VDH VIRGINIA DEPARTMENT OF HEALTH
Protecting You and Your Environment

Office of Drinking Water
Safe Drinking Water for a Healthy Virginia

Supplemental Instructions for Competitive Grants
For
Source Water Protection Implementation Projects
RFA No. VDH-23-103-0237
Funding Source:
Federal Safe Drinking Water Act
Drinking Water State Revolving Fund Set-Asides
Grant Award No. 99358321
Federal Grant No. CFDA 66.468
Administered by:
Virginia Department of Health
Office of Drinking Water
Division of Technical Services

APPLICATION INSTRUCTIONS: VDH-23-103-0237

Applicant's name (municipality, CWS system name): Town of Onancock

Public Water System ID: GW0049200 (Community Water Works)

Federal Tax ID: 54-6001483

Duns/Bradstreet #: 053231460

Congressional district: 2nd Congressional District

Project lead full legal name: Town of Onancock, Matthew D. Spuck, Town Manager

Address (street, city, State, zip): 15 North St., Onancock, VA

Phone number: 757-787-3363

Email address: matt.spuck@onancock.com

Use the table below to provide documentation of a 'Strategy In Place.' Include the URL where the document can be reviewed, the document's name, and the applicable narrative's location (i.e., page #s). (public url or fileshare link) *If you do not have a URL or fileshare link, please attach pertinent SIP documents to the form.*

SIP Reference 1	
URL Address	https://www.onancock.com/publicworks
Document Name	Onancock SIP Onancock Technical Analysis Onancock SWPP
Applicable Narrative	Small water systems like ours (less than 800 customers) do not have the budget to keep up with tools designed for safety, upkeep of critical alarms, equipment, or even equipment as simple as fire hydrants. Onancock has three well pumps (7, 8, & 9) that pump about 80m gallons per year. Recently, we had a power surge of pump 9, which blew the submersible pump. We needed to replace 220 feet of casing and the submersible pump. The two remaining pumps need evaluation because of this accident. The first issue is the age of the pumps (2005), which cannot withstand a surge like that from the transformer. With only three wells (and # 8 is only a supplemental well), we cannot risk pump seven suffering the same fate as nine did without dramatically affecting the drinking water for 1,200 residents, a 54-bed hospital, and a busy dialysis center. All three well pumps are in the field where the Little League parents park during games and practices, and our wells are not well protected (image provided). We would like to significantly reinforce the fencing to allow for a larger vehicle to come into contact, We need a tool that we currently don't have to protect the subgrade and locate utilities. Our water department uses a Witch's Stick (sadly, I am not joking). We have had three incidents with inaccurate markings that caused severe delays and dangerous situations for us and other contractors; with the project to replace the system's panels, accurately locating PVC underground at the tower is critical. An LMX 100 ground penetrating radar correctly protects the well from underground water lines and other utilities.
Recommended actions implemented by the project	• Replace fencing with an 8-foot fence around the wellheads and install 5-foot bollards around the exterior of the new wall. • Replace the at-risk submersible pump along with 220 feet of casing. • Purchase Eastcom LMX100

SIP Reference 2	
URL Address	https://www.onancock.com/publicworks
Document Name	Onancock Application
Applicable Narrative	In addition to the other significant matters, we discovered that when Systems East Inc. (our trusted electrical and switch contractor) evaluated the damage caused by the power surge, they found that the service panel for the pumps, wells, and water tower had been undersized since the pumps we installed in 2005. The impact of the panel shutting down could be catastrophic. It could cause misreading in water levels and pressure, which could lead to severe disruptions in our subgrade distribution system and connections at the meter or house level. The tower flushing discharge takes place within 100' of the wells. This is a risk we cannot afford to take.
Recommended actions implemented by the project	• Build and replace the control panel using the previous design. • Purchase an Eastcom LMX 100 Ground Penetrating Radar to safely locate subgrade utilities between the tower and the wells.

Funding will be limited to localities with a protection 'Strategy in Place' and an active 'Local Advisory Committee,' described in SWPP Definitions.

Background Information

On January 04, 2024, an unrelated contractor exercised transformers and burned out the submersible motor without checking with the Onancock Water Department. We immediately replaced the motor and casing while it was exposed). The other two wells are equally susceptible to something as innocuous. Having the right-sized panel and safety measures may have avoided this incident. We can even protect the system and the employees by locating the subgrade utilities, especially PVC, which this tool is designed to find.

Our CCR report is of the highest quality, but our infrastructure needs support to protect the wells.

When we worked with CHA to prepare our SWPP, we formed a five-member Local Advisory committee, two of whom work in water management in an extensive factory water management and another who manages and installs wells.

Because of the proximity of each well, simple fencing with bollards will protect the wells. We also did a detailed analysis of nearly, which is excellent. There aren't many because they are located away from manufacturing sites, major roads, or chemical users. For any work near the RPA 100', we perform all land disturbance WQIA requirements. We will install silt fences and hay bales around the current fencing.

Onancock is seeking full funding for all four projects

Scope of Work

The SIP documentation should support the goal of the project. Each activity or task should be numbered.

If seeking partial funding- The number of tasks in order of priority
If seeking total funding- List in order of intended completion

Develop a Scope of Work that is expected to be completed no later than June 12, 2025. The final invoice and reports are due on June 31, 2025.

Scope and Order of Work

1. Build and replace the control panel.
    a. Install an autodialer to warn staff if any sensors in the tower, pump, or wells need immediate attention.
    b. Use the GPR LMX100 to protect all utility locations near the well.
    c. Custom-built SEI control panel
    d. Project management, engineering, labor, and travel.
2. Replace pumps 7 and 220' of casing.
3. Install reinforced fences and bollards around all fencing to protect the sound head.

Include a breakdown of protection activities or tasks associated with the project and a narrative description of each.

1. As with all construction projects in Onancock, workers follow standard safety protocols, including PPE and proper training.
2. We follow all erosion and sediment control measures.
3. Well-casing and cementing if the contractor deems it necessary.
4. We will have blow-off preventers in place if necessary.
5. All bacterial tests required by the VDH will receive certification before its use.

Please list the groups or organizations cooperating or involved in the project and describe their participation and/or contributions.

- Eastcom Associates Inc.: GPR LMX100
- System East Inc.: Build and replace the control panel.
- Bundick Pump and Well: Submersible pump and casing
- Accomack County Environmental

Identify the specific results and benefits gained from the successful completion of the project.

Onancock would protect the tower from accidental electrical mishaps and add an autodialer to alert staff in an emergency. As our volume increases, having the electrical service right-sized without the risk of the tower flushing into the wells protects them from treated and groundwater washing into them.

Having the well and casing replaced gives the residents, hospital, and dialysis center assurance of continued water supply.

Being able to locate PVC below grade around the tower and wells reduces the risk of employee injury and property damage. That is what the LMX100 does to benefit the proje

Project Timeline

List significant steps, milestones, and expected completion dates for the tasks listed in the Scope of Work. Use relative dates (e.g., six months) rather than an absolute date. Use the same task names and numbering scheme as in the Scope of Work.

Task	Timeline
Order LMX100	30-days
Systems East has designed the new panel. They would order parts and assemble them.	90-days
Install panel, disconnect tower, test, and reconnect.	4-days
Order and replace the #7 pump and casing	45-days

Budget Summary

Identify the significant project financial components and detail expenditures using the following budget line items.

Our procurement policy complies with 2 CFR 200, as well as VPPA. The samples invoices and quotes have already been vetted, but they will be again should we be fortunate to be awarded the grant.

What are the funding needs for each task?

Our entire water budget is $420,000. With labor, chemicals, leak repairs, testing kits, etc. There are no funds for one-time capital items like this.

Budget Item	Cost	Cost per connection Provide the quotient of the grant award requested from VDH divided by the number of connections served by the impacted well(s).
Eastcom LMX100	$18,197	$22.74
System East Inc.	$37,977	$47.47
Bundick Pump	$21,664	$27.08
Accomac Fence	$11,250	$14.06

Salaries – hourly or annual rate of staff and estimated time commitment. This should not include contractual staff.

Fringe Benefits: Please provide the percentage used for fringe benefits, the basis for its computation, and the types of benefits included.
Supplies – itemize individually
Travel – mileage traveled and other costs, including lodging and meals. Travel expense reimbursement is based on the State Travel Regulations, Topic 20335, in the Commonwealth Accounting Policies and Procedures (CAPP) manual published by the Virginia Department of Accounts (DOA).
Contractual – the percentage of the award that will be allocated to the contractor or consultant. If a contractor or consultant is utilized, selection shall follow procurement rules established by the municipality.

Match—While matching funds are not required for the award, if the municipality supports this effort with its own funds, please identify the source, amount, and percentage of funds from other sources than this grant (based on total project cost).

NOTE:

Indirect costs will not be funded. Costs incurred in preparation and submission of the application are not eligible.

The budget summary should identify the major project financial components and detail expenditures

No portion of the Scope of Work shall be subcontracted without clearly stating this intent in the documentation submitted as part of the application, otherwise written consent from the Department is required. The Grantee shall, however, remain fully liable and responsible for the work to be done by its subcontractor(s) and shall ensure compliance with all requirements of the Contract. The Grantee shall comply with all applicable provisions of the Virginia Public Procurement Act in making such awards.

Evaluation questions:

Please answer the following questions.

A. **Applicability to SIP and results (10pts. max.)**

- How does the project relate to the documented 'Strategy In Place'?

  Our SIP aligns with both our technical assessment and out SWPP. Those files are both available online with links provided about.

- What impact will this project have on water quality or reliability?

  Maintaining and protecting our three wells is critical. Being able to locate subgrade water source is critical. We have a leak last week and because we could locate the PVC, we had to close restaurants and hair salons because we had to dig up the street rather than surgically locating the leak. Location lines from the tower, pumps, and wells is also critical when other contractors are involved.

B. **Overall project costs (10 pts. max.)**

The application must demonstrate the costs are related to expected benefits.

- How do the benefits justify the project costs?

  Our purchasing policy complies with 2 CFR 200 and VPAA. The invoices I provided as part of this application will be rebid. $97.29 may seem high per account, but you must consider our size. If you take 13,000 (combined previous grant winners), that number drops to under $7.00.

C. **Probability of success (5 pts. max.)**

- Is the implementation timeline reasonable for the utility?

  We have active quotes; we currently work well with all vendors listed. There is no reason to expect anything less than perfect outcome.

- Describe briefly your history of success with similar projects.

In January 2024, we had the submersible pump burn out, and within one month, the vendor had the pump replaced, the casing replaced, and the Bacteria tests approved by the health department.

Fencing is a standard service, but we just had Accomac Fence install the dog park over 1,300 linear feet. We have local resources.

The LMX100 salesperson traveled to the Eastern Shore to demo the product and even helped find a leak.

We have the relationships experience success.

- Describe briefly how your contingency strategy ensures success.

We would need to scale back the project and hope the well and panel and equipment aren't needed. In a true emergency, the town has reserves of ample level to cover the costs.

D. Local support, visibility, and sustained involvement (5 pts. max.)

- Does the waterworks have a Local Advisory Committee (LAC)?

Yes. Five members, 2 of whom work in waterworks in a professional capacity.

- How often does the LAC meet?

Quarterly

- What was the LAC's role in decision-making?

They are an advisory body as only the Town Council can appropriate funds.

- How does the project positively impact public engagement and consumer confidence in their water system?

Confidence and transparency. We communicate projects with through our newsletter called Manager Minute. Drinking water is my highest risk and priority. Informing businesses and residents is important to them and me.

Signatures of Support

Name	Title	Relevant Role in the project (ex. SWCP member, project manager, waterworks administrator)	Signature	Date
Matt Spuck	Town Manager	I oversee waterworks and all town operations		
Fletcher Fosque	Mayor	I oversee all executive leadership		

Eastcom Associates, Inc.
185 Industrial Pkwy, Suite G
Branchburg, NJ 08876
Phone: (908) 722-7774
Fax: (908) 722-9299
www.EastcomAssoc.com

QUOTATION

Quote # VA041224MN
Date: 4/12/2024

Company: Town of Onancock
15 North Street
Onancock, VA 23417

Attn: Matt Spuck
Phone: (757) 787-3363
Email: Matt.Spuck@Onancock.com

Qty	Part No.	Description	Item Price	Amount
1	100-10-0150	Sensors & Software LMX100	$17,767.00	$ 17,767.00
		Includes: *- 250MHz Ultra Wide Band Antenna* *- 8" High Resolution, Touch Screen Display* *- 12V Battery and Battery Box* *- Rugged, Lightweight, Rough Terrain Cart w/12" Wheels* *- Screen Capture and GPS Data Collection* *- DynaQ - Spatial Filtering Software*		
1	500-80-0022	*Sensors & Software Online GPR Training Course Coupon (SensoftU)*	INCLUDED	INCLUDED
		Shipping Charges		$430.00
		On-Site Equipment Training		INCLUDED
		Optional Accessories		
	100-60-0059	*Soft Case for LMX100 Display*	*$211.00*	$ -
	100-60-0066	*Hard Case for LMX100 Display*	*$511.00*	$ -
			Quote Total	**$ 18,197.00**

Sales Tax: *For Shipments to NJ or NY, Add Applicable Local Sales Tax*
Payment Terms : *Net 30 Days (w/approval), ACH, or Credit Card. 3% Service Charge added to Credit Card Transactions.*
Delivery: *1 - 2 Weeks*
Freight: *Ground Insured Freight Charges Prepaid and Added*
Quote Validity: *30 Days*

Thank you for your interest in our products and the opportunity to provide this quotation.
Please contact us with any questions or to place an order.

Prepared By: **Mark Norris**

Service Proposal

SYSTEMS EAST INC.
30 Basil Sawyer Drive
Hampton VA 23666
Phone (757)766-8400
Fax (757) 766-7494
[Document Rev 6-2-2020]

Job Name: Onancock Watertower Troubleshooting
Date 4/9/2024
Proposal # : S24-006-002(R2)

Attn: Victor Talbot Phone: 7573870217
Company: Town of Onancock E-mail: vtalbot@onancock.com
Address: 15 North Street
City & Zip: Onancock, VA 23417

Description of Work

Build and replace control panel using the previous design.
Install autodialer and configure to specified signals (Note: There is a 400$/year charge, the first year is included in the quote for cellular service for the autodialer, a sim card is not required)

Manufacturer	Part Number	Description	Qty	UNIT PRICE	EXT PRICE
Racoman	VSS-8C	Verbatim Autodialer-8 Channel	1	$5,214.29	$5,214.29
Racoman	BCELL-VTNE-NE	Cellular Communications Package	1	$2,964.29	$2,964.29
SEI	Control Panel	Custom Built SEI Control Panel	1	$18,214.51	$18,214.51
				$0.00	$0.00
				$0.00	$0.00
				$0.00	$0.00
				$0.00	$0.00
				$0.00	$0.00
				$0.00	$0.00
				$0.00	$0.00
				$0.00	$0.00
				Total	$26,393.08

Labor Services	HOURS	UNIT PRICE	EXT PRICE
PROJECT MANAGEMENT (.5 hr min)	12	$150.00	$1,800.00
ENGINEERING & DESIGN	20	$150.00	$3,000.00
PROGRAMMING & MODIFICATIONS (PLC, SCADA, VFD, RTU ETC)	0	$150.00	$0.00
FIELD TECHNICIAN/SHOP QC/SHOP TEST	32	$125.00	$4,000.00
CAD LABOR	0	$65.00	$0.00
ELECTRICAL CREW (2x PERSONS)	0	$140.00	$0.00
ELECTRICAL SUPERVISOR	0	$125.00	$0.00
ELECTRICAL JOURNEYMAN	0	$95.00	$0.00
ELECTRICAL HELPER	0	$45.00	$0.00
PANEL FABRICATION (SHOP)	40	$60.00	$2,400.00
ADMINISTRATIVE, SUBMITTALS O&M MANUALS	4	$48.00	$192.00
ADMINISTRATIVE & PURCHASING (.5 hr min)	4	$48.00	$192.00

Travel Charges		Unit	UNIT PRICE	EXT PRICE
VEHICLE MILEAGE EXPENSE	Milles-	0	$0.85	$0.00
TRAVEL EXPENSE (HOTEL ACCOMMODATIONS)	Days-	0	$105.00	$0.00
TRAVEL EXPENSE (MEALS)	Days-	0	$75.00	$0.00

Manufacturer	Model	Equipment Rental	# days	UNIT PRICE	EXT PRICE
			0	$0.00	$0.00
			0	$0.00	$0.00

If you should have any questions or concerns regarding this proposal, please contact our office.

Thank you,

Andrew Gillikin
Project Manager

Customer Signature: _____ Date: _____

MATERIAL COST	$26,393.08
LABOR COST	$11,584.00
TRAVEL CHARGES	$0.00
EQUIPMENT RETAIL	$0.00
SHIPPING	$0.00
SUBTOTAL	$37,977.08
MATERIAL SALES TAX	$0.00
PROPOSAL TOTAL	**$37,977.08**

Bundick Well & Pump Co., Inc.
P.O. Box 15
Painter, VA 23420

757-442-5555

Quotation

Quote Number
6375

Quote Date
Jan 9, 2024

Quoted to:

Town of Onancock
15 North Street
Onancock, VA 23417

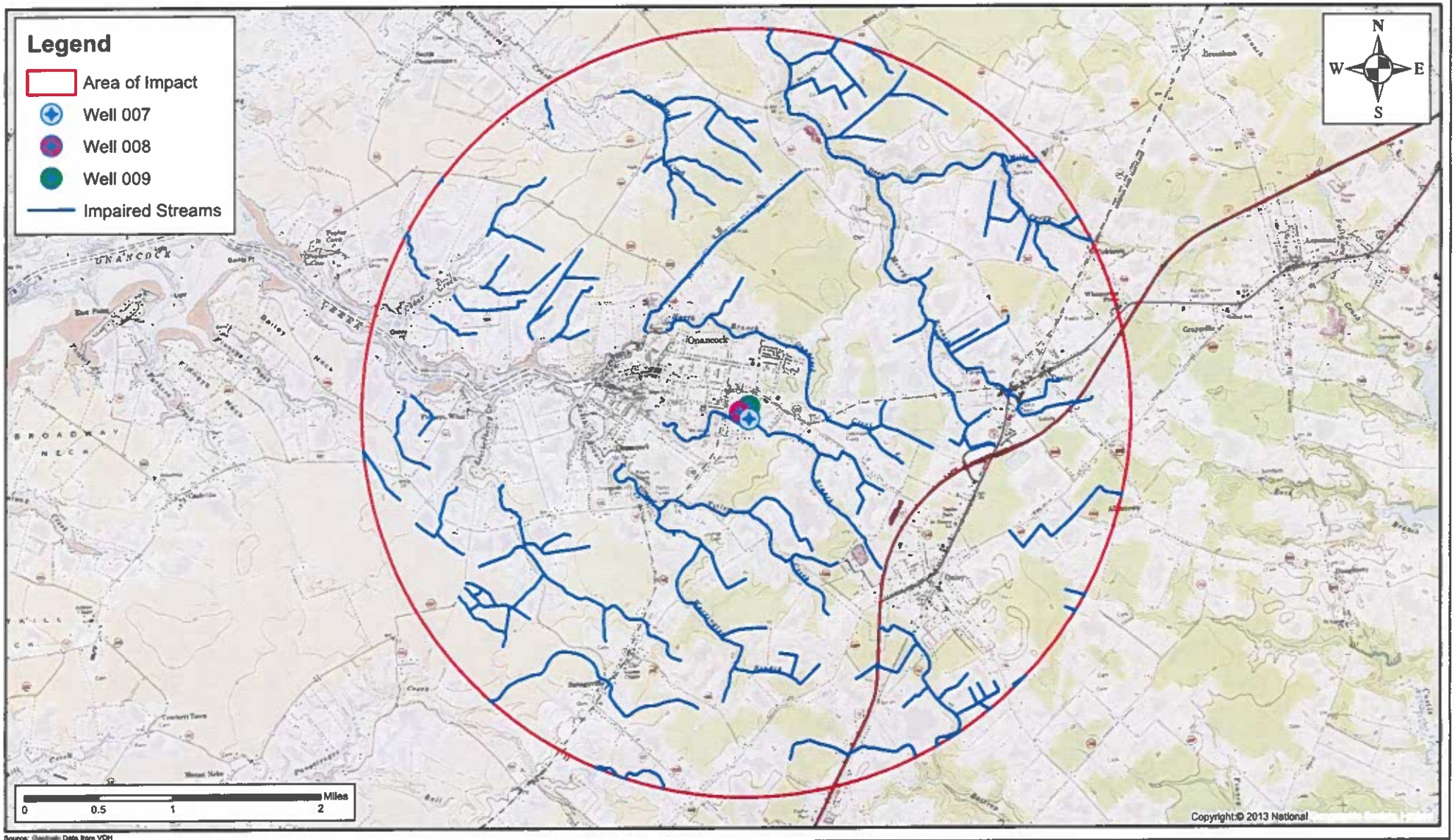
787-3363

Customer ID	Good Thru	Payment Terms	Sales Rep
Town of Onancock	2/8/24	Net Due	

Description	Amount
RE: Water Tower	
Installing a new 15 HP, 3 phase, 460 volt Goulds 5 stage pump	14,868.00
(Just like what was there before) with a new 4" check valve.	
Installing 7, 21' lengths of 4" galvanized steel T & C pipe.	6,796.00

Quotes for sewage systems are contingent on health dept approval of proposed system.

Subtotal	21,664.00
Sales Tax	
Total	21,664.00



Source: Geologic Data from VDN

Job No: 077507 NOV 2023	FIGURE 2	TOPOGRAPHIC AND IMPAIRED STREAMS MAP TOWN OF ONANCOCK SOURCE WATER PROTECTION PLAN	CHA 1341 Research Center Dr. Suite 2100 Blacksburg, VA 24060 www.chasolutions.com


Central Assomad Little
League Ball Fields

Signatures of Support

Name	Title	Relevant Role I the project (ex. SWCP member, project manager, waterworks administrator)	Signature	Date
Matt Spuck	Town Manager	I oversee waterworks and all town operations		5/1/24
Fletcher Fosque	Mayor	I oversee all executive leadership		5/3/24