



# Ferroglobe

Alden Resources LLC

ALDEN RESOURCES LLC

USACE# LRN-2018-00397  
NATIONWIDE PERMIT 49

&

ARAP# NR19MS.001  
AQUATIC RESOURCE ALTERATION PERMIT

AREA 6 MITIGATION SITE  
2022 MITIGATION MONITORING REPORT  
WAYPOINT# 2022-04  
DECEMBER 2022



WAYPOINT<sub>LLC</sub>

**Alden Resources LLC**  
**USACE# LRN-2018-00397**  
**Nationwide Permit 49**  
**&**  
**ARAP# NR19MS.001**  
**Aquatic Resource Alteration Permit**

**Area 6 Project**  
**2022 Mitigation Monitoring Report**  
**Waypoint# 2022-04**

Prepared for:

U.S. Army Corps of Engineers  
Nashville District Regulatory Branch  
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&

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Department of Environment and Conservation  
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December 2022

## TABLE OF CONTENTS

Project Purpose .....	1
Location .....	1
Mitigation Timeline .....	1
Performance Standards .....	2
Maintenance Activities .....	2
Recommendations.....	2
Mitigation Requirements .....	3
Conclusions and Recommendations .....	4

### List of Tables

Table 1. Mitigation Area Status .....	2
Table 2. Stream Mitigation Monitoring Timeline.....	2
Table 3. 2022 Stem Count Survey (0.25 Acre).....	3
Table 4. HGM Mitigation Summary for the Stream Alteration Areas .....	4

### List of Appendices

(A) Site Maps .....	A-1
(B) As-Built Data.....	B-1
(C) Photographs .....	C-1
(D) HGM Data Sheets .....	D-1

## **2022 Annual Monitoring Report**

Area #6 Project

Nationwide Permit 49 - LRN-2018-00397

ARAP# NR19MS.001

### **Prepared For:**

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606-523-9760

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**Date of Monitoring:** October 13, 2022

**Date of Report:** December 2022

### **Project Purpose**

In order to meet the purpose and need of the project, 1,048 linear feet (LF) of stream and 0.56 acres of wetlands, which were considered to be “waters of the U.S.”, were proposed to be altered. Approximately 980’ of the proposed stream impacts and 0.23 acres of wetland impacts within the watershed did not occur. This avoidance eliminated the impact to stream Functional Credit Units (FCUs) and reduced Functional Wetland Units (FWUs) by 11. Therefore, work consists of 141 LF of stream channel restoration using natural stream design techniques and 15 FWUs within constructed wetlands, while simultaneously reclaiming abandoned mine lands. Once restoration is complete and given time to mature, an overall increase in physical, chemical, and biological habitat is expected.

### **Location**

The permit area is in Campbell County, Tennessee. It is located 2 miles east of the intersection of Westbourne Road and Cotula Road, on the La Follette, Tennessee 7.5’ United States Geological Survey (USGS) topographic quadrangles, near NAD83 latitude N 36.4926587°, NAD83 longitude W 84.0245239°. The tract is positioned on the within the Lower Hickory Creek watershed (Figure 1, Appendix A).

### **Mitigation Timeline**

Channel construction has been implemented within Stream 4 (S4). The project is within the timelines of the permit as wetland restoration and continued stream restoration efforts are planned after the grading and construction of the mitigation areas is complete.

<b>Table 1. Mitigation Area Status</b>			
<b>MITIGATION OFFSET</b>	<b>MITIGATION TYPE</b>	<b>MITIGATION STATUS</b>	<b>MONITORING YEAR</b>
Streams 2 and 3	Stream Restoration	Stream 4 Restored, 2022	1
Wetland 2	Wetland Creation	Wetland Restoration Pending	-

**Performance Standards**

During this first year of monitoring, performance standards were assessed at Stream 4.

**Maintenance Activities**

Pond removals will be completed upon approval from the Office of Surface Mining Reclamation and Enforcement (OSMRE). The wetland restoration site construction is pending the breach of the outfall and will begin after the pond has drained. Tree planting on the right bank of S4 and connection of the upstream ephemeral channel to the intermittent stream will be completed after the required drainage ditch is approved for removal by the OSMRE.

**Recommendations**

Restoration efforts were in progress at the time of the 2022 monitoring event and a longitudinal profile will be documented and submitted after the substrate has settled, this is expected to be during the first quarter of 2023. No additional recommendations are being made at this time. Future monitoring events will include assessments based on each mitigation area’s restoration year. Table 2 summarizes the proposed monitoring activities. The Year 1 monitoring event for the stream restoration included cross-sections, a Hydrogeomorphic Method (HGM) habitat assessment and a stem count. The second-year monitoring event will coincide with the schedule in table 2, including a riparian zone assessment. Monitoring of the wetland creation site will include a wetland delineation and a Tennessee Rapid Assessment Method (TRAM) for wetlands.

<b>Table 2. Stream and Wetland Monitoring Timeline</b>					
<b>PARAMETER</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>
<b>Geomorphology</b>					
Cross-sections	X		X		X
Longitudinal Profile	X				X
<b>Habitat</b>					
HGM	X		X		X
<b>Riparian Zone</b>					
Stem Count/Measure Width	X	X	X	X	X
<b>Wetlands</b>					
Wetland Delineation			X		X
TRAM		X	X	X	X

## Mitigation Requirements

<b>Stream and Wetland Mitigation Performance Standards</b>	
<b>Stream</b>	
<b>Performance Standard</b>	<b>Current Status</b>
Stream channels shall be constructed using natural stream design techniques. Additionally, a 50-foot riparian buffer on each side of the stream will be established along the restored stream channels to provide the riparian buffer.	Stream 4 channel reconstruction has been completed. The avoidance of impacts to the left bank of S4 has kept that riparian buffer intact. Tree planting on the right bank of S4 will be completed after the required drainage ditch is approved for removal by the OSMRE permit.
The riparian zone shall be vegetated in a random or scattered method planted at a density of at least 300 native tree stems and 100 native shrub stems per acre. Native tree species shall be planted, with no single species representing more than 30% of tree diversity on the site.	The riparian zone was evaluated during the Year 1 monitoring event as proposed. Table 3, below, summarizes the results from the 2022 stem count survey.
The Permittee shall assess and submit HGM data sheets for the stream restoration sites.	Existing habitat scores at the mitigation site were assessed using the HGM method in Year 1. This data is summarized in Table 4, below.
<b>Wetland</b>	
Restore 15 FWUs	Wetland restoration has not commenced.
Meet TRAM Scores	Wetland restoration has not commenced.

<b>Table 3. 2022 Stem Count Survey (0.25 Acre)</b>	
<i>Scientific name</i> (Common Name)	<b>S4 Mitigation Segment</b>
<i>Acer rubrum</i> (Red Maple)	5
<i>Acer saccharum</i> (Sugar Maple)	7
<i>Carya cordiformis</i> (Bitternut Hickory)	3
<i>Carya glabra</i> (Pignut Hickory)	9
<i>Carya ovata</i> (Shagbark Hickory)	6
<i>Cornus amomum</i> (Silky Dogwood)	3
<i>Fagus grandifolia</i> (American Beech)	6
<i>Liriodendron tulipifera</i> (Tuliptree)	2
<i>Oxydendrum arboreum</i> (Sourwood)	14
<i>Platanus occidentalis</i> (American Sycamore)	2
<i>Quercus alba</i> (White Oak)	8
<i>Quercus michauxii</i> (Swamp Chestnut Oak)	1
<i>Quercus rubra</i> (Red Oak)	13
<i>Tsuga canadensis</i> (Eastern Hemlock)	1
<i>Elaeagnus umbellata</i> (Autumn Olive)	4
<b>Totals</b>	
Tree Stems per 0.25 acre	<b>84</b>
Average Density - Tree Stems per acre	<b>336</b>

Table 3 summarizes the results from the 2022 stem count survey.

As illustrated in Table 3, the riparian zone of the restoration stream has exceeded 300 native tree and shrub stems per acre, with no single species representing more than 30% of tree diversity on the site. Plantings on the right bank of S4 will be completed after the required drainage ditch is approved

for removal by the OSMRE permit and will help fulfill the vegetation requirements.

29 feet of Stream 2 and 39 feet of Stream 3 were impacted, as proposed. However, 253 feet of the intermittent portion of Stream 4 that was proposed to be mined through was avoided. This reach has been enhanced to compensate for impacts to Streams 2 and 3. These impacts and enhancements are summarized in Table 4, below.

<b>Table 4. HGM Mitigation Summary for the Stream Alteration Areas</b>									
<b>Site</b>	<b>Previous Conditions</b>			<b>Impacted</b>		<b>Existing</b>			
	<b>Condition</b>	<b>Length (LF)</b>	<b>FCU</b>	<b>Length (LF)</b>	<b>FCU</b>	<b>Condition</b>	<b>Length (LF)</b>	<b>FCU</b>	<b>Credit / Debit</b>
Stream 2	0.59	29	17	29	17	0	0	0	-17
Stream 3	0.79	39	31	39	31	0	0	0	-31
Stream 4 I	0.47	141	66	0	0	0.86	141	121	+55
<b>TOTAL</b>		<b>209</b>	<b>114</b>	<b>68</b>	<b>48</b>		<b>141</b>	<b>121</b>	<b>+7</b>

Table 4 compares the pre-impact and current stream conditions within the project.

As summarized in Table 4, through avoidance and restoration, the impacted streams have been compensated for and a net gain of FCUs now exists on site.

**Conclusions and Recommendations**

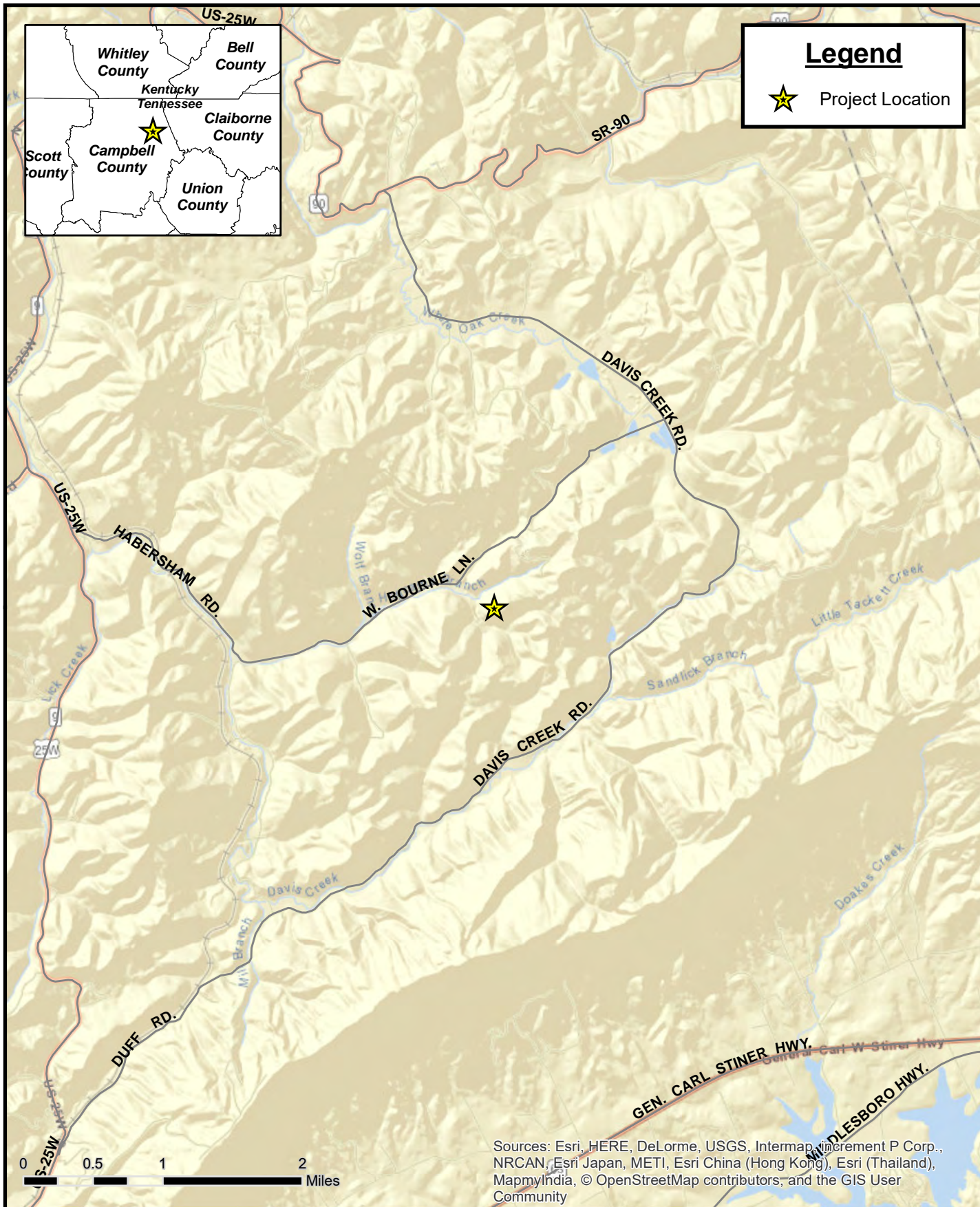
Discharges into “waters of the U.S.” associated with this project are complete and stream mitigation efforts have commenced. Wetland restoration and creation activities will occur after approval to remove sediment ponds.

Channel construction has been implemented within Stream 4 (S4). The project is within the timelines of the permit as wetland restoration and continued stream restoration efforts are planned after the grading and construction of the mitigation areas is complete. Tree planting on the right bank of S4 and connection of the upstream ephemeral channel to the intermittent stream will be completed after the required drainage ditch is approved for removal by the Office of Surface Mining Reclamation and Enforcement (OSMRE) permit. This connection will provide more stream length and more FCUs. Once restoration is complete and given time to mature, a lift in Functional Credit Units (FCUs) for stream habitat and FWUs for wetlands is anticipated after 5 years.

Appendix A contains site maps. Appendix B has cross section illustrations. Appendix C contains photographs of the site and Appendix D contains the Hydrogeomorphic Method (HGM) data used to determine the existing FCUs for the site.

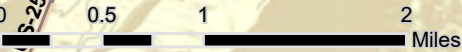
**Appendix A**  
**Site Location Maps**





**Legend**

★ Project Location



Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Prepared by:



Prepared for:

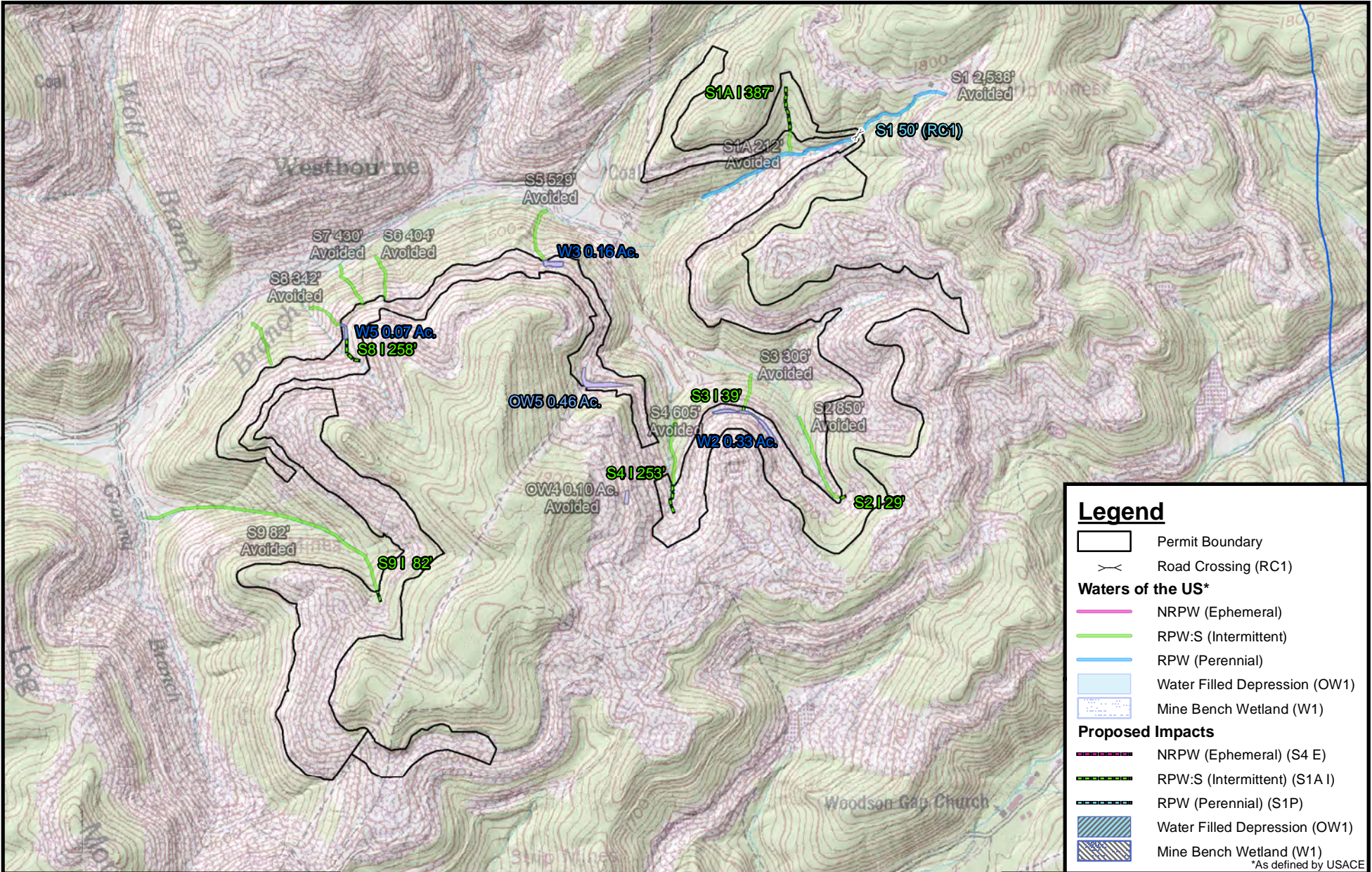


**Figure 1: Highway Location Map**

Waypoint#: 2022-04  
 DATE: December 16, 2022  
 Drawn By: BES



USACE#: LRN 2018-00397  
 ARAP# NR19MS.001  
 Checked By: JRR



**Legend**

- Permit Boundary
- Road Crossing (RC1)
- Waters of the US\***
  - NRPW (Ephemeral)
  - RPW:S (Intermittent)
  - RPW (Perennial)
  - Water Filled Depression (OW1)
  - Mine Bench Wetland (W1)
- Proposed Impacts**
  - NRPW (Ephemeral) (S4 E)
  - RPW:S (Intermittent) (S1A I)
  - RPW (Perennial) (S1P)
  - Water Filled Depression (OW1)
  - Mine Bench Wetland (W1)

\*As defined by USACE

Prepared by:

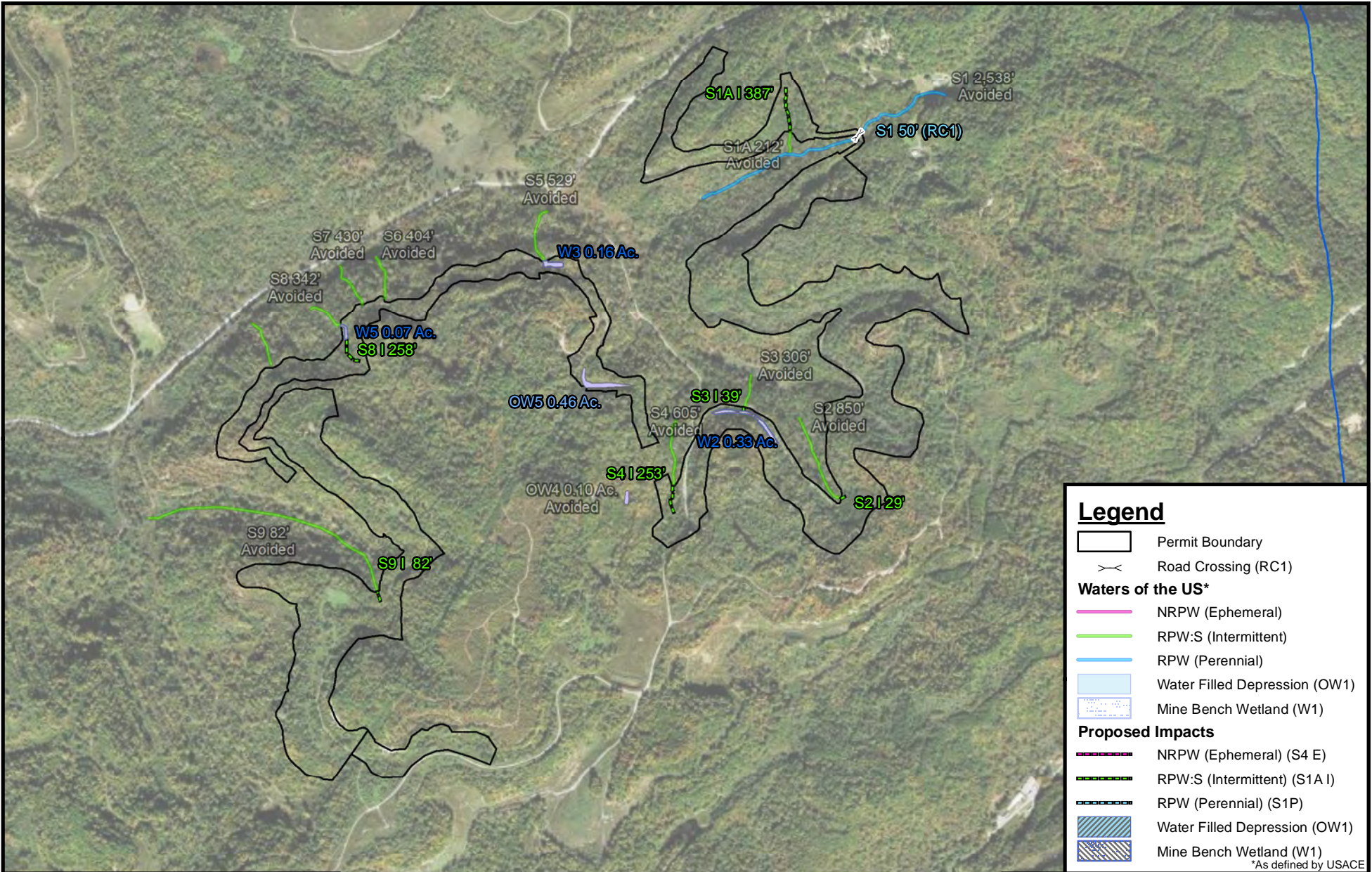
Prepared for:

**Figure 2: Proposed Impacts to Waters of the US  
Davis Creek Area 6**

Waypoint#: 2022-04	ARAP#: NR19MS.001
DATE: December 16, 2022	USACE#: LRN 2018-00397
Drawn By: BES	Checked By: JRR

0      650      1,300      2,600  
Feet

Source: LaFollette, TN 7.5' USGS Topographic  
Quadrangles  
PCS: NAD 1983 StatePlane Tennessee FIPS 4100  
Feet



Prepared by:

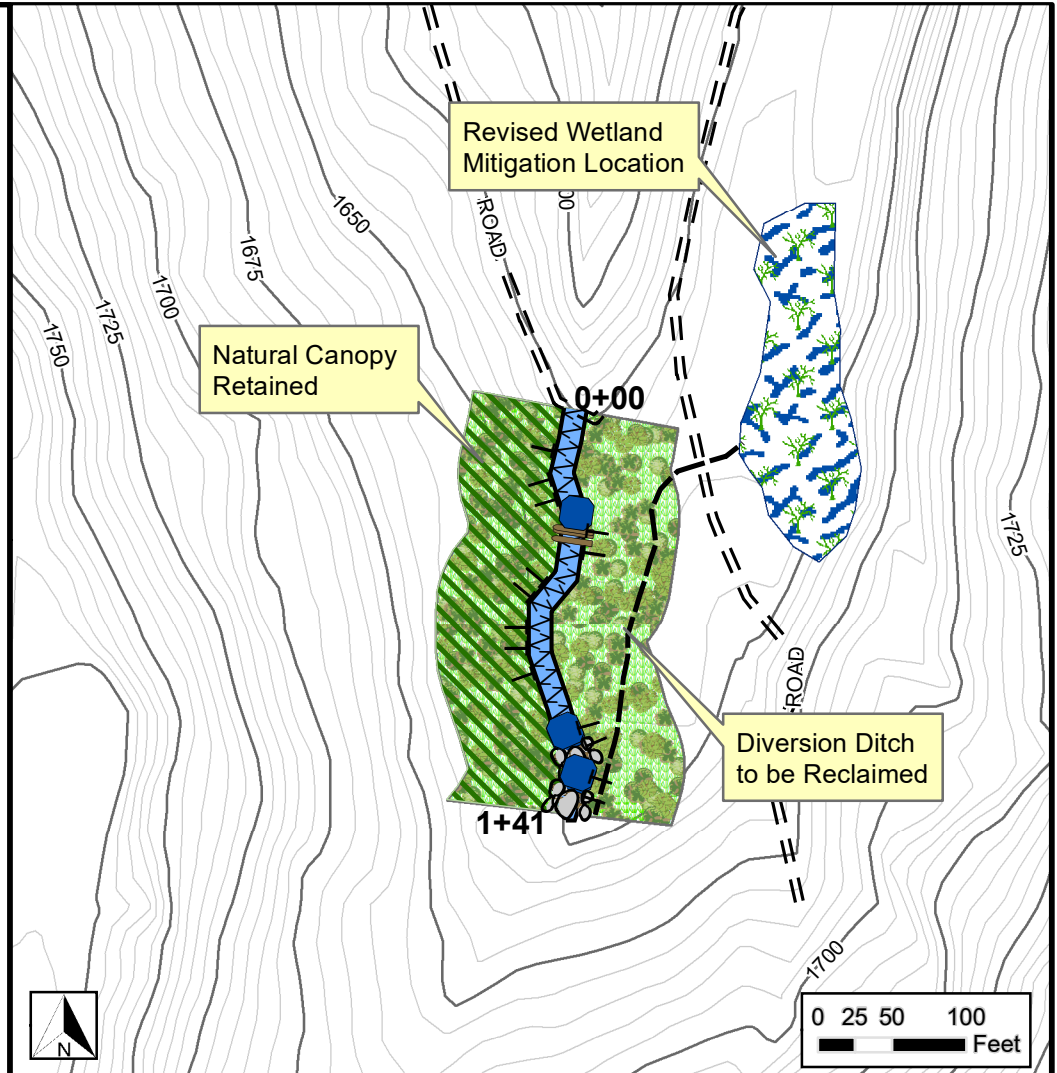
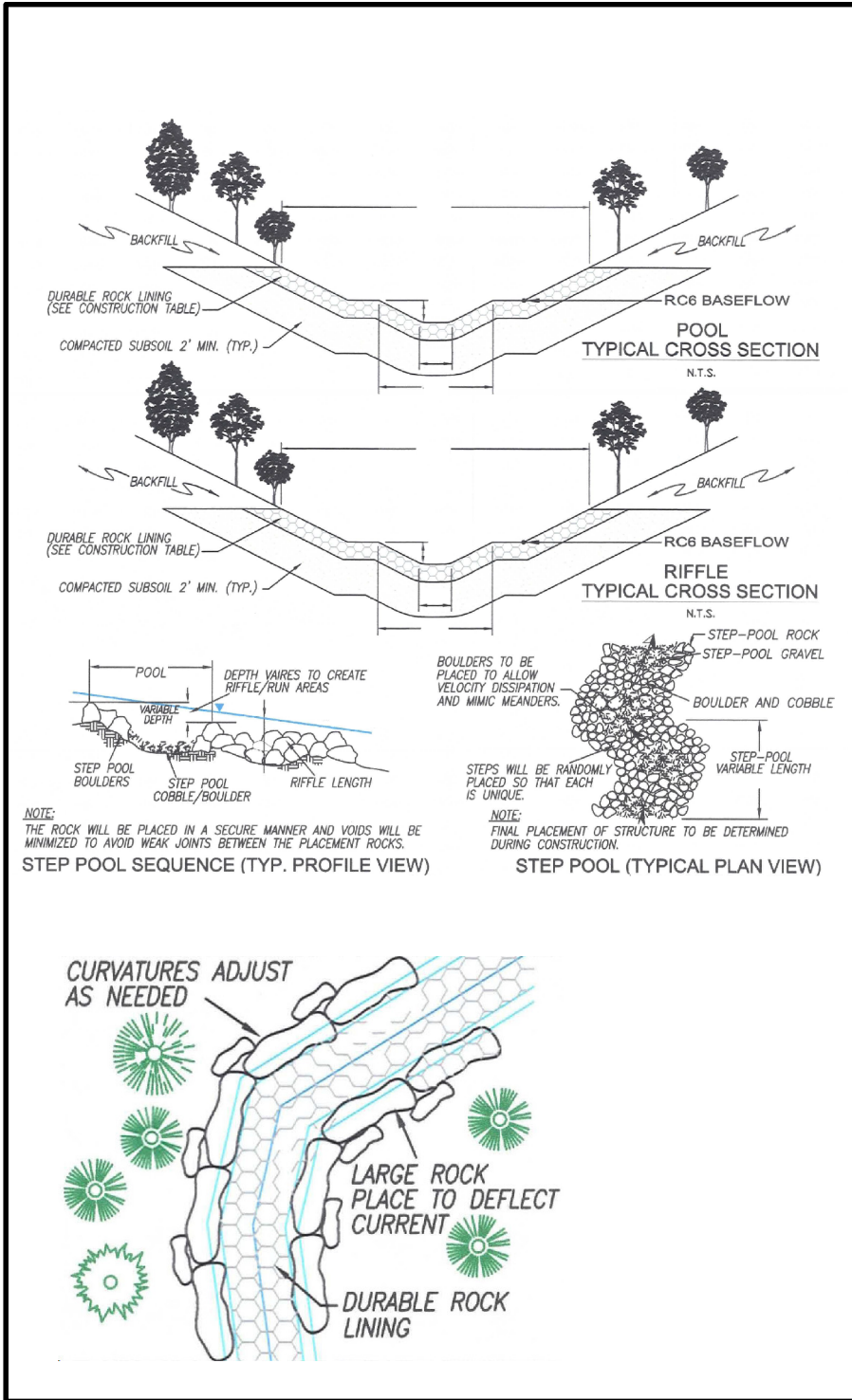
Prepared for:

**Figure 3: Proposed Impacts to Waters of the US  
Davis Creek Area 6**

Waypoint#: 2022-04		ARAP#: NR19MS.001
DATE: December 16, 2022		USACE#: LRN 2018-00397
Drawn By: BES		Checked By: JRR

0 650 1,300 2,600 Feet

Source: 2021 National Agricultural Imagery  
Program State Mosaics  
PCS: NAD 1983 StatePlane Tennessee FIPS 4100 Feet



**Legend**

Wetland Area	Riffle	Rock Vane Structure
Diversion Ditch	50' Riparian Zone	Log Vane Structure
50' Riparian Zone	Natural Canopy Retained	

**Intermittent Stream 4 (S4) Planview and Restoration Details**

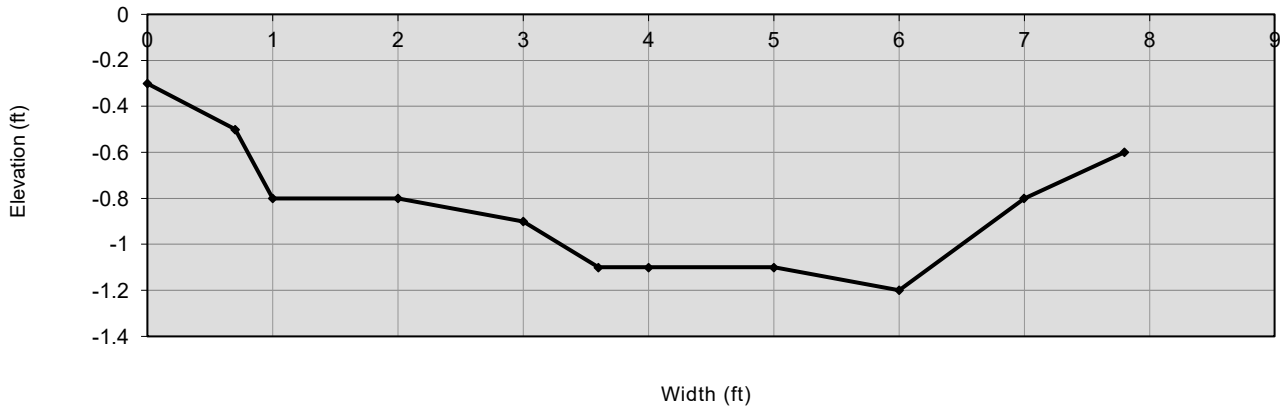
WP#: 2022-04	OSM#: 3333	Prepared by: WAYPOINT, LLC
DATE: 12/22/22	USACE#: LRN 2018-00397	
Drawn By: BES	Checked By: JRR	Prepared for: <b>Alden Resources LLC</b>

FIGURE 4. STREAM 4 REVISED PLANVIEW

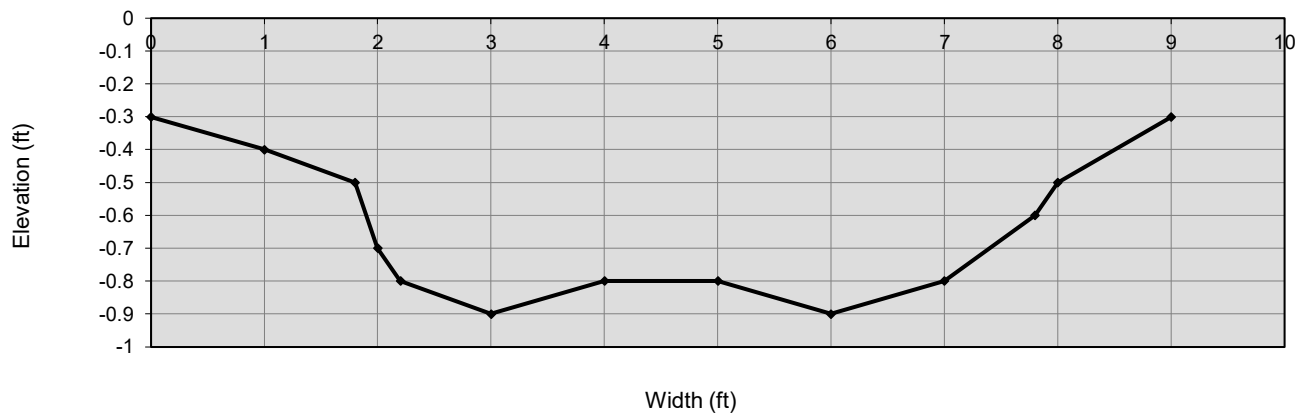
**Appendix B**  
**As-built Data**

# Stream 4 Cross Sections

Stream 4, Riffle 0+49



Stream 4, Pool 0+67



\*DRAWING NOT TO SCALE

Prepared by:



WAYPOINT LLC

Prepared for:



**Ferrolobe**  
Alden Resources LLC

## Restored Channel Cross Sections Stream 4

WP#: 2022-04

DATE: 12/16/2022

Drawn By: MDB

ARAP NR19MS.001

LRN-2018-00397

Checked By: JRR

**Appendix C**  
**Site Photographs**



Date: 10/13/22	Feature: Stream 4, Lower
	Latitude / Longitude: 36.486, -84.023
	Direction Facing: South, Upstream



Date: 10/13/22	Feature: Below Stream 4, Not Impacted
	Latitude / Longitude: 36.486, -84.023
	Direction Facing: North, Downstream





Date: 10/13/22	Feature: Stream 4, Riffle Cross Section, 0+49
	Latitude / Longitude: 36.486, -84.023
	Direction Facing: South, Upstream



Date: 10/13/22	Feature: Stream 4, Pool Cross Section, 0+67
	Latitude / Longitude: 36.486, -84.023
	Direction Facing: South, Upstream



Date: 10/13/22	Feature: Stream 4, Typical Structures
	Latitude / Longitude: 36.486, -84.023
	Direction Facing: South, Upstream



Date: 10/13/22	Feature: Stream 4, Upper
	Latitude / Longitude: 36.486, -84.023
	Direction Facing: North, Downstream

**Appendix D**  
**HGM Data Sheets**

## FCI Calculator for the High-Gradient Headwater Streams in Appalachia

To ensure accurate calculations, the **UPPERMOST STRATUM** of the plant community is determined based on the calculated value for  $V_{CCANOPY}$  ( $\geq 20\%$  cover is required for tree/sapling strata). Go to the SAR Data Entry tab and enter site characteristics and data in the yellow cells. For information on determining how to split a project into SARs, see Chapter 5 of the Operational Draft Regional Guidebook for the Functional Assessment of High-Gradient Headwater Streams and Low-Gradient Perennial Streams in Appalachia (Environmental Laboratory U.S. Army Corps of Engineers 2017).

**Project Name:** Area 6

**Location:** Stream 4 Intermittent

**Sampling Date:** 10-13-22

Mitigation Site      After Project

**Subclass for this SAR:**

Intermittent Stream

**Uppermost stratum present at this SAR:**

Tree/Sapling Strata

**SAR number:**              1

**Functional Results Summary:**

**Enter Results in Section D of the Mitigation Sufficiency Calculator**

Function	Functional Capacity Index
Hydrology	0.94
Biogeochemical Cycling	0.92
Habitat	0.72

**Variable Measure and Subindex Summary:**

Variable	Name	Average Measure	Subindex
$V_{CCANOPY}$	Percent canopy over channel.	35.00	0.30
$V_{EMBED}$	Average embeddedness of channel.	3.73	1.00
$V_{SUBSTRATE}$	Median stream channel substrate particle size.	2.75	1.00
$V_{BERO}$	Total percent of eroded stream channel bank.	0.00	1.00
$V_{LWD}$	Number of down woody stems per 100 feet of stream.	6.00	0.75
$V_{TDBH}$	Average dbh of trees.	7.93	0.85
$V_{SNAG}$	Number of snags per 100 feet of stream.	3.00	1.00
$V_{SSD}$	Number of saplings and shrubs per 100 feet of stream.	Not Used	Not Used
$V_{SRICH}$	Riparian vegetation species richness.	4.20	1.00
$V_{DETRITUS}$	Average percent cover of leaves, sticks, etc.	38.75	0.47
$V_{HERB}$	Average percent cover of herbaceous vegetation.	Not Used	Not Used
$V_{WLUSE}$	Weighted Average of Runoff Score for Catchment.	1.00	1.00

### High-Gradient Headwater Streams in Appalachia Field Data Sheet and Calculator

Team: Boller, Riddle, Wilson Latitude/UTM Northing: N36.485885°  
 Project Name: Area 6 Longitude/UTM Easting: W84.02313°  
 Location: Stream 4 Intermittent Sampling Date: 10-13-22  
 SAR Number: 1 Reach Length (ft): 100 Stream Type: Intermittent Stream  
 Top Strata: Tree/Sapling Strata (determined from percent calculated in  $V_{CCANOPY}$ )  
 Site and Timing: Mitigation Site After Project

**Sample Variables 1-4 in stream channel**

1  $V_{CCANOPY}$  Average percent cover over channel by tree and sapling canopy. Measure at no fewer than 10 roughly equidistant points along the stream. Measure only if tree/sapling cover is at least 20%. (If less than 20%, enter at least one value between 0 and 19 to trigger Top Strata choice.) 35.0 %

List the percent cover measurements at each point below:

25	20	50	50	45	20	30	60	20	30
----	----	----	----	----	----	----	----	----	----

2  $V_{EMBED}$  Average embeddedness of the stream channel. Measure at no fewer than 30 roughly equidistant points along the stream. Select a particle from the bed. Before moving it, determine the percentage of the surface and area surrounding the particle that is covered by fine sediment, and enter the rating according to the following table. If the bed is an artificial surface, or composed of fine sediments, use a rating score of 1. If the bed is composed of bedrock, use a rating score of 5. 3.7

Embeddedness rating for gravel, cobble and boulder particles (rescaled from Platts, Megahan, and Minshall 1983 )

Rating	Rating Description
5	<5 percent of surface covered, surrounded, or buried by fine sediment (or bedrock)
4	5 to 25 percent of surface covered, surrounded, or buried by fine sediment
3	26 to 50 percent of surface covered, surrounded, or buried by fine sediment
2	51 to 75 percent of surface covered, surrounded, or buried by fine sediment
1	>75 percent of surface covered, surrounded, or buried by fine sediment (or artificial surface)

List the ratings at each point below:

5	5	3	5	4	5				
4	4	4	1	4	4				
1	4	4	5	4	5				
3	3	5	4	5	5				
3	1	5	5	1	1				

3  $V_{SUBSTRATE}$  Median stream channel substrate particle size. Measure at no fewer than 30 roughly equidistant points along the stream; use the same points and particles as used in  $V_{EMBED}$ . 2.75 in

Enter particle size in inches to the nearest 0.1 inch at each point below (bedrock should be counted as 99 in, asphalt or concrete as 0.0 in, sand or finer particles as 0.08 in):

3.30	5.00	1.70	4.30	1.00	7.70				
7.50	2.20	2.50	0.08	0.80	3.50				
0.08	4.50	4.50	4.70	1.80	3.00				
4.80	1.30	2.00	9.50	4.00	3.10				
1.20	0.08	2.10	8.50	0.08	0.08				

4  $V_{BERO}$  Total percent of eroded stream channel bank. Enter the total number of feet of eroded bank on each side and the total percentage will be calculated. If both banks are eroded, total erosion for the stream may be up to 200%. 0 %

Left Bank: 0 ft Right Bank: 0 ft

**Sample Variables 5-9 within the entire riparian/buffer zone adjacent to the stream channel (25 feet from each bank).**

5  $V_{LWD}$  Number of down woody stems (at least 4 inches in diameter and 36 inches in length) per 100 feet of stream reach. Enter the number from the entire 50'-wide buffer and within the channel, and the amount per 100 feet of stream will be calculated. 6.0

Number of downed woody stems: 6

6  $V_{TDBH}$  Average dbh of trees (measure only if  $V_{CCANOPY}$  tree/sapling cover is at least 20%). Trees are at least 4 inches (10 cm) in diameter. Enter tree DBHs in inches. 7.9

List the dbh measurements of individual trees (at least 4 in) within the buffer on each side of the stream below:

Left Side					Right Side				
9.2	7.1	4	4	9.2					
8.1	4	12.7	6.3	7.9					
5.5	27.8	6.4	4	4.1					
12.5	4	7	6.8						

7  $V_{SNAG}$  Number of snags (at least 4" dbh and 36" tall) per 100 feet of stream. Enter number of snags on each side of the stream, and the amount per 100 feet will be calculated. 3.0

Left Side: 3 Right Side: 0

8  $V_{SSD}$  Number of saplings and shrubs (woody stems up to 4 inches dbh) per 100 feet of stream (measure only if tree cover is <20%). Enter number of saplings and shrubs on each side of the stream, and the amount per 100 ft of stream will be calculated. Not Used

Left Side:  Right Side:

9	V <sub>SRICH</sub>	Riparian vegetation species richness per 100 feet of stream reach. Check all species present from Group 1 in the tallest stratum. Check all exotic and invasive species present in all strata. Species richness per 100 feet and the subindex will be calculated from these data.	4.20
Group 1 = 1.0		Group 2 (-1.0)	
<input checked="" type="checkbox"/>	<i>Acer rubrum</i>	<input type="checkbox"/>	<i>Magnolia tripetala</i>
<input checked="" type="checkbox"/>	<i>Acer saccharum</i>	<input type="checkbox"/>	<i>Nyssa sylvatica</i>
<input type="checkbox"/>	<i>Aesculus flava</i>	<input checked="" type="checkbox"/>	<i>Oxydendrum arboreum</i>
<input type="checkbox"/>	<i>Asimina triloba</i>	<input type="checkbox"/>	<i>Prunus serotina</i>
<input type="checkbox"/>	<i>Betula alleghaniensis</i>	<input checked="" type="checkbox"/>	<i>Quercus alba</i>
<input type="checkbox"/>	<i>Betula lenta</i>	<input type="checkbox"/>	<i>Quercus coccinea</i>
<input type="checkbox"/>	<i>Carya alba</i>	<input type="checkbox"/>	<i>Quercus imbricaria</i>
<input checked="" type="checkbox"/>	<i>Carya glabra</i>	<input checked="" type="checkbox"/>	<i>Quercus prinus</i>
<input checked="" type="checkbox"/>	<i>Carya ovalis</i>	<input checked="" type="checkbox"/>	<i>Quercus rubra</i>
<input checked="" type="checkbox"/>	<i>Carya ovata</i>	<input type="checkbox"/>	<i>Quercus velutina</i>
<input type="checkbox"/>	<i>Cornus florida</i>	<input type="checkbox"/>	<i>Sassafras albidum</i>
<input checked="" type="checkbox"/>	<i>Fagus grandifolia</i>	<input type="checkbox"/>	<i>Tilia americana</i>
<input type="checkbox"/>	<i>Fraxinus americana</i>	<input type="checkbox"/>	<i>Tsuga canadensis</i>
<input checked="" type="checkbox"/>	<i>Liriodendron tulipifera</i>	<input type="checkbox"/>	<i>Ulmus americana</i>
<input type="checkbox"/>	<i>Magnolia acuminata</i>		
9 Species in Group 1		3 Species in Group 2	

**Sample Variables 10-11 within at least 8 subplots (40" x 40", or 1m x 1m) in the riparian/buffer zone within 25 feet from each bank. The four subplots should be placed roughly equidistantly along each side of the stream.**

10	V <sub>DETRITUS</sub>	Average percent cover of leaves, sticks, or other organic material. Woody debris <4" diameter and <36" long are include. Enter the percent cover of the detrital layer at each subplot.	38.75 %																
<table border="1"> <thead> <tr> <th colspan="4">Left Side</th> <th colspan="4">Right Side</th> </tr> </thead> <tbody> <tr> <td>90</td> <td>60</td> <td>60</td> <td>80</td> <td>0</td> <td>10</td> <td>0</td> <td>10</td> </tr> </tbody> </table>				Left Side				Right Side				90	60	60	80	0	10	0	10
Left Side				Right Side															
90	60	60	80	0	10	0	10												
11	V <sub>HERB</sub>	Average percentage cover of herbaceous vegetation (measure only if tree cover is <20%). Do not include woody stems at least 4" dbh and 36" tall. Because there may be several layers of ground cover vegetation percentages up through 200% are accepted. Enter the percent cover of ground vegetation at each subplot.	Not Used																
<table border="1"> <thead> <tr> <th colspan="4">Left Side</th> <th colspan="4">Right Side</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				Left Side				Right Side											
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**Sample Variable 12 within the entire catchment of the stream.**

12	V <sub>WLUSE</sub>	Weighted Average of Runoff Score for watershed:	1.00																																				
<table border="1"> <thead> <tr> <th>Land Use (Choose From Drop List)</th> <th>Runoff Score</th> <th>% in Catchment</th> <th>Running Percent (not &gt;100)</th> </tr> </thead> <tbody> <tr> <td>Forest and native range (&gt;75% ground cover)</td> <td>1</td> <td>100</td> <td>100</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				Land Use (Choose From Drop List)	Runoff Score	% in Catchment	Running Percent (not >100)	Forest and native range (>75% ground cover)	1	100	100																												
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Summary: SAA Number 1			Notes:
Variable	Value	VSI	Recently constructed channel. Only herbaceous vegetation within right riparian zone. Left riparian zone not recently disturbed.
V <sub>CCANOPY</sub>	35 %	0.30	
V <sub>EMBED</sub>	3.7	1.00	
V <sub>SUBSTRATE</sub>	2.75 in	1.00	
V <sub>BERO</sub>	0 %	1.00	
V <sub>LWD</sub>	6.0	0.75	
V <sub>TDBH</sub>	7.9	0.85	
V <sub>SNAG</sub>	3.0	1.00	
V <sub>SSD</sub>	Not Used	Not Used	
V <sub>SRICH</sub>	4.20	1.00	
V <sub>DETRITUS</sub>	38.8 %	0.47	
V <sub>HERB</sub>	Not Used	Not Used	
V <sub>WLUSE</sub>	1	1.00	