

**ORANGE WATER AND SEWER AUTHORITY***Quality Service Since 1977***AGENDA****MEETING OF THE OWASA BOARD OF DIRECTORS****THURSDAY, NOVEMBER 10, 2005, 7:00 P.M.****OWASA COMMUNITY ROOM**

In compliance with the "Americans with Disabilities Act," interpreter services are available with five days prior notice. If you need this assistance, please call the Clerk to the Board at 537-4217.

7:00 PM

Announcements

1. Announcements by the Chair
 - A. Any Board member who knows of a conflict of interest or potential conflict of interest with respect to any item on the agenda tonight is asked to disclose the same at this time.
2. Announcements by Board Members
3. Announcements by Staff
 - A. Chapel Hill Town Council Meeting on Monday, November 14, 2005 at 7:00 PM at Chapel Hill Town Hall; presentation regarding progress in eliminating off-site odor from the Mason Farm Wastewater Treatment Plant (Ed Kerwin)
 - B. Natural Resources/Technical Systems Committee will meet on December 15, 2005 at 5:30 PM in the OWASA Boardroom to discuss Action Planning for the Conservation Goal and Objectives (Ed Kerwin)

7:10 PM

Petitions and Requests

1. Public
2. Board
3. Staff

CONSENT AGENDA**Information and Reports**

7:15 PM

1. Bimonthly Status Report on the Mason Farm Wastewater Treatment Plant Upgrade and Expansion Project (Imtiaz Ahmad)
2. Semiannual Status Report for Various Capital Improvement Projects including the Quarterly Report on Communications Plans for Capital Projects (Stuart Carson)
3. Quarterly Report on Extensions and Connections (Kevin Ray)

Minutes (Andrea Orbich)

4. Approval of Minutes for the October 13, 2005 Closed Session of the Board of Directors for the Purpose of Conferring with Counsel and Staff regarding a Pending Claim and a Potential Claim which may lead to Litigation

REGULAR AGENDA**Information and Reports**

7:20 PM

5. Verbal Report on Quarterly Financial Report and Analysis (Kevin Ray)

Discussion and Action

- 7:30 PM 6. Resolution Selecting the Best Qualified Consulting Firm and Authorizing the Executive Director to Negotiate a Contract for an Odor Assessment at OWASA's Mason Farm Wastewater Treatment Plant (Mary Darr)
- 7:40 PM 7. Resolution Selecting Burton & Associates as the Best-Qualified Firm for the Comprehensive Water, Sewer and Reclaimed Water Cost of Service and Rate Design Study (Kevin Ray)
- 8:00 PM 8. Resolution Awarding Construction Contract for the Jones Ferry Road Water Treatment Plant Backwash Clarifier and Filter Improvements Project (Imtiaz Ahmad)
- 8:15 PM 9. Resolution to Accept Additional Conservation Easement on a Parcel in Cane Creek Watershed (Ed Holland)
- 8:20 PM 10. Resolution in Support of the Land for Tomorrow Open Space Preservation Partnership (Ed Holland)

Discussion

- 8:30 PM 11. Discussion of Excess Capacity Credit Policy (John Greene)

Closed Session

- 9:15 PM 12. For the Purpose of Instructing Counsel and Staff Regarding Negotiations (Robert Epting/Ed Kerwin/Patrick Davis)

AGENDA ITEM

- DISCUSSION OF EXCESS CAPACITY CREDIT POLICY

PURPOSE

- To consider the potential establishment of a policy to allocate the cost for the excess capacity that may be provided through the extension of oversized water and sewer mains.

BACKGROUND

- OWASA previously had a policy that provided for the reimbursement of a portion of the construction costs where an applicant/developer extended water and sewer mains of a size in excess of 8-inches in diameter and which supported the orderly development of the water and sewer systems.
- The availability of reimbursement for oversized water and sewer mains was discontinued in 1999 when the Board adopted a new availability fee structure. Previously an acreage fee and a footage fee was collected for all new water or sewer taps connecting to or benefiting from mains which were eligible for reimbursement. The acreage and footage fees collected were returned to the developer as reimbursement for the excess capacity provided. With the new availability fee structure, the acreage and footage fees were eliminated and consequently funds available for reimbursement payments were no longer available
- A request has been received from the Chapel Hill Town Council and the Orange County Commissioners to consider implementing a reimbursement policy to allow recovery of some of the construction costs associated with the installation of water and sewer mains that have capacity in excess of the applicant's need and are available to support future development.
- Information concerning past practices and alternatives for developer reimbursement was reviewed by the OWASA Board of Directors at several previous meetings.
- At the September 22, 2005 Board meeting staff provided information on a proposed reimbursement program. After discussing the conceptual program the Board had several questions related to: 1) cost of service; 2) capacity related allocation of cost; and 3) benefited area determination.
- To address the outstanding questions an Ad Hoc Committee of the Board was formed and met with staff on October 13, 2005. The Ad Hoc Committee and staff reached general agreement on several excess capacity credit principles to be included in a proposed policy.

ACTION NEEDED

- Discussion Only

STAFF RECOMMENDATIONS

- Discussion by the Board and direction to staff.

MEMORANDUM

TO: Board of Directors

THROUGH: Ed Kerwin

FROM: John Greene

DATE: November 3, 2005

SUBJECT: Discussion of Excess Capacity Credit Policy

At the September 22, 2005 Board meeting, staff presented additional information to the Board on the potential establishment of a policy to allocate the cost for the excess capacity that may be provided through the extension of oversized water and sewer mains. This information included detail on the basic components found in almost all policies where there is a cost share arrangement (credit) between the party installing the oversized main(s) and the utility. These components include the following:

- a minimum or base size for water and sewer mains extensions;
- a definition of benefited parties;
- a specified term in which a developer is eligible for the credit;
- a method for determining the amount to be credited;
- a method for the collection of funds for the credits; and
- a procedure for disbursement of the credits.

Utilizing the above components staff presented a concept for establishment of a cost share program for the excess capacity made available by the oversized main extensions. This plan deemed any oversized water or sewer extension a benefit to the entire OWASA service area. Because of this benefit any new water or sewer connection, regardless of its location within the service area, was to be assessed a water and/or sewer availability fee surcharge. It was estimated that the proposed surcharge added to the current availability fees would be less than 5% and the funds collected would be disbursed to the developers on an annual basis. After discussing the conceptual cost share program, the Board had several questions related to: 1) cost of service; 2) capacity related allocation of cost; and 3) benefited area determination.

To address the outstanding questions an Ad Hoc Committee of the Board was

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formed (Terri Buckner, Mac Clarke, Randy Kabrick, Mark Marcoplos) and met with staff on October 13, 2005 (meeting summary attached). From this meeting there was general agreement that any proposed excess capacity credit policy would include the following principles.

COMPONENT	WATER	SEWER
Base Size	8" minimum or size required to meet development demands	8" minimum or size required to meet development demands
Benefited Area	Entire OWASA service area	a) Undeveloped drainage basins and subbasins, or b) Entire OWASA service area
Determination of amount to be credited	Differential construction cost as determined by OWASA	Differential construction cost as determined by OWASA
Funding Source	Oversized water main projects eligible for a credit would be funded through the capital program	Oversized sewer main credits would be funded through the collection of a sewer availability fee surcharge
Collection of funds for credits	Water service fees, commodity fees and water availability fee collected from the general ratebase	Sewer availability fee surcharge collected from: a) only new customers located within the undeveloped basins, or b) all new customers
Disbursement of funds	Lump sum at the time facilities are dedicated to OWASA	Annual payment based on fees collected and number of active projects where excess capacity is being provided.

Further detail on the basis for these principles is discussed below.

Base Size:

The Town of Chapel Hill has a requirement stating that the minimum water main size for all mains providing service to fire hydrants is 8 inches or larger in diameter unless approved otherwise by the Town Manager and OWASA. The North Carolina Division of Water Quality (DWQ) considers an 8 inch diameter sewer main as the minimum reasonable size for providing public sewer service.

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Water: For the purposes of an excess capacity credit, the base or minimum size main would be 8 inches in diameter or the main size required to meet the capacity needs of the development.

Sewer: Same as water

Benefited Area:

The benefited area or parties receiving a benefit from a water or sewer main extension can be defined as follows:

- 1) Properties that connect directly to the water or sewer main extension; and
- 2) Properties located within a geographical area or boundary that receive a benefit from the water or sewer main extension.

Water: Since water main extensions can provide an overall system benefit by improving system flow and pressure, enhancing fire protection, improving system reliability, and improving water quality, the benefited parties would be defined as all customers (new or existing) that connect to or are connected to any water main within the OWASA service area.

Sewer: Sewer main extensions serve a defined drainage basin or geographic area making it relatively easy to determine the benefited parties. For sewer the benefited parties would be defined as all customers or properties connecting to a public sewer main within a drainage basin or subbasin where an oversized sewer main has been extended or benefit is derived from an oversized sewer main extension. An advantage of this benefited area definition is that those customers or properties that receive a direct benefit from the oversized sewer extension participate in the cost of the facilities. Disadvantages of this approach include: 1) staff will have to evaluate and track each sewer connection request to determine if it is located within an identified credit area; 2) there is a potential for inequities in the connection fees assessed if lots within a development are served by an oversized sewer main and an existing sewer main; and 3) those downstream customers that receive an indirect benefit from sewer mains being extended into an area without public sewer service will not share in the cost of the facilities.

An alternate approach may consider that, in addition to the direct benefit received, any sewer extension into a drainage basin without public sewer service could benefit the existing customer base (system) and the community by allowing the phase-out of pump stations and septic systems thereby having the potential to improve downstream water quality which benefits the entire service area. The advantages of this benefited area definition include: 1) those customers or properties that receive a direct benefit from the oversized sewer extension participate in the cost of the facilities; 2) those customers that receive an indirect benefit from the oversized sewer main extension participate in the cost of the

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facilities; 3) all sewer connections with similar demands would pay the same availability fee and surcharge; and 4) minimal tracking or review by staff is required because all sewer connections are treated the same throughout the service area. A disadvantage of this approach is that the indirect downstream benefit from sewers being extended into an undeveloped area may be small and difficult to quantify.

Determination of the credit:

OWASA's engineering staff would develop unit construction costs considering recent bid information and developer construction cost reports for the various water and sewer main sizes that could be required to be installed in the OWASA system. These unit cost numbers would become an addition to the OWASA Rates and Fees Schedule, revised on an annual basis and forwarded to the Board for consideration and adoption along with the other OWASA service fees.

Water: The amount of the excess capacity credit for an oversized main extension would be determined from the incremental increase in construction cost due to the requirement to install a larger main on a cost per foot basis. For example if the base cost for an 8" main was \$105.00 per foot and the developer extended a 16" main which has been determined to cost \$150.00 per foot, the excess capacity credit would be calculated as \$45.00 times the length of the 16" main extension.

Sewer: Same as water

Collection of funds for providing excess capacity credits:

Funds would be collected from properties that receive a benefit or availability of service from the oversized main or improvement.

Water: As noted previously, water main extensions can provide an overall system benefit to all customers connected to the water distribution system. Most of the remaining oversized water main extensions would be constructed at some point in time by OWASA as a capital project in order to meet system demands, increase system reliability, or improve water quality. For the reasons noted, the allowable credit for oversized water main extensions is to be included in the OWASA Capital Improvements Program (CIP). By including the oversized extension projects in the CIP they will be included in any analysis for setting or establishing the water availability and water service fees which are collected from all water customers within the OWASA service area.

Sewer: Since sewer main extensions do not normally provide a system benefit, the oversized sewer mains would not be included as part of the capital program. For oversized sewer main extensions, staff would determine the total area of all unsewered drainage basins within the OWASA service area along with the

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expected credit that would be allowed for the oversized sewer main extensions within these basins. This cost information would be used to develop a proportional sewer availability fee surcharge based on the capacity needs or demands of the connecting party.

This sewer availability fee surcharge could be applied as follows:

- 1) to all new connections to the public sewer system regardless of where those connections are located in the service area, or
- 2) only to new sewer connections made directly to or benefiting from sewer mains extended within identified unsewered sewer basins.

The same advantages and disadvantages noted in the benefited area section of this memorandum also apply to the application of the sewer availability fee surcharge.

Disbursement of credits:

Distribution of funds to developers that have approved excess capacity agreements could be made in a single lump sum or on a regular schedule such as yearly. In the case of a single lump sum payment the utility would be incurring the expense upfront with the expectation that the expended funds would be recovered as connections are made to the system. With periodic credits to the party providing the excess capacity, funds would be disbursed only after fees are collected from individuals connecting to the main extensions. An administrative fee based on the cost of service would be collected for tracking and processing the capacity credits.

Water: Any credit for the portion of a water main extension where excess capacity is made available would be disbursed in a lump sum payment at the completion of the project and after all required as-built drawings, easements, dedication letters, etc. have been submitted and approved by OWASA. OWASA would recover this upfront expenditure of funds through a minimal increase in the general water rates and fees (service and availability) paid by all new and existing customers within the OWASA service area.

Sewer: On an annual basis OWASA would pass-through funds received from an increase or surcharge to the sewer availability fees paid for all new sewer connections (subject to the defined benefited area) over the term of the excess capacity agreement. The amount to be disbursed would be based on the ratio of the project's eligible credit to the total credits for all approved projects.

Financial considerations:

Staff has completed a review of the locations within the OWASA service area where oversized water or sewer mains would be required. The following table provides a listing of the project areas, the approximate extension length and

estimated construction cost and capacity credit. The attached maps (Attachments A through G) show the existing water or sewer mains and the location where oversized extensions would be required.

Water Main Extensions				
ATTACHMENT	LOCATION	LENGTH	ESTIMATED COST	ESTIMATED CREDIT
A	Eubanks Road	13,825'	\$2,075,000	\$415,000
B	15-501 South	5,225'	\$785,000	\$175,000
C	Mt. Carmel Church Road	6,300'	\$785,000	\$55,000
TOTALS:			\$3,645,000	\$645,000

Sewer Main Extensions				
ATTACHMENT	LOCATION	LENGTH	ESTIMATED COST	ESTIMATED CREDIT
D	Upper Bolin Creek	21,200'	\$4,255,000	\$1,100,000
E	Crow Branch	4,650'	\$835,000	\$140,000
F	Fan Branch	8,650'	\$1,550,000	\$160,000
G	Wilson Creek	4,100'	\$735,000	\$125,000
TOTALS:			\$7,375,000	\$1,525,000

Summary

The Ad Hoc Committee on Developer Reimbursement was in general agreement that for water extension projects where excess capacity is provided, any credit would be paid out in a lump sum based on the differential cost of the extension. Funding for the water excess capacity credits would be included in the capital program and recovered through the general water fees (availability and service) paid by all new and existing OWASA customers. This approach is simple to administer and requires minimal tracking by staff.

Credits for oversized sewer mains would require staff to spend more time tracking which projects have been approved for an excess capacity credit, where

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the availability fee surcharge applies, the balance of any credits to be disbursed, and the term of the excess capacity credit remaining. Options available for addressing the sewer excess capacity issue include:

- 1) the sewer availability fee surcharge applies only to connections made to or benefiting from sewer mains extended within the undeveloped basins,
- 2) the sewer availability fee surcharge applies to all new sewer connections made to the public sewer system regardless of where in the system those connections are made, or
- 3) no credits will be provided for any oversized sewer extension.

Upon completion of the Board discussion and concurrence with the principles to be applied, staff will develop an excess capacity credit policy document for the Board's review and adoption.

Should there be any questions about the information presented, please do not hesitate to contact me.

John W. Greene, P.E.
General Manager of Operations

Attachments

EXAMPLE OF AN EXCESS CAPACITY CREDIT PROGRAM

The Project:

A developer proposes to construct a 200 unit single family development on a 100 acre parcel within the Urban Services Boundary (Project B). Each unit will contain 3 bedrooms. Based on potential growth of the area OWASA's Master Plan identified the need for a 16" water main and a 16" sewer main to be installed in the area of this development. The developer will be required to install 2,000 feet of off-site 16" water main and 4,000 feet of off-site 16" sewer main.

Base Size:

Based on a review of the development, it is determined that an 8 inch water main would support the domestic water and fire flow requirements of this development. Sewer service could be provided through an 8 inch sewer main. Since an 8" water and sewer main would support the development and OWASA's Master Plan indicates the need for a 16" water and sewer main in this area, the developer would be eligible for a credit on a portion of the cost for the 16" water and sewer main extensions.

Determination of the Credit:

The amount of the credit would be based on the difference between the cost of extending an 8 inch water and/or sewer main and the cost of extending a 16 inch water and/or sewer main.

Based on bid documents and developer construction cost documents, staff has developed the following unit cost(s) for determining the eligible credits.

Water Main Cost

Main Size	Cost per Foot
8"	\$105.00
12"	\$125.00
16"	\$150.00
24"	\$200.00

Sewer Main Cost

Main Size	Cost per Foot
8"	\$150.00
12"	\$180.00
16"	\$215.00
24"	\$250.00

Determination of Cost Differential:

Water: 8 inch cost = \$105.00/ft.

16 inch cost = \$150.00/ft.

Cost Differential = \$ 45.00/ft.

Sewer: 8 inch cost = \$150.00/ft.

16 inch cost = \$215.00/ft.

Cost Differential - \$ 65.00/ft.

Eligible Credit to Developer:

Water - 2,000 ft. times \$45.00 = \$ **90,000**

Sewer - 4,000 ft. times \$65.00 = **\$260,000**

Disbursement of Credits:

For the oversized water extension the developer would be credited the entire **\$90,000** sum in a single lump sum upon dedication of the water main to OWASA.

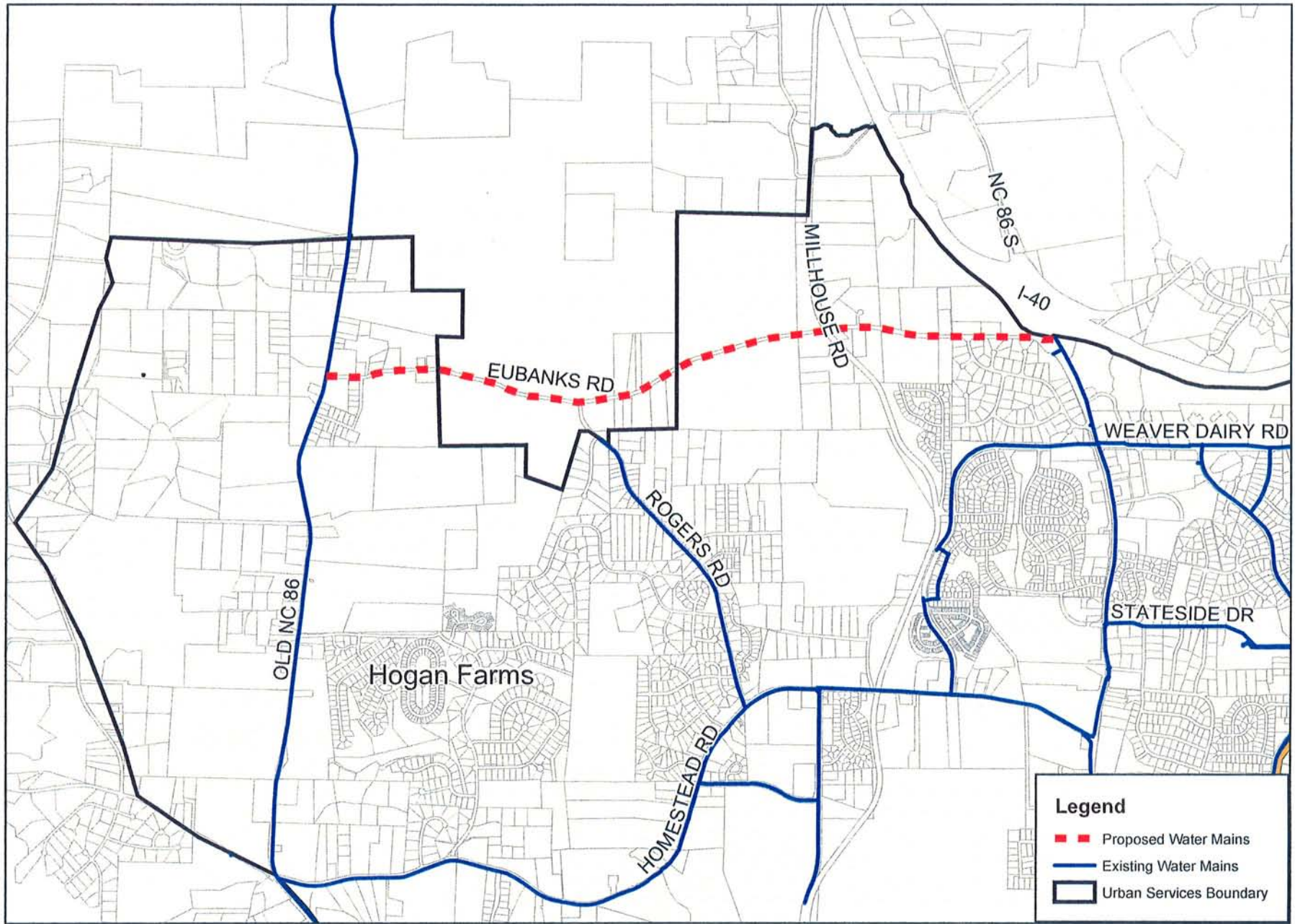
For the oversized sewer extension the developer would be credited a portion of the **\$260,000** each year for the term of the agreement based upon the total amount of sewer availability surcharge fees collected and the ratio of the project's eligible credit to the total credits for all approved excess capacity projects.

Sewer Fund Disbursement Example:

If there were three approved projects with total eligible credits of \$1,000,000 and OWASA collected \$100,000 during the year from the sewer availability fee surcharge applied to all new connections to the public sewer system, the disbursements would be calculated as follows:

A	B	C	D
APPROVED PROJECTS	ELIGIBLE CREDIT	RATIO OF PROJECT'S CREDIT TO TOTAL CREDIT FOR ALL PROJECTS (Col. B/\$1M)	FUNDS DISBURSED TO PROJECT DEVELOPER (fees collected x Col. C)
A	\$300,000	30%	\$30,000
B	\$260,000	26%	\$26,000
C	\$440,000	44%	\$44,000
TOTALS	\$1,000,000	100%	\$100,000

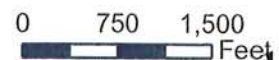
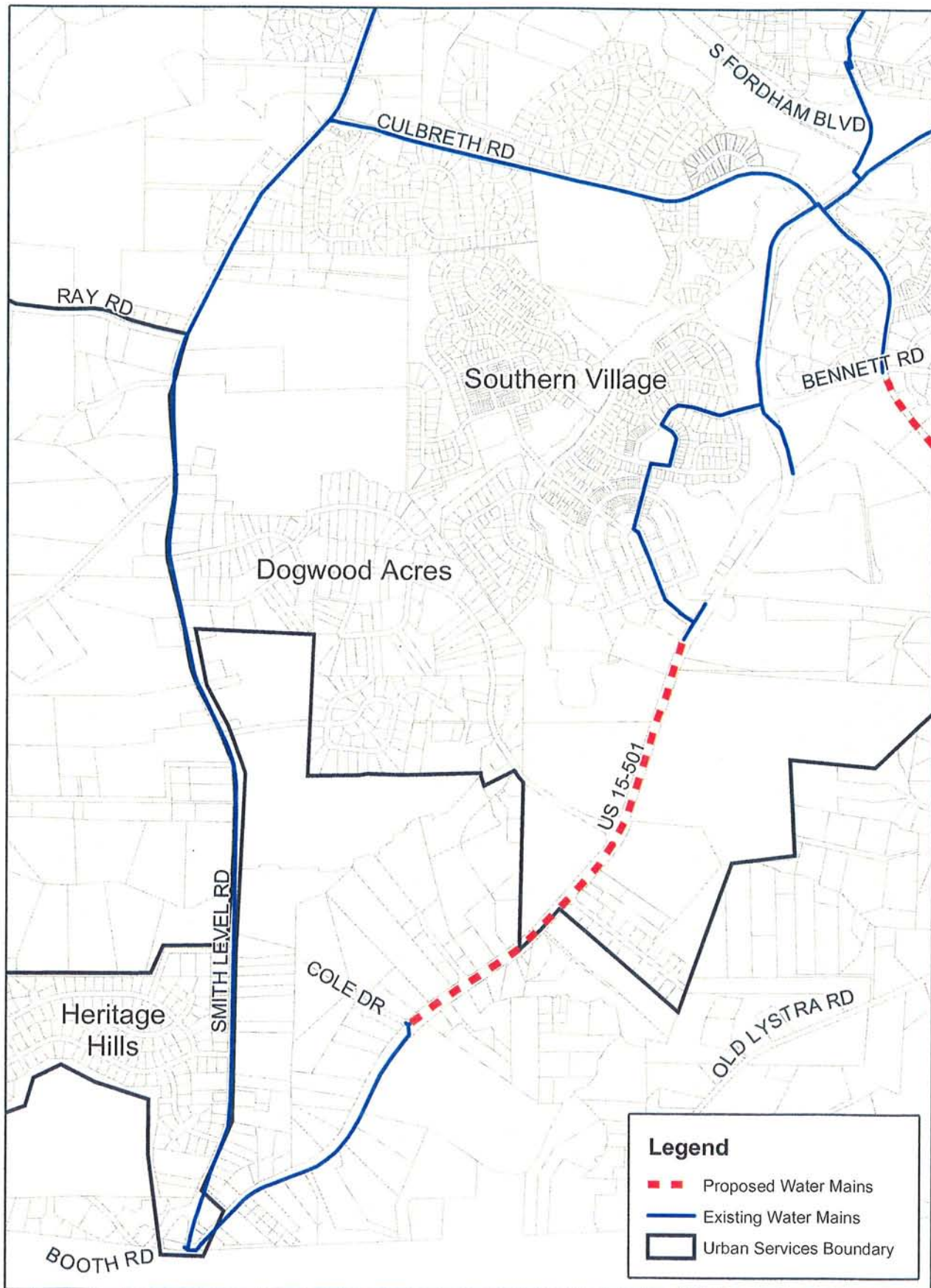
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Eubanks Road Region



Attachment A

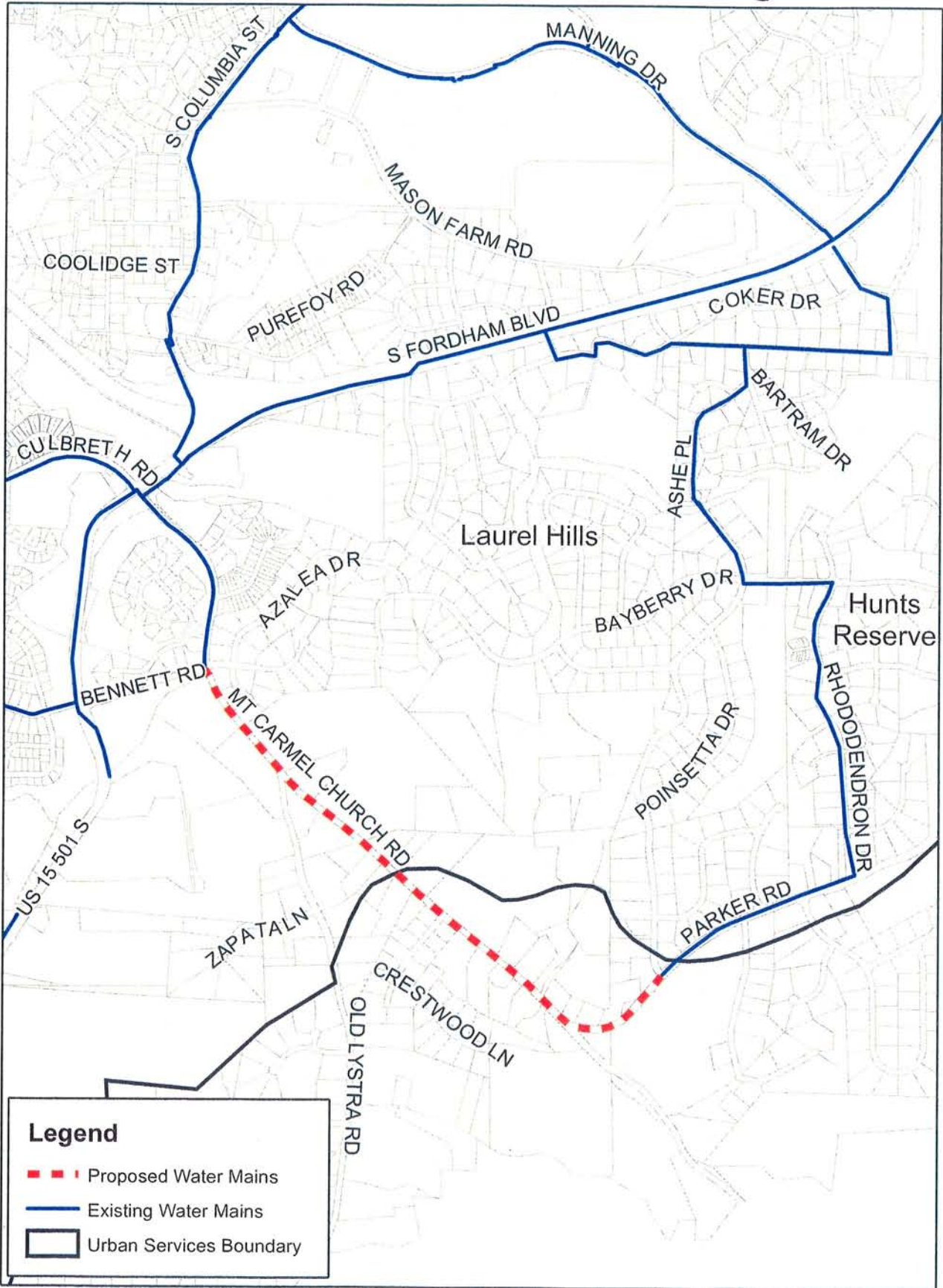
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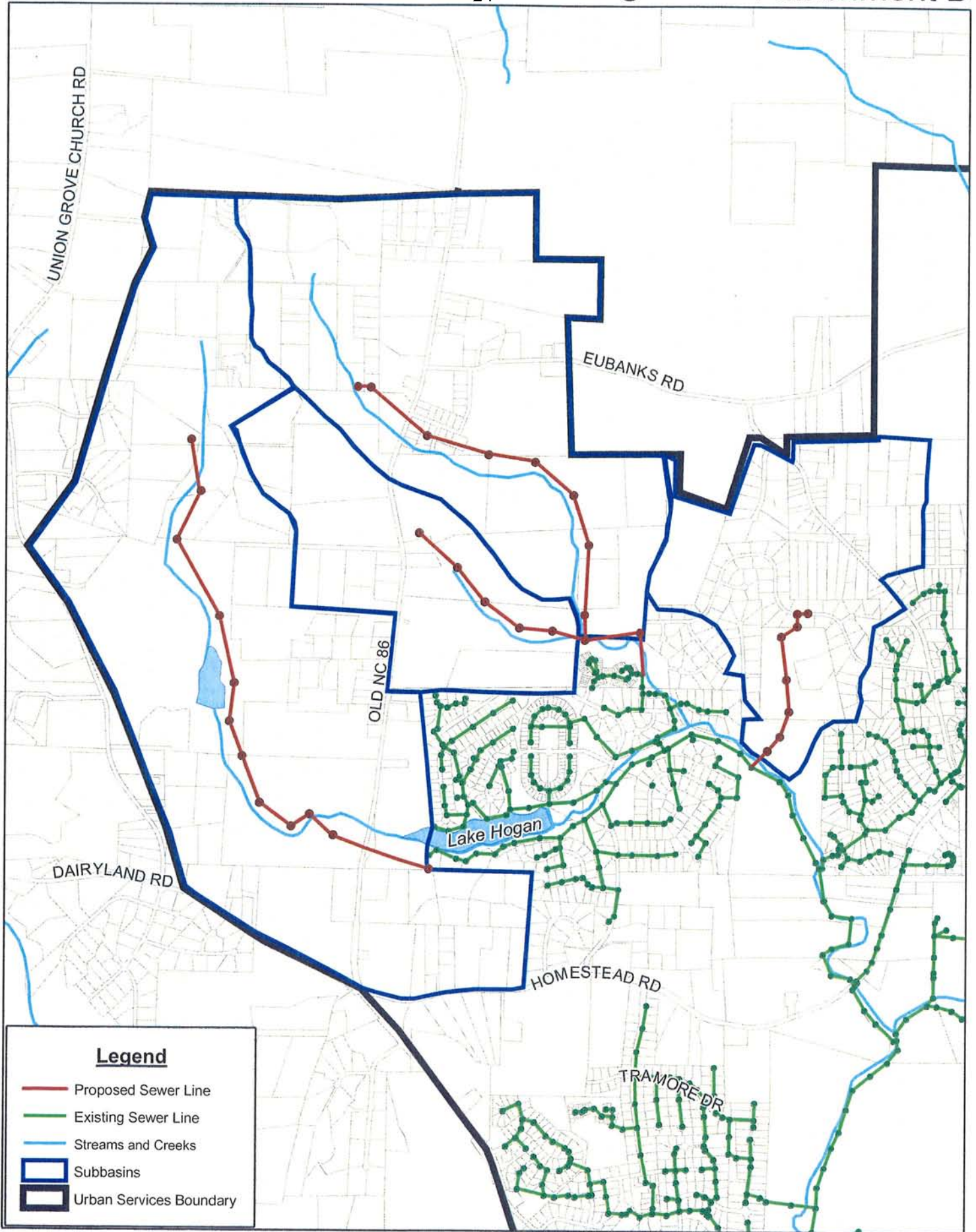




Mt. Carmel Church Road Region

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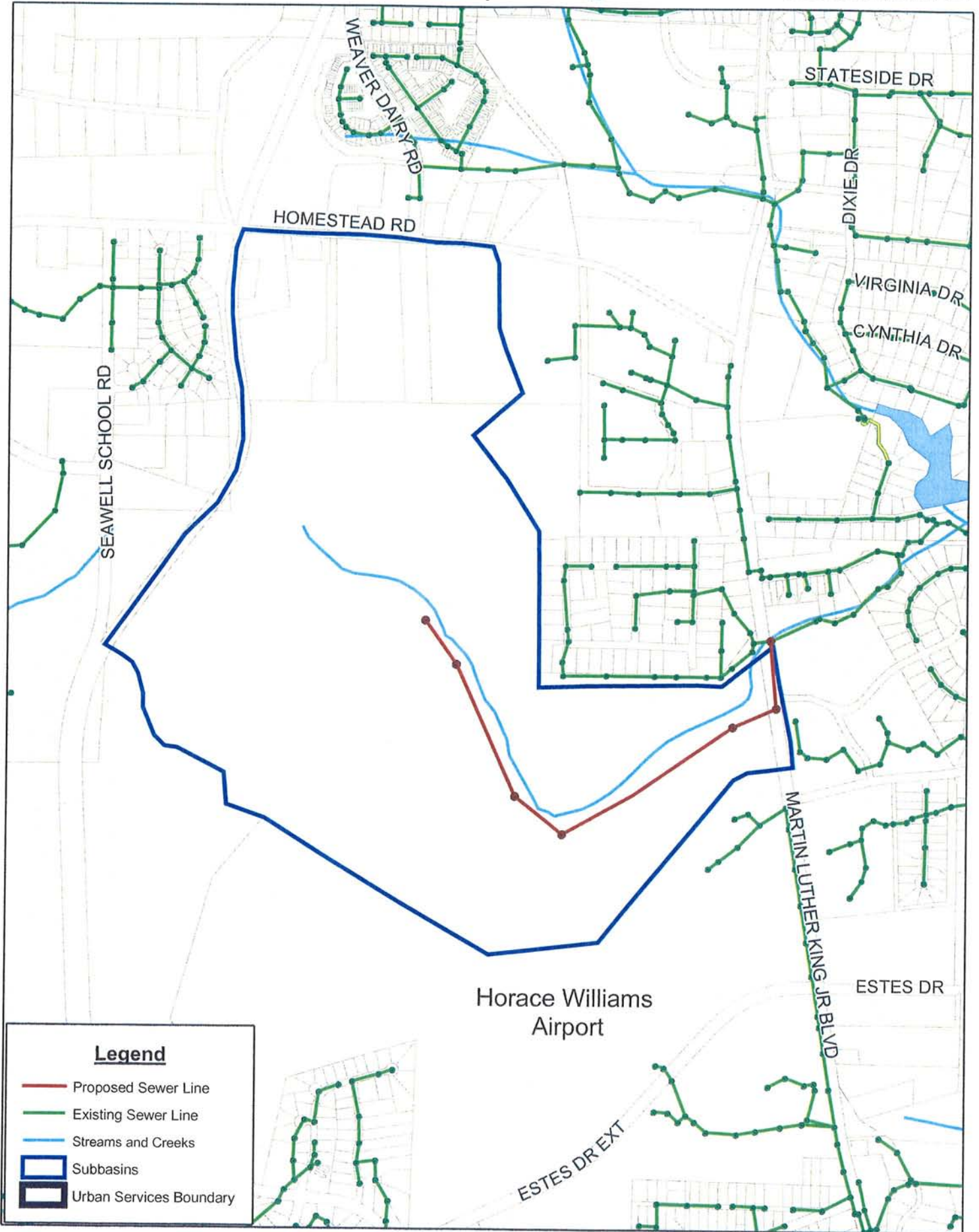




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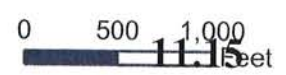
- Proposed Sewer Line
- Existing Sewer Line
- Streams and Creeks
- Subbasins
- Urban Services Boundary

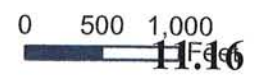
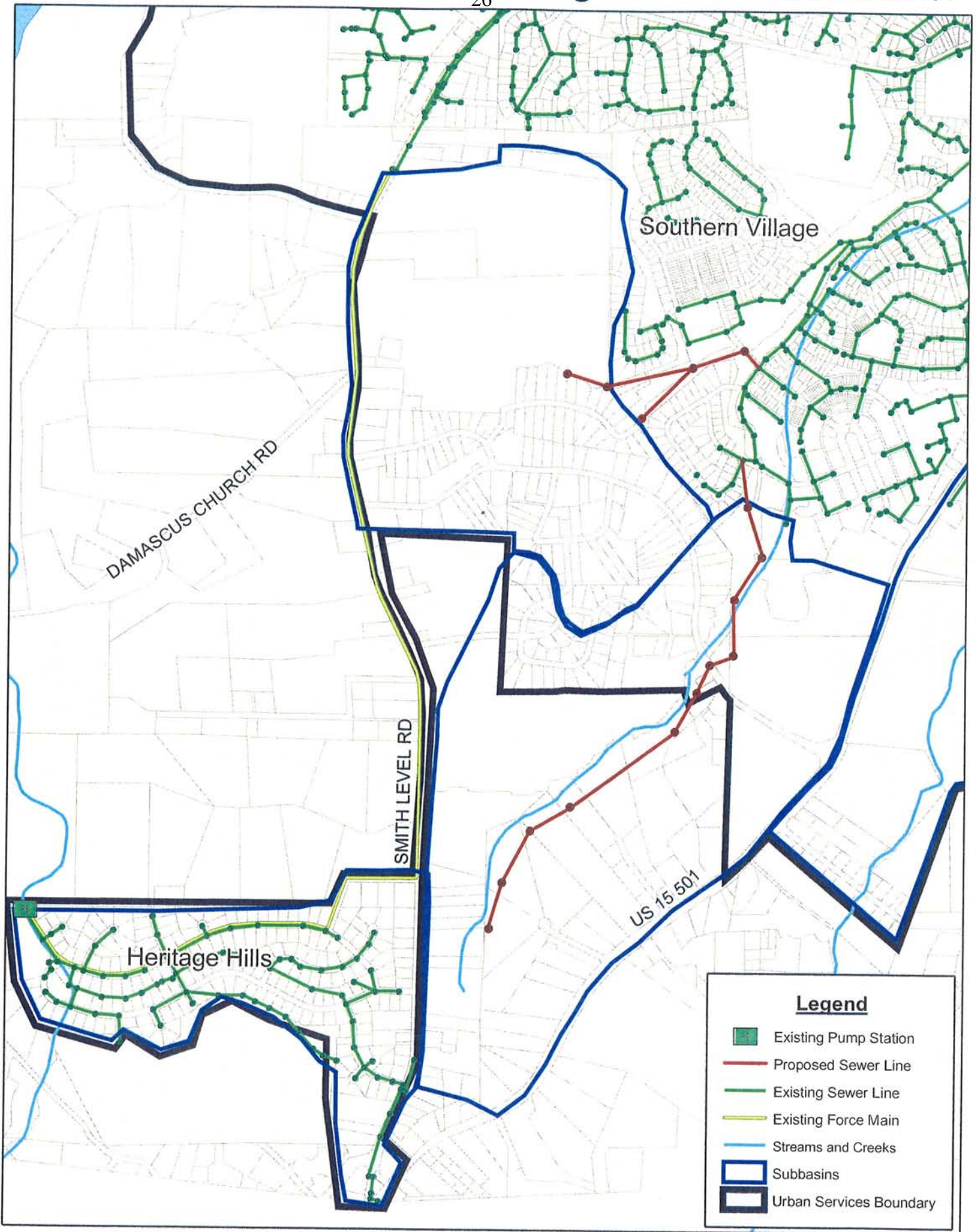


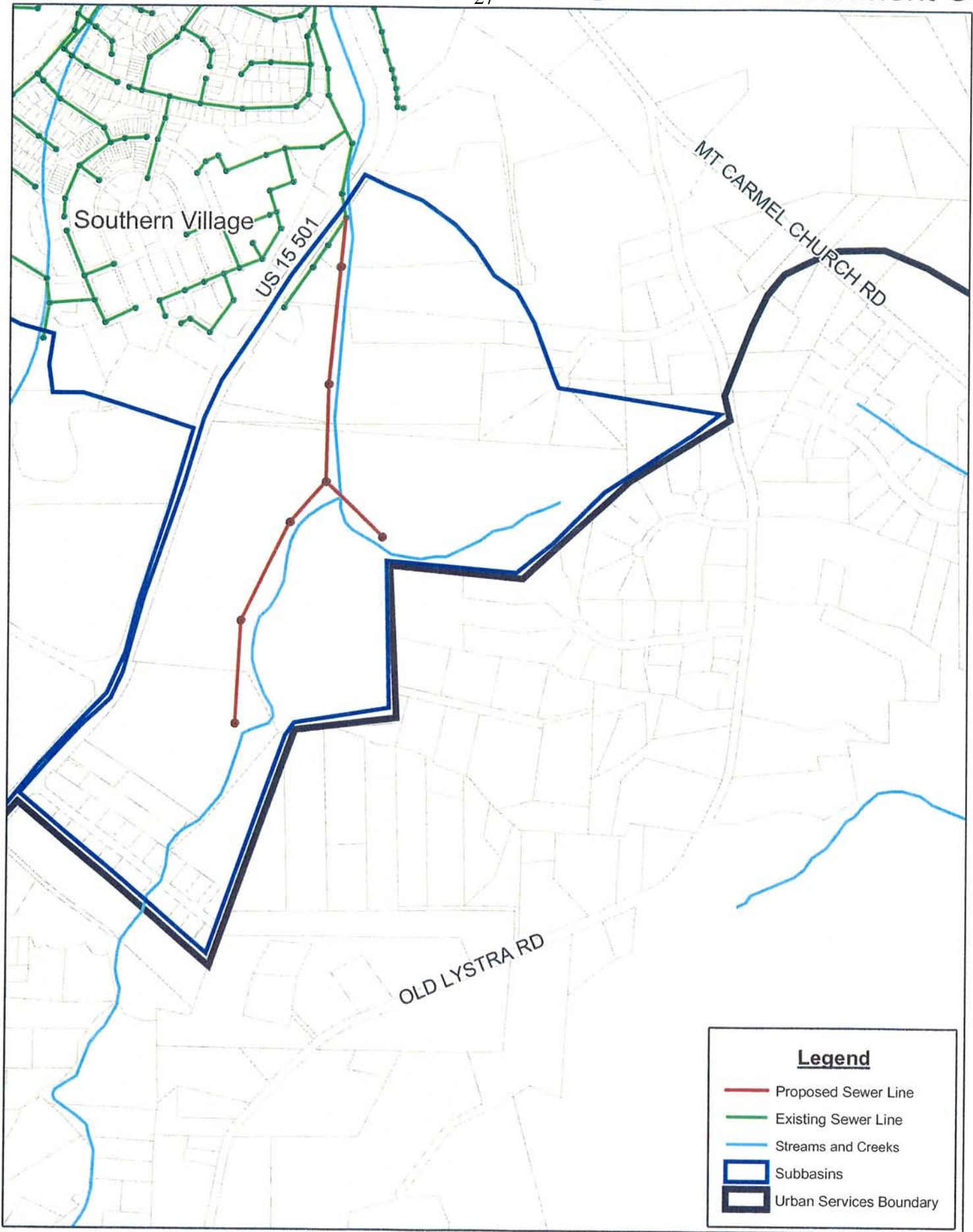


Legend

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Legend

- Proposed Sewer Line
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