



July 18, 2018, Revised August 29, 2018

David T. McElhaney, P.E.  
Urban, LTD  
7712 Little River Turnpike  
Annandale, VA 22003

Via e-mail: DMcElhaney@urban-ltd.com

Re: Proposal for Waters of the U.S. Reconnaissance and Stream Evaluation and  
Restoration Concept Plan  
South Side and Yeonas ( $\pm 11$  acres)  
Town of Vienna, Virginia  
WSSI Proposal #P13274A

Dear Mr. McElhaney:

Based on your July 16, 2018 email request, Wetland Studies and Solutions, Inc. (WSSI) will provide professional services in accordance with the scope of services outlined below. Note that based on our August 22, 2018 discussion we have revised this proposal to include only two separate tasks. First is a reconnaissance level study of the resources present, while the follow-up tasks is a stream evaluation and development of a stream restoration concept plan. Enclosed with this proposal is Exhibit A depicting the location and boundaries of the project site on which this proposal is based, as well as other sites in the vicinity on which WSSI has performed work. Please notify us if the boundaries of the site on this exhibit do not represent the area where you require our services, or if there are any off-site areas (e.g., for proposed road or utility work or for construction staging) that will be part of the project area.

## 1.0 SCOPE OF SERVICES

### Task A WOTUS RECONNAISSANCE

- A.1 WSSI will conduct a pedestrian survey of the site to determine the approximate extent and location of high probability areas that contain WOTUS, including wetlands, streams, and ponds, as well as areas having a high probability of being Resource Protection Areas.
- A.2 Streams on the site and within 100 feet of the site (if access is obtained) will be evaluated to determine whether the streams are ephemeral, intermittent, or perennial and for the purpose of Clean Water Act Section 404/401 and Virginia Water Protection Permit Program permitting.
- A.3 Photographs and field notes will be collected that will document the observed streamflow condition and describe the presence or absence of flow in streams within the study area during our field work.

Upon completion of the wetland reconnaissance and stream assessment field work, a report of the findings will be prepared. The report will include but will not be limited to:

- A.4 A brief narrative summarizing wetland reconnaissance and stream assessment results with site photographs.

- A.5 A map with approximate wetland and stream boundaries located on the site. This map should not be relied upon for detailed land planning purposes, but rather is provided as a guide for making general land planning decisions and determining the need for further study. The map will include the approximate locations of areas that have a high probability of being wetlands or other WOTUS, indication of wetland types according to the Cowardin classification system, the location of stream assessment reaches and photos, as well as the Cowardin classification for each stream reach and the location of approximate areas that have a high probability of being Resource Protection Areas.

**Task B STREAM EVALUATION AND RECOMMENDATIONS**

- B.1 Senior WSSI engineering staff will visit the site to evaluate the current condition of the stream channel adjacent to the proposed ball fields.
- B.2 We will provide a summary of the field visit along with recommendations for addressing the current stream erosion. Included will be a concept plan of the techniques that could be employed to restore the stream and the potential impact of such work on the projected ball fields.

**Task C MEETINGS AND COORDINATION**

Follow-up meetings or coordination with Client or Client's consultants to discuss the implications of the delineation, or to develop a permitting strategy will be billed on an hourly basis in accordance with Attachment A. This task will also include other work necessary to address either unforeseen circumstances not specifically outlined in this contract and/or to respond to client requests.

**EXCLUSIONS**

**1. CLEAN WATER ACT AND VIRGINIA WATER PROTECTION PERMIT PROGRAM PERMITTING**

The scope and cost of Clean Water Act Section 404/401 and Virginia Water Protection Permit Program permitting preparation and procurement services are not included within this contract cost. Such services may be contracted separately when the scope of such services is more clearly defined, or WSSI can proceed with said services as an additional service under Section 3.2 of this Agreement.

**2. CHESAPEAKE BAY PRESERVATION ORDINANCE EXCEPTIONS, WAIVERS, ASSESSMENTS AND DELINEATIONS**

The scope and cost of preparing requests for, and obtaining approvals of, items related to the Chesapeake Bay Preservation Ordinance, such as Resource Protection Area (RPA) Plans, Resource Management Area (RMA) "Opt-outs", RPA Exceptions, RMA Performance Criteria Exceptions, Special Exceptions for floodplain fills, Water Quality Impact Assessments, etc. are *not* included within this contract cost. Such services may be contracted separately when the scope of such services is more clearly defined, or WSSI can proceed with said services, if notified by Client, as additional services under Section 3.2 of this Agreement.

### 3. ENDANGERED AND THREATENED SPECIES (ETS) AND CULTURAL RESOURCES INVESTIGATIONS

The scope and cost of ETS and archeological or architectural investigations (e.g., Phase I architectural survey of resources in the indirect APE of the project, any archeological cemetery delineation, Phase II and Phase III Investigations, Memorandum of Agreement (MOA), etc.) are specifically excluded from this proposal. If required, such services may be contracted separately when the scope of such services is more clearly defined, or WSSI can proceed with said services, if notified by Client, as additional services under Section 3.2 of this Agreement.

## 2.0 MATERIALS TO BE PROVIDED BY OWNER/CLIENT

### 2.1 Survey Information - Prior to WSSI starting field work<sup>1</sup>:

- 2' contour interval topography (using NGVD 29); we can start work from County 2' topo, but please note that this data is not survey grade and thus not adequate for RPA plans.
- Property lines
- Existing improvements
- 100-year floodplain (both minor and major) with source documentation
- Notes documenting data sources of survey information

### 2.2 Any available project plans or proposed plans, including GDP's, grading, E&S plans, site layout, and stormwater management plans/calculations if available.

### 2.3 Additional materials or studies may be required if the scope of work is expanded (e.g., wetlands permits or additional Chesapeake Bay Preservation Ordinance approvals).

## 3.0 COMPENSATION

### 3.1 Basic compensation for the above scope of services as described, not including reimbursable expenses, shall be fixed fee, hourly, or hourly not to exceed (HNTE) as shown below:

	<u>TASK</u>	<u>FEE</u>
A.	Wetland Reconnaissance (Fixed Fee)	\$2,500.00
B.	Stream Evaluation and Concept Plan (Fixed Fee)	\$3,500.00
C.	Client and Client's Consultants Meetings and Calls	<del>Hourly</del> 1,000
Z.	Reimbursable Estimate (per Attachment A)	\$ 250.00

The price is only fixed for thirty (30) days from the date of this proposal.

### 1.2 For additional services requested by, or agreed to in advance by the Client, compensation shall be computed on an hourly basis per Attachment A.

<sup>1</sup> Preferably provided in a Drawing (\*.dwg) file in AutoCAD 2018 or earlier, with each data component on a separate layer, on CD ROM or transmitted electronically.



3.3 Attachments A (Rate Sheet), B (General Conditions of Service), and C (Technical Special Conditions) are incorporated by reference herein.

We trust that this proposal is responsive to your requirements, however, please do not hesitate to call if you have any questions. Based upon our current workload, a complete wetland reconnaissance report along with the stream evaluation and conceptual restoration plan can be provided within three (3) to four (4) weeks of receipt of a notice to proceed, subject to weather and/or other scheduling delays. Your return of an executed copy of this agreement will serve as our notice to proceed.

We sincerely appreciate your confidence in WSSI and look forward to working with you.

Sincerely,

WETLAND STUDIES AND SOLUTIONS, INC.



Mark Headly, PWD, PWS, LEED® AP  
Operations Manager

Enclosures: Exhibit A and Attachments A, B, and C

CLIENT OR CLIENT'S AGENT ACCEPTANCE OF THIS PROPOSAL:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

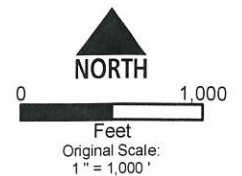
By: \_\_\_\_\_

Its: \_\_\_\_\_



 Site

### WSSI Project Sites South Side & Yenoas Park



Site Acreage\*:  $\pm 10.9$

Jurisdiction: Town of Vienna, VA

VA Congressional District: 11

Magisterial District: Hunter Mill

\*Area is based on GIS data, and does not reflect the legal acreage of the site.

**Wetland Studies and Solutions, Inc.**

a **DAVEY** company

**Exhibit A**

**Attachment A**

The following is a listing of the Wetland Studies and Solutions, Inc. (WSSI) rates for professional and reprographic services for northern Virginia, Washington, D.C., and Maryland. These rates will remain in effect through December 31, 2018, after which time they may be adjusted to reflect our current labor and overhead costs.

**PROFESSIONAL SERVICES**

President	\$285.00	Consultant IV	\$175.00
Operations Manager	\$250.00	Consultant III	\$150.00
Director III	\$220.00	Consultant II	\$135.00
Director II	\$200.00	Consultant I	\$115.00
Director I	\$175.00	Technician III	\$98.00
Principal III	\$195.00	Technician II	\$87.00
Principal II	\$160.00	Technician I	\$77.00
Principal I	\$140.00	Assistant	\$62.00
Consultant V	\$190.00	Admin. Assistant	\$55.00
		Intern	\$27.00

**TYPICAL REIMBURSABLE COSTS****In-house Reprographic Services<sup>1</sup>**

	Rate/Square Foot		Rate/Sheet
Paper Cad plots (B&W)	\$0.35	B&W Xerox (8.5x11)	\$0.10
Paper Cad plots (Color)	\$0.75	Color Xerox (8.5x11)	\$0.85
Mylar Cad plots	\$2.00		
Color Cad plots – Photo quality	\$4.00	Standard Report Supplies	minimum \$6.00/rpt

GIS and CAD system charges are included in billable rates. Reimbursable expenses shall include the following:

Local automobile travel @ \$0.545  
 All-Terrain Vehicle use @ \$8 per hour<sup>2</sup>  
 Tractor @ \$35 per hour/\$750 per week/\$2,250 per month<sup>2</sup>  
 Morooka @ \$35 per hour/\$900 per week/\$2,700 per month<sup>2</sup>  
 Buggy @ \$10 per hour<sup>2</sup>  
 2200 Bobcat Utility Vehicle @ \$12 per hour<sup>2</sup>  
 T-300 Bobcat @ \$45 per hour/\$1,000 per week/\$2,500 per month<sup>2</sup>  
 E60 Bobcat Trackhoe @ \$55 per hour/\$1,200 per week/\$2,700 per month<sup>2</sup>  
 17' Jon boat @ \$10 per hour<sup>2</sup>  
 20' boat-115 hp @ \$50 per hour<sup>2</sup>  
 SCUBA equipment @ \$75 per diver, per day/\$250 per diver, per week (plus tanks @ \$10 per tank per day)<sup>3</sup>  
 Portable Electro-Fisher @ \$300 per day/\$900 per week<sup>2</sup>  
 Mower @ \$5 per hour<sup>2</sup>  
 Leica Robotic Total Station @ \$30 per hour<sup>2</sup>  
 Hydrone-RCV @ \$30 per hour<sup>2</sup>  
 Dino 6 Dredge @ \$1,500 per week/\$5,000 per month<sup>2</sup>  
 6" trash pump @ \$725 per week/\$2,000 per month  
 Resistograph @ \$50 per week<sup>2</sup>

The following expenses shall be charged at cost plus a 20% administrative processing fee:

Permit and review fees, public notice advertisements;  
 Air travel, rental vehicles, lodging, and meals for sites not within commuting distance from local WSSI office;  
 Photocopying or reproduction of drawings or documents by third party vendor as requested by Owner or consultants;  
 Postage, long distance telephone charges, and expedited delivery services requested by Owner or consultants;  
 Artifact Archival Storage Fees; and,  
 Third party consulting services, as authorized by Client, for services such as surveying, archeology, endangered species searches, geotechnical surveys, septic field-testing, permeability tests, etc.

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<sup>1</sup> WSSI maintains hard copy files and report copies for our records, regardless of Client deliverables. These in-house copies will be billed in accordance with the listed reprographic pricing.

<sup>2</sup> Excluding operator; mobilization included in hourly rate.

<sup>3</sup> Excluding staff costs.

## Attachment B

### WETLAND STUDIES AND SOLUTIONS, INC.

#### GENERAL CONDITIONS OF SERVICE

These General Conditions of Service are incorporated by reference into the foregoing Proposal and shall be part of the Agreement under which services are to be performed by Wetland Studies and Solutions, Inc. (WSSI) for Client. "Agreement" as used herein shall mean the Proposal, these General Conditions, Supplemental Conditions (if any) and the Fee Schedule.

##### SECTION 1: SCOPE OF WORK

- a. The scope of Work shall include all services provided by WSSI, in its discretion, which are reasonably necessary and appropriate for the effective and prompt fulfillment of WSSI's obligations under the Agreement, it being expressly provided that all such services provided shall be invoiced and paid for in accordance with Section 3 below.
- b. It is understood that the Scope of Work and time schedule defined in the Proposal are based on the information provided by Client. If this information is incomplete or inaccurate, or if unexpected conditions are discovered, the Scope of Work may change, even as the work is in progress. If the Client requests additional services or when a change in the Scope of Work or time schedule is necessary, a written amendment to the Agreement shall be executed by the Client and WSSI as soon as is practicable and consent to such amendments shall not be unreasonably withheld or delayed.

##### SECTION 2: STANDARD OF CARE

Services performed by WSSI under this Agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the Engineering profession currently practicing in the same locality under similar conditions. No other representation, express or implied, and no warranty or guarantee is included or intended in this Agreement, or in any report, opinion, document or otherwise.

##### SECTION 3: RELIANCE UPON CLIENT PROVIDED INFORMATION

- a. WSSI is not required to check or verify client-provided information or the technical adequacy or compliance of any portion of the project designed by the client's consultants.
- b. WSSI assumes no responsibility for the accuracy of information provided by the client or of design information provided by others, excluding WSSI's subconsultants.
- c. The client agrees to defend and indemnify WSSI for any delays, costs, losses, or damages caused by false, inaccurate, or non-compliant information provided by the client or the client's consultants.

##### SECTION 4: BILLINGS AND PAYMENTS

- a. WSSI invoices shall be due and payable upon receipt. Payments shall not be subject to a "Pay when Paid" condition between the Client and any other third party, unless the third party contract has such a clause. In such cases, WSSI has the right, but not the obligation, to contact said third party directly to collect payment if payment is not made within 30 days of receipt of invoice.
- b. No representations or warranties are made as to the likelihood of approval and/or as to the nature, scope, and cost of possible approval conditions. Even if no permits, jurisdictional determinations, or approvals are procured, or if Client does not desire the resulting conditions, payment for WSSI services is required in full and on time.
- c. Billings will be based on either the fee stated in the Proposal, or if not a fixed fee, on actual hours expended at the standard rates shown on Attachment A of this Proposal, plus travel costs and other reasonable expenses as described on Attachment A. Client recognizes that time is of the essence with respect to payment of WSSI's invoices, and that timely payment is a material part of the consideration of this Agreement. Invoices will be submitted by WSSI from time to time, and shall be due and payable upon receipt.
- d. Proposals using hourly rates shall utilize the rates provided on Attachment A. Said rates may be revised from time to time. These rates for contracts will remain in effect for the calendar year in which the proposal was authorized. At the beginning of the following calendar year, the hourly rates shall be updated to the revised rates as published by WSSI.
- e. Client shall pay an additional charge of one-and-one-half (1.5) percent (or the maximum percentage allowed by law, whichever is lower) of the invoiced amount per month for any payment received by WSSI more than thirty (30) calendar days from the date of the invoice.
- f. Client shall pay WSSI, without limitation, all costs and expenses, including but not limited to 25% attorney's fee or \$500, whichever is more, incurred by WSSI in connection with the collection and enforcement of Client's obligation to pay amounts due hereunder.



- g. Payment options are by check, ACH or credit card. A 3 % fee will be applied if paying by credit card.

#### SECTION 5: RIGHT OF ENTRY

- a. Client hereby grants WSSI and its subcontractors or agents the right to enter from time to time the property owned by Client and/or other(s) in order for WSSI to fulfill the scope of services included in the Agreement. Client understands that use of exploration equipment may cause some reasonable disturbance or damage to the Property, the correction of which is not part of this Agreement or any obligation of WSSI. Client also understands that the discovery of wetland areas or uncertain hazardous conditions and/or taking preventive measures relative to these conditions may result in a reduction of the Property's value. Accordingly, Client waives any claim against WSSI and its subcontractors or agents, and agrees to defend, indemnify and hold WSSI harmless from any claim or liability for injury or loss allegedly arising from procedures associated with surface and subsurface exploration activities or discovery of wetlands or of hazardous materials or suspected hazardous materials. In addition, Client agrees to hold harmless, indemnify and compensate WSSI for any time spent or expenses incurred by WSSI in defense of any such claim with compensation to be based upon WSSI's prevailing fee schedule and expense reimbursement policy.
- b. WSSI shall not be liable for damage or injury from damage to subterranean structures (pipes, tanks, cables, or other utilities, etc.) which are not called to WSSI's attention in writing and correctly shown on the diagram(s) furnished by Client to WSSI.
- c. Any exploration, testing, surveys and analysis associated with the work will be performed by WSSI for the Client's sole use to fulfill the purpose of this Agreement and WSSI is not responsible for interpretation by others of the information developed. The Client recognizes that surface and subsurface conditions on the entire Project site may vary from those encountered in selected sample borings, delineations, surveys or explorations and the information and recommendations developed by WSSI are based solely on the information available from such borings, delineations, surveys and explorations.

#### SECTION 6: SAMPLES

- a. Soil, rock, water, vegetation, and/or other samples obtained (if any) from the Project site will be preserved by WSSI for no longer than sixty (60) calendar days after the issuance document that includes that data obtained from them, unless other arrangements are mutually agreed upon in writing. Should any of these samples be contaminated by hazardous substances or suspected hazardous substances, it is Client's responsibility to select and arrange for lawful disposal procedures, that is, procedures which encompass removing the contaminated samples from WSSI's custody and transporting them to a disposal site. Client is advised that, in all cases, prudence and good judgment should be applied in selecting and arranging for lawful disposal procedures.
- b. Cultural Resource Artifacts – After processing, artifacts will be returned to the client or placed on repository with the county or the State Historic Preservation Office (SHPO) (e.g. Virginia Department of Historic Resources [DHR], Maryland Historic Trust [MHT], etc.). Some local governments accept the artifacts without charge; however, the DHR, MHT, and Prince William County have a one-time fee of \$200 per half-sized box (15"x6"x10") and \$350 per standard box (15"x12½"x10"); MHT also offers a one-time fee of \$100 per quarter-sized box. Additional fees may be required for artifact stabilization or for curation of oversized artifacts. Any required repository fees are not included in the direct costs of this proposal and will be treated as reimbursable expenses. WSSI shall not retain the artifacts for more than sixty (60) days after the submission of the report unless other arrangements are mutually agreed upon in writing. WSSI shall notify the client in writing once the artifacts are prepared for delivery to client or a mutually agreed upon repository. If no response is received within 10 business days of receipt of the written notification, WSSI shall assume that the client does not wish to retain ownership of the artifacts and WSSI will dispose of the artifacts in a manner deemed appropriate by WSSI.

#### SECTION 7: REPORTS AND OWNERSHIP OF DOCUMENTS

WSSI shall furnish three (3) copies of each report to Client. Additional copies shall be furnished at the rates specified in the fee schedule (employee time plus reimbursables). With the exception of the physical copies of reports provided by WSSI to Client, all documents, including reports, photographs, permits applications, plans, original boring logs, field data, field notes, laboratory test data, calculations and estimates are and remain the property of WSSI. Client agrees that all reports and other work furnished to the Client not paid for in full will be returned to WSSI upon demand and will not be used for design, construction, permits or licensing.

#### SECTION 8: CLIENT DISCLOSURES

- a. The Client shall notify WSSI of any known or suspected hazardous substances which are or may be related to the services to be provided.
- b. Following any disclosure as set forth in the preceding paragraph, or if any hazardous substances are discovered or reasonably suspected by WSSI after its services are undertaken, WSSI may, at its discretion, discontinue its services.

#### SECTION 9: LIMITATION OF PROFESSIONAL LIABILITY

- a. Client agrees to limit WSSI's liability to Client and all construction contractors arising from WSSI's professional acts, errors or omissions in performing this Agreement, such that the total aggregate liability of WSSI to all those named shall not exceed the total fee for the services rendered on this Project. Client further agrees to require of the Client's Consultants (Civil Engineer, Architect, Attorney, etc.), General Contractor and their subcontractors an identical and cumulative limitation of



WSSI's liability for damages that may be suffered by the contractor or the subcontractors arising from professional acts, errors or omissions of WSSI.

- b. Documents, including but not limited to, technical reports, original boring logs, field data, field notes, laboratory test data, calculations, and estimates furnished to the Client or its agents pursuant to this Agreement are not intended or represented to be suitable for reuse by the Client or others on extensions of the Project or on any other project. Any reuse without WSSI's written consent will be at Client's sole risk and without liability to WSSI or to WSSI's contractor(s) and Client shall indemnify and hold harmless WSSI and WSSI's contractor(s) from all claims, damages, losses and expenses including attorney's fees arising out of or resulting therefrom.
- c. Under no circumstances shall WSSI be liable for extra work or other consequences due to changed conditions or for costs related to failure of the construction contractor or materialmen or service providers to install work in accordance with the plans and specifications.

#### SECTION 10: LIABILITY INSURANCE

WSSI represents that it and its agents, and consultants employed by it, are protected by Workers Compensation insurance and that WSSI has coverage under liability insurance policies which WSSI deems reasonable and adequate. WSSI shall furnish certificates of insurance upon request. WSSI shall not be responsible for bodily injury and property damage or losses arising directly or indirectly, in whole or in part, from acts by the Client, its employees, agents, staff, consultants or subcontractors employed by it or by any other person or combination of persons. WSSI agrees to maintain at least \$2,000,000 in general liability insurance and the Client agrees to limit the liability of WSSI to \$2,000,000. The Client is responsible for requesting specific inclusions or limits of coverage that are not present in WSSI insurance, the cost of such inclusion or coverage increases if available, to be at the sole cost and expense of the Client.

#### SECTION 11: ARBITRATION OF DISPUTES

At the sole option of WSSI, claims, disputes or controversies arising out of, or in relation to the interpretation, application or enforcement of this Agreement shall be decided through arbitration, as adopted and described by the then most current rules of the American Arbitration Association.

#### SECTION 12: TERMINATION

Client or WSSI may terminate this Agreement for breach of this Agreement, or for any other reasons which may arise. In the event of termination, the party effecting termination shall so notify the other party, and termination will become effective fourteen (14) calendar days after receipt of the termination notice. Irrespective of which party shall effect termination or the cause therefore, WSSI shall promptly render to Client a final invoice and Client shall immediately remunerate WSSI for services rendered and costs incurred, in accordance with WSSI's prevailing fee schedule and expense reimbursement policy. Services shall include those rendered up to the time of termination, as well as those associated with termination itself, such as demobilizing, modifying schedules and reassigning personnel. Upon such termination, Client and WSSI shall deliver to each other all reports and documents pertaining to services performed up to termination.

#### SECTION 13: GENERAL PROVISIONS

- a. Any provision of this Agreement later held to violate a law or regulation shall be deemed void, and all remaining provisions shall continue in force.
- b. The titles used in this Agreement are for general reference only and are not part of the Agreement. Parties to this Agreement are advised to read each provision and rely on the guidance of legal counsel as necessary to help assure a complete understanding of all provisions and the obligations imposed through acceptance.
- c. All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating responsibility or liability between the Client and WSSI shall survive the completion of services and the termination of this Agreement.
- d. Neither the Client nor WSSI may delegate, assign, sublet or transfer its duties, responsibilities or interests in this Agreement without the written consent of the other party.
- e. This Agreement shall be interpreted according to the laws of Virginia.

## Attachment C

### WETLAND STUDIES AND SOLUTIONS, INC.

#### TECHNICAL SPECIAL CONDITIONS

1.	Waters of the U.S. Delineation	Wetlands will be defined using the Routine On-Site Determination Method as defined in the <i>Corps of Engineers Wetlands Delineation Manual</i> , Technical Report Y-87-1 (1987 Manual) and subsequent guidance, and modified by the appropriate Regional Supplement such as the <i>Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region</i> , Version 2.0 dated November 2010 or <i>Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region</i> (Version 2.0) dated April 2012.
		Jurisdictional limits along stream channels and other bodies of water that qualify as Waters of the U.S. Delineation (WOTUS) as defined in Section 328.3 (a) of Final Rule for Regulatory Programs of the U.S. Army Corps of Engineers (Federal Register Vol. 51, No. 219, November 13, 1986).
2.	Stream Assessments	For Resource Protection Area purposes and for the purpose of Clean Water Act Section 404/401 and Virginia Water Protection Permit Program permitting, streams will be assessed using both the <i>Fairfax County Perennial Stream Field Identification Protocol</i> (May 2003) and the <i>North Carolina Division of Water Quality, Methodology for Identification of Intermittent and Perennial Streams and their Origins, Version 4.11</i> (2010) will be used to determine whether streams are intermittent or perennial (the North Carolina method also distinguishes ephemeral streams).
3.	Survey Control	Unless existing control is provided by the client, horizontal and vertical control will be established using differential GPS. All surveys will be referenced horizontally to the local state plane coordinate system and vertically to NAVD 88, except where the client or local regulations require otherwise (e.g., Fairfax County, Virginia requires the vertical datum – NGVD 29).
4.	Land Survey Location	The survey locations provided will be established using either conventional survey techniques (total station) or Survey Grade GPS (1 centimeter (cm) accuracy), depending upon field conditions. Additionally, WSSI field wetland delineation location surveys can be used to satisfy Table A item #18 in the New ALTA Minimum Standards (Effective 2/23/16).
5.	Mapping Grade GPS	The locations provided will be established using Mapping Grade GPS and are depicted for a graphical representation only. This does NOT constitute a survey. The locations should be used for informational purposes only; the accuracy provided by Mapping Grade GPS units precludes their use for design purposes.
6.	Bathymetric Survey	Bathymetric surveys will be prepared in compliance with standards set forth in the U.S. Army Corps of Engineers (COE) Manual No. EM-1110-2-1003, Engineering and Design, Hydrographic Surveying (Revised November 30, 2013), Chapter 10, Appendix B (sounding

		pole), and/or Chapter 4 (sonar -- single beam acoustic depth measurement).
7.	Military Site Survey	<p>Unless otherwise specified by state or local agencies, the following sampling strategy will be employed for the excavation of identified positive metal strikes, which will vary based on the density of positive contacts identified within a 25-foot by 25-foot square area:</p> <ul style="list-style-type: none"> <li>• Where the density of positive contacts is <math>\leq</math> two per <math>\pm 625</math> square feet (sq ft), all contacts will be excavated.</li> <li>• Where the density of positive contacts ranges from three to eight per <math>\pm 625</math> sq ft, a <math>\pm 50\%</math> sample of contacts will be excavated.</li> <li>• Where the density of positive contacts ranges from nine to twenty per <math>\pm 625</math> square feet, a 20% -50% sample of contacts, as determined by the Principal Archeologist, will be excavated</li> <li>• Where the density of positive contacts exceeds twenty per <math>\pm 625</math> sq ft, a <math>\pm 10\%</math> -20% sample of contacts, as determined by the Principal Archeologist, will be excavated.</li> </ul>
8.	Phase I ESA	All Phase I Environmental Site Assessment (ESA) will be performed in conformance with the protocol set forth in the American Society for Testing and Materials (ASTM) E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, Fifth Edition.
9.	Zoning Amendment, Special Exception, or Special Use Permit Requests	<p>WSSI will follow the current local county requirements for the scope of the necessary studies for approval. For example:</p> <ul style="list-style-type: none"> <li>• Prince William County: <i>Reference Manual for Rezoning, Special Use Permit, and Proffer Amendment Applications</i></li> <li>• Loudoun County: <i>Facilities Standards Manual</i></li> </ul>