Chowan County
Water Quality Improvement
&
Water Management Plan

Baseline Plan Completed 2009
Updated April 11, 2016
Updated May 1, 2017

Albemarle Resource Conservation & Development Council, Inc
&
Chowan County Soil & Water Conservation District

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Summary

This plan updates Chowan County water quality improvements and water management activities since the 2009 baseline study. Activities are summarized for the period 2009-2017 for clearing and snagging waterways, Hydrilla treatments and beaver management (Tables 1-3). These activities are also shown on maps of sub-watersheds, which were defined in the 2009 baseline study (Figures 1, 2, 3, 4 and 5). The Chowan Soil and Water Conservation District (SWCD) will update activities each year and present the plan to the county commissioners.

Table 1. 2009-2017 Clearing and Snagging.

Year	Location	Footage	Amount
2012	Rocky Hock Creek	8291	$6,780
2014	Pollock Swamp	11000	$8,264
2015	Burnt Mill - Rocky Hock Creek	10325	$22,218
2017	Rocky Hock Creek	14,464	$15,000
	Hobbs Lane	5724	$14,464
	Pollock Swamp	18,767	$28,150
TOTAL		**68571**	**$94,876**

Table 2. 2009-2016 Hydrilla Treatment.

Year	Location	Total	State Funds	County Funds	Individual Funds
2010	peele, nixon, arrowhead, ferry	$4,448	$2,848		$1,600
2011	colony, nixon, harris, peele,ferry	$4,038	$1,063		$2,975
2012	colony, nixon, harris, peele	$2,984	$1,872		$1,112
2013	colony, nixon, harris, peele	$1,756	$878		$975
2014	colony, harris, nixon, ferry, peele, cannons, chowan, arrowhead	$14,276	$3,688	$10,588	
2015	colony, harris, nixon, ferry, peele, cannon ,chowan	$20,217	$10,108	$10,108	
2016	cape colony, harris landing, old ferry, nixon fishery, peeles	$3,693	$839	$2,854	
TOTAL		**$51,412**	**$21,296**	**$72,708**	**$6,662**

Table 3. 2009-2017 Beaver Management.

YEAR	AMOUNT
2015	$550
2016	$335
2017	$1,650
TOTAL	**$2,535**

The maps for Pembroke Creek and Queen Anne Creek watersheds (Figures 2 and 3, respectively) also show Hydrilla treatments conducted by the Town of Edenton. The map of Rocky Hock Creek watershed (Figure 4) also shows the partnership between Chowan County

and local residents to repair the dike at Bennett's Millpond, which was significantly damaged by a major storm event.

State agricultural cost-share projects implemented by the SWCD from 2009-2016 are Shown in Table 4. Highlights include:

- 141 projects with a total value of $458,623
- 15,560 acres treated
- 9,760 tons of soil kept from creeks and rivers
- 98,541 pounds of nitrogen and 21,970 pounds of phosphorus kept from creeks and rivers.

Priority water quality improvement and management activities for 2017 and 2018 are shown in Table 5.

Figure 1. 2005-2017 Clearing and Snagging Activities.

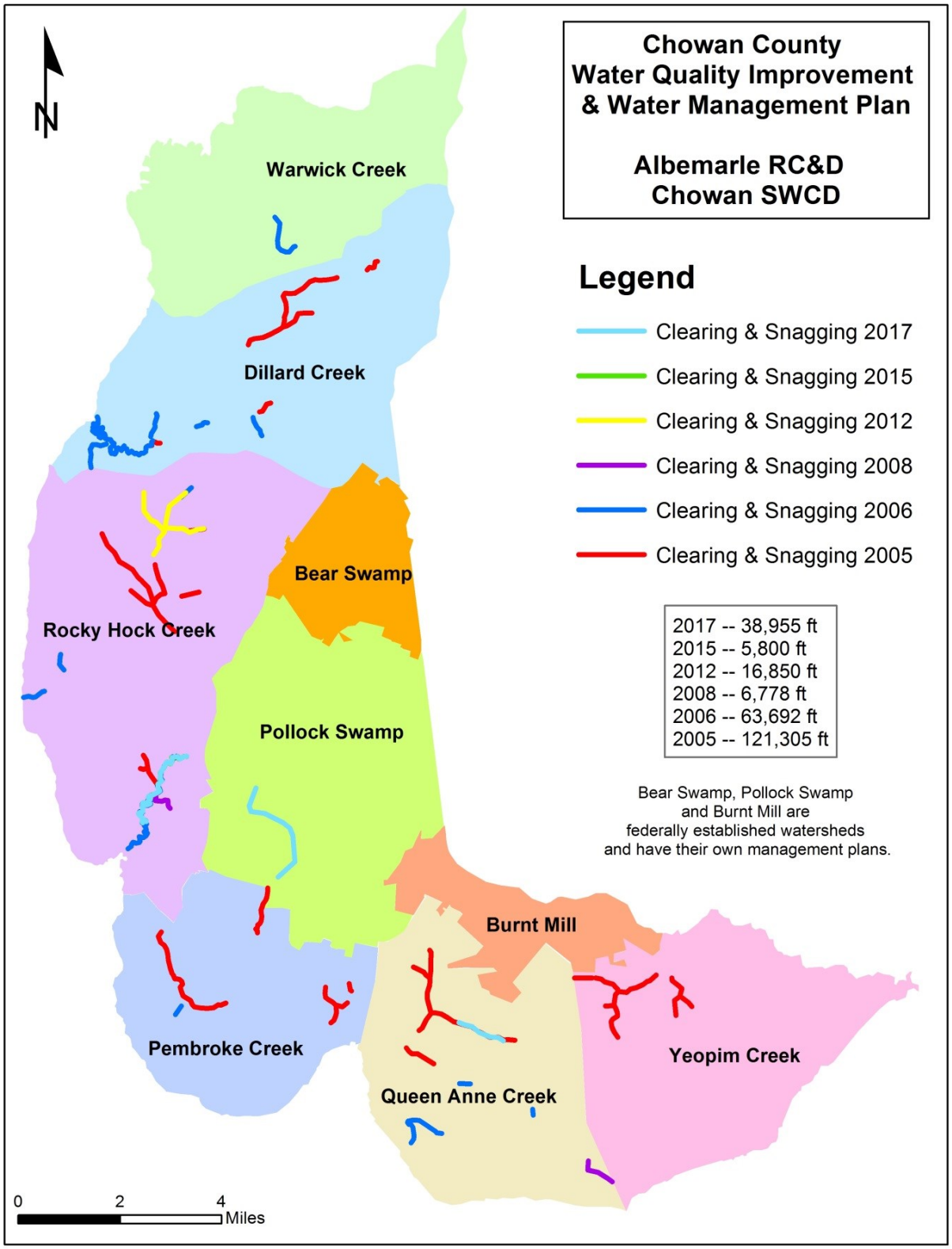


Figure 2. Pembroke Creek Watershed.

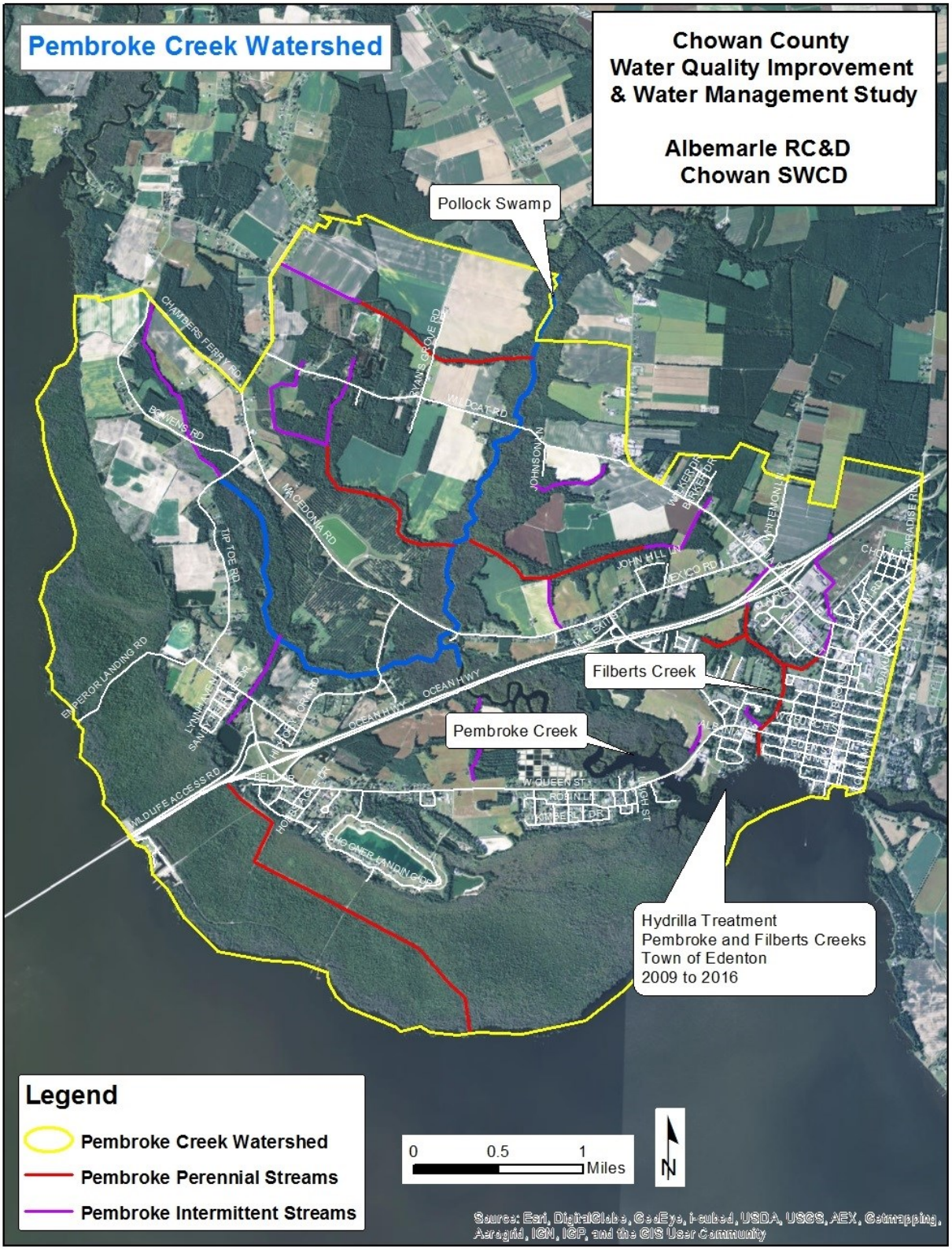


Figure 3. Queen Anne Creek Watershed.

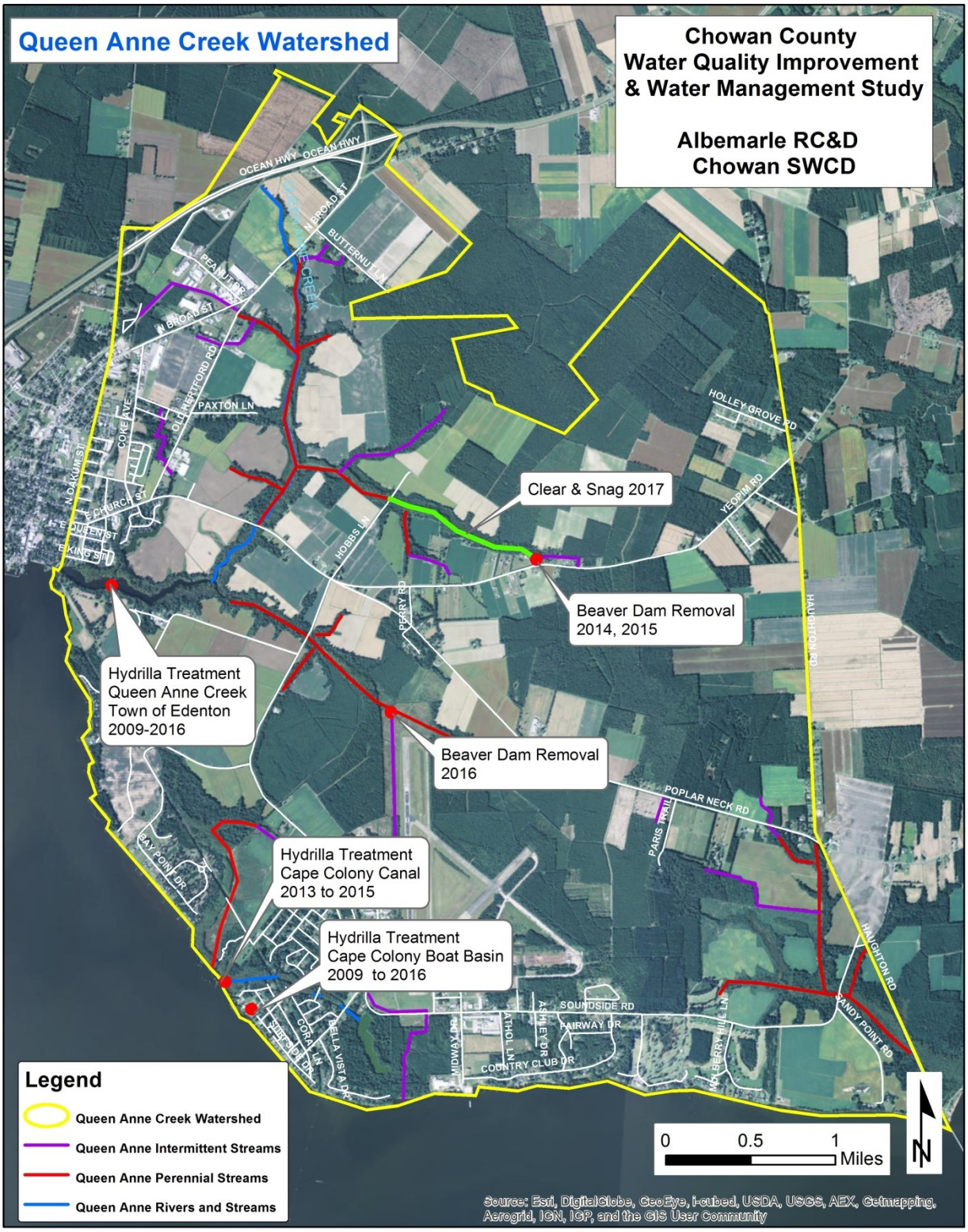


Figure 4. Rocky Hock Creek Watershed.

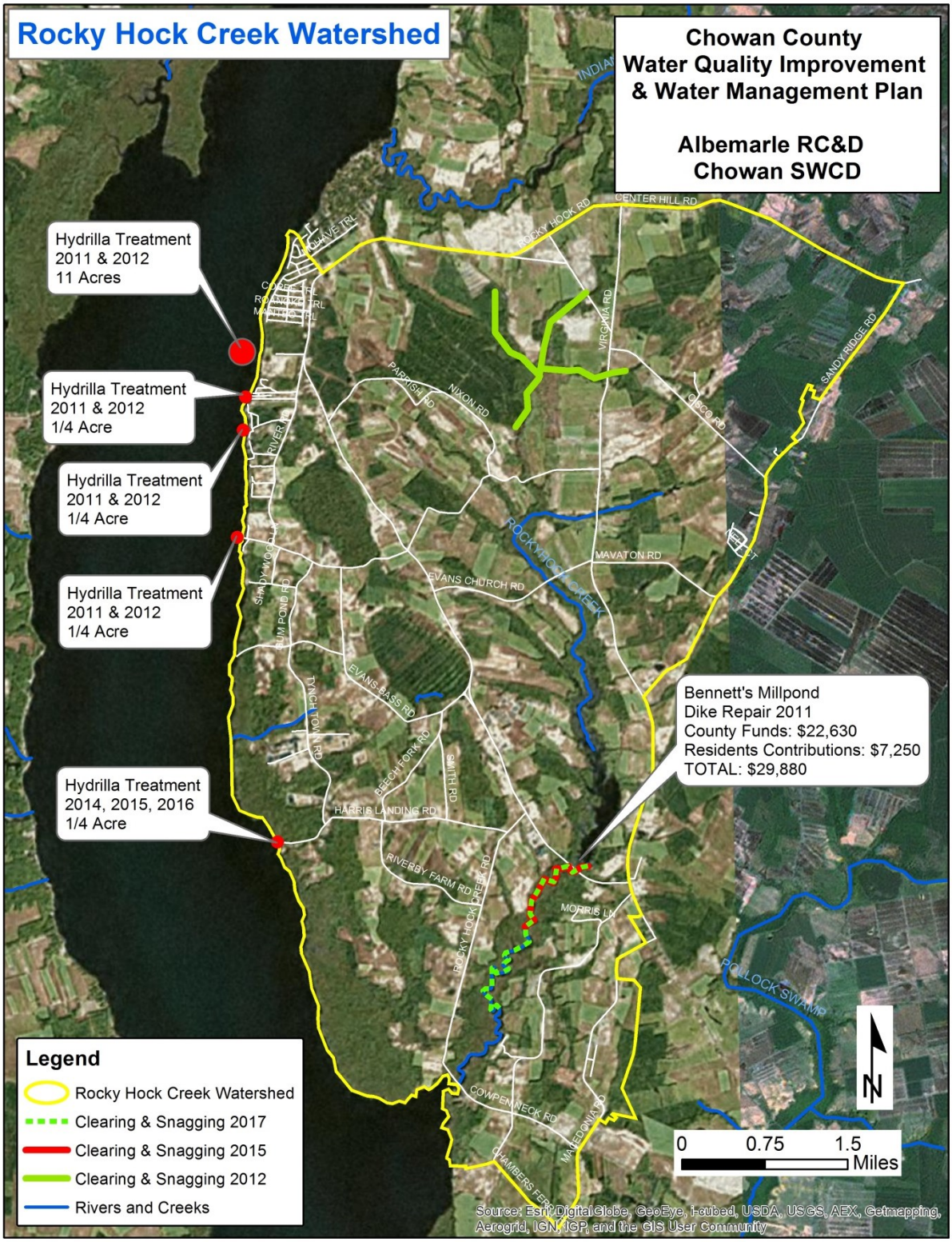
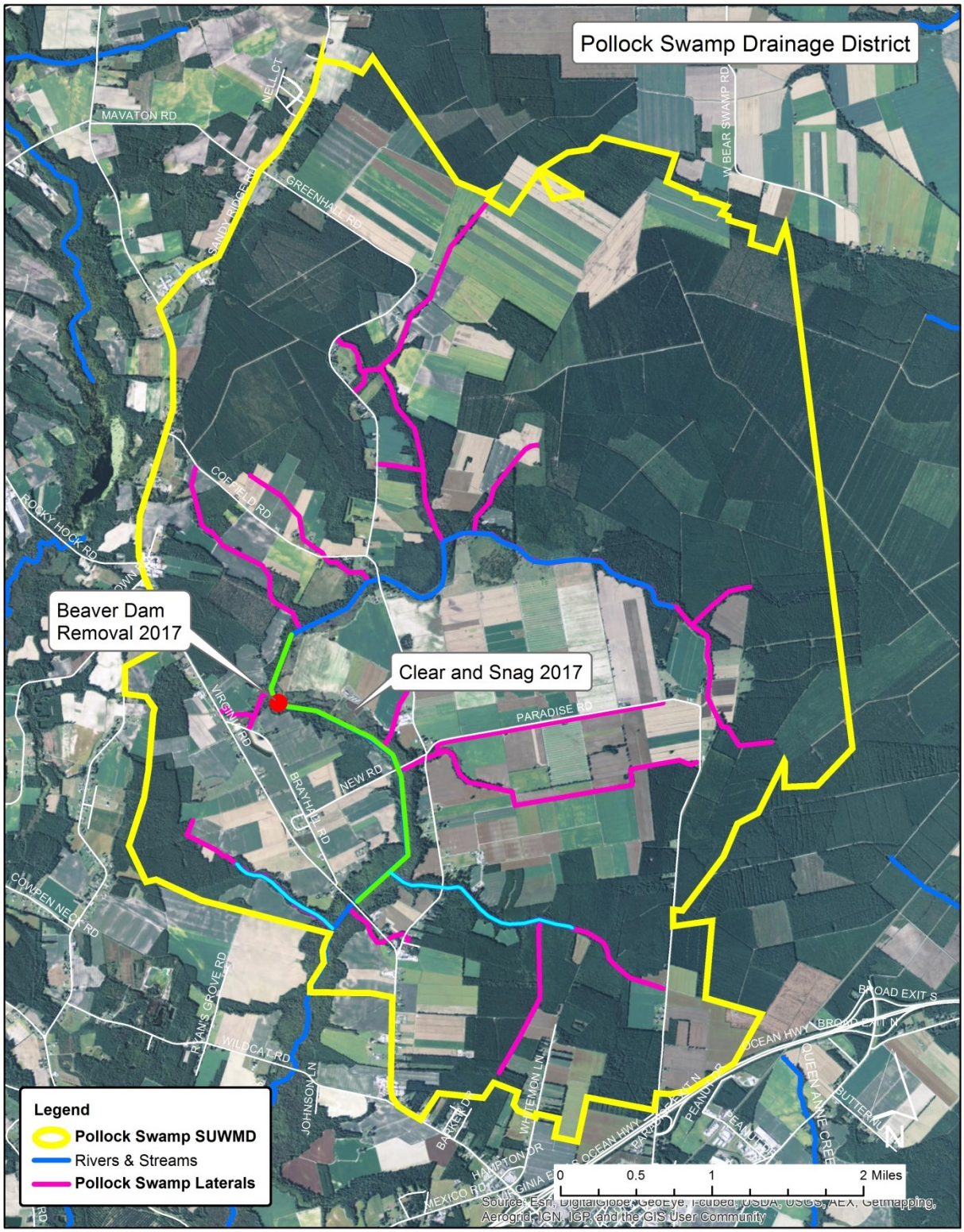


Figure 5. Pollock Swamp Drainage District



State agricultural state cost-share activities implemented by Chowan County Soil and Water Conservation District from 2009 to 2016 are summarized in Table 4.

Table 4. 2009-2016 State Agricultural Cost-Share Activities.

YEAR	PROGRAM FUNDING	PRACTICE	CONTRACTS	ACRES	SPENT	SOIL SAVED	# N SAVED	# P SAVED
2009	DG/DA	Sediment removal	5		$9,321.00			
		well	4		$6,906.00			
		irrigation conversion	3	155.6	$21,667.00			
	CS	cover crop	10	1883.3	$38,118.00	966	19365	1934
		waste sludge removal	1	91.1	$4,250.00		4009	9000
	TD	tile w/c structures	3	36	$1,926.00		72	36
TOTALS					**$82,188.00**	**966**	**23446**	**10970**
2010	DG/DA	well	1		$3,268.00			
		irrigation conversion	3		$25,278.00			
	CS	cover crop	16	1075	$21,500.00	538	10750	1075
		crop residue	7	724	$10,860.00	361	7240	724
		water control structure	2	87	$3,502.00	87	920	87
		land smoothing	2	51.6	$9,613.00	37	516	52
TOTALS					**$74,021.00**	**1023**	**19426**	**1938**
2011	CS	cover crop	5	735	$14,700.00	346	6180	693
		crop residue	10	1171.4	$17,571.00	652	10097	1171
		water control structure	2	408	$7,568.00	348	4080	408
	CREP	tree planting	1	6.1	$833.00	6	60	6
TOTALS					**$40,672.00**	**1352**	**11417**	**2278**
2012	CS	cover crop	7	856	$17,120.00	424	4280	856
		crop residue	7	1135.9	$17,037.00	647	5675	1054
		land smoothing	3	101.3	$14,219.00	61	2650	61
		water control structure	2	628	$7,691.00	628	6280	628
TOTALS					**$56,067.00**	**1760**	**18885**	**2599**
2013	CS	crop residue	4	775	$11,602.00	986	5040	1170
		cover crop	3	244	$4,888.00	333	1222	333
		land smoothing	2	57	$8,626.00	28	564	35
		precision ag chemical	1	500	$1,250.00			
		precision nutrient mgmt	1	319	$14,361.00			
	II	cover crop	2	474	$9,472.00	236	2368	236
		crop residue	2	233	$3,504.00	584	1168	584
TOTALS					**$53,703.00**	**2167**	**10362**	**2358**
2014	CS	cover crop	3	413	$8,254.00	206	2057	206
		land smoothing	1	47	$8,719.00	23	233	23
		precision nutrient mgmt	2	421	$18,947.00			
		precision ag chemical	1	200	$2,000.00			
	II	crop residue	2	280	$4,210.00	177	1401	177
		cover crop	2	348	$6,732.00	236	1735	173
		precision ag chemical	1	200	$2,250.00			
	NC Foundation for soil and water	Pond retrofit	1	1	$10,781.00			
TOTALS					**$61,893.00**	**642**	**5426**	**579**
2015	CS	cover crop	3	562.6	$22,192.00	289	2901	436
		crop residue	1	200	$3,001.00	1000	1000	200
		land smoothing	1	22.1	$3,699.00	11	110	22
	II	crop residue	1	60	$690.00	34	313	62
		cover crop	1	136.7	$2,969.00	68	680	68
	AG-WRAP	pond sediment removal	1		$3,750.00			
	NC Foundation for soil and water	micro-irrigation	1	4	$9,155.00			
TOTALS					**$45,456.00**	**1402**	**5004**	**788**
2016	CS	cover crop	3	496.1	$16,944.00	240	2480	211
		land smoothing	3	99	$14,078.00	48	495	99
		crop residue	1	122.8	$1,843.00	61	610	61
	II	cover crop	1	150.7	$6,028.00	75	750	75
		crop residue	1	48.7	$730.00	24	240	24
	AG-WRAP	pond sediment removal	1		$5,000.00			
TOTALS					**$44,623.00**	**448**	**4575**	**460**

Priority activities in 2017 and 2018 include clearing and snagging in the Queen Anne Creek Watershed and Hydrilla treatment in the Rocky Hock Creek Watershed as summarized in Table 5.

Table 5. 2017 and 2018 Priority Water Management Activities.

Chowan County Water Management Plan					
2017					
Watershed	**Location**	**Activity**	**Feet**	**Acres**	**Estimated Cost**
QUEEN ANNE	HOBBS LANE	**CLEAR & SNAG**	6300		$ 9,450
		HYDRILLA TREATMENT			
	CHOWAN RIVER			15	$ 15,000
	HARRIS LANDING			0.5	$ 500
	NIXON FISHERY			0.5	$ 350
	OLD FERRY ROAD			1	$ 750
	CAPE COLONY			7	$ 3,200
TOTAL			**6300**	**24**	**$ 29,250**
Chowan County Water Management Plan					
2018					
Watershed	**Location**	**Activity**	**Feet**	**Acres**	**Estimated Cost**
		HYDRILLA TREATMENT			
ROCKY HOCK	CHOWAN RIVER			15	$ 15,000
	HARRIS LANDING			0.5	$ 500
	NIXON FISHERY			0.5	$ 350
	OLD FERRY ROAD			1	$ 750
	CAPE COLONY			7	$ 3,200
TOTAL			**0**	**24**	**$ 19,800**