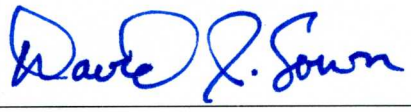
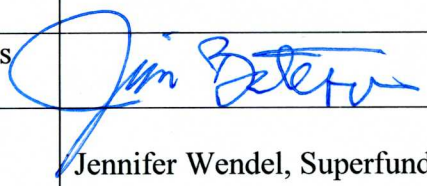
Quality Assurance Project Plan

Section A: Planning Elements		
A1. Title (Project Name):	Stony Hill Road TCE Site	
EPA ID#:	NCN000410857	
Project Location:	Wake Forest, Wake Co., NC	
Project Requestor and Organization:	Harry Zinn, NC Superfund Section	
Project Manager's Name, Position, and Organization:	Harry Zinn, Environmental Engineer, Federal Remediation Branch, NC Superfund, 1646 Mail Service Center, Raleigh, NC, 27699-1646. (919) 707-8374. harry.zinn@ncdenr.gov	
Project Manager's Signature:		Date: 04/02/2014
Technical Reviewer's Name and Position:	David Lown, Quality Assurance Manager, NC Superfund	
Technical Reviewer's Signature:		Date: 04/02/2014
QA Reviewer's Name and Position:	Jim Bateson, Section Chief, NC Superfund	
QA Reviewer's Signature:		Date: 04/02/2014
DAO's Name, Position, and Organization:	Jennifer Wendel, Superfund Site Evaluation Section, EPA Region 4	
DAO's Signature:		Date:
A2. Table of Contents	• Page i of the NC generic QAPP • Section No. TOC of NC Superfund Section Health and Safety SOP Manual (http://portal.ncdenr.org/web/wm/div/safety/program)	
A3. Distribution List	Jennifer Wendel, US EPA Jim Bateson, NC Superfund Scott Ross (File Room), NC Superfund Harry Zinn, NC Superfund Section	
A4. Project Personnel	**Organization**	**Responsibilities**
Harry Zinn,	NC Superfund	*Project Lead/Sampler/GPS 919-810-9637*

Engineer		
Stuart Parker, Hydrogeologist	NC Superfund	*Sampler/GPS*
Jeanette Stanley, Chemist	NC Superfund	*Sampler/Scribe*

Comments: The NC Superfund Section organizational chart and delegation of duties can be found in Section 3.1 and Appendix A of the NC generic QAPP.

A5. Background:

The site is located along Stony Hill Road, Bud Morris Road, Bent Road and Churchill Drive approximately 0.5 miles north of the intersection of Stony Hill Road and NC Highway 98. This is located approximately 3.75 miles west of Wake Forest. The coordinates of the site are 35.9895^{o} north latitude and -78.6080^{o} west longitude. They are based on the location of the shed that used degreasers during the operation of a circuit board assembling operation at 7303 Stony Hill Road.

In August, 2005, Charles Arnold (7305 Stony Hill Road) contacted Mr. Greg Bright of Wake County Environmental Services Department (WCESD) to report a petroleum smell in his water. The sample collected on August 25, 2005 from his well documented well contamination with tetrachloroethylene (PCE 39 microgram per liter (ug/l)); trichloroethylene (TCE 110 ug/l); 111- trichloroethane (1,1,1-TCA 19.2 ug/l) and 1,1-dichloroethene (1,1-DCE 7.7 ug/l) (Ref. 1). NC Division of Water Quality (NC DWQ) was contacted (Ref. 2) and re-sampled this well plus two other wells immediately south of the impacted well. The two new wells were not impacted. Four additional wells across Stony Hill Road (SHR) were sampled but no detections were documented. The house on the property at 7305 SHR was hooked up to the well serving 7303 SHR which was documented to be clean. Soil samples collected from the areas within 7303 and 7305 SHR properties were shown to be contaminated with PCE at level between 13 and 32 ug/kg and a trace amount of TCE.. Additional soil sampling by a contractor for the owner of 7303 SHR in June 2006 verified low levels of PCE and TCE in the soils around the building on 7303 SHR.

With no additional wells being impacted and the single affected house being supplied alternate water, efforts were made from 2006 until 2007 to identify all potentially responsible parties (PRPs) and have a Required Action Plan performed by those parties. In 2007 the site was transferred from NC DWQ to NC Division of Waste Management (NC DWM) Inactive Hazardous Sites Branch (IHSB). From 2007 until 2012 NC DWM continued to try to identify PRPs and have them develop a Site Assessment. In June, 2012, IHSB personnel contacted 10 residences within 1000 feet of the site to obtain access to sample their wells. Three of the resident granted access (7303, 7305 and 7333 SHR). Wells at 7305 and 7333 SHR have been impacted by PCE and TCE above the current MCL (5 ug/l).

On July 10, 2012 Jim Bateson of NC DWM referred the site to EPA Region 4 Emergency Response and Removal Branch (ERRB) via telephone and e-mail. Since that

	time ERRB has sampled over 100 residences in the area around the site, including 12 community wells. In addition NC DWM has sampled or resampled 122 residences. Of these, 18 private residences have TCE above it's Maximum Contaminant Level (MCL) of 5 ug/l or the Cancer Risk Screen Concentration of 1 ug/l. Four additional well have detections of TCE below the benchmarks. All contaminated wells have been hooked up to community well systems.
A6. Project Description:	Collecting samples from over 59 residences within ¾ mile of the site. 17 wells have had previous documented impacts with TCE and/or PCE. These wells have been disconnected and converted into Monitoring wells outfitted with Passive Diffusion Bag samplers. 42 additional potable wells are in close proximity to the impacted wells. This is a seasonally adjusted follow-up sampling of wells previously sampled during the Removal Action at this site. The three wells with impacts detected above 50 ppb will be analyzed for VOAs, all other wells will have samples collected for TVOA analysis.
Decision(s) to be made based on data:	Based on findings, a decision will be made as to whether further action is needed under CERCLA. Data will be used to help characterize the nature and extent of groundwater contamination at the site, in order to determine which, if any, additional drinking water wells need to be replaced with alternative water, and to determine the scope of any needed additional future sampling of drinking water wells in neighborhoods surrounding the site. The primary decision in the DQO process for the site relating to potable well water is: are site-related contaminants found in private drinking water wells within three-quarter mile of the site at concentrations exceeding the associated health-based screening criteria? The three water samples collected from the wells with impacts above 50 ppb will be submitted to a CLP laboratory for routine analytical services (RAS) for VOCs in accordance with the CLP Statement of Work (SOW) for Organics Analysis (SOM01.2). All remaining water samples will be submitted to a CLP laboratory for routine analytical services (RAS) for Trace VOCs in accordance with the CLP Statement of Work (SOW) for Organics Analysis (SOM01.2). Analytical results will be compared to the associated federal drinking water Maximum Contaminant Levels (MCLs), Region 4 Regional Screening Levels (RSLs), SCDM values, and NC 2L groundwater standards. All data will be reviewed by the NC Project Manager and the NC Industrial Hygienist. Any wells in use with values exceeding the MCL, RSL, or NC 2L values may be potentially recommended to the US EPA Region 4 Emergency Response and Removal Branch (ERRB) for further action. EPA Region 4 will be notified of all exceedences of both MCL and RSL values in any of the potable well sample results.
Applicable regulatory information, action levels, etc.	Data will be compared with regulatory benchmarks, including NC Groundwater Standards (15A NCAC 2L, http://portal.ncdenr.org/c/document_library/get_file?uuid=90e20026-1d67-45e0-90cc-a212707e79a3&groupId=38364) and SCDM values (http://www.epa.gov/superfund/sites/npl/hrsres/tools/scdm.htm). The Contract Required Quantitation Limits for Volatile Organics on the Target Compound List using the Trace Water analysis is 0.5 ug/L for most compounds. These quantitation limits will determine if any known or suspected contaminants exceed

	the Maximum Contaminant Levels (MCLs) for drinking water. Refer to CRQL Table attached to this QAPP. Analytical data results will be compared with the following comparison criteria: 1) Non-detects of background concentrations; 2) Three times detectable background concentrations; 3) Sample quantitation limits (SQLs) or minimum reporting limits (MRLs) which are sample specific and correspond to the lowest quantitative point on the calibration curve. 4) NC 2L Groundwater Standards (http://portal.ncdenr.org/web/wq/ps/csu/gwstandards) 5) Maximum Contaminant Levels (MCLs; http://water.epa.gov/drink/contaminants/index.cfm#List) 6) US EPA Regional Screening Levels (RSLs); http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/
Field Study Date:	April 2014
Projected Lab Completion Date:	8-10 weeks after sample submittal
Final Report Completion Date:	July, 2014
A7. Quality Objectives and Criteria:	Identification of the seven steps of the data quality objectives (DQO) process: DQOs were established for the Stony Hill Road Site to define the quantity and quality of data to be collected to support the objectives of the sampling event. DQOs were developed using the seven-step process outlines in the following EPA guidance documents: "Guidance on Systematic Planning using the Data Quality Objectives Process," EPA QA/G-4 (http://www.epa.gov/quality/qs-docs/g4-final.pdf), February 2006; "Guidance for Quality Assurance Project Plans," EPA QA/G-5 (http://www.epa.gov/quality/qs-docs/g5-final.pdf), December 2002; and "EPA Requirements for Quality Assurance Project Plans,", EPA QA/R-5 (http://www.epa.gov/region8/qa/QAEPAr5-final.pdf), March 2001. **Step 1: State the Problem** Previous sampling by various parties, including NC Superfund, NC Department of Environmental Management (NC Division of Water Quality), Wake County Department of Environmental Services, US EPA, and community water system owners, has documented the presence on contaminants in groundwater at and near the site. Groundwater is the only drinking water source within 3/4 mile of the site. This includes both private and community drinking water supply wells. **Step 2: Identify the Goals of the Study** The goal of this study is to determine the nature and extent of groundwater contamination at the site, in order to determine which, if any, residents are currently exposed to groundwater contaminants above federal and/or state health-based benchmarks, or could be potentially exposed to such contaminants in the future. Evaluate analytical data for groundwater samples to identify the level of contamination in

private drinking water wells and determine whether concentrations are present above the comparison criteria (background levels).

Analytical data results will be compared with the following comparison criteria:
1) Non-detects of background concentrations;
2) Three times detectable background concentrations;
3) Sample quantitation limits (SQLs) or minimum reporting limits (MRLs) which are sample specific and correspond to the lowest quantitative point on the calibration curve.
4) NC 2L Groundwater Standards (http://portal.ncdenr.org/web/wq/ps/csu/gwstandards)
5) Maximum Contaminant Levels (MCLs; http://water.epa.gov/drink/contaminants/index.cfm#List)
6) US EPA Regional Screening Levels (RSLs; http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/)

US EPA Region 4 will be notified of all exceedences of MCL or RSL values in any of the potable well sample results.

Step 3: Identify Information Inputs
The primary inputs needed to support the decision making process are contaminant levels in private drinking water well water samples collected from the groundwater in the vicinity of the site. Analytical results used in the decision-making process will come from laboratory analyses by a CLP laboratory for routine TCL VOC parameters. Trace-level TCL VOC contract required quantitation limits (CRQLs) will be requested for all but three of the water samples analyzed by the CLP laboratories.
See Section A6. Project Description
See Section A5. Background of this Quality Assurance Project Plan.

Step 4: Define the Boundaries of the Study
TCE and PCE have been documented in the regional groundwater. Two parcels have been identified as suspect source areas. The primary media of interest is groundwater from residential drinking water wells located within a three-quarter mile radius of these parcels. The study boundaries include the study area, well depths, temporal boundaries such as field investigation dates and turnaround times on analytical results, and physical boundaries. All individuals within 3/4 mile of these two parcels are supplied drinking water via groundwater wells—either community wells or privately-owned wells. Community wells are currently on a quarterly sampling schedule by their operators. Twenty two previously impacted wells have been taken off-line, sixteen remain as monitoring wells. One additional monitoring well has been added to the sampling plan. Passive Diffusion Bag (PDB) samplers will be deployed into these wells at least two weeks prior to sampling. The remaining individual potable wells will be sampled at the wellhead when possible. If a wellhead is not accessible or no sample tap is available at the wellhead, the sample will be collected from an unfiltered tap closest to the wellhead. The collection point of each sample will be notated in the field logs (i.e. spigot on wellhead, spigot on front of house, etc.). Each potable well will be purged for at least 15

minutes prior to sample collection. Temperature, pH, conductivity, and turbidity readings will be collected a minimum of three times, at five-minute intervals, prior to sample collections.

Sampling is scheduled for April 2014. Field investigation activities are expected to take four days. A turnaround time of 21 days from sample submittal to a CLP laboratory will be requested. An additional turnaround time of approximately 30 days from receipt of laboratory results by SESD is expected for data validation.

Step 5: Develop the Analytic Approach

Sample Collection Guidance for VOC's

Matrix	Sample Type	Container Type	Bottle Count	Minimum Volume	Important Notes	Preservative	Holding Time
Water	VOA Sample	40mL glass vial, 24 mm neck finish	3	Fill to capacity	Vials must be filled to capacity with no headspace or air bubbles.	Preserve to a pH of 2 with HCL and Cool to 4oC (+/-2oC) immediately after collection.	14 days
	VOA Sample with MS/MSD		6				

(http://www.epa.gov/superfund/programs/clp/download/sampler/CLPSamp-01-2011.pdf)

Laboratory analysis will include: Target Compound List (TCL) volatile organic compounds (VOCs) using the EPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Trace Water, "Multi-Media, Multi-Concentration Organics Analysis" (SOM01.2), June 2007 (http://www.epa.gov/superfund/programs/clp/som1.htm) or comparable methods.

Step 6: Specify Performance or Acceptance Criteria

Analytical results for initial acceptance will be assessed during validation performed by US EPA Region 4 Science and Ecosystem Support Division (SESD) that evaluates the usability of the data defined. Any rejected data and the reasons for rejection will be summarized in the data validation report.

Step 7: Develop the Plan for Obtaining Data

Proposed sampling includes up to 75 groundwater samples (including background and QA/QC samples). Access permission has been previously granted for the wells via email, phone calls, or in person.

Quality Assurance Project Plan

A8. Special Training/ Certifications:	• Section 3.3 of the NC generic QAPP. • Section 2.1 and Appendix A of NC Superfund Section Health and Safety SOP Manual (http://portal.ncdenr.org/c/document_library/get_file?uuid=8d450e40-1ff1-481f-9dcd-40ac5a4d5bc3&groupId=38361)
A9. Documents and Records:	Section 3.4 of the NC generic QAPP.

Section B: Data Generation and Acquisition	
B1. Sampling Design	An authoritative sampling design was chosen based on the data quality objectives of the study. Sample IDs and locations can be found in Table 1 of the sampling plan. Volume, Holding time, and Preservation requirements are in accordance with: *SESD Analytical Support Branch Laboratory Operations and Quality Assurance Manual, Table 3-1* *(http://www.epa.gov/region4/sesd/asbsop/asb-loqam.pdf*
B2. Sampling Methods, General Procedures:	*SESD Field Branches Quality System and Technical Procedures* (*http://www.epa.gov/region4/sesd/fbqstp/index.html*) • Field pH Measurement, January 29, 2013 • Field Specific Conductance Measurement, August 30, 2012 • Field Temperature Measurement, February 4, 2011 • Field Turbidity Measurement, January 29, 2013 Field Equipment Cleaning and Decontamination, December 20, 2011 • Groundwater Level and Well Depth Measurement, January 29, 2013 • Packing, Marking, Labeling and Shipping of Environmental and Waste Samples, April 20, 2011 • Potable Water Supply Sampling, May 30, 2013 • Field Sampling and Measurement Procedures and Procedure Validation, August 30, 2012 • Field Sampling Quality Control, February 5, 2013 • Logbooks, May 30, 2013 • Sample and Evidence Management, January 29, 2013

	• Groundwater Sampling, March 6, 2013
B3. Sampling Handling and Custody:	All samples will be handled and custody maintained in accordance with *SESD Operating Procedures for Sample Evidence Management*, SESDPROC-005-R2. (http://www.epa.gov/region4/sesd/fbqstp/Sample-and-Evidence-Management.pdf)
B4. Analytical Methods:	
CLP:	Analytical methods for organic samples are in accordance with: *CLP Multi-Media, Multi-Concentration Organics Analysis, SOM01.2* (http://www.epa.gov/superfund/programs/clp/som1.htm)
SESD:	NA
B5. Quality Control:	
Field:	• Rinsate blanks are collected on a quarterly basis on equipment used for sampling during that calendar quarter. • Rinsate blanks are collected on a quarterly basis on gloves utilized for sampling during that calendar quarter. • Rinsate blanks are collected on a quarterly basis on the DI water system maintained and utilized by the NC Division of Waste Management for decontamination of sampling equipment. • Organic-free water is obtained from the NC Public Health lab for VOC water trip blanks. • A minimum of one duplicate per twenty samples per media will be collected. • A minimum of one trip blank per shipping container will be collected for VOC water samples. • Section 3.5 of the NC generic QAPP
Laboratory:	• A minimum of one MS/MSD sample per twenty samples per media will be collected. • Section 3.5 of the NC generic QAPP
B6. Instrument/Equipment Testing, Inspection and Maintenance:	• Section 3.4 and Appendix B of the NC generic QAPP • Section 6 of NC Superfund Section Health and Safety SOP Manual (http://portal.ncdenr.org/c/document_library/get_file?uuid=8d450e40-1ff1-481f-9dcd-40ac5a4d5bc3&groupId=38361
B7. Instrument/Equipment Calibration and Frequency:	All monitoring equipment and instruments are calibrated a minimum of once daily, at the start of the day, when field activities requiring use of the equipment occur. Serial numbers and calibration records are maintained in the field logbook for the project. Any inconsistencies and errors during calibration are also to be noted in the field logbook. Equipment to be used for this project and requiring calibration includes: • pH/Conductivity/Temperature Meter(s): pH is calibrated to three standards (pH 7, pH4, pH10); Conductivity is calibrated to one standard (1413 uS)

	• Turbidity Meter(s):Turbidity is calibrated to three standards (Low, Medium, and High ntu)
B8. Inspection/Acceptance for Supplies and Consumables:	All critical supplies and consumables for this field investigation are inspected and maintained by the QAO and designated staff, as discussed in Section 3.2 of the NC generic QAPP. A list of these supplies is included in Appendix B of the NC generic QAPP.
B9. Non-direct Measurements:	Not applicable.
B10. Data Management:	The project manager will be responsible for ensuring that all requirements for data management are met. All data generated for this field investigation, whether hand-recorded or obtained using an electronic data logger, will be recorded, stored, and managed according to the following procedures: *SESD Operating Procedure for Control of Records*, SESDPROC-002-R5. (http://www.epa.gov/region4/sesd/fbqstp/Control-of-Records.pdf) *SESD Operating Procedures for Logbooks*, SESDPROC-010-R4. (http://www.epa.gov/region4/sesd/fbqstp/Logbooks.pdf)

Section C: Assessment/Oversight	
C1. Assessments and Response Actions:	Assessments will be conducted during the field investigation according to *SESD Operating Procedure for Project Planning*, SESDPROC-016-R2 (http://www.epa.gov/region4/sesd/fbqstp/Project-Planning.pdf) to ensure the QAPP is being implemented as approved. The Project Manager is responsible for all corrective actions while in the field. Section 3.2.4 of the NC generic QAPP.
C2. Reports to Management:	The Project Manager will report to their immediate supervisor if any circumstances arise during the field investigation that may adversely impact the quality of the data collected. The Project Manager and/or their immediate supervisor will also be responsible for notifying the EPA Project Manager if any circumstances arise during the field investigation that may adversely impact the quality of the data collected. Section 3.2.4 of the NC generic QAPP

Section D: Data Validation and Usability	
D1. Data Review, Verification, and Validation:	Section 3.2.4 of the NC generic QAPP.
D2. Verification and Validation Methods:	Section 3.2.4 of the NC generic QAPP.

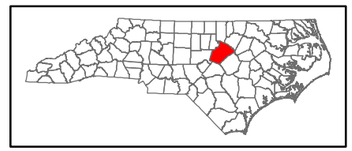
D3. Reconciliation with User Requirements:	Review of blanks is evaluated by the Project Manager using the following guidelines: • *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, EPA-540-R-08-01, June 2008 (http://www.epa.gov/superfund/programs/clp/download/somnfg.pdf)* Review of data is evaluated by the Project Manager using the following guidelines: • *USEPA Using Qualified Data to Document an Observed Release and Observed Contamination, EPA 540-F-94-028, Exhibit 3 and Tables 1-4 (http://www.epa.gov/superfund/sites/npl/hrsres/fact/docoroc.pdf)* Section 3.2 of the NC generic QAPP

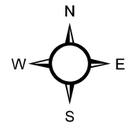
STONY HILL ROAD TCE SITE PROPOSED GROUNDWATER SAMPLE LOCATIONS APRIL 2014

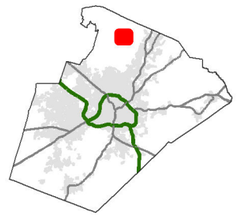
Fig:	1
Site:	NCN 000 410 857
City	Wake Forest, NC
County:	Wake
Date:	04/02/2014
Drawn By:	SMM

Proposed Sample Locations April 2014

- Previously Detected
- Previously Clean
- Non_Detect for two previous sampling events but not resampled in April 2014







North American Datum 1983
North Carolina State Plane (3200)
Contour Interval 4 Feet

Miles
0.1 0.05 0 0.1

North Carolina Division of Waste Management
DWM
Educating today for a cleaner tomorrow
wastenotnc.org

Source: Wake County, Buildings; Well Sample Locations, NC Division of Waste Management; Contour, NC DOT (Derived from 2007 LIDAR)

Name		Mail	Samp ID	Contact	Permission		Analysis
Charles Arnold	919-757-2943 or 2	4220 Purnell Rd	7305SHRc	V	Y	MS/MSD	TVOA
Wade Harrison	919-562-7968	PO Box 814	7312SHRc	V	Y		TVOA
Frank & Patricia Cuda	919-810-8981	7317 Stony Hill Rd	7317SHRc	T	Y		VOA
Danny and Charlene Perry	919-602-1374 556-5645	7327 Stony Hill Rd	7327SHRc	T	Y		VOA
W Graham Cawthorne, Jr	919-622-6802	6112 Cresent Knoll Dr	7333SHRSc	V	Y		TVOA
W Graham Cawthorne, Jr		6112 Cresent Knoll Dr	7333SHRDc	T	Y		VOA
W Graham Cawthorne, Jr		6112 Cresent Knoll Dr	7337SHRSc	T	Y		TVOA
W Graham Cawthorne, Jr		6112 Cresent Knoll Dr	7337SHRDc	T	Y		TVOA
W Graham Cawthorne, Jr		6112 Cresent Knoll Dr	7337SHRDDc	T	Y	duplicate	TVOA
Justin and Tamara Alexander	919-554-6954	1008 High Trail Ct	1008HTCc	T	Y		TVOA
Mark & Monica Stonefield	919-985-4716	1009 High Trail Ct	1009HTCc	T	Y		TVOA
Michele &William Hamilton	919-761-1170	1012 High Trail Ct	1012HTCc	T	Y		TVOA
Anna Daoust	919-227-9802	1421 Bent Rd	1421BRc	T	Y		VOA
Frank Gammon	516-784-6661	1425 Bent Rd	1425BRc	T	Y	Pre Filter	TVOA
Frank Gammon		1425 Bent Rd	1425BRc	T	Y	Post Filter	TVOA
Robert &Karen Earnhardt	919-417-3101	7412 Churchill Dr	7412CDc	T	Y		TVOA
Wayne & Susan Lavrack	919-815-5017	7420 Churchill Dr	7420CDc	T	Y	duplicate	VOA
Joseph H Martin Jr	919-412-7811	7516 Trail Blazer Trl	7516TBTc	T	Y		TVOA
Edward & Michelle Wright	919-593-0472	7600 Trail Blazer Trl	7600TBTc	T	Y		TVOA
John & Jo Anne Quaranto	919-757-1960	7604 Trail Blazer Trl	7604TBTc	T	Y		TVOA
Brenda Ray	919-556-5707	7645 Bud Morris Rd	7645BMRc	T	Y	MS/MSD	TVOA
Robert Reasoner	919-302-2283	7648 Bud Morris Rd	7648BMRc	T	Y		VOA
Michele &Bradley Kennon	919-369-5336	7708 Bud Morris Rd	7708BMRSc	T	Y		VOA
"		7708 Bud Morris Rd	7708BMRDc	T	Y		VOA
Stanley & Amy Joyner	919-257-1979	1000 Settlers Landing Ct	1000SLCc	T	Y		TVOA
Scott & Theresa Haven	919-522-7855	1001 Hidden Trail Ct	1001HTCTc	T	Y		TVOA
Bob & Abigail French	191-413-7745	1001 Settlers Landing Ct	1001SLCc	T	Y		TVOA
Christopher Davis Boster	919-422-8796	1004 Hidden Trail Ct	1004HTCTc	T	Y		TVOA
Carol Weathers	919-971-5100	1004 Settlers Landing Ct	1004SLCc	T	Y		TVOA
Jonathan & Jacqueline Roth	919-616-3036	1005 Hidden Trail Ct	1005HTCTc	T	Y		TVOA
Michael & Michelle Merritt	919-600-8563	1005 Settlers Landing Ct	1005SLCc	T	Y		TVOA
Janis & John Stollmeyer	704-604-7031	1008 Hidden Trail Ct	1008HTCTc	V	Y		TVOA
Edward & Stacy Milburn	919-345-0134	1009 Hidden Trail Ct	1009HTCTc	T	Y		TVOA
Robert & Kathleen Westdyke	919-320-4718	1021 Settlers Landing Ct	1021SLCc	T	Y	duplicate	TVOA
Brenda Harrison Ray	919-556-5707	1437 Bent Rd tap under deck	1437BRc	T	Y	MS/MSD	TVOA
Dustin & Megan Daniel	919-554	1613 Bent Rd	1613BRc	T	Y		TVOA
Lawrence Kusan	919-562-2274	1625 BENT RD	1625BRc	T	Y		TVOA
R T Bailey, Jr	919-556-6257	2000 Rubicon Ln tap at barn	2000RLc	V	Y	duplicate	TVOA
Joel & Lisa Bailey	919-556-1685	2020 Rubicon Ln	2020RLc	T	Y		TVOA
Leslie & David Fowlkes	843-694-2898	7121 Churchill Dr	7121CDc	T	Y		TVOA
Gary & Patricia George	919-201-9707	7217 Churchill Dr	7217CDc	T	Y		TVOA
David &Deborah Martin	919-795-5883	7220 Churchill Dr side of house	7220CDc	V	Y	MS/MSD	TVOA
LEBRON, FRANK &DIANA DAVISSON		7301 Stony Hill Rd	7301SHRa	T	Y		TVOA
Donald & Catherine Albright	919-219-1890	7303 Stony Hill Rd	7303SHRc	T	Y	MS/MSD	TVOA
John & Jewel Eason	919-524-9019	7304 Churchill Dr	7304CDc	T	Y		TVOA
Wade Harrison	see 7312 shr	7320 Stony Hill Rd	7320SHRc	T	Y		TVOA
Wade Harison	"	7324 Stony Hill Rd	7324SHRc	T	Y		TVOA
Wade Harison	"	7328 Stony Hill Rd	7328SHRc	T	Y		TVOA
James & Leah Judge	919-612-6475	7341 Churchill Dr	7341CDc	T	Y		TVOA
Jason Wright	919-435-8884	7409 Trail Blazer Trl	7409TBTc	T	Y		TVOA
James & Gwendolyn Noble	919-345-9225	7417 Trail Blazer Trl	7417TBTc	V	Y		TVOA
William & Frances Arnold	919-215-1001	7444 Stony Hill Rd	7444SHRc	T	Y		TVOA
Roy & Gloria Dean	252-432-9444	7605 Trail Blazer Trl	7605TBTc	T	Y		TVOA
Lawrence & Susan Misenheimer	919-624-0415	7625 Bud Morris Rd	7625BMRc	T	Y		TVOA
Gerry Agliata	919-263-1175	7636 Bud Morris Rd	7636BMRc	T	Y		TVOA
Donald & Catherine Albright	see 7303 shr	7644 Bud Morris Rd	7644BMRc	V	Y		TVOA
Richard Scheuerle	919-556-2222	7716 Benthill Ct	7716BHCc	T	Y		TVOA
Robert & Snezhana Johnson	704-778-8531	7720 Benthill Ct	7720BHCc	V	Y		TVOA
Elaine Owens	919-389-8100	7724 Benthill Ct well by house	7724BHCc	T	Y		TVOA
Darin & Lori Ray	919-524-1377	7804 Bud Morris Rd tap on house	7804BMRc	T	Y	duplicate	TVOA
Katie Rudolph	919-556-5924	7821 Bud Morris Road	7821BMRc	T	Y		TVOA
Tracy and Wanda Perry	919-427-5856	7409 Stony Hill Road	7409SHRc	T	Y		TVOA
Jeff and Natalie Conrad	919-662-2893	7441 Stony Hill Road	7441SHRc	T	Y		TVOA