an Environmental Impact Statement is prepared). However, you should maintain a complete record of the assessment, including steps leading to your determination of effect, the qualified personnel conducting the assessment, habitat conditions, site photographs, and any other related articles.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

Not all Threatened and Endangered Species that occur in North Carolina are subject to section 7 consultation with the U.S Fish and Wildlife Service. Atlantic and shortnose sturgeon, sea turtles, when in the water, and certain marine mammals are under purview of the National Marine Fisheries Service. If your project occurs in marine, estuarine, or coastal river systems you should also contact the National Marine Fisheries Service, <http://www.nmfs.noaa.gov/>

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office. If you have any questions or comments, please contact John Ellis of this office at john_ellis@fws.gov.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Raleigh Ecological Services Field Office

Post Office Box 33726

Raleigh, NC 27636-3726

(919) 856-4520

Project Summary

Consultation Code: 04EN2000-2018-SLI-0742

Event Code: 04EN2000-2018-E-01609

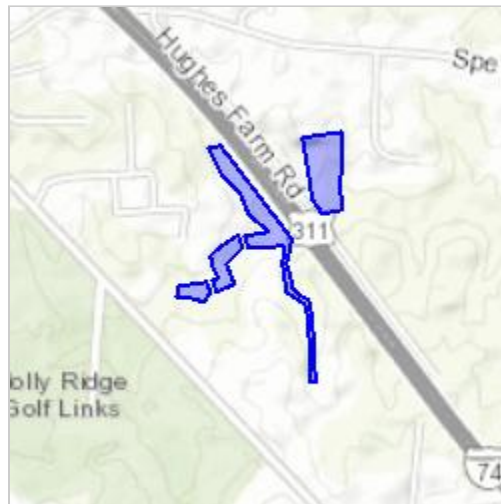
Project Name: Sunbeam

Project Type: LAND - RESTORATION / ENHANCEMENT

Project Description: Buffer Mitigation

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/35.86485402485012N79.8889081918582W>



Counties: Randolph, NC

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

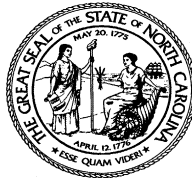
-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Flowering Plants

NAME	STATUS
Schweinitz's Sunflower <i>Helianthus schweinitzii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3849	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



**North Carolina Department of Natural and Cultural Resources
State Historic Preservation Office**

Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary Susi H. Hamilton

Office of Archives and History
Deputy Secretary Kevin Cherry

May 1, 2018

Matt DeAngelo
RES
302 Jefferson Street, Suite 110
Raleigh, NC 27605

Re: Sunbeam Buffer Mitigation Site, Randolph County, ER 18-0742

Dear Mr. DeAngelo:

Thank you for your submission of April 10, 2018, concerning the above project.

We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

A handwritten signature in blue ink that reads "Renee Gledhill-Earley".

for Ramona M. Bartos



NORTH CAROLINA
Environmental Quality

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

LINDA CULPEPPER
Interim Director

January 23, 2019

DWR # 20181330 v2
Randolph County

RES

Attn: Jamey McEachran
302 Jefferson St
Raleigh NC 27608

Subject: APPROVAL of RANDLEMAN RIPARIAN BUFFER IMPACTS WITH ADDITIONAL CONDITIONS
Sunbeam Mitigation Site

Dear Ms. McEachran:

You have our approval for the impacts listed below for the purpose described in your application dated and received by the Division of Water Resources (Division) December 20, 2018, with subsequent information on January 16, 2019. These impacts are covered by the Randleman Lake Buffer Rules and the conditions listed below. Please note that you should get any other federal, state or local permits before proceeding with your project, including those required by (but not limited to) Sediment and Erosion Control, Non-Discharge, and Water Supply Watershed regulations.

This approval requires you to follow the conditions listed in the enclosed certification(s) or general permit and the following additional conditions:

1. The following impacts are hereby approved provided that all of the other specific and general conditions of the Randleman Lake Buffer Rules are met. No other impacts are approved, including incidental impacts. [15A NCAC 02B .0250(8)]

Type of Impact	Amount Approved (units)	
	Permanent	Temporary
Buffers – Zone 1	0 square feet	5448 square feet



2. This approval is for the purpose and design described in your application. The plans and specifications for this project are incorporated by reference as part of the Authorization. If you change your project, you must notify the Division and you may be required to submit a new application package with the appropriate fee. If the property is sold, the new owner must be given a copy of this approval letter and General Certification(s)/Permit/Authorization and is responsible for complying with all conditions. [15A NCAC 02H .0507(d)(2)]
3. The permittee shall report to the Winston Salem Regional Office any noncompliance with this certification, any violation of stream or wetland standards [15A NCAC 02B .0200] including but not limited to sediment impacts, and any violation of state regulated riparian buffer rules [15A NCAC 02B .0200]. Information shall be provided orally within 24 hours (or the next business day if a weekend or holiday) from the time the applicant became aware of the circumstances. A written submission shall also be provided within 5 business days of the time the applicant becomes aware of the circumstances. The written submission shall contain a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, if the noncompliance has not been corrected, the anticipated time compliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Division may waive the written submission requirement on a case-by-case basis.

This approval and its conditions are final and binding unless contested. [G.S. 143-215.5]

This Authorization can be contested as provided in General Statute 150B by filing a written petition for an administrative hearing to the Office of Administrative Hearings (hereby known as OAH) **within sixty (60) calendar days**.

A petition form may be obtained from the OAH at <http://www.ncoah.com/> or by calling the OAH Clerk's Office at (919) 431-3000 for information. A petition is considered filed when the original and one (1) copy along with any applicable OAH filing fee is received in the OAH during normal office hours (Monday through Friday between 8:00am and 5:00pm, excluding official state holidays).

The petition may be faxed to the OAH at (919) 431-3100, provided the original and one copy of the petition along with any applicable OAH filing fee is received by the OAH within five (5) business days following the faxed transmission.

Mailing address for the OAH:

If sending via US Postal Service:

Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6714

If sending via delivery service (UPS, FedEx, etc):

Office of Administrative Hearings
1711 New Hope Church Road
Raleigh, NC 27609-6285

One (1) copy of the petition must also be served to DEQ:

William F. Lane, General Counsel
Department of Environmental Quality
1601 Mail Service Center
Raleigh, NC 27699-1601

This letter completes the review of the Division the Randleman Lake Riparian Buffer Rules as described in 15A NCAC 02B .0250. Please contact Sue Homewood at 336-776-9693 or sue.homewood@ncdenr.gov if you have any questions or concerns.

Sincerely,

A handwritten signature in blue ink that reads "Sherri V. Knight".

Sherri V. Knight, P. E.
Regional Supervisor
Water Quality Regional Operations Section
Division of Water Resources, NCDEQ – WSRO

cc: Milford C. Farlow, Hockett Family Trust, 6879 Dresden Rd, Archdale NC 27263
DWR WSRO 401 file
DWR 401 & Buffer Permitting Unit file

Matthew DeAngelo

From: Stancil, Vann F <vann.stancil@ncwildlife.org>
Sent: Friday, April 20, 2018 5:05 PM
To: Matthew DeAngelo
Subject: RE: [External] Project Scoping for Pequod Mitigation Site in Randolph County

Three sites in northern Randolph County, within the Randleman Reservoir watershed, are proposed for buffer mitigation.

The Pequod Mitigation Site is proposed for buffer restoration. It is located within the Muddy Creek watershed in northern Randolph County on the northeast side of Archdale between I-85 and I-74. The tract is surrounded on several sides by residential developments. The site consists of three unnamed streams. There are no records of any state or federally listed species at the site nor any in the immediate vicinity of the site.

The Sunbeam Mitigation Site is located in northern Randolph county along an unnamed tributary to Muddy Creek. The confluence with Muddy Creek is impounded by Randleman Reservoir. The buffer site is located on both sides of I-74 between the towns of Archdale and Randleman. The site consists of 4 stream segments with narrow or non-existent woody riparian vegetation. There are no records of any state or federally listed species at the site nor any in the immediate vicinity of the site.

The Schmid Creek Mitigation Site is located in northern Randolph county. It is located along an unnamed tributary that flows southwest to join Muddy Creek where it is impounded in Randleman Reservoir. This site is located between the Muddy Creek and Deep River arms of Randleman Reservoir. The site is along an intermittent stream channel that is devoid of woody riparian vegetation. There are no records of any state or federally listed species at the site nor any in the immediate vicinity of the site.

Regarding terrestrial species, the U.S. Fish and Wildlife Service (USFWS) recently listed the northern long-eared bat (*Myotis septentrionalis*) as threatened under the Endangered Species Act. Randolph County is within the range (<https://www.fws.gov/midwest/endangered/mammals/nleb/pdf/WNSZone.pdf>) of the northern long-eared bat and may be present or in the vicinity of the project site. As such, consultation with the USFWS may be required. For more information, please see <https://www.fws.gov/midwest/endangered/mammals/nleb/> or https://www.fws.gov/raleigh/NLEB_RFO.html or contact the Raleigh office of the USFWS to ensure that potential issues related to this species are addressed.

Thanks for the opportunity to review these three buffer mitigation projects for issues related to fish and wildlife. Please let me know if I can assist further.

Vann Stancil // Research Coordinator
Habitat Conservation Division

NC Wildlife Resources Commission
215 Jerusalem Church Road
Kenly, North Carolina 27542
office: 919-284-5218
fax: 919-284-5218
vann.stancil@ncwildlife.org

ncwildlife.org



From: Matthew DeAngelo [mailto:mdeangelo@res.us]
Sent: Monday, April 09, 2018 3:29 PM
To: Stancil, Vann F <vann.stancil@ncwildlife.org>
Subject: [External] Project Scoping for Pequod Mitigation Site in Randolph County

CAUTION: External email. Do not click links or open attachments unless verified. Send all suspicious email as an attachment to [Report Spam](#).

Dear Mr. Stancil,

The Pequod Mitigation Site has been identified by Resource Environmental Solutions, LLC (RES) to provide compensatory mitigation for unavoidable buffer impacts in Randolph County, North Carolina.

The purpose of this letter is to request, review, and comment on any possible issues that might emerge with respect to fish and wildlife associated with a potential buffer restoration project on the attached site. A detailed project description along with maps showing the location and approximate limits of the conservation easement are attached along with a KMZ file.

We thank you in advance for your timely response and cooperation. You may return the comment to my attention at the address listed in the attached letter or via email. Please feel free to contact me at mdeangelo@res.us with any questions that you may have concerning the extent of site disturbance associated with this project.

Sincerely,

Matt DeAngelo

Ecologist

RES | res.us

Direct: 984.255.9133 | Mobile: 757.202.4471

Email correspondence to and from this sender is subject to the N.C. Public Records Law and may be disclosed to third parties.

Appendix D

- Pequod
 - NC DWR Stream Determination Letter
 - NC DWR Buffer/Nutrient Mitigation Viability Letter
- Schmid Creek
 - NC DWR Stream Determination Letter
 - NC DWR Buffer/Nutrient Mitigation Viability Letter
- Sunbeam
 - NC DWR Stream Determination Letter
 - NC DWR Buffer/Nutrient Mitigation Viability Letter



ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
LINDA CULPEPPER
Interim Director

March 27, 2018

Brad Breslow
Resource Environmental Solutions
302 Jefferson St 110
Raleigh, NC 27605

Subject: On-Site Determination for Applicability to the Randleman Lake Buffer Rules (15A NCAC 2B .0250)

Subject Property: Pequod Mitigation Site, 409 Aldridge Rd, Archdale NC, Randolph County

Dear Mr. Breslow:

On March 26, 2018, at your request, Sue Homewood conducted an on-site determination to review features located on the subject project for stream determinations with regards to the above noted state regulations. Katie Merritt with the Division of Water Resources (Division) was also present during the site visit.

The attached sketch depicts the channels that were reviewed during the site visit. Channels BF1, BF2, BF3 and BF5 were determined to be perennial streams throughout the project boundaries. Channel BF6 was determined to be an intermittent stream throughout the project boundaries. Channel BF4 was determined to be ephemeral throughout the project boundaries. All intermittent and perennial channels are subject to the Randleman Buffer Rules cited above. These regulations are subject to change in the future.

The owner (or future owners) should notify the Division (and other relevant agencies) of this decision in any future correspondences concerning this property. This on-site determination shall expire five (5) years from the date of this letter.

Landowners or affected parties that dispute a determination made by the Division or Delegated Local Authority that a surface water exists and that it is subject to the buffer rule may request a determination by the Director. A request for a determination by the Director shall be referred to the Director in writing c/o 401 & Buffer Permitting Branch, 1650 Mail Service Center, Raleigh, NC 27699-1650. Individuals that dispute a determination by the Division or Delegated Local Authority that “exempts” surface water from the buffer rule may ask for an adjudicatory hearing. You must act within 60 days of the date that you receive this letter. Applicants are hereby notified that the 60-day statutory appeal time does not start until the affected party (including downstream and adjacent landowners) is notified of this decision. The Division recommends that the applicant conduct this notification in order to be certain that third party appeals are made in a timely manner. To ask for a hearing, send a written petition, which conforms to Chapter 150B of the North Carolina General Statutes to the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699-6714. This determination is final and binding unless you ask for a hearing within 60 days.

This letter only addresses the applicability to the buffer rules and does not approve any activity within Waters of the United States or Waters of the State or their associated buffers. If you have any additional questions or require additional information, please contact me at 336-776-9693 or sue.homewood@ncdenr.gov.

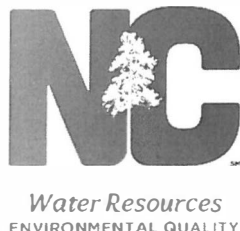
Sincerely,

A handwritten signature in black ink, appearing to read "Sue Homewood", with a stylized flourish at the end.

Sue Homewood
Winston-Salem Regional Office

Enclosures: USGS Topo Map
RES Features Map

Cc: Barbara Farlow, 4375 Huff Rd, Archdale NC 27263
Katie Merritt, DWR (via email)
DWR, Winston-Salem Regional Office



ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
LINDA CULPEPPER
Interim Director

April 20, 2018

DWR ID# 2018-0356

Brad Breslow
Resource Environmental Solutions
302 Jefferson Street, Suite 110
Raleigh, NC 27605
(via electronic mail: bbreslow@res.us)

Re: Site Viability for Buffer Mitigation & Nutrient Offset – Pequod Site
409 Aldridge Rd, Archdale, NC
Randleman Lake Watershed
Randolph County

Dear Mr. Breslow,

On March 26, 2018, Katie Merritt, with the Division of Water Resources (DWR), assisted you and others from Resource Environmental Solutions, LLC (RES) at the proposed Pequod Mitigation Site (Site) in Archdale, NC. Staff with the Division of Mitigation Services was also present onsite. The Site is located in the Randleman Lake Watershed of the Cape Fear River Basin within the 8-digit Hydrologic Unit Code 03030003. The Site is being proposed as part of a full-delivery buffer mitigation project for the Division of Mitigation Services (RFP # 16-007242) which is best represented on the attached map labeled “Figure 4-Existing Conditions Map”. At your request, on March 26, 2018, Ms. Merritt performed an onsite assessment of riparian land uses adjacent to streams onsite and noted the following site constraints:

- Gas line easement.
- Sanitary Sewer easement – DWR was unable to confirm the easement was located outside of Zone 1 of the Randleman Buffer; therefore, additional information will be required in the mitigation plan to confirm compliance with 15A NCAC 02B .0295 (l)(4).

Ms. Merritt’s evaluation of the features onsite and their associated mitigation determination for the riparian areas are provided in the table below. This evaluation was made from Top of Bank (TOB) out to 200’ from each feature for buffer mitigation pursuant to 15A NCAC 02B .0295 (effective November 1, 2015).

Pequod Full-Delivery Site
RES
April 20, 2018

<u>Feature</u>	<u>Classification</u>	<u>¹Subject to Buffer Rule</u>	<u>Riparian Land uses adjacent to Feature (0-200')</u>	<u>Buffer Credit Viable</u>	<u>²Nutrient Offset Viable at 2,273 lbs/acre</u>	<u>Mitigation Type Determination w/in riparian areas</u>
BF2	Stream	Yes	Non-forested pasture grazed by cattle; trash, pipes and culverts observed in stream and a side non-diffused gully enters stream	Yes	N/A	Fields - Restoration Site per 15A NCAC 02B .0295 (n) <i>Minor bank stabilization and grading needed where banks are compromised and where erosional rills and gullies are observed. Trash needs to be removed from stream.</i>
BF6	Stream	Yes	Non-forested pasture grazed by cattle with scattered invasive vines and briars	Yes	N/A	Fields - Restoration Site per 15A NCAC 02B .0295 (n)
BF5 (below wetland)	Stream	Yes	Mostly non-forested pasture grazed by cattle with scattered invasive vines and briars and some partially forested areas along right bank	Yes ⁴	N/A	Fields - Restoration Site per 15A NCAC 02B .0295 (n) Partially Forested Areas - Enhancement per 15A NCAC 02B .0295 ((n) <u>or</u> Enhancement Site per 15A NCAC 02B .0295 (o)(6) if fence is installed
BF1	Stream	Yes	Combination of forested & non-forested pasture grazed by cattle; Sewer easement located along left bank	*Yes ^{3,4,5}	N/A	Non-forested areas - Restoration Site per 15A NCAC 02B .0295 (n) Forested Areas - Preservation per 15A NCAC 02B .0295 (o)(5) <u>or</u> Enhancement Site per 15A NCAC 02B .0295 (o)(6) if fence is installed <i>*easement must be located outside of Zone 1 & be in full compliance with 15A NCAC 02B .0295 (l)(4)(A-C)</i>
BF4	Ephemeral	No	Scattered saplings and invasives with occasional canopy species present.	Yes ⁶	N/A	Enhancement Site per 15A NCAC 02B .0295 (n)

Pequod Full-Delivery Site
RES
April 20, 2018

<u>Feature</u>	<u>Classification</u>	<u>¹Subject to Buffer Rule</u>	<u>Riparian Land uses adjacent to Feature (0-200')</u>	<u>Buffer Credit Viable</u>	<u>²Nutrient Offset Viable at 2,273 lbs/acre</u>	<u>Mitigation Type Determination w/in riparian areas</u>
BF3	Stream	Yes	<p>-clumps of densely populated early-successional (2-4yr) sweet gum saplings combined with invasives</p> <p>-Large area densely populated with Ailanthus altissima along left bank</p> <p>-Combination of partially forested & non-forested pasture grazed by cattle; Sewer easement located along right bank.</p>	*Yes ^{4,5}		<p>Clumps of dense sweet gums (see map) - Enhancement Site per 15A NCAC 02B .0295 (n) <i>*must light-handedly thin sweet gums only to the extent necessary to treat invasives and add diversity with planted hardwood stems to maximize nutrient removal & other buffer functions</i></p> <p>Dense area of Ailanthus altissima (see map) - Restoration Site per 15A NCAC 02B .0295 (n) <i>*Must completely remove invasives, have a management plan, & replant with hardwoods</i></p> <p>Partially Forested Areas (excluding sweet gum areas) - Enhancement per 15A NCAC 02B .0295 (n) <u>or</u> Enhancement Site per 15A NCAC 02B .0295 (o)(6) if fence is installed</p> <p>Non-forested Areas - Restoration Site per 15A NCAC 02B .0295 (n) <i>*easement must be located outside of Zone 1 & be in full compliance with 15A NCAC 02B .0295 (l)(4)(A-C)</i></p>

¹Subjectivity calls for the features were determined by DWR in correspondence dated March 27, 2018 using the 1:24,000 scale quadrangle topographic map prepared by USGS and the most recent printed version of the soil survey map prepared by the NRCS

² NC Division of Water Resources - Methodology and Calculations for determining Nutrient Reductions associated with Riparian Buffer Establishment

³The area of preservation credit within a buffer mitigation site shall comprise of no more than 25 percent (25%) of the total area of buffer mitigation per 15A NCAC 0295 (o)(5) and 15A NCAC 0295 (o)(4). Site cannot be a Preservation only site to comply with this rule.

⁴The area described as an Enhancement Site was assessed and determined to comply with all of 15A NCAC 02B .0295(o)(6). Cattle exclusion fencing is required to be installed around the mitigation area to get buffer credit under this part of the rule.

⁵ The area within the sewer line easement was not able to be confirmed onsite to comply with 15A NCAC 02B .0295 (l)(4)

⁶The area of the mitigation site on ephemeral channel shall comprise no more than 25 percent (25%) of the total area of buffer mitigation per 15A NCAC 02B .0295 (o)(7).

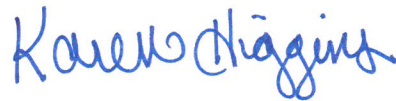
In addition to assessing the riparian land uses adjacent to each feature recognized in the table above, Ms. Merritt also assessed bank stabilization at the Site. The long-term presence of cattle has created unstable banks and erosional rills and gullies within some riparian zones and along some stream banks. As part of the assessment, DWR determined that minor bank stabilization efforts and grading would need to be performed to ensure stable banks where hoof shear from cattle has compromised bank stability and where erosional rills and gullies were present. This letter should be provided in any future stream, wetland, buffer and/or nutrient offset mitigation plans for this Site.

This letter does not constitute an approval of this site to generate mitigation credits. Pursuant to 15A NCAC 02B .0295, a mitigation proposal and a mitigation plan shall be submitted to DWR for written approval **prior** to conducting any mitigation activities in riparian areas and/or surface waters for buffer mitigation credit. Pursuant to 15A NCAC 02B .0240, a proposal regarding a proposed nutrient load-reducing measure for nutrient offset credit shall be submitted to DWR for approval prior to any mitigation activities in riparian areas and/or surface waters.

All vegetative plantings, performance criteria and other mitigation requirements for riparian restoration, enhancement and preservation must follow the requirements in 15A NCAC 02B .0295 to be eligible for buffer and/or nutrient offset mitigation credits. For any areas depicted as not being viable for nutrient offset credit above, one could propose a different measure, along with supporting calculations and sufficient detail to support estimates of load reduction, for review by the DWR to determine viability for nutrient offset in accordance with 15A NCAC 02B .0240. For any areas generating wetland mitigation credit, no buffer or nutrient offset credit can be generated.

This viability assessment will expire on March 27, 2020 or upon the submittal of an As-Built Report to the DWR, whichever comes first. Please contact Katie Merritt at (919)-807-6371 if you have any questions regarding this correspondence.

Sincerely,



Karen Higgins, Supervisor
401 and Buffer Permitting Branch

KAH/km

Attachments: Figure 4-Existing Conditions Map

cc: File Copy (Katie Merritt)
DMS - Jeff Schaffer (via electronic mail)



ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
S. JAY ZIMMERMAN
Director

April 19, 2017

Mr. Jeremy Schmid
Resource Environmental Solutions
302 Jefferson St, Suite 110
Raleigh, NC 27605

Subject: On-Site Determination for Applicability to the Randleman Lake Buffer Rules
(15A NCAC 2B .0250)

Subject Property: 5954 Gilbert Davis Dr., Randleman NC, Randolph County

Dear Mr. Schmid:

On April 12, 2017, at your request, I conducted an on-site determination to review features located on the subject project for stream determinations with regards to the above noted state regulations. Katie Merritt with the Division of Water Resources (Division) was also present during the site visit.

The attached map depicts the channels that were reviewed during the site visit. The channel identified as Reach 1 on the attached map was found to be intermittent starting at the GPS point shown on the map and became perennial at the confluence of Reach 1 and Reach 2. Therefore, Reach 1 is subject to the Randleman Lake Buffer Rules. The channel identified as Reach 2 on the attached map was determined to be representative of a wetland and not a stream and therefore is not subject to the Randleman Lake Buffer Rules.

Please note that at the time of this letter, all intermittent and perennial stream channels found on the property are subject to the rules cited above. These regulations are subject to change in the future.

The owner (or future owners) should notify the Division (and other relevant agencies) of this decision in any future correspondences concerning this property. This on-site determination shall expire five (5) years from the date of this letter.

Landowners or affected parties that dispute a determination made by the Division or Delegated Local Authority that a surface water exists and that it is subject to the buffer rule may request a determination by the Director. A request for a determination by the Director shall be referred to the Director in writing c/o 401 & Buffer Permitting Branch, 1650 Mail Service Center, Raleigh, NC 27699-1650. Individuals that dispute a determination by the Division or Delegated Local Authority that "exempts" surface water from the buffer rule may ask for an adjudicatory hearing. You must act within 60 days of the date that you receive this letter. Applicants are hereby notified that the 60-day statutory appeal time does not start until the affected party (including downstream and adjacent landowners) is notified of this decision. The Division recommends that the applicant conduct this notification in order to be certain that third party appeals are made in a timely manner. To ask for a hearing, send a written petition, which conforms to

Chapter 150B of the North Carolina General Statutes to the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699-6714. This determination is final and binding unless you ask for a hearing within 60 days.

This letter only addresses the applicability to the buffer rules and does not approve any activity within Waters of the United States or Waters of the State or their associated buffers. If you have any additional questions or require additional information, please contact me at 336-776-9693 or sue.homewood@ncdenr.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Sue Homewood", with a stylized flourish at the end.

Sue Homewood
Winston-Salem Regional Office

Enclosures: USGS Topo Map
RES Features Map

Cc: Tammy Davis Dillon, 5959 Gilbert Davis Dr, Randleman NC 27317
Katie Merritt, DWR (via email)
DWR, Winston-Salem Regional Office



ROY COOPER

Governor

MICHAEL S. REGAN

Secretary

S. JAY ZIMMERMAN

Director

April 21, 2017

Jeremy Schmid
Resource Environmental Solutions, LLC
302 Jefferson St., Suite 110
Raleigh, NC 27605
(via electronic mail)

Re: Site Viability for Buffer Mitigation – Schmid Creek Mitigation Site
5959 Gilbert Davis Dr, Randleman, NC
Randolph County

Dear Mr. Schmid,

On March 17, 2017, Katie Merritt, with the Division of Water Resources (DWR), received a request from Resource Environmental Solutions, LLC (RES) for a site visit near the above-referenced site in the 8-digit Hydrologic Unit Code 03030003 of the Cape Fear River Basin within the Randleman Lake Watershed. This site visit was to determine the potential for riparian buffer mitigation. On April 12, 2017, Ms. Merritt performed a site assessment of the subject site, which is more accurately shown in the attached aerial initialed by Ms. Merritt on April 21, 2017.

Ms. Merritt's evaluation of the features onsite and their associated mitigation determination for the riparian areas are provided in the table below. The evaluation was made from Top of Bank (TOB) out to 200' from each feature for buffer mitigation pursuant to 15A NCAC 02B .0295 (effective November 1, 2015).

<u>Feature</u>	<u>Classification</u>	<u>¹Subject to Buffer Rule</u>	<u>Riparian Land uses of Feature (0-200')</u>	<u>Buffer Credit Viable</u>	<u>²Nutrient Offset Viable at 2,273 lbs/acre</u>	<u>Mitigation Type Determination w/in riparian areas</u>
Reach 1	Stream (at start point on map)	Yes	Open pasture grazed by cattle	Yes	No	Open pasture – Restoration site per 15A NCAC 02B .0295 (n) <i>Must remove all pipes and culverts associated with Reach 1 on the property and stabilize new channel banks post-removal.</i>
Reach 2	Wetland	No	Open pasture grazed by cattle	no	no	N/A

¹Subjectivity calls for the features were determined by DWR in correspondence dated April 19, 2017 using the 1:24,000 scale quadrangle topographic map prepared by USGS and the most recent printed version of the soil survey map prepared by the NRCS.

² NC Division of Water Resources - Methodology and Calculations for determining Nutrient Reductions associated with Riparian Buffer Establishment

Schmid Creek Site
RES
April 21, 2017

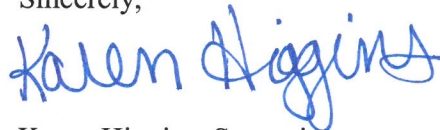
A map showing the project site and features were provided by RES and were initialed by Ms. Merritt on April 21, 2017. This letter should be provided in all stream, wetland, and/or buffer mitigation plans for this Site.

This letter does not constitute an approval of this site to generate mitigation credits. Pursuant to 15A NCAC 02B .0295, a mitigation proposal and a mitigation plan shall be submitted to DWR for written approval **prior** to conducting any mitigation activities in riparian areas and/or surface waters.

All vegetative plantings, performance criteria and other mitigation requirements for riparian restoration, enhancement and preservation must follow the requirements in 15A NCAC 02B .0295 to be eligible for buffer mitigation credits.

Please contact Katie Merritt at (919)-807-6371 if you have any questions regarding this correspondence.

Sincerely,



Karen Higgins, Supervisor
401 and Buffer Permitting Branch

KAH/km

Attachments: Site Aerial

cc: File Copy (Katie Merritt)



0 100 200
Feet

FIGURE 2

Aerial Map
Schmid Creek Mitigation Site

Randolph County, North Carolina

Date: 4/17/2017

Drawn by: BPB

KRM
4/21/17



ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
LINDA CULPEPPER
Interim Director

March 27, 2018

Brad Breslow
Resource Environmental Solutions
302 Jefferson St 110
Raleigh, NC 27605

Subject: On-Site Determination for Applicability to the Randleman Lake Buffer Rules (15A NCAC 2B .0250)

Subject Property: Sunbeam Mitigation Site, 776 US Hwy 311, Archdale NC, Randolph County

Dear Mr. Breslow:

On March 26, 2018, at your request, Sue Homewood conducted an on-site determination to review features located on the subject project for stream determinations with regards to the above noted state regulations. Katie Merritt with the Division of Water Resources (Division) was also present during the site visit.

The attached sketch depicts the channels that were reviewed during the site visit. Channels ZF1, ZF2 and ZF3 were determined to be perennial streams throughout the project boundaries. Channel ZF4 was determined to be an intermittent stream starting at the GPS point shown on the map. All channels are subject to the Randleman Buffer Rules cited above. These regulations are subject to change in the future.

The owner (or future owners) should notify the Division (and other relevant agencies) of this decision in any future correspondences concerning this property. This on-site determination shall expire five (5) years from the date of this letter.

Landowners or affected parties that dispute a determination made by the Division or Delegated Local Authority that a surface water exists and that it is subject to the buffer rule may request a determination by the Director. A request for a determination by the Director shall be referred to the Director in writing c/o 401 & Buffer Permitting Branch, 1650 Mail Service Center, Raleigh, NC 27699-1650. Individuals that dispute a determination by the Division or Delegated Local Authority that “exempts” surface water from the buffer rule may ask for an adjudicatory hearing. You must act within 60 days of the date that you receive this letter. Applicants are hereby notified that the 60-day statutory appeal time does not start until the affected party (including downstream and adjacent landowners) is notified of this decision. The Division recommends that the applicant conduct this notification in order to be certain that third party appeals are made in a timely manner. To ask for a hearing, send a written petition, which conforms to Chapter 150B of the North Carolina General Statutes to the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699-6714. This determination is final and binding unless you ask for a hearing within 60 days.

This letter only addresses the applicability to the buffer rules and does not approve any activity within Waters of the United States or Waters of the State or their associated buffers. If you have any additional questions or require additional information, please contact me at 336-776-9693 or sue.homewood@ncdenr.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Sue Homewood", with a stylized flourish at the end.

Sue Homewood
Winston-Salem Regional Office

Enclosures: USGS Topo Map
RES Features Map

Cc: Milford & Linda Farlow, 2768 Bronzie Lawson Rd, Archdale NC 27263
Milford Farlow, Wanda Peele, Shirley Cecil and Hockett Family Trust, 7766 US Hwy 311, Archdale
NC 27263
Katie Merritt, DWR (via email)
DWR, Winston-Salem Regional Office



ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
LINDA CULPEPPER
Interim Director

March 27, 2018

DWR ID# 2018-0357

Brad Breslow
Resource Environmental Solutions
302 Jefferson Street, Suite 110
Raleigh, NC 27605
(via electronic mail: bbreslow@res.us)

Re: Site Viability for Buffer Mitigation & Nutrient Offset – Sunbeam Site (part of “Group A”)
(36.158391, -78.907343)
Randleman Lake Watershed
Randolph County

Dear Mr. Breslow,

On March 26, 2018, Katie Merritt, with the Division of Water Resources (DWR), assisted you and others from Resource Environmental Solutions, LLC (RES) at the proposed Sunbeam Mitigation Site (Site) in Archdale, NC. Staff with the Division of Mitigation Services was also present onsite. The Site is located in the Randleman Lake WS of the Cape Fear River Basin within the 8-digit Hydrologic Unit Code 03030003. The Site is being proposed as part of a full-delivery buffer mitigation project for the Division of Mitigation Services (RFP # 16-007242). At your request, on March 26, 2018, Ms. Merritt performed an onsite assessment of riparian land uses adjacent to streams onsite, which are shown on the attached map labeled “Figure 4-Existing Conditions Map”.

Ms. Merritt’s evaluation of the features onsite and their associated mitigation determination for the riparian areas are provided in the table below. This evaluation was made from Top of Bank (TOB) out to 200’ from each feature for buffer mitigation pursuant to 15A NCAC 02B .0295 (effective November 1, 2015).

<u>Feature</u>	<u>Classification</u>	<u>¹Subject to Buffer Rule</u>	<u>Riparian Land uses adjacent to Feature (0-200’)</u>	<u>Buffer Credit Viable</u>	<u>²Nutrient Offset Viable at 2,273 lbs/acre</u>	<u>Mitigation Type Determination w/in riparian areas</u>
ZF1	Stream	Yes	Mostly non-forested pasture grazed by cattle with a small area of mature canopy present	Yes ⁴	N/A	Fields - Restoration Site per 15A NCAC 02B .0295 (n) Forested Areas - Enhancement Site per 15A NCAC 02B .0295 (o) (6) <i>Minor bank stabilization and grading needed where banks are comprised and where erosional rills and gullies are observed.</i>

<u>Feature</u>	<u>Classification</u>	<u>¹Subject to Buffer Rule</u>	<u>Riparian Land uses adjacent to Feature (0-200')</u>	<u>Buffer Credit Viable</u>	<u>²Nutrient Offset Viable at 2,273 lbs/acre</u>	<u>Mitigation Type Determination w/in riparian areas</u>
ZF3	Stream	Yes	Non-forested pasture grazed by cattle	Yes	N/A	Fields - Restoration Site per 15A NCAC 02B .0295 (n) <i>Minor bank stabilization and grading needed where banks are comprised and where erosional rills and gullies are observed. At least 1 crossing needs to be replaced or removed.</i>
ZF2	Stream	Yes	Mostly non-forested pasture grazed by cattle with some areas of mature canopy present along right banks	Yes ⁴	N/A	Fields - Restoration Site per 15A NCAC 02B .0295 (n) Forested Areas - Enhancement Site per 15A NCAC 02B .0295 (o) (6)
ZF4	Stream	Yes	Right Bank – Forested Left Bank – Hay/fescue field	Yes ³	N/A	Fields - Restoration Site per 15A NCAC 02B .0295 (n) Forested Areas - Preservation Site per 15A NCAC 02B .0295 (o)(5)
X	Ditch	No	Pasture grazed by cattle		N/A	Buffer Mitigation – Assessment concludes the ditch meets 15A NCAC 02B .0295 (o)(8) (A, B, C & E). More information is needed for complete assessment.

¹Subjectivity calls for the features were determined by DWR in correspondence dated March 27, 2018 using the 1:24,000 scale quadrangle topographic map prepared by USGS and the most recent printed version of the soil survey map prepared by the NRCS

² NC Division of Water Resources - Methodology and Calculations for determining Nutrient Reductions associated with Riparian Buffer Establishment

³The area of preservation credit within a buffer mitigation site shall comprise of no more than 25 percent (25%) of the total area of buffer mitigation per 15A NCAC 0295 (o)(5) and 15A NCAC 0295 (o)(4). Site cannot be a Preservation only site to comply with this rule.

⁴The area described as an Enhancement Site was assessed and determined to comply with all of 15A NCAC 02B .0295(o)(6). Cattle exclusion fencing is required to be installed around the mitigation area to get buffer credit under this part of the rule.

In addition to assessing the riparian land uses adjacent to each feature recognized in the table above, Ms. Merritt also assessed bank stabilization at the Site. The long-term presence of cattle has created unstable banks and erosional rills and gullies within the riparian zone and along the stream banks. Most of these areas were observed as trending towards stabilization on their own. However, as part of the assessment, DWR determined that minor bank stabilization efforts and grading would still need to be performed to ensure stable banks where hoof shear from cattle has compromised bank stability and where erosional rills and gullies were present. Additionally, RES also indicated their intent to relocate a portion of ZF3 at its confluence with ZF1. RES ensured that all applicable permits would be obtained. The attached map (Figure 4) showing the project site and features was provided by RES and was initialed by Ms. Merritt on March 27, 2018.

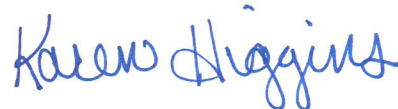
This letter should be provided in any future stream, wetland, buffer and/or nutrient offset mitigation plans for this Site.

This letter does not constitute an approval of this site to generate mitigation credits. Pursuant to 15A NCAC 02B .0295, a mitigation proposal and a mitigation plan shall be submitted to DWR for written approval **prior** to conducting any mitigation activities in riparian areas and/or surface waters for buffer mitigation credit. Pursuant to 15A NCAC 02B .0240, a proposal regarding a proposed nutrient load-reducing measure for nutrient offset credit shall be submitted to DWR for approval prior to any mitigation activities in riparian areas and/or surface waters.

All vegetative plantings, performance criteria and other mitigation requirements for riparian restoration, enhancement and preservation must follow the requirements in 15A NCAC 02B .0295 to be eligible for buffer and/or nutrient offset mitigation credits. For any areas depicted as not being viable for nutrient offset credit above, one could propose a different measure, along with supporting calculations and sufficient detail to support estimates of load reduction, for review by the DWR to determine viability for nutrient offset in accordance with 15A NCAC 02B .0240. For any areas generating wetland mitigation credit, no buffer or nutrient offset credit can be generated.

This viability assessment will expire on March 27, 2020 or upon the submittal of an As-Built Report to the DWR, whichever comes first. Please contact Katie Merritt at (919)-807-6371 if you have any questions regarding this correspondence.

Sincerely,



Karen Higgins, Supervisor
401 and Buffer Permitting Branch

KAH/km

Attachments: Figure 4-Existing Conditions Map

cc: File Copy (Katie Merritt)
DMS – Jeff Schaffer (via electronic mail)

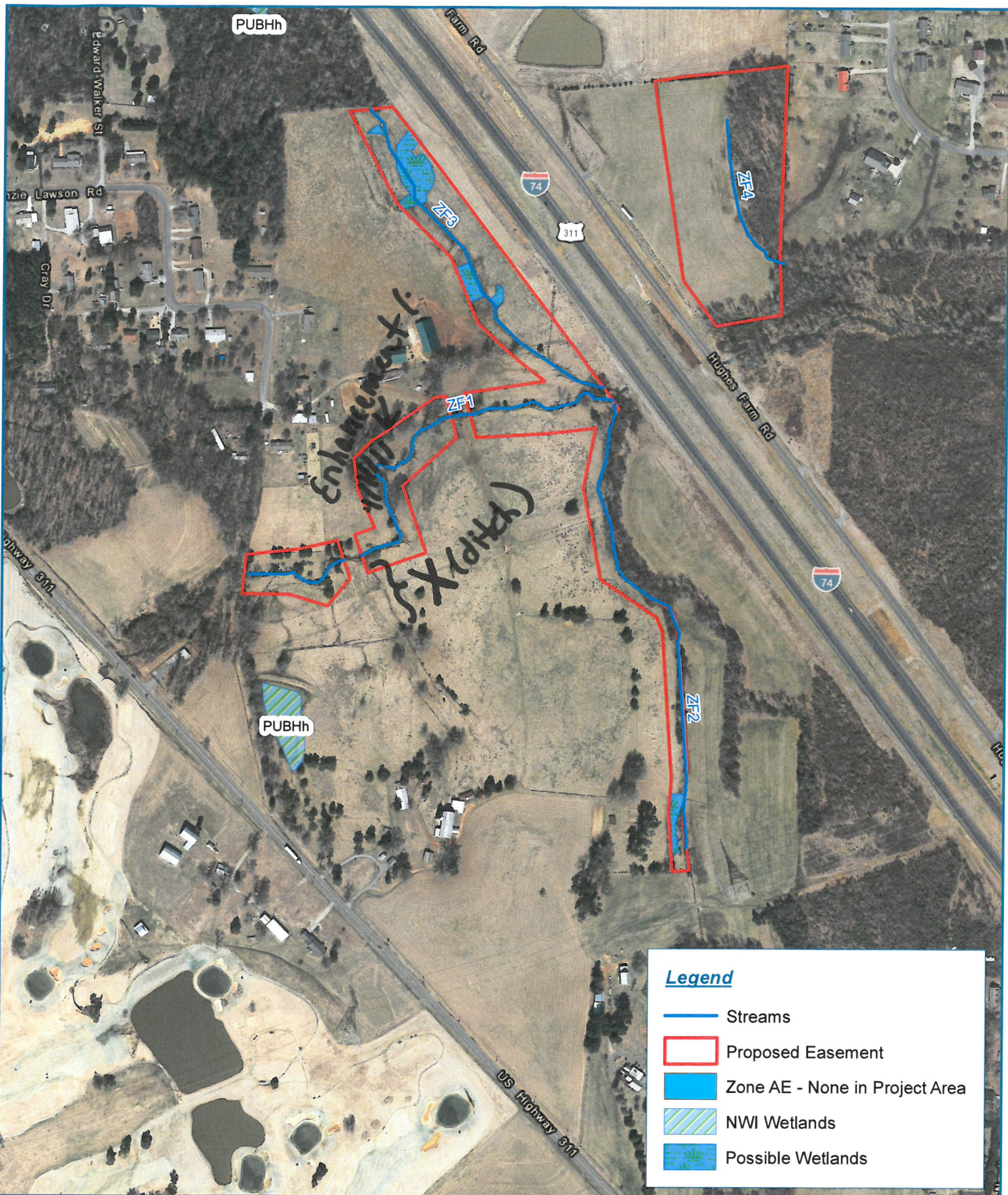


Figure 4 - Existing Conditions Map

Sunbeam Mitigation Site

HUC 03030003
Randolph County, North Carolina

Date: 8/21/2017

Drawn by: ATP



Kym
3/2/18

Appendix E

- Pequod Existing Conditions Photos (April 5th , 2018)
- Schmid Creek Existing Conditions Photos (April 5th, 2018, August 15th, 2017, and March 7, 2017)
- Sunbeam Existing Conditions Photos (April 13th , 2018, August 15th, 2017, and August 11th, 2016)

Pequod Existing Conditions Site Photographs



Looking upstream at Reach BF2 left buffer.
04/05/2018



Looking downstream at Reach BF2 left buffer.
04/05/2018



Trash that will be removed along Reach BF2 as part of restoration.
04/05/2018



Concrete box located in center of Reach BF2 that will be removed as part of restoration. 08/15/2017



Gas easement looking south, crossing Reach BF2.
04/05/2018



Sewer easement crossing of Reach BF1.
04/05/2018



Looking downstream at Reach BF1.
04/05/2018



Area of enhancement at upstream section of
Reach BF3.
04/05/2018



Dense invasives and sweetgum saplings at
downstream left buffer of Reach BF3 where
enhancement will occur. 04/05/2018



Sewer easement within the left buffer along
Reach BF3.
04/05/2018



Ailanthus altissima in the right buffer at the
upstream section of Reach BF3 where restoration
will occur. 04/05/2018



Enhancement area at the confluence of Reach
BF3 and Reach BF4.
04/05/2018



Sweetgum enhancement in left buffer of BF3.
04/05/2018



Left buffer vegetation of Reach BF6.
04/05/2018



Downstream at BF5.
04/05/2018

Schmid Creek Existing Conditions Site Photographs



Right bank buffer. 04/05/2018



Cattle impact of stream and buffer. 04/05/2018



Existing wetland looking upslope.
04/05/2018



Standing on earthen berm looking at bottom of
reach where culvert will be removed. 08/15/2017



Looking downstream along Reach SC1.
03/07/2017



Looking upstream along Reach SC1.
03/07/2017

Sunbeam Existing Conditions Site Photographs



Confluence of ZF1 and ZF2 where stabilization
will occur.
04/13/2018



Buffer of ZF1, looking upstream.
04/13/2018



Crossing that will be updated on ZF1.
04/13/2018



Small areas of enhancement along ZF1.
04/13/2018



Crossing at ZF1 that will be removed.
04/13/2018



Looking upstream along ZF2.
04/13/2018



Looking upstream along ZF3.
08/15/2017



Looking downstream along ZF3.
04/13/2018



Looking downstream along ZF4.
08/11/2016



Looking upstream along ZF4.
08/11/2016

Appendix F

Vegetation Survey Results at the Pequod Site

Photo Log of Pequod Vegetation Survey Transect Data for BF4 and Visual Assessment for BF1



Transect 1, looking upstream.
12/4/2018



Transect 1, looking downstream.
12/4/2018



Transect 2, looking east (towards stream).
12/4/2018



Transect 2, looking west (away from stream).
12/4/2018



Looking downstream BF4 at Transect 2 (BF4
right bank).
12/4/2018



Confluence of BF3 and BF4. Area already
determined to be enhancement.
12/4/2018



Transect 3, looking east.
12/4/2018



Transect 3, looking west. Majority sweetgum
saplings.
12/4/2018



Transect 4, upstream
12/4/2018



Transect 4, downstream.
12/4/2018



Transect 5, looking west.
12/4/2018



Transect 5, looking east.
12/4/2018



Looking upstream from Transect 5.
12/4/2018



Looking downstream from Transect 5.
12/4/2018



Enhancement area on BF3 near Transect 4 for
comparison.
12/4/2018



Looking upstream on BF3 (looking east from
Transect 4).
12/4/2018



Additional Enhancement area along BF1.
12/4/2018



Additional Enhancement area along BF1.
12/4/2018

Table 1. Transect 1 Data

Transect 1 (25m x 4m) – 100 m² plot			
#	Species	Height (ft)	DBH (in)
1	Juniperus virginiana	35	9
2	Liriodendron tulipifera	7	1
Stems/Acre	81		

Table 2. Transect 2 Data

Transect 2 (50m x 2m) - 100 m² plot			
#	Species	Height (ft)	DBH (in)
1	Pyrus calleryana	30	4
Stems/Acre	40		

Table 3. Transect 3 Data

Transect 3 (25m x 4m) - 100 m² plot			
#	Species	Height (ft)	DBH (in)
1	Liquidambar styraciflua	5.9	0.2
2	Liquidambar styraciflua	5.4	0.2
Stems/Acre	81		

Table 4. Transect 4 Data

Transect 4 (25m x 4m) - 100 m² plot			
#	Species	Height (ft)	DBH (in)
1	Pyrus calleryana	25	3
2	Liquidambar styraciflua	12	2
3	Liquidambar styraciflua	5	0.5
Stems/Acre	121		

Table 5. Transect 5 Data

Transect 5 (25m x 4m) - 100 m² plot			
#	Species	Height (ft)	DBH (in)
1	Liquidambar styraciflua	4.9	0.2
2	Liquidambar styraciflua	4.9	0.1
3	Liquidambar styraciflua	6.7	0.3
4	Liquidambar styraciflua	6.1	0.4
5	Pinus taeda	13.1	2.2
6	Liquidambar styraciflua	7.2	0.6
7	Liquidambar styraciflua	5.2	0.1
8	Liquidambar styraciflua	6.6	0.3

Appendix G

Project Asset Tables

Pequod Mitigation Site Buffer Project Areas and Assets
RIPARIAN BUFFER (15A NCAC 02B.0295)

RIPARIAN BUFFER (15A NCAC 02B.0295)													If Converted to Nutrient Offset	
Location	Jurisdictional Streams	Restoration Type	Reach ID/Component	Buffer Width (ft)	Creditable Area (acreage)	Creditable Area (sf)*	Initial Credit Ratio (x:1)	% Full Credit	Final Credit Ratio (x:1)	Riparian Buffer Credits (BMU)	Riparian Buffer Credits (acreage)	Convertible to Nutrient Offset (Yes or No)	Nutrient Offset: N (lbs)	Nutrient Offset: P (lbs)
Rural	Subject	Restoration	BF1	20-29	0.00	0	1	75%	1.33333	0.000	0.00	No	0.000	0.000
				30-100	3.35	146,014.525		100%	1.00000	146,014.525	3.35	No	0.000	0.000
				101-200	0.24	10,272.900		33%	3.00000	3,390.057	0.08	No	0.000	0.000
		Enhancement		20-29	0.00	0	2	75%	2.66667	0.000	0.00	No	0.000	0.000
				30-100	0.05	2,032.170		100%	2.00000	1,016.085	0.02	No	0.000	0.000
				101-200	0.00	0		33%	6.00000	0.000	0.00	No	0.000	0.000
Rural	Subject	Restoration	BF2	20-29	0.00	0	1	75%	1.33333	0.000	0.00	No	0.000	0.000
				30-100	5.49	239,200.602		100%	1.00000	239,200.602	5.49	No	0.000	0.000
				101-200	0.18	7,966.210		33%	3.00000	2,628.849	0.06	No	0.000	0.000
		Enhancement		20-29	0.00	0	2	75%	2.66667	0.000	0.00	No	0.000	0.000
				30-100	0.00	0		100%	2.00000	0.000	0.00	No	0.000	0.000
				101-200	0.00	0		33%	6.00000	0.000	0.00	No	0.000	0.000
Rural	Subject	Restoration	BF3	20-29	0.00	0	1	75%	1.33333	0.000	0.00	No	0.000	0.000
				30-100	5.05	219,807.000		100%	1.00000	219,807.000	5.05	No	0.000	0.000
				101-200	1.24	53,946.400		33%	3.00000	17,802.312	0.41	No	0.000	0.000
		Enhancement		20-29	0.00	0	2	75%	2.66667	0.000	0.00	No	0.000	0.000
				30-100	0.71	31,106.900		100%	2.00000	15,553.450	0.36	No	0.000	0.000
				101-200	0.00	0		33%	6.00000	0.000	0.00	No	0.000	0.000
Rural	Subject	Restoration	BF5	20-29	0.00	0	1	75%	1.33333	0.000	0.00	No	0.000	0.000
				30-100	1.11	48,418.700		100%	1.00000	48,418.700	1.11	No	0.000	0.000
				101-200	0.04	1,898.700		33%	3.00000	626.571	0.01	No	0.000	0.000
		Enhancement		20-29	0.00	0	2	75%	2.66667	0.000	0.00	No	0.000	0.000
				30-100	0.08	3,362.220		100%	2.00000	1,681.11	0.04	No	0.000	0.000
				101-200	0.00	0		33%	6.00000	0.000	0.00	No	0.000	0.000
Rural	Subject	Restoration	BF6	20-29	0.00	0	1	75%	1.33333	0.000	0.00	No	0.000	0.000
				30-100	1.85	80,602.602		100%	1.00000	80,602.602	1.85	No	0.000	0.000
				101-200	0.16	6,898.350		33%	3.00000	2,276.456	0.05	No	0.000	0.000
		Enhancement		20-29	0.00	0	2	75%	2.66667	0.000	0.00	No	0.000	0.000
				30-100	0.00	0		100%	2.00000	0.000	0.00	No	0.000	0.000
				101-200	0.00	0		33%	6.00000	0.000	0.00	No	0.000	0.000
SUBTOTALS				19.55	851,527.279				779,018.32	17.88		0.000	0.000	

ELIGIBLE PRESERVATION AREA **283842.4263**

Location	Jurisdictional Streams	Restoration Type	Reach ID/Component	Buffer Width (ft)	Creditable Area (sf)*	Initial Credit Ratio (x:1)	% Full Credit	Final Credit Ratio (x:1)	Riparian Buffer Credits (BMU)	Riparian Buffer Credits (acreage)
Rural	Subject	Preservation		20-29		10	75%	13.33333	0.000	0.00
				30-100			100%	10.00000	0.000	0.00
				101-200			33%	30.00000	0.000	0.00
	Nonsubject			20-29		5	75%	6.66667	0.000	0.00
				30-100			100%	5.00000	0.000	0.00
				101-200			33%	15.00000	0.000	0.00
			SUBTOTALS					0		0.000

*Area eligible for preservation may be no more than 25% of total area, where total area is back-calculated with the equation R+E/0.75.

*All buffers eligible for credit must be at minimum 20' wide

*When preservation areas exceed the total eligible preservation area, select the areas with the best credit ratios as the creditable areas.

When preservation areas exceed the total eligible ephemeral area, select the areas with the best credit ratios as the creditable areas.											
ELIGIBLE EPHEMERAL AREA*					6.52	283,842.426					
Location	Jurisdictional Streams	Restoration Type	Reach ID/Component	Buffer Width (ft)	Creditable Area (acreage)*	Creditable Area (sf)*	Initial Credit Ratio (x:1)	% Full Credit	Final Credit Ratio (x:1)	Riparian Buffer Credits (BMU)	Riparian Buffer Credits (acreage)
Rural	Ephemeral	Restoration	BF4	20-29	0.00	0	1	75%	1.33333	0.000	0.00
				30-100	0.70	30,422.600		100%	1.00000	30,422.600	0.70
				101-200	0.13	5,586.290		33%	3.00000	1,843.476	0.04
		Enhancement		20-29	0.00	0	2	75%	2.66667	0.000	0.00
				30-100	0.00	101.458		100%	2.00000	50.729	0.00
				101-200	0.00	0		33%	6.00000	0.000	0.00
			SUBTOTALS		0.83	36,110.348				32,316.80	0.74
			TOTALS		20.38	887,637.627				811,335.123	18.63

* The area of the mitigation site on ephemeral channels shall comprise no more than 25 percent of the total area of buffer mitigation. Total area is back-calculated with the equation R+E/0.75.

Regulatory direction for Riparian Buffer in this table follows NCAC rule 15A NCAC 02B .0295, effective November 1, 2015.

Regulatory direction for Nutrient Offset in this table follows Nutrient Offsets Payments Rule 15A NCAC 02B. 0240, amended effective September 1, 2010 and

DWR – 1998. Methodology and Calculations for determining Nutrient Reductions associated with Riparian Buffer Establishment.

N.O. calculation based on effectiveness in 30 years, with 146.40 lb/ac P; and 2,273.02 lb/ac N. The N credit ratio used is 19.16325 sf per pound. The P credit ratio used is 297.54098 sf per pound.

Schmid Creek Mitigation Site Buffer Project Areas and Assets

RIPARIAN BUFFER (15A NCAC 02B.0295)													If Converted to Nutrient Offset	
Location	Jurisdictional Streams	Restoration Type	Reach ID/Component	Buffer Width (ft)	Creditable Area (acres)*	Creditable Area (sf)*	Initial Credit Ratio (x:1)	% Full Credit	Final Credit Ratio (x:1)	Riparian Buffer Credits (BMU)	Riparian Buffer Credits (acres)	Convertible to Nutrient Offset (Yes or No)	Nutrient Offset: N (lbs)	Nutrient Offset: P (lbs)
Rural	Subject	Restoration	SC1	20-29	0.00	0	1	75%	1.33333	0.000	0.00	No	0.000	0.000
				30-100	4.80	209,182.414		100%	1.00000	209182.414	4.80	No	0.000	0.000
				101-200	4.49	195,621.609		33%	3.00000	64555.131	1.48	No	0.000	0.000
		Enhancement		20-29	0.00	0	2	75%	2.66667	0.000	0.00	No	0.000	0.000
				30-100	0.00	0		100%	2.00000	0.000	0.00	No	0.000	0.000
				101-200	0.00	0		33%	6.00000	0.000	0.00	No	0.000	0.000
SUBTOTALS					9.29	404,804.023			273,737.54	6.28		0.000	0.000	

			ELIGIBLE PRESERVATION AREA			134934.6743						
Location	Jurisdictional Streams	Restoration Type	Reach ID/Component	Buffer Width (ft)		Creditable Area (sf)*	Initial Credit Ratio (x:1)	% Full Credit	Final Credit Ratio (x:1)	Riparian Buffer Credits (BMU)	Riparian Buffer Credits (acres)	
Rural	Subject	Preservation		20-29		0	10	75%	13.33333	0.000	0.00	
				30-100		0		100%	10.00000	0.000	0.00	
				101-200		0		33%	30.00000	0.000	0.00	
	Nonsubject			20-29		0	5	75%	6.66667	0.000	0.00	
				30-100		0		100%	5.00000	0.000	0.00	
				101-200		0		33%	15.00000	0.000	0.00	
Urban	Subject or Nonsubject			20-29		0	3	75%	4.00000	0.000	0.00	
				30-100		0		100%	3.00000	0.000	0.00	
				101-200		0		33%	9.00000	0.000	0.00	
			SUBTOTALS			0				0.000	0.00	
			TOTALS		9.29	404,804.02				273,737.545	6.28	

*Area eligible for preservation may be no more than 25% of total area, where total area is back-calculated with the equation R+E/0.75.

*All buffers eligible for credit must be at minimum 20' wide

*When preservation areas exceed the total eligible preservation area, select the areas with the best credit ratios as the creditable areas.

FILLIBLE CELLS, leave blank if N/A

Regulatory direction for Riparian Buffer in this table follows NCAC rule 15A NCAC 02B .0295, effective November 1, 2015.

Regulatory direction for Nutrient Offset in this table follows Nutrient Offsets Payments Rule 15A NCAC 02B. 0240, amended effective September 1, 2010 and DWR – 1998. Methodology and Calculations for determining Nutrient Reductions associated with Riparian Buffer Establishment.

N.O. calculation based on effectiveness in 30 years, with 146.40 lb/ac P; and 2,273.02 lb/ac N. The N credit ratio used is 19.16325 sf per pound. The P credit ratio used is 297.54098 sf per pound.

Sunbeam Mitigation Site Buffer Project Areas and Assets

RIPARIAN BUFFER (15A NCAC 02B.0295)													If Converted to Nutrient Offset				
Location	Jurisdictional Streams	Restoration Type	Reach ID / Component	Buffer Width (ft)	Creditable Area (acreage)	Creditable Area (sf)*	Initial Credit Ratio (x:1)	% Full Credit	Final Credit Ratio (x:1)	Riparian Buffer Credits (BMU)	Riparian Buffer Credits (acreage)	Convertible to Nutrient Offset (Yes or No)	Nutrient Offset: N (lbs)	Nutrient Offset: P (lbs)			
Rural	Subject	Restoration	ZF1	20-29	0.06	2,526.573	1	75%	1.33333	1,894.930	0.04	No	0.000	0.000			
				30-100	4.16	181,155.058		100%	1.00000	181,155.058	4.16	No	0.000	0.000			
				101-200	0.24	10,466.589		33%	3.00000	3,453.974	0.08	No	0.000	0.000			
		Enhancement		20-29	0.00	0.000	2	75%	2.66667	0.000	0.00	No	0.000	0.000			
				30-100	0.15	6,623.942		100%	2.00000	3,311.971	0.08	No	0.000	0.000			
				101-200	0.00	0.000		33%	6.00000	0.000	0.00	No	0.000	0.000			
		Restoration	ZF2	20-29	0.00	0.000	1	75%	1.33333	0.000	0.00	No	0.000	0.000			
				30-100	2.20	95,766.014		100%	1.00000	95,766.014	2.20	No	0.000	0.000			
				101-200	0.00	0.000		33%	3.00000	0.000	0.00	No	0.000	0.000			
			ZF3	20-29	0.00	0.000		75%	1.33333	0.000	0.00	No	0.000	0.000			
				30-100	4.16	181,231.846		100%	1.00000	181,231.846	4.16	No	0.000	0.000			
				101-200	0.20	8,616.555		33%	3.00000	2,843.463	0.07	No	0.000	0.000			
			ZF4	20-29	0.00	0.000		75%	1.33333	0.000	0.00	No	0.000	0.000			
				30-100	1.93	83,983.325		100%	1.00000	83,983.325	1.93	No	0.000	0.000			
				101-200	1.86	81,120.676		33%	3.00000	26,769.823	0.61	No	0.000	0.000			
			SUBTOTALS			14.96	651,490.578						580,410.404	13.32		0.000	0.000

ELIGIBLE PRESERVATION AREA 4.99 217,163.526

Location	Jurisdictional Streams	Restoration Type	Reach ID / Component	Buffer Width (ft)	Creditable Area (acreage)	Creditable Area (sf)*	Initial Credit Ratio (x:1)	% Full Credit	Final Credit Ratio (x:1)	Riparian Buffer Credits (BMU)	Riparian Buffer Credits (acreage)
Rural	Subject	Preservation	ZF4	20-29	0.00	0.000	10	75%	13.33333	0.000	0.00
				30-100	1.01	44,063.416		100%	10.00000	4406.342	0.10
				101-200	0.83	35,948.262		33%	30.00000	1186.293	0.03
				SUBTOTALS		1.84		80,011.678			5,592.634
			TOTALS	16.79	731,502.256			586,003.039	13.45		

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FILLIBLE CELLS, leave blank if N/A

Regulatory direction for Riparian Buffer in this table follows NCAC rule 15A NCAC 02B .0295, effective November 1, 2015.

Regulatory direction for Nutrient Offset in this table follows Nutrient Offsets Payments Rule 15A NCAC 02B. 0240, amended effective September 1, 2010 and

DWR – 1998. Methodology and Calculations for determining Nutrient Reductions associated with Riparian Buffer Establishment.

N.O. calculation based on effectiveness in 30 years, with 146.40 lb/ac P; and 2,273.02 lb/ac N. The N credit ratio used is 19.16325 sf per pound. The P credit ratio used is 297.54098 sf per pound.