

SANITARY DISTRICTS AND FUTURE PUBLIC UTILITY PROJECTS

BOARD OF SUPERVISORS RETREAT

JANUARY 13, 2018

PRESENTATION OVERVIEW

I. SANITARY DISTRICTS

- A. HISTORY

- B. SANITARY DISTRICT LAWS

- C. CURRENT USES

- D. MONTEZUMA VILLAGE

II. FUTURE PUBLIC UTILITY PROJECTS

- A. INNSBROOK SEWER IMPROVEMENTS

- B. COBBS CREEK RESERVOIR

WHAT IS A SANITARY DISTRICT?

- A SANITARY DISTRICT IS A DESIGNATED AREA WITHIN THE COUNTY CREATED AT THE REQUEST OF QUALIFIED VOTERS OF THE DISTRICT OR THE BOARD OF SUPERVISORS.
- ADDITIONAL PUBLIC SERVICES AND FACILITIES MAY BE PROVIDED FOR THE RESIDENTS OF THE SANITARY DISTRICT.
- THE SERVICES AND FACILITIES MAY BE PAID FOR BY THE RESIDENTS AND LANDOWNERS OF THE SANITARY DISTRICT THROUGH TAXES AND SERVICE CHARGES.

HISTORY OF SANITARY DISTRICTS

- THE GENERAL ASSEMBLY FIRST AUTHORIZED SANITARY DISTRICTS IN 1926, TO PROVIDE URBAN-TYPE PUBLIC SERVICES INCLUDING DRINKING WATER, SEWAGE DISPOSAL, REFUSE COLLECTION, FIRE PROTECTION, AND STREET LIGHTS TO DENSELY POPULATED AREAS HAVING A DEFINITIVE COMMUNITY PATTERN.
- IN 1931, THE FIRST TWO SANITARY DISTRICTS WERE ESTABLISHED IN HENRICO COUNTY – SANDSTON AND WESTHAMPTON. THESE SANITARY DISTRICTS PROVIDED PUBLIC DRINKING WATER AND SEWER UTILITIES.
- THE SERVICES WERE PAID FOR BY THE RESIDENTS OF THE SANITARY DISTRICTS AND NOT BY THE RESIDENTS OF THE COUNTY AS A WHOLE.

HISTORY OF SANITARY DISTRICTS

- ON DECEMBER 8, 1933, THE THIRD SANITARY DISTRICT WAS ESTABLISHED FOR THE HIGHLAND SPRINGS AREA.
- MUCH OF THE FUNDING WAS PROVIDED BY GRANTS FROM THE FEDERAL PUBLIC WORKS ADMINISTRATION.
- DEEP WELLS WERE THE SOURCE OF DRINKING WATER AND SMALL SEWAGE TREATMENT PLANTS PROVIDED WASTEWATER TREATMENT FOR THE SANDSTON AND HIGHLAND SPRINGS SANITARY DISTRICTS.
- DRINKING WATER AND WASTEWATER FROM THE WESTHAMPTON SANITARY DISTRICT WERE TREATED BY PLANTS OWNED BY THE CITY OF RICHMOND. THE CITY ANNEXED THE WESTHAMPTON SANITARY DISTRICT IN 1942.

HISTORY OF SANITARY DISTRICTS

- BY THE END OF FISCAL YEAR 1956, THERE WERE 12 SANITARY DISTRICTS IN HENRICO COUNTY, SERVING 14,900 WATER CUSTOMERS THROUGH 208 MILES OF WATER PIPING AND 10,500 SEWER CUSTOMERS THROUGH 153 MILES OF SEWER PIPING.
- THROUGHOUT THE 1950'S AND 1960'S, SUCCESSFUL BOND REFERENDUMS WITHIN THE SANITARY DISTRICTS HELPED FUND SUBSTANTIAL IMPROVEMENTS TO THE WATER AND SEWER SYSTEMS.

HISTORY OF SANITARY DISTRICTS

(RIGHT- BOND REFERENDUM BROCHURE
FROM 1961 FOR BROOKLAND "B"
SANITARY DISTRICT)

(BELOW – EXCERPT FROM BROCHURE.
ONE HENRICO?)

**Q. DOES BROOKLAND "B" REALLY NEED
THE FACILITIES?**

A. It certainly does. Recent growth in Brookland has been badly affected by a lack of planned utilities. Our neighbors in Tuckahoe, having begun a planned program in 1953, have shown 100% more growth than Brookland.

Some Pertinent Facts:

1. Working in conjunction with the new county-city contract for sewage disposal, the facilities to be constructed under this plan are designed to be adequate until the year 2000.
2. Actual construction will be done by independent contractors as a result of competitive bids.
3. The proposed program will eliminate the pumping and hauling of sewage from Brookland Jr. High, Maude Trevvett, and Dirk Drive Schools.
4. Improvements will be made for water service to Virginia Randolph School.
5. The present sewage treatment plants in Laurel Park, Randolph Ridge, Greendale Manor, Woodman Terrace and Lakeside will be eliminated.
6. The Water Control Board has pressed the County for years to avoid further pollution of the Chickahominy River.



**\$3,000,000 BOND
FOR
BROOKLAND "B"**

**PROPER
GROWTH**



**DEPENDS ON
PLANNED
UTILITIES**

HISTORY OF SANITARY DISTRICTS

- 1968 – THE COUNTY DECIDES TO END THE SYSTEM OF INDEPENDENT WATER AND SEWER SYSTEMS IN SANITARY DISTRICTS. THE COUNTY ENTERS INTO AN AGREEMENT WITH THE SANITARY DISTRICTS TO TAKE OVER ALL OF THE SYSTEMS AND UNIFY THEM (BUT SANITARY DISTRICTS REMAIN ON THE BOOKS).
- CITIZENS SUE COUNTY. IN 1971, THE SUPREME COURT OF VIRGINIA RULES THAT THE COUNTY'S ACTIONS DID NOT COMPLY WITH STATE LAW.
- 1972 – GENERAL ASSEMBLY EXTENSIVELY REWRITES STATE LAW TO ALLOW WHAT THE COUNTY HAD DONE.

SANITARY DISTRICT LAWS

- CREATION OF SANITARY DISTRICTS
- PROJECTS AND SERVICES IN SANITARY DISTRICTS
- FINANCING SANITARY DISTRICT PROJECTS

CREATION OF SANITARY DISTRICTS

- STATE LAW ALLOWS FOR THE CREATION OF SANITARY DISTRICTS WITHIN LOCALITIES
 - ONE SET OF LAWS APPLIES TO ALL LOCALITIES ("NEW METHOD")
 - ANOTHER SET OF LAWS APPLIES TO ONLY SOME LOCALITIES, INCLUDING HENRICO ("OLD METHOD")
- THE TWO SETS OF LAWS PROVIDE DIFFERENT PROCEDURES FOR CREATING, ENLARGING, MERGING, AND ABOLISHING SANITARY DISTRICTS. HENRICO MAY USE EITHER SET OF LAWS.

CREATION OF SANITARY DISTRICTS

- OLD METHOD (1926) – MOST FLEXIBLE
 - THE CIRCUIT COURT MAY CREATE A SANITARY DISTRICT BASED ON A RESOLUTION OF THE BOARD OF SUPERVISORS OR A PETITION FROM QUALIFIED VOTERS IN THE PROPOSED DISTRICT.
 - CREATION REQUIRES NOTICE AND PUBLIC HEARING. AT THE HEARING, THE COURT MUST DECIDE “WHETHER THE PROPERTY EMBRACED IN SAID PROPOSED DISTRICT WILL OR WILL NOT BE BENEFITED BY THE ESTABLISHMENT THEREOF...”

CREATION OF SANITARY DISTRICTS

- OLD METHOD (CONTINUED)
 - SIMILAR PROCESS IS ALSO USED TO ENLARGE, SHRINK, MERGE, OR ABOLISH A SANITARY DISTRICT.
 - SIMILAR PROCESS ALSO USED TO MAKE A "SMALL DISTRICT" WITHIN A SANITARY DISTRICT, OR AN EVEN SMALLER DISTRICT, CALLED A "LOCAL DISTRICT," WITHIN A SMALL DISTRICT. NO SIMILAR POWER UNDER THE NEW METHOD.

CREATION OF SANITARY DISTRICTS

- NEW METHOD (CHANGED ON JULY 1, 2017) – LESS FLEXIBLE
 - THE BOARD OF SUPERVISORS MAY CREATE A SANITARY DISTRICT BY ORDINANCE BASED ON A PETITION FROM QUALIFIED VOTERS IN THE PROPOSED DISTRICT.
- CREATION REQUIRES NOTICE AND PUBLIC HEARING, "WHICH HEARING SHALL EMBRACE A FINDING OF FACT OF WHETHER CREATION OF THE PROPOSED DISTRICT. . . IS NECESSARY, PRACTICAL, FISCALLY RESPONSIBLE, AND SUPPORTED BY AT LEAST 50 PERCENT OF PERSONS WHO OWN REAL PROPERTY IN. . . THE PROPOSED DISTRICT."

CREATION OF SANITARY DISTRICTS

- NEW METHOD (CONTINUED)
 - SIMILAR PROCESS IS ALSO USED TO ENLARGE, MERGE, OR ABOLISH A SANITARY DISTRICT. NO PROCESS FOR SHRINKING A DISTRICT.
 - NO PROCESS FOR CREATION OF "SMALL DISTRICT" OR "LOCAL DISTRICT."

PROJECTS AND SERVICES

- BOARD OF SUPERVISORS GOVERNS THE SANITARY DISTRICTS
- POWERS ARE SET EXCLUSIVELY BY STATUTE
- POWERS ARE NEARLY IDENTICAL UNDER THE NEW OR OLD METHOD

PROJECTS AND SERVICES

- CONSTRUCTION, OPERATION, AND MAINTENANCE OF:
 - WATER SUPPLY, SEWERAGE, GARBAGE REMOVAL AND DISPOSAL, STREET LIGHTS, FIREFIGHTING EQUIPMENT, POWER, AND GAS SYSTEMS
 - SIDEWALKS
 - MOTOR VEHICLE PARKING AREAS
 - COMMUNITY BUILDINGS AND RECREATION FACILITIES
- POLICE PROTECTION

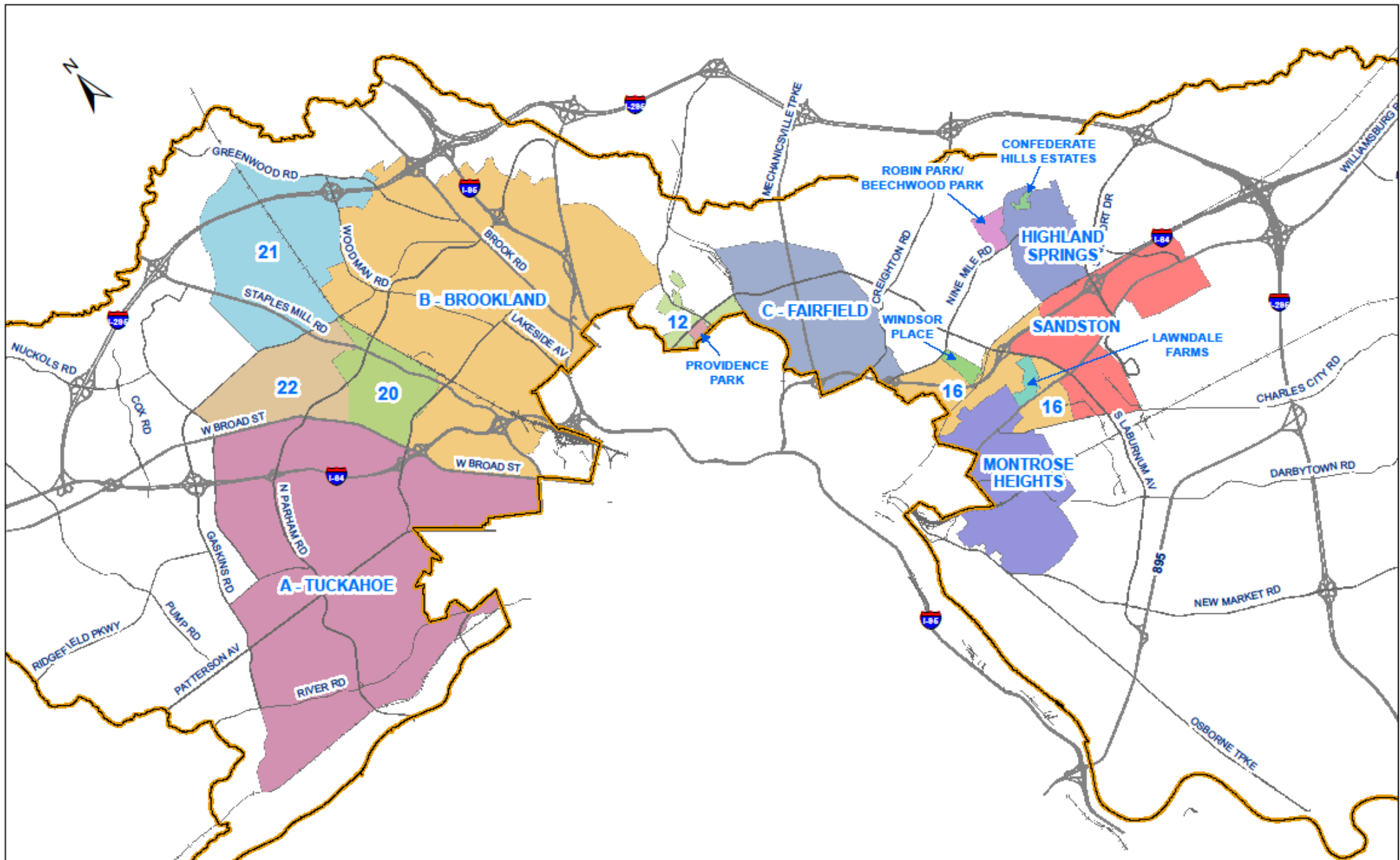
FINANCING SANITARY DISTRICTS

- BOARD OF SUPERVISORS MAY IMPOSE REASONABLE CHARGES FOR THE USE OF SYSTEMS AND FACILITIES IN A SANITARY DISTRICT
- BOARD MAY LEVY TAXES ON ALL PROPERTY IN A DISTRICT
- A DISTRICT MAY ISSUE BONDS TO FINANCE PROJECTS, IF APPROVED BY THE RESIDENTS OF THE DISTRICT IN A REFERENDUM.

CURRENT USES OF SANITARY DISTRICTS

CURRENT USES OF SANITARY DISTRICTS

- TODAY, HENRICO HAS 16 SANITARY DISTRICTS (INCLUDING "SMALL DISTRICTS").
- ONLY SIX DISTRICTS CURRENTLY PROVIDE SERVICES.
- THE ONLY SERVICE PROVIDED IS STREET LIGHTS.



Sanitary Districts

CURRENT USES OF SANITARY DISTRICTS

SANITARY DISTRICTS

November 8, 2017

DISTRICT	NAME	LIGHTS	CREATED	SQ. MI.	NOTES	PURPOSE
6	MONTROSE HEIGHTS	N	5/11/1942	4.17	Enlarged 3/28/1946, and 2/1/1967	Water, Sewer, and Refuse
22	22	N	10/10/1967	2.91		Water and Sewer
2	SANDSTON	Y	12/1/1931	4.08	Enlarged 2/3/1944, and 3/30/1967	Water, Sewer, and Street Lights
3	HIGHLAND SPRINGS	Y	12/8/1933	1.91	Enlarged 5/19/1952, and 3/23/1961	Water, Sewer, Street Lights, and Refuse
3.1	CONFEDERATE HILLS ESTATES	Y	12/18/1992	0.06		Street Lights
12	12	Y	12/22/1952	0.61		Street Lights
97	WINDSOR PLACE	N	11/7/1955	0.17		Water
63	C - FAIRFIELD	N	3/15/1960	4.48		Water and Sewer
23	ROBIN PARK/BEECHWOOD PARK	Y	5/17/1985	0.25		Street Lights
5	B - BROOKLAND	N	10/29/1958	17.74	Enlarged 1/1/1968	Water and Sewer
21	21	N	11/17/1966	5.88		Water and Sewer
96	LAWNDALE FARMS	N	6/14/1960	0.21		Water and Sewer
12.1	PROVIDENCE PARK	Y	11/7/1994	0.08		Street Lights
20	20	N	9/28/1964	2.07		Water and Sewer
16	16 (for Fire Protection)	N	9/16/1955	2.42		Fire Protection
8	A - TUCKAHOE	N	9/28/1953	18.52	Enlarged 1/1/1968	Water and Sewer

= Sanitary Districts in which Sanitary District assessments are currently collected for street lights. All others have no Sanitary District assessments collected.

CURRENT USE – STREET LIGHTS

- Program is administered by the Director of Public Utilities
- Street lights are installed and maintained by Dominion Energy
- Citizens contacts DPU to request a street light
- DPU determines if a sanitary district is existing and if street lights are included

CURRENT USE – STREET LIGHTS



Standard Street Light on Wood Pole
(Typical of 5000 Lumen HPSV)

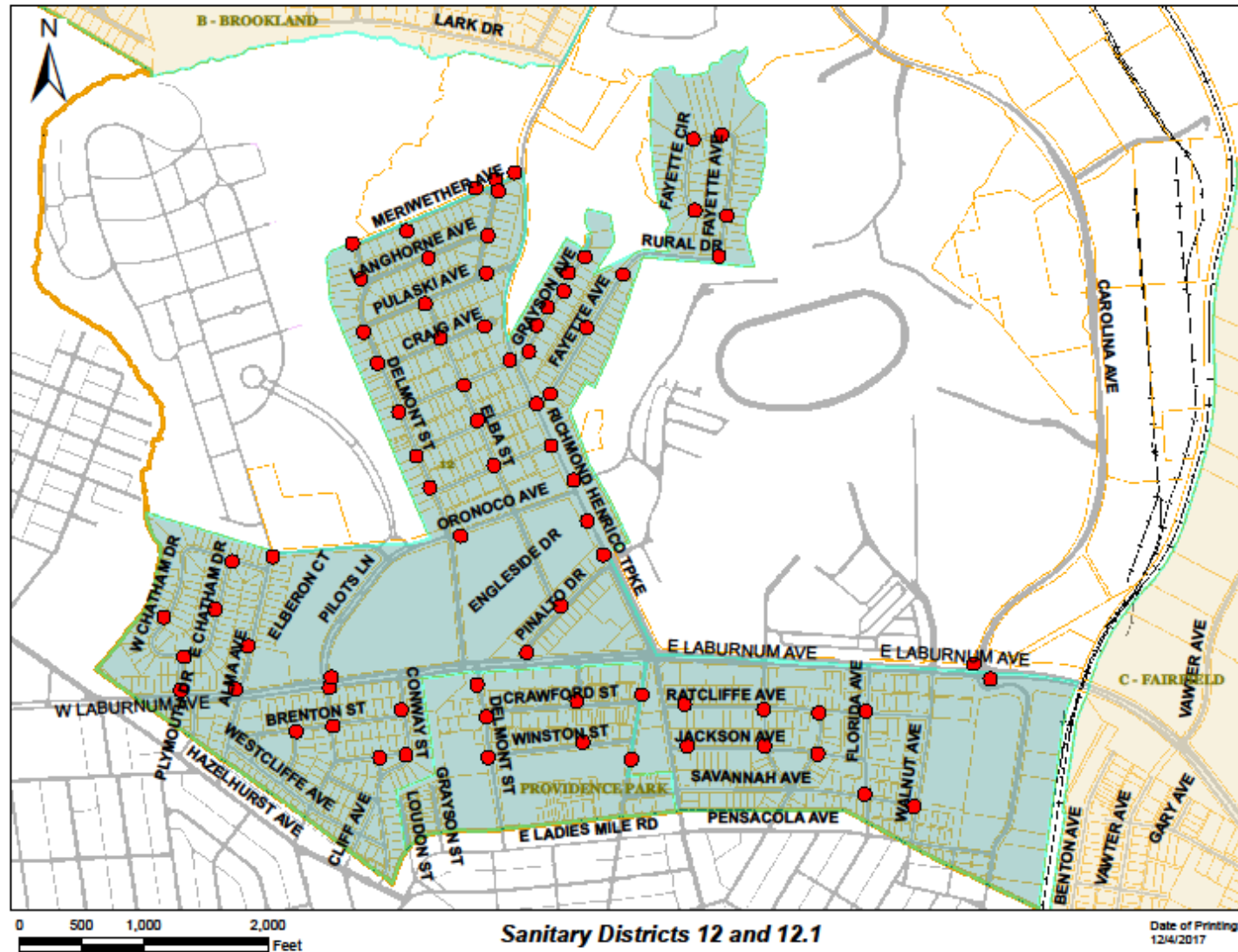


Standard Street Light on Wood Pole
(Typical of 8,000 and 14,000 Lumen HPSV, Shown With 6' Arm)

CURRENT USE – STREET LIGHTS

- DPU determines location of new street light
 - Public streets in residential areas
 - At intersections, cul-de-sacs, or dead end street
 - Mid block only if there is a hazard (sharp curve, hang out) or if the block is unusually long
- DPU works with Dominion Energy to have the street light installed

EXAMPLE: STREET LIGHT LOCATIONS IN SANITARY DISTRICT 12



CURRENT USE – STREET LIGHTS

Sanitary District Data for FY 17							
Fund	District	Revenues	Expenses	Fund Balance	Existing lights	# of Properties	Rate*
004	2 (Sandston)	\$27,613.79	\$21,609.93	\$341,325.52	170	2598	\$0.003
	12 (Laburnum /Providence Park)	\$12,911.31	\$9,474.59	\$117,880.29	93	1017	\$0.010
	23 (Robin Park/Beechwood Park)	\$3,144.97	\$2,624.53	\$59,906.67	30	282	\$0.010
005	3 (Highland Springs)	\$28,992.42	\$25,207.55	\$265,740.71	159	2726	\$0.010
	3.1 (Confederate Hills Estates)	\$2,815.64	\$3,596.32	\$27,693.78	35	53	\$0.031
TOTALS		\$75,478.13	\$62,512.92	\$812,546.97	487	6676	

* (Real estate tax rate per \$100 assessed value. There is an additional personal property tax assessment of \$.001 per \$100 of assessed value in all of these sanitary districts.)

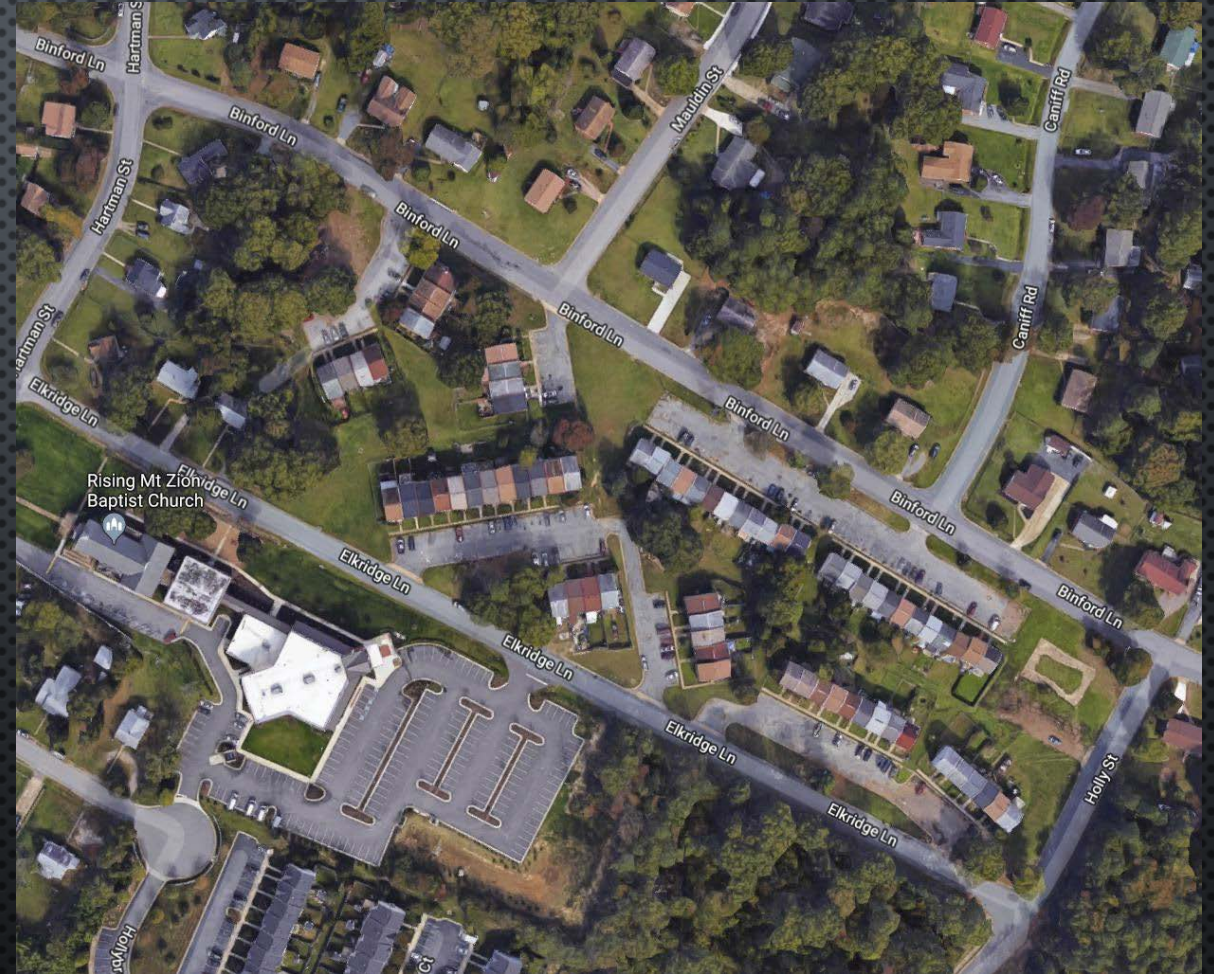
CURRENT USE – STREET LIGHTS

Examples of challenges:

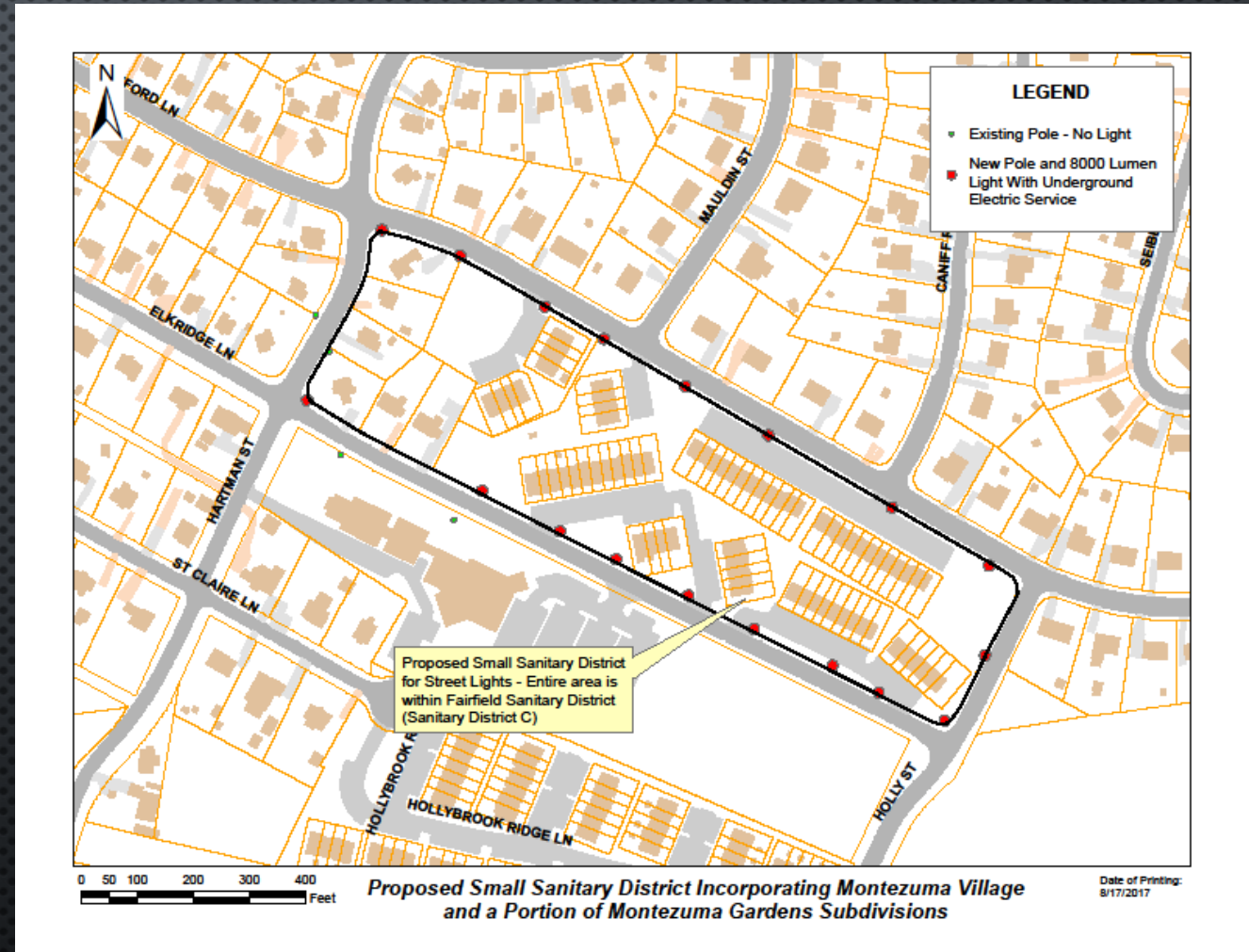
- Easement acquisition
- Location of existing electric lines in backyards
- Coordination with underground utilities
- Street lights requested in a neighborhood where there is no sanitary district or the existing sanitary district was not created for street lights (e.g., Lakeside, Montrose Heights, Farmington)
- Private property requests (apartments or business)

MONTEZUMA VILLAGE

- TOWNHOUSE DEVELOPMENT WITH 72 UNITS
- LOCATED IN THE FAIRFIELD DISTRICT TO THE EAST OF MECHANICSVILLE TURNPIKE
- THE COUNTY STARTED PARTICIPATING IN NEIGHBORHOOD MEETINGS IN LATE 2016, AT THE REQUEST OF MR. THORNTON.
- NO HOMEOWNERS ASSOCIATION EXISTED FOR THE COMMUNITY, AND RESIDENTS WERE CONCERNED ABOUT THE UPKEEP OF THE NEIGHBORHOOD
- TWO ISSUES THAT WERE CONCERNS OF THE RESIDENTS WERE THE CONDITION OF THE PARKING LOTS AND THE LIGHTING AROUND THE COMMUNITY



- IN THE SUMMER OF 2017, THE COMMUNITY WAS SUCCESSFUL IN ESTABLISHING AN HOA.
- THE COUNTY IS WORKING WITH THE COMMUNITY TO ESTABLISH A STREET LIGHT PROGRAM IN THE AREA.
- MONTEZUMA VILLAGE IS LOCATED IN THE DORMANT C-FAIRFIELD SANITARY DISTRICT, BUT WE COULD USE THE "OLD METHOD" TO CREATE A SMALL DISTRICT WITHIN THE EXISTING ONE TO FUND STREET LIGHTS.
- THIS WOULD INSTALL 18 LIGHTS AS SHOWN ON THE ADJACENT MAP
- WE CONTINUE TO WORK WITH THE NEIGHBORHOOD AND WILL KEEP THE BOARD UPDATED WITH OUR PROGRESS.



SANITARY DISTRICTS – SUMMARY

- SANITARY DISTRICTS ARE USED TO PROVIDE ADDITIONAL SERVICES TO COMMUNITIES IN THE COUNTY.
- THE COSTS ARE PAID FOR BY THAT COMMUNITY THROUGH ADDITIONAL RATE CHARGES, TAXES, OR BOND FINANCING.
- THE COUNTY HAS 16 DISTRICTS, BUT ONLY SIX CURRENTLY PROVIDE SERVICES.
- THE BOARD OF SUPERVISORS HAS AUTHORITY TO CREATE NEW SANITARY DISTRICTS. THE BOARD MAY ALSO PETITION THE CIRCUIT COURT TO ABOLISH EXISTING DISTRICTS OR CREATE “SMALL DISTRICTS” WITHIN EXISTING DISTRICTS.
- MONTEZUMA VILLAGE IS AN EXAMPLE OF A COMMUNITY WHERE A NEW “SMALL DISTRICT” COULD BE CREATED TO PROVIDE STREET LIGHTS.

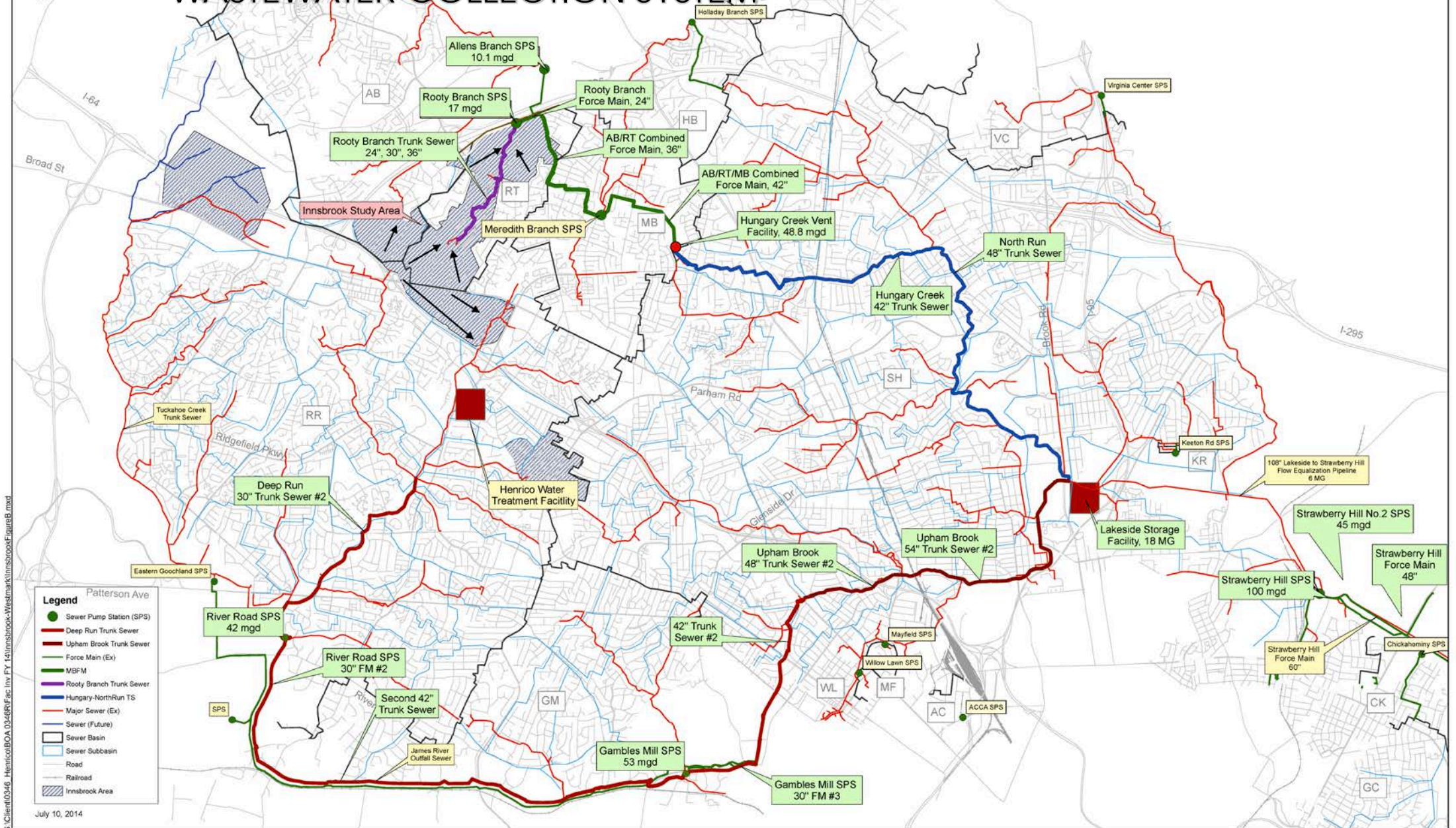
FUTURE PUBLIC UTILITY PROJECTS

INNSBROOK AREA PROJECTED SEWER FLOWS

	Sewage Flows (MGD)	
Item	Average	Peak
2010 Comp. Plan	1.5	2.4
2026 Comp. Plan	1.7	2.7
Innsbrook Study Area (2010)	15.5	24.8

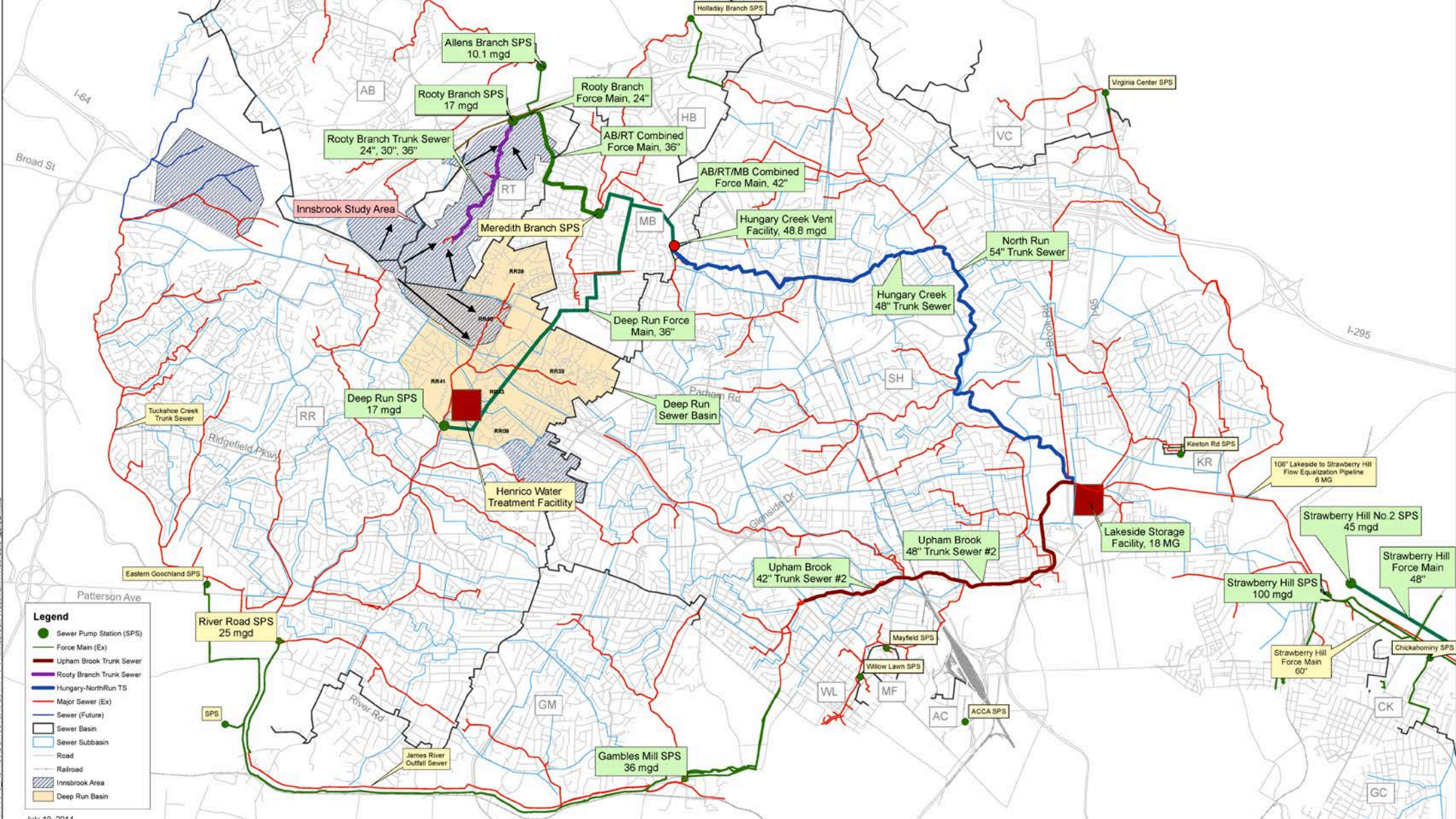
ALTERNATIVE A WASTEWATER COLLECTION SYSTEM

ESTIMATED PROJECT COST
\$174,323,000



ALTERNATIVE B WASTEWATER COLLECTION SYSTEM

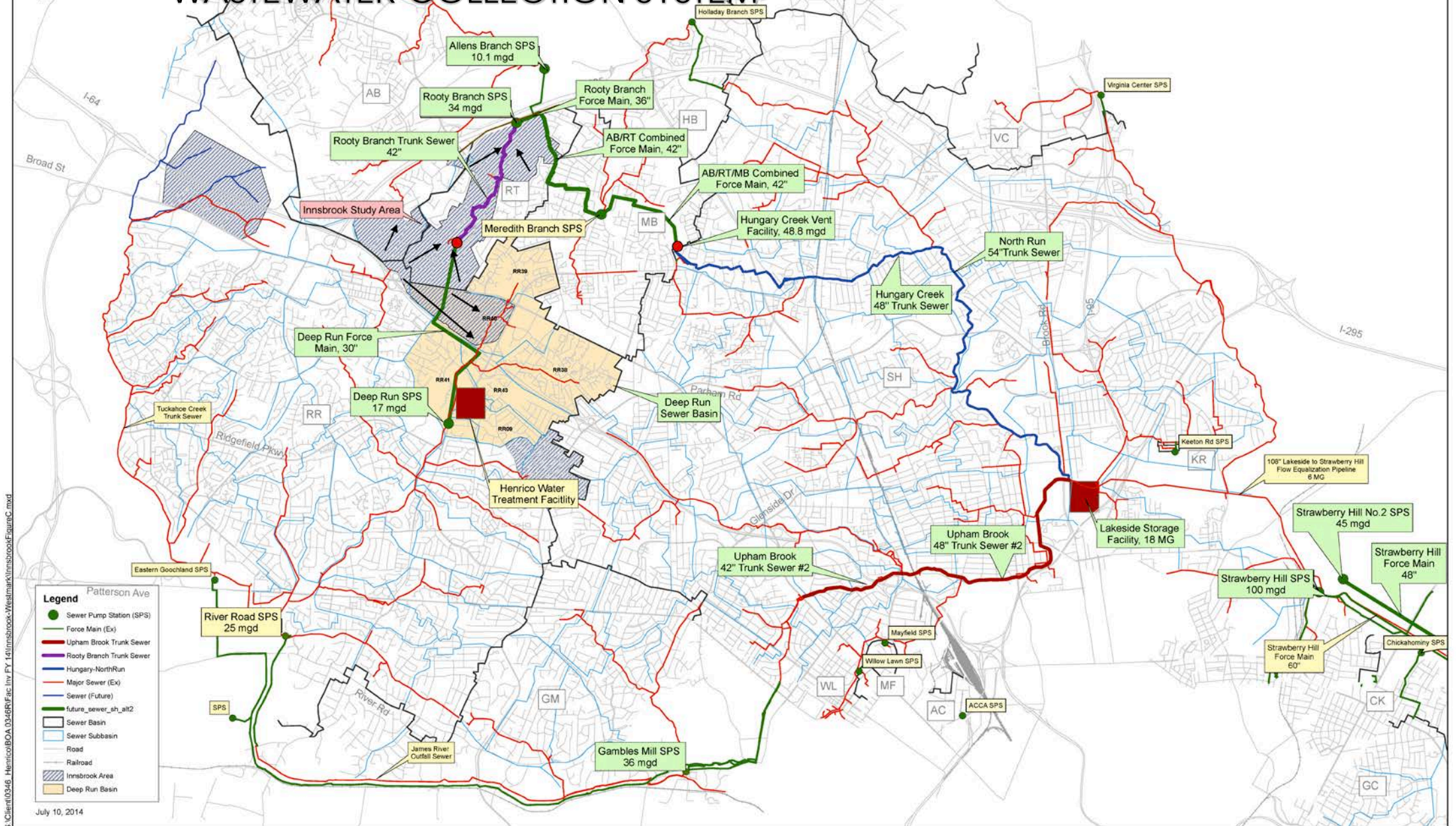
ESTIMATED PROJECT COST
\$109,385,000



- Legend**
- Sewer Pump Station (SPS)
 - Force Main (Ex)
 - Upham Brook Trunk Sewer
 - Rooty Branch Trunk Sewer
 - Hungary-NorthRun TS
 - Major Sewer (Ex)
 - Sewer (Future)
 - Sewer Basin
 - Sewer Subbasin
 - Road
 - Railroad
 - Innsbrook Area
 - Deep Run Basin

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July 10, 2014

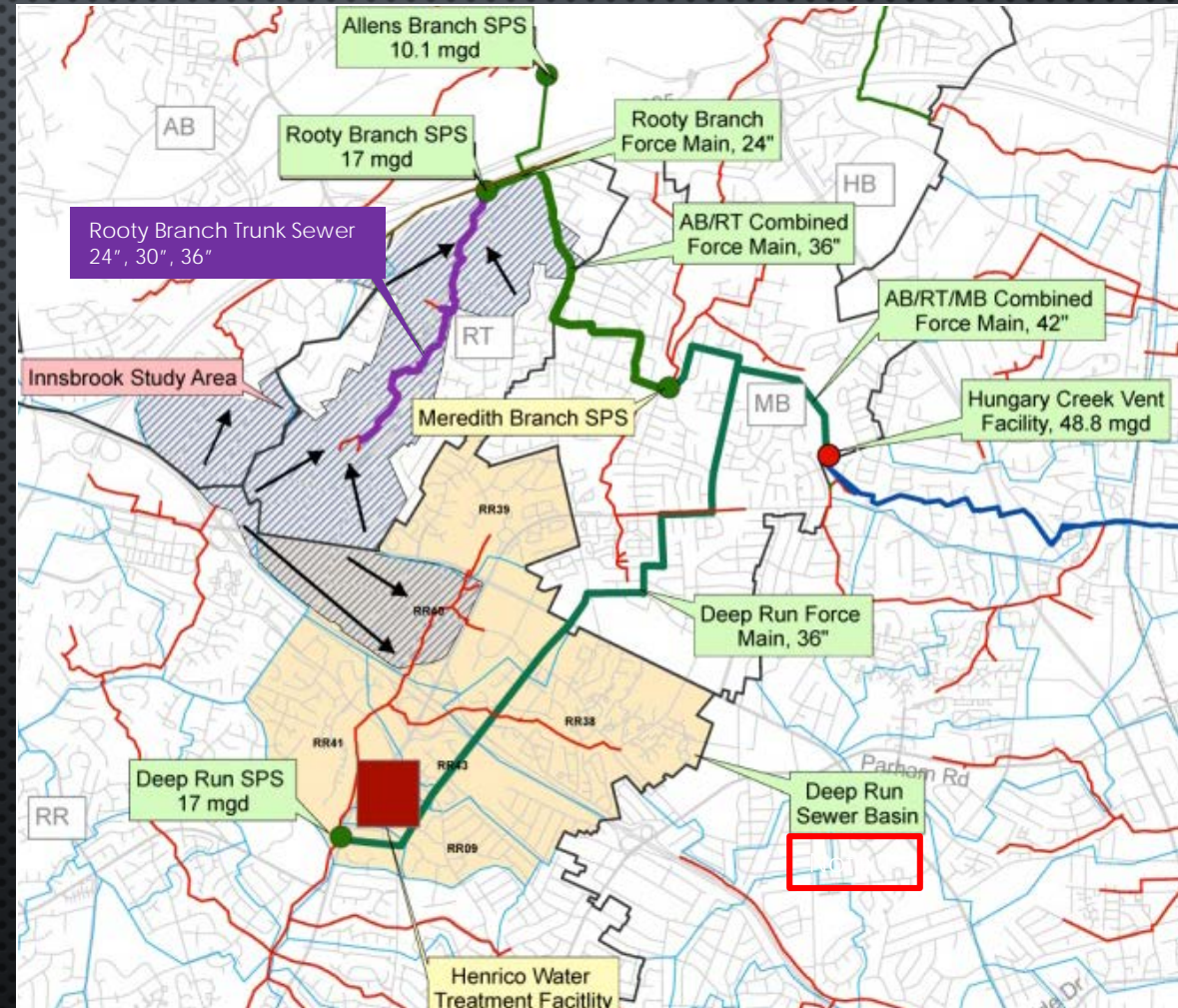


ALTERNATIVE SEWER FACILITY PLAN INNSBROOK STUDY AREA SYSTEM

Rooty Branch Replacement Trunk Sewer	
Pipeline Size	Total Project Cost
24"	\$703,000
30"	\$3,177,000
36"	\$3,202,000
	\$7,082,000
Other Facilities	
	\$42,803,000
Grand Total	
	\$49,885,000

Notes:

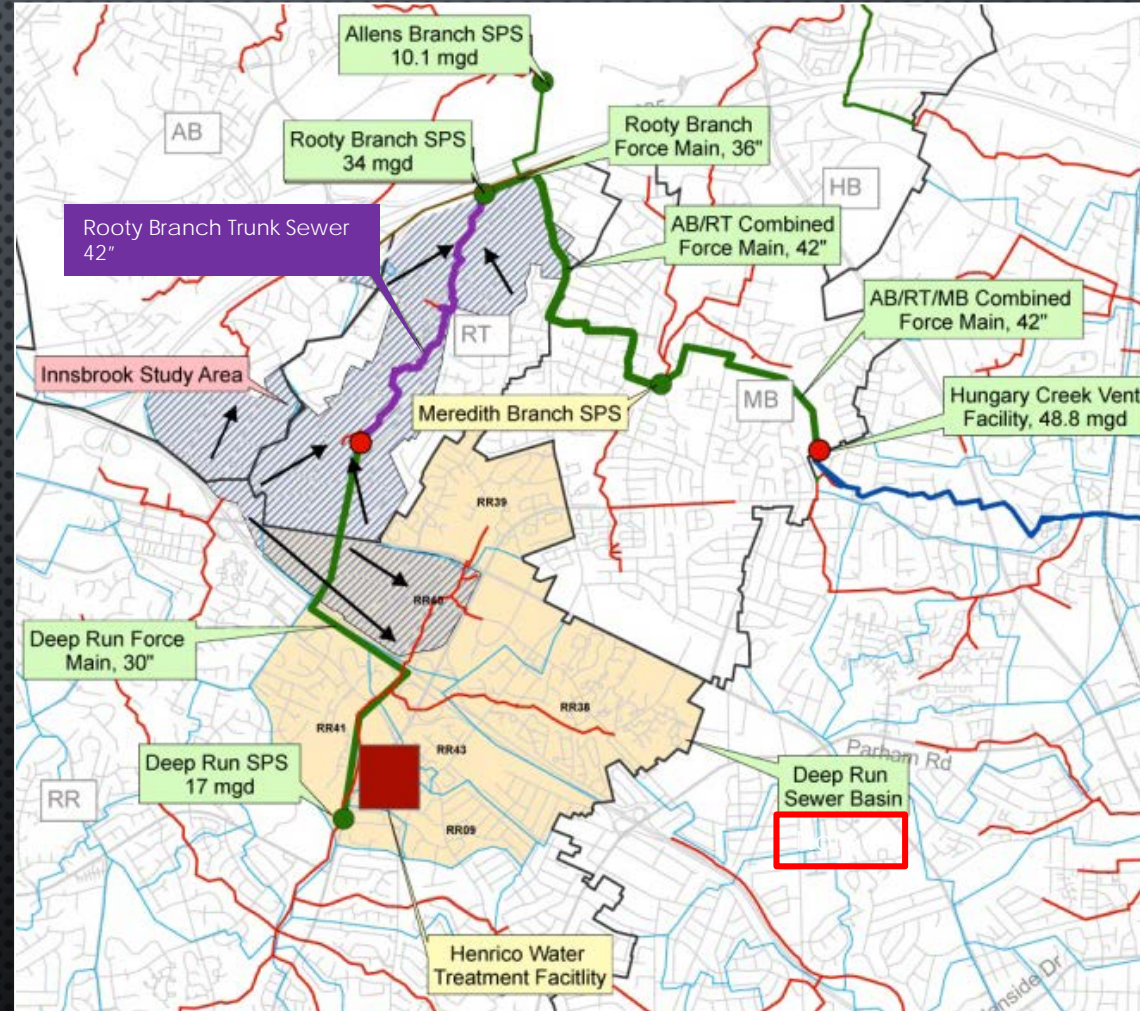
1. Deep Run Sewer Basin Flows Pumped to 42" Meredith Branch Force Main by Future Deep Run SPS and Force Main



SEWER FACILITY PLAN

INNSBROOK STUDY AREA SYSTEM

Rooty Branch Replacement Trunk Sewer	
Pipeline Size	Total Project Cost
42"	\$8,055,000
Other Facilities	
\$39,917,000	
Grand Total	
\$47,973,000	



Notes:

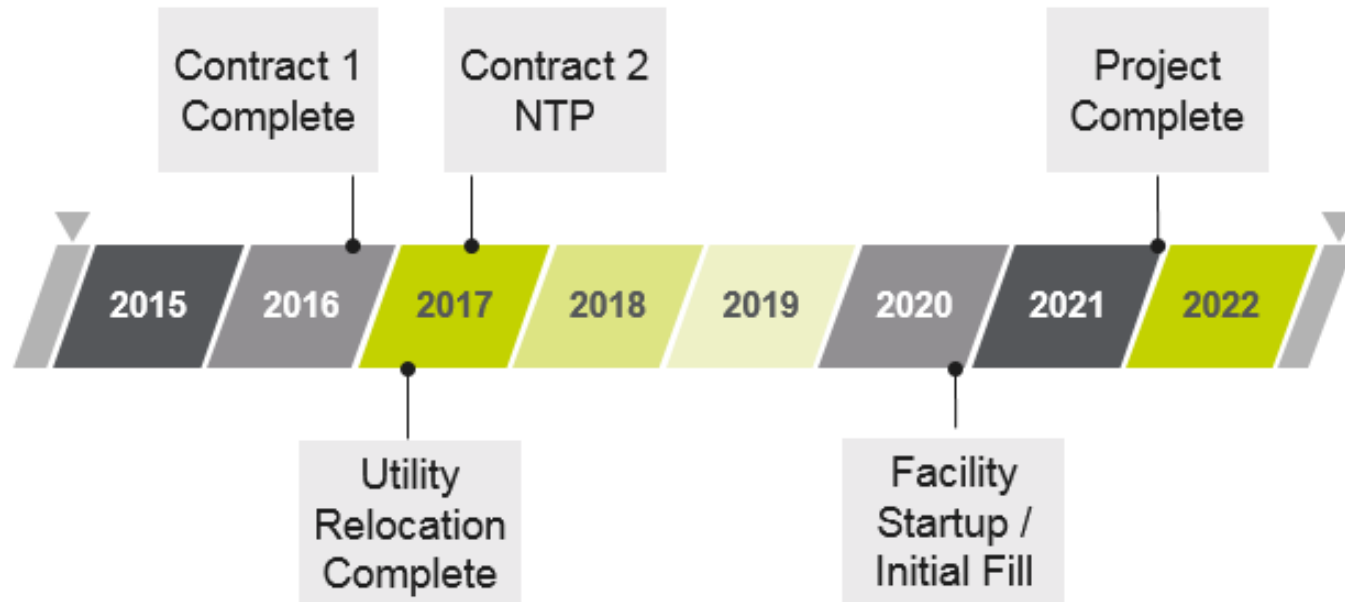
1. Deep Run Sewer Basin Flows Pumped to Rooty Branch Trunk Sewer by Future Deep Run SPS and Force Main

INNSBROOK SEWER

- CORRIDOR ALIGNMENT STUDY COMPLETED IN MAY 2017
- MET WITH INNSBROOK REPRESENTATIVES TO REVIEW ALIGNMENT IN NOVEMBER 2017
- REVISED ALIGNMENT TO BE SUBMITTED
- FINAL PLANS CAN BE COMPLETED IN 8 MONTHS FROM APPROVED ALIGNMENT
- CONSTRUCTION WILL TAKE APPROXIMATELY 3 YEARS AFTER EASEMENTS ARE ACQUIRED
- SAVINGS OF \$2 M VERSUS FACILITIES PLAN
- PROVIDES INCREASED CAPACITY TO INNSBROOK ALLOWING DENSER REDEVELOPMENT
- MINIMIZES IMPACTS TO RESIDENTIAL NEIGHBORHOODS FOR NEW MAINS

COBBS CREEK RESERVOIR

Project Schedule



COBBS CREEK RESERVOIR CONSTRUCTION PROGRESS



