



770.621.7200 (o) | Watershed Management
770.621.7271 (f) | 1580 Roadhaven Drive
DeKalbCountyga.gov | Stone Mountain, GA 30083

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LETTER SHOWING SEWER CAPACITY

July 29, 2019

RECEIVED
City of Tucker

SEP 13 2019

Community Development
Department

Attention: Mark LeCraw
LeCraw Engineering, Inc.
3475 Corporate Way, Ste. A
Duluth, GA 30096

Re: 4704 Lavista Road
18th Dist, LL 227
62 Lot Subdivision
NFPC

Dear Mr. LeCraw:

The DeKalb County Department of Watershed Management ("DWM") received a sewer capacity request regarding the potential availability of sanitary sewer capacity at the above-referenced location. In response to the inquiry, DWM staff confirms that sanitary sewer capacity may be available for the subject property at this time. **After evaluating your capacity request, it has been determined based on the criteria set forth in DWM's Interim Sanitary Sewer Capacity Evaluation Program dated July 13, 2018 that DWM's wastewater collection, transmission, and treatment system has adequate capacity to receive the wastewater flow contribution from your sewer service connection as documented in your sewer capacity request. As such, approval to proceed with the project is granted with regards to sanitary sewer capacity.**

Please note that the determination of available capacity expressed herein is not guaranteed as it is based upon the known conditions as of the date of this correspondence and on the provided anticipated capacity needs associated with the project. In the event that sewer system infrastructure improvements are required to accommodate any new flow contribution and ensure adequate sewer system capacity as a result of development on the referenced property, the developer will be responsible for the cost associated with installing any such improvements to the existing sewer system infrastructure pursuant to DeKalb County Code of Ordinances, Chapter 25, Article IV – "Sewers and Sewerage Disposal". Once installed and accepted by DeKalb County, the improvements will be owned and maintained by DeKalb County.

This information is based on currently available data and should only be used to substantiate the potential availability of sewer services as of the date of this correspondence. Circumstances are subject to change and the potential capacity indicated herein is in no way guaranteed.

Should you have any questions or concerns in reference to this response, please do not hesitate to contact the Division of Planning & Development of DWM at mlofts@dekalbcountyga.gov.

Sincerely,

Zachary L. Williams
Executive Assistant/Chief Operating Officer

Darren Eastall
Program Administrator-Consent Decree



**DEKALB COUNTY, GEORGIA
DEPARTMENT OF WATERSHED MANAGEMENT
CAPACITY ANALYSIS**

**4704 Lavista Road
(62 lot Subdivision)**

Request Date: 4/15/2019

Request Closing Date: 7/24/19

1	Property Name and Address	4704 Lavista Road		
2	Sewershed/Basin	North Fork Peachtree Creek		
3	Proposed Property Tie-In Manhole ID	18-227-s039		
4	Net Prop. Daily Ave. Flow from Property	13,920 GPD		
	Net Prop. Peak Flow from Property	55,680 GPD		
5	Downstream historical SSOs with incomplete remedial actions to prevent reoccurrence?	No		
6	Downstream gravity sewer capacity available per 6a-6c below?	Yes		
a	Hydraulic Model Capacity Check	Model predicted dry weather flow less than 85% of the pipe capacity or 80% of the pipe diameter for all downstream gravity pipes?	No ¹	
		Model predicted max month average daily flow (MMADF) flow less than 100% of the pipe capacity for all downstream gravity pipes?	No ¹	
	b	Model Network Anomaly	If 6a = No, are model results due to gravity sewer model network anomalies (reverse-grade pipes, flat-grade pipes, etc)?	Yes
			Is capacity determined by reviewer to be available for gravity pipes with network anomalies (reverse-grade, flat-grade pipes, etc.)?	Yes
			Is capacity determination documentation provided?	Yes
	c	Capacity Request Flow Monitoring	Is capacity request flow monitoring data available and analyzed?	NA
			Is capacity determined by reviewer to be available based upon analysis of flow monitoring data?	NA
Is capacity determination documentation provided?			NA	
7	All downstream lift station firm capacities greater than model predicted flow for MMADF scenario?	NA		
8	Downstream treatment facility hydraulic capacity greater than model predicted flow for MMADF scenario?	NA		
9	Downstream Intergovernmental connection capacity greater than model predicted flow for MMADF scenario?	Yes ²		
10	<p>Comments: ¹In this profile there are positive sloped flat pipes (less than minimum design slopes) and negative sloped pipes that are indicating full pipe capacity less than 85% during dry weather. In such cases, engineering judgement has been used to determine adequate capacity exists for the flow rates calculated by the model, which includes 0.8 d/D open channel flow. The maximum d/D for this capacity request flow path is 0.77, except at pipes 18-154-s305 and 18-154-x306 which have a d/D of 1.00. These pipes are the most downstream pipes in the flow path; upstream of these pipes range from being one quarter to three quarters full. This section represents a boundary condition as flow enters the intergovernmental connection.</p> <p>²The intergovernmental connection capacity is 59.23 mgd per Section 3 of the Intergovernmental Agreement. Flow from DeKalb County to the R.M. Clayton Facility includes flow from Nancy Creek, North Fork Peachtree Creek, and South Fork Peachtree Creek basins. More detail is provided in the Support Form.</p>		* MODEL FLAG	
11	Hydraulic Modeler Initial	PS & LM		

By signing below, this certifies, based on sound engineering judgement, that capacity is available having considered appropriate factors necessary to make that determination including sanitary flow contributions from site specific sources, use of the County's hydraulic model as certified by CH2M Hill, flow data, and historical data, which are all incorporated into the County's Interim Capacity Program and SOPs as authorized by DeKalb County government on July 13, 2018.

Name: Michelle L. (Jackam) Otis, PE
Title: Engineer Principal
Date: 7/24/19

UM Jackam-Otis



SEWER CAPACITY EVALUATION REQUEST

Department of Watershed Management

Project Information:

Project Address:	4704 Lavista Rd. Tucker, GA 30084 <small>(City, State, Zip Code)</small>	Project Name:	Single Family Residential
Intended Tie-In Manhole ID:	18-227-S 039	Land Lot and Parcel ID:	18-212-01-002
Total Peak Flow Requesting:	55,680 GPD <small>Proposed Peak Flow minus existing peak flow</small>	Sewershed:	NFPC

Developer/Owner Information:

Company's Name:	Bentancourt Construction	Address:	4355 Cobb Parkway #3460
Contact Name:	Stephen Ficarra	City, State, Zip Code:	Atlanta, GA 30339
Phone Number:	404-891-0269	Email Address:	sficarra@bentancourtcommunities.com

Engineer Information:

Company's Name:	LeCraw Engineering, Inc	Address:	3475 Corporate Way, Suite A
Contact Name:	Mark LeCraw	City, State, Zip Code:	Duluth, GA 30096
Phone Number:	678-546-8100	Email Address:	mark.lecraw@lecraweng.com

Please include the following items in your submittal package:

- Proposed Peak Daily Flow Calculation based on attached guidelines (See Appendix B)
 - Existing Developments
 - New Conditions
- Separate detailed calculation sheet signed by the owner or owner's representative for each project
- All requested flows greater than 500 gpd ADF must be sealed by Professional Engineer
- Geographical Information System (GIS) map clearly showing the proposed site (s) surrounds areas, and utilities
- Proposed utility plan, if available

Name:	<u>4/15/19</u>	Date:	<u>4/15/19</u>
Signed:		Seal:	

Capacity Evaluation Request will not be accepted until form is fully completed and all supplemental documents are attached. Submit documents to sewercapacity@dekalbcountyga.gov

Internal Use Only	
Date Capacity Request Reviewed and Accepted:	Received By: _____
_____	Signed: _____

Appendix – B

Table 1: Sanitary Flow Contributions from Site Specific Sources

CONTRIBUTOR	UNIT	Design Average Daily Flow (GPD)
Residence, single family	Per residence	240
Residence, multiple family (Apartments)	Per unit	240
Commercial/Mercantile Building	Per 1,000 square feet	75
Industrial/Warehouse (Not including food service)	Per 1,000 square feet	75
Offices (Not including food service)	Per 1,000 square feet	175
Shopping Center (Not including food service)	Per 1,000 square feet	100
Restaurant/Coffee Shop/Fast Food/Bar/Tavern	Per 1,000 square feet	1650
Amusement/Recreation/Arcade	Per 1,000 square feet	200
Barber Shop/Beauty Salon	Per customer station	333
Caterer	Per 1,000 square feet	9300
Church (Not including food service or day schools)	Per 1,000 square feet	65
Coin Laundries	Per machine	400
Commercial Laundries	Per machine	640
Hospitals	Per bed	200
Nursing Home	Per bed	125
Motel/Hotel	Per room	100
Police/Fire Station – w/residents	Per bed	125
Police/Fire Station – w/o food service	Per 1,000 square feet	175
School – w/ kitchen	Per 1,000 square feet	200
School – w/cafeteria	Per 1,000 square feet	250
School – w/cafeteria and gym	Per 1,000 square feet	400
Service Station	Per fuel pump unit	120
Theater/Museum/Auditorium	Per 1,000 square feet	65
Other Facility not listed:	Subject to Approval by the County	
		Total

GPD = gallons per day

NOTE: Design peak flow rates shall be calculated by multiplying the total design average daily flow rate determined per the table above by a peaking factor of 4.0.

Fill out SCLR application, show calculations, scan your application and submit via email:

Existing Conditions

Land Use: Single Family Residential
 Number of Residences: 4
 Daily Flow Rate = 4 x 240 gpd = 960 gpd
 Peak Flow Rate = 4 x 960 gpd = 3,840 gpd

Proposed Conditions

Land Use: Single Family Residential
 Number of Residences: 62
 Daily Flow Rate = 62 x 240 gpd = 14,880 gpd
 Peak Flow Rate = 59, 520 gpd

Net Increase Daily Flow Rate = 13,920 gpd
 Net Increase Peak Flow Rate = 55,680 gpd


Sewer Capacity Request Address: 4704 Lavista Road

Job Name: 4704 Lavista Road


Manhole Connection: 18-227-s039

Basin: Northfork Peachtree Creek

- _____ pipe surcharge <80% of depth (<0.8 max surcharge)
- _____ pipe surcharge between 80-99% of depth (0.8 to 0.99 max surcharge)
- _____ pipe at full capacity on only one end of the pipe (max surcharge=1)
- _____ pipe at full capacity throughout pipe (max surcharge=2)
- _____ in profiles, pipe above 85% capacity under DWF and 100% under MMADF
- _____ in plan view, flow path from tie-in to end of system

 Historic SSO in plan view

 Pump station

 Node/manhole

Height (in)=height of pipe in inches

Grad (%)=gradient of pipe in percent

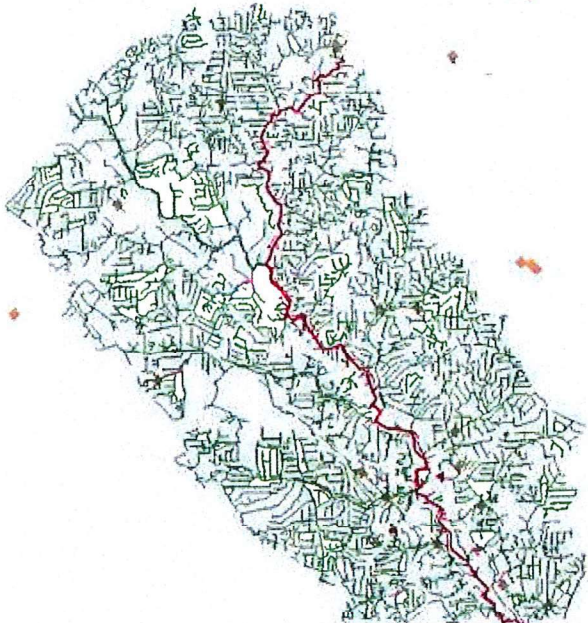
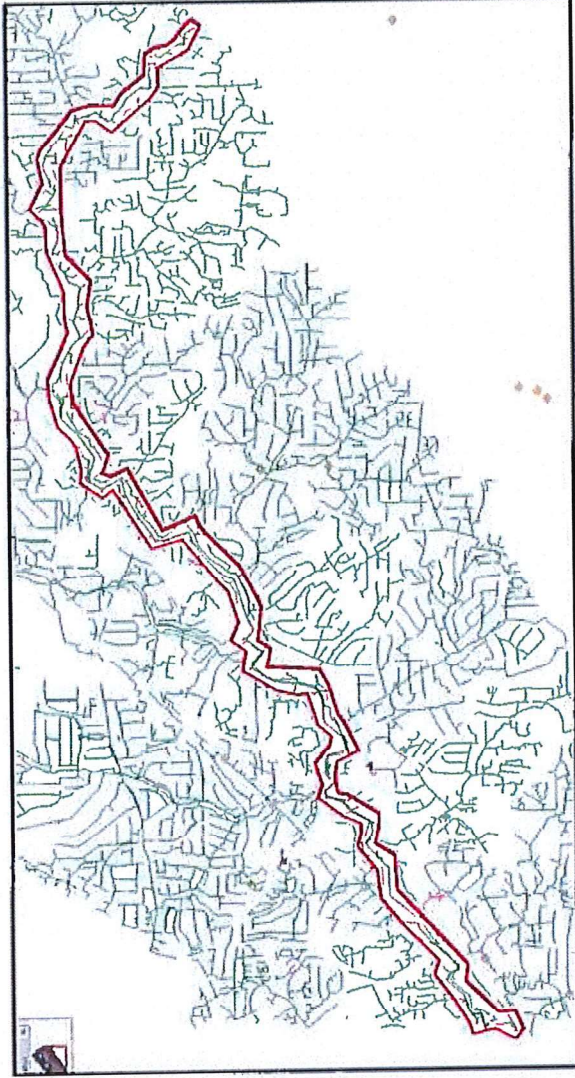
PFC (MGD) = pipe full capacity is an approximation of the pipe flow capacity running full using Manning's Equations in MGD

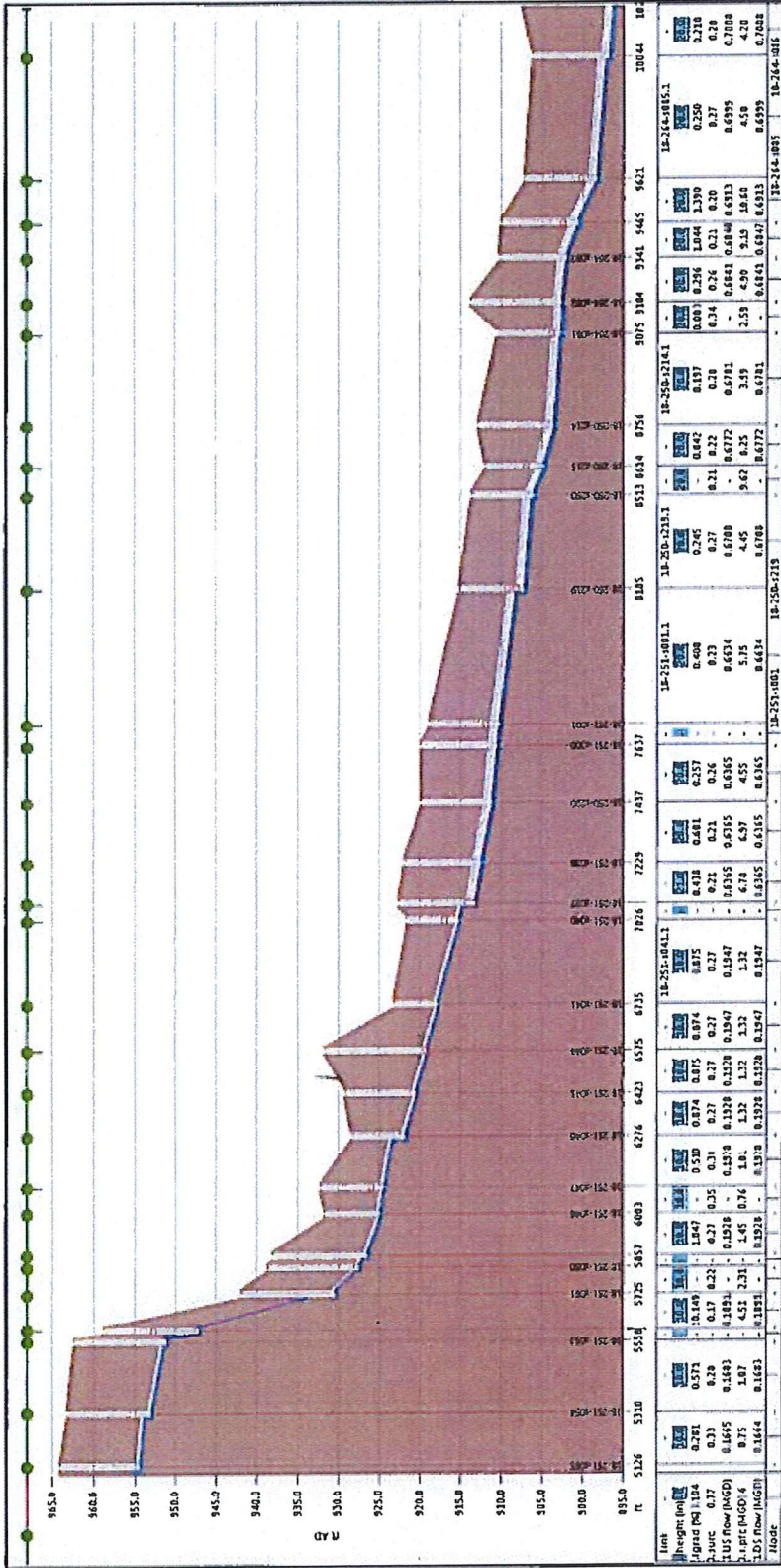
Surc=maximum surcharge state or depth over diameter of pipe (colors of pipes in profile and plan to match)

US and DS Flow (MGD)=model predicted upstream and downstream flow within the pipe

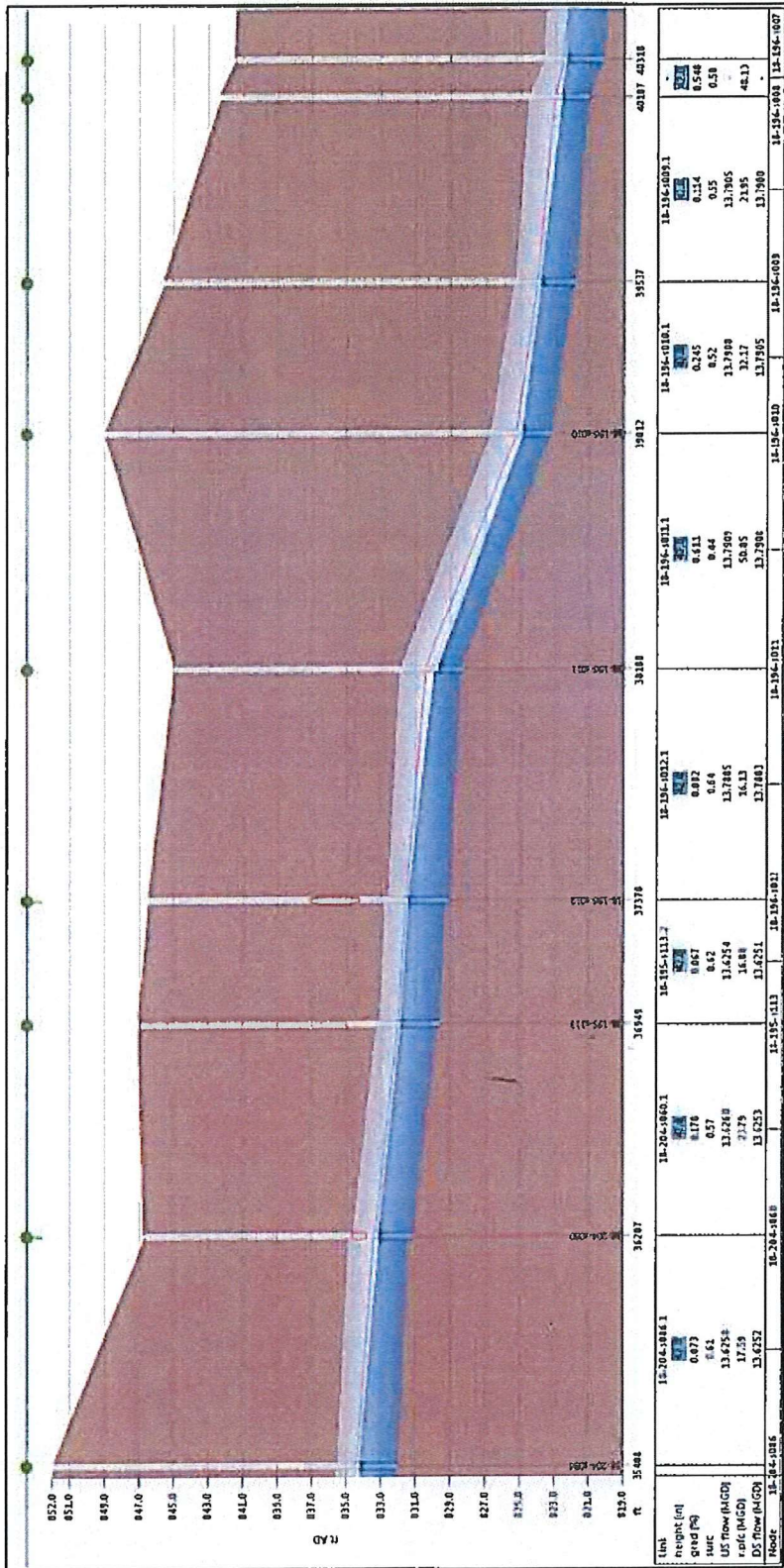
Note 1: Any hydraulic model calculations showing negative or zero pipe capacity are invalid for reverse-grade (negative slope) and flat-grade (0 slope) pipe segments. In addition, positive sloped flat pipes (less than minimum design slopes) will likely indicate full pipe capacity less than 85% during dry weather. In such cases, engineering judgement shall be used to determine whether adequate capacity exists for the flow rates calculated by the model, which includes 0.8 d/D open channel flow.

4704 Lavista Road – December 2017 Model DWF Run Version 58 (2019 Scenario)



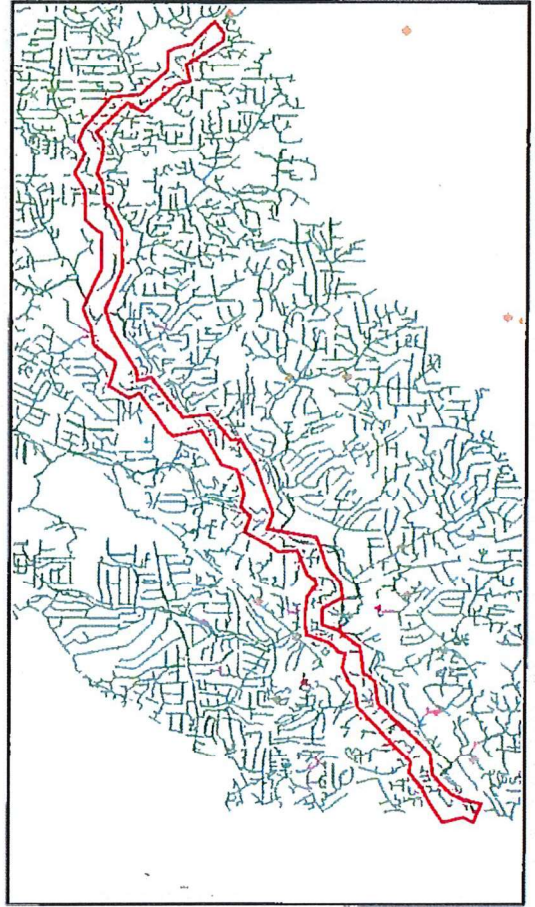


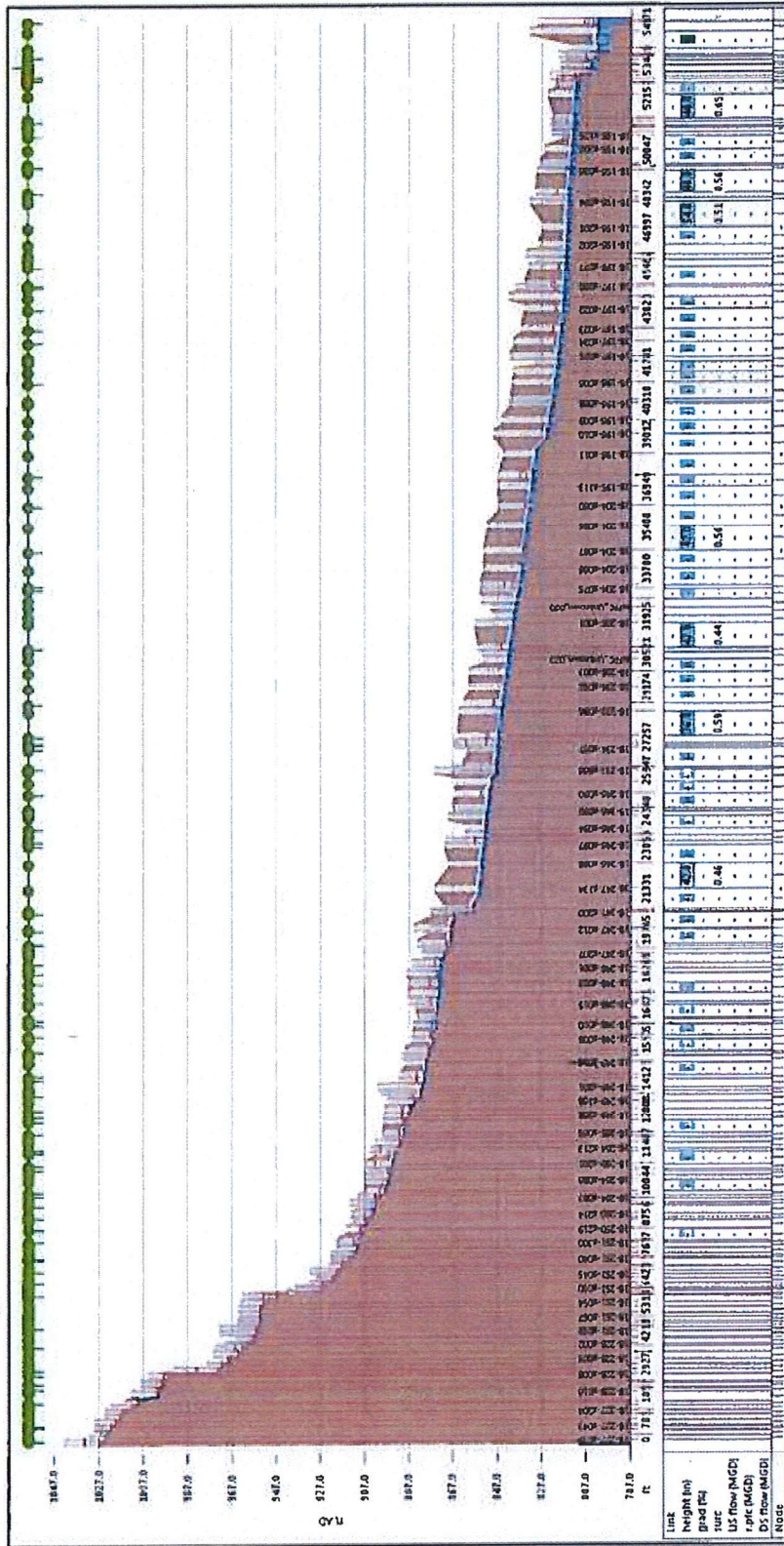
Section 2

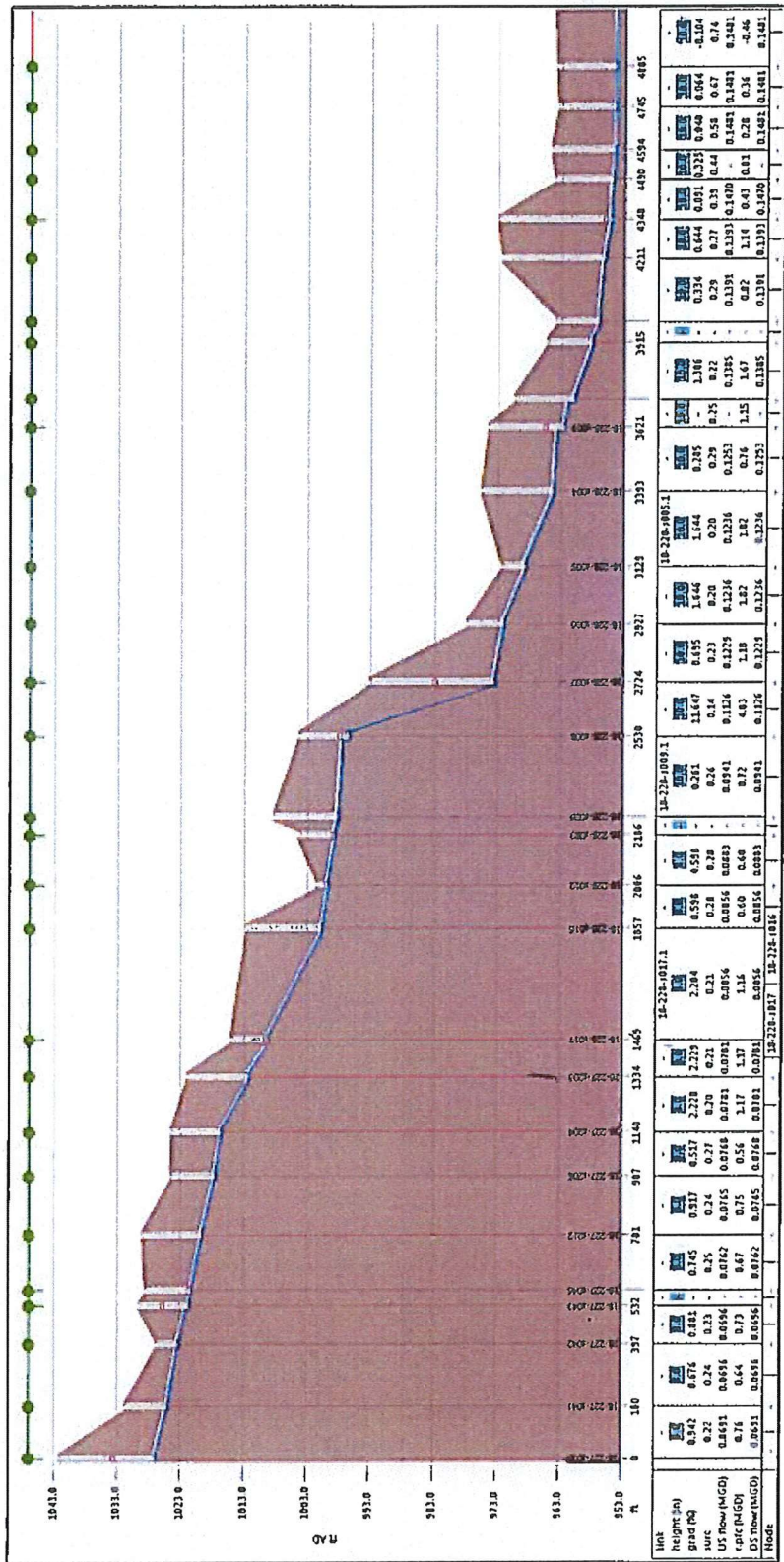


Section 8

4704 Lavista Road – December 2017 Model MIMADP Run Version 48 (2019 Scenario)

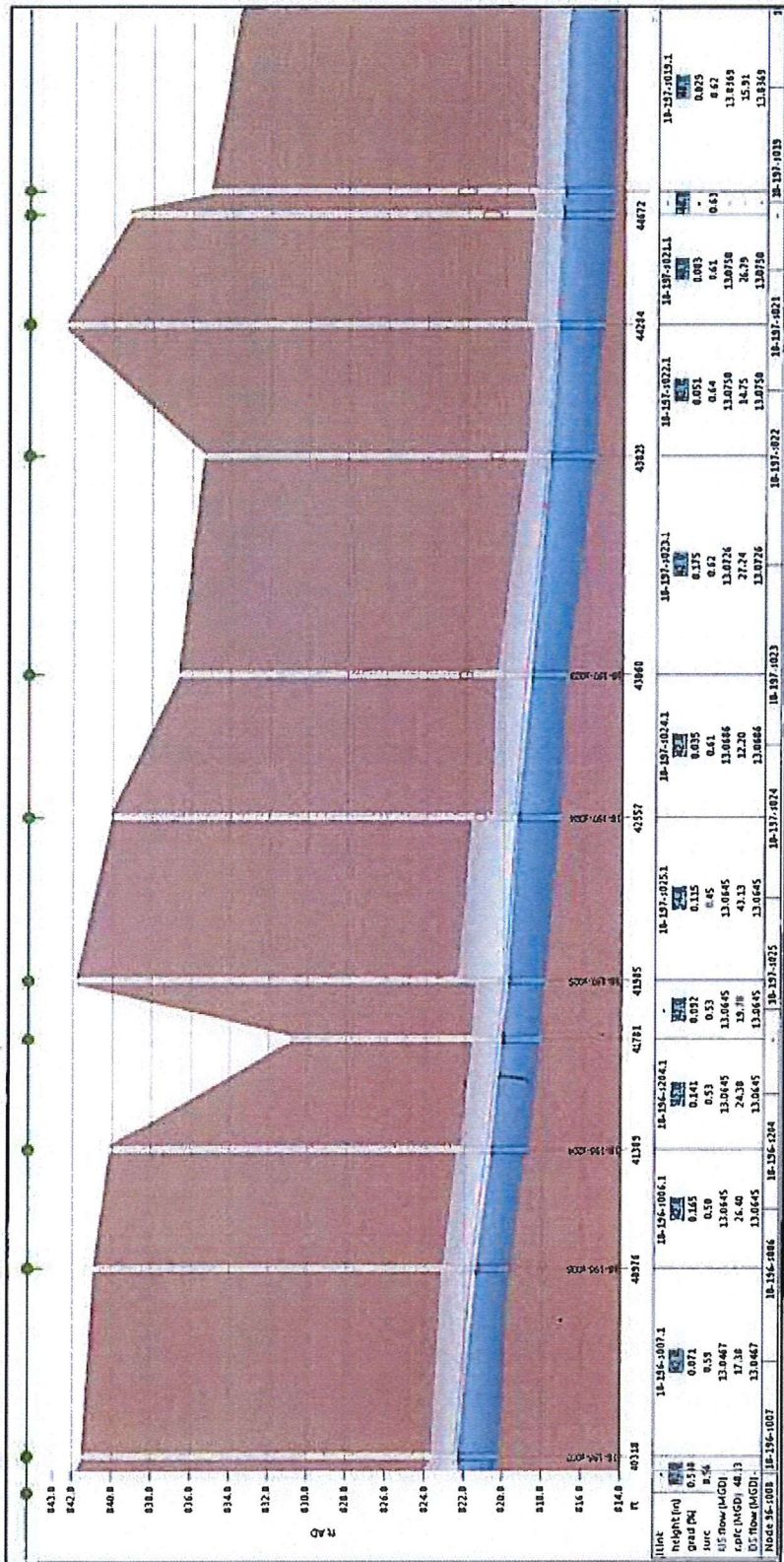






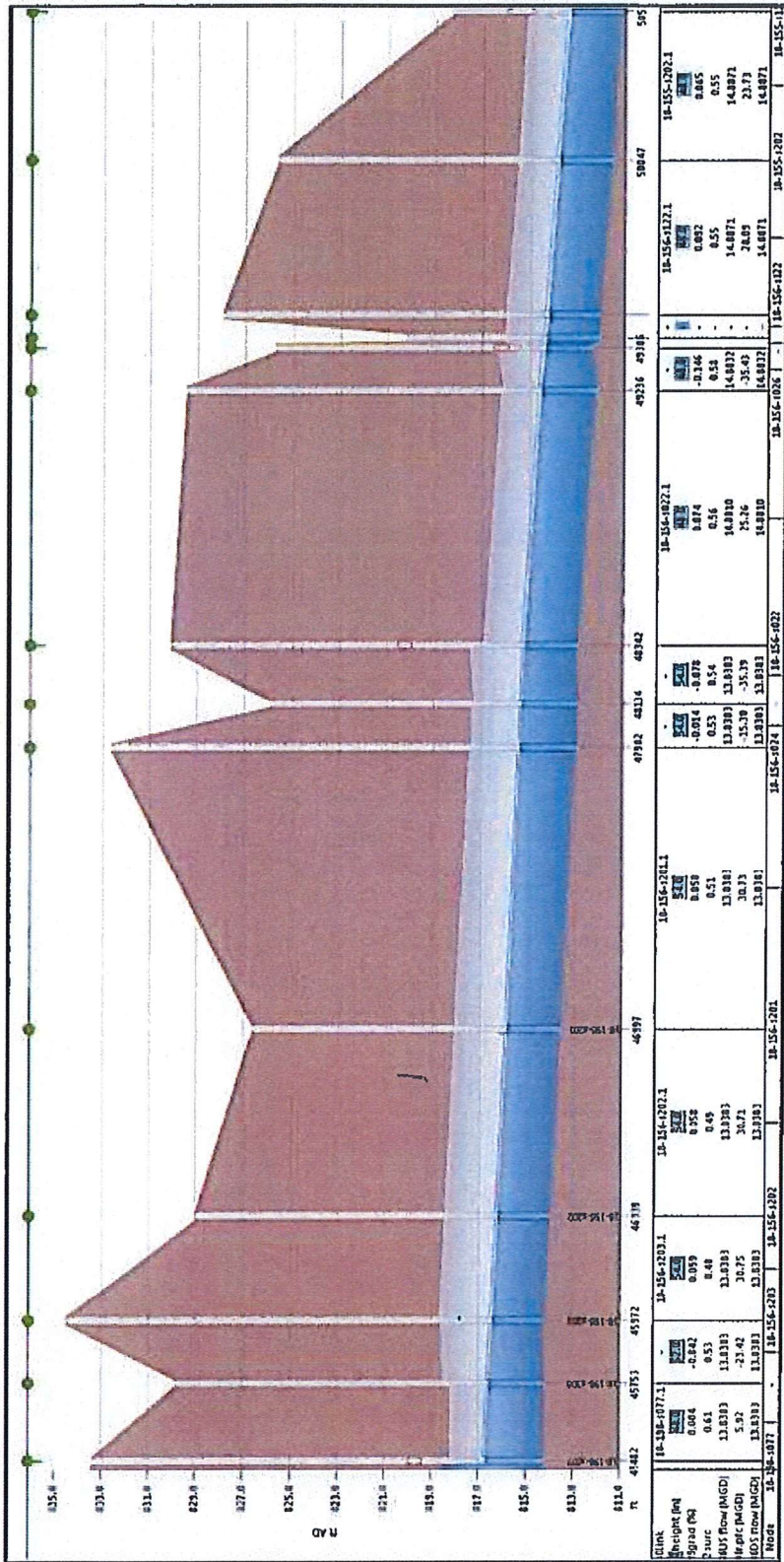
Section 1

Stationing	Elevation	Slope	Other Data
0	953.0	0.00	0.00
101	953.0	0.00	0.00
357	953.0	0.00	0.00
532	953.0	0.00	0.00
781	953.0	0.00	0.00
987	953.0	0.00	0.00
1204	953.0	0.00	0.00
1334	953.0	0.00	0.00
1465	953.0	0.00	0.00
1816	953.0	0.00	0.00
2066	953.0	0.00	0.00
2186	953.0	0.00	0.00
2530	953.0	0.00	0.00
2724	953.0	0.00	0.00
2921	953.0	0.00	0.00
3123	953.0	0.00	0.00
3333	953.0	0.00	0.00
3421	953.0	0.00	0.00
3515	953.0	0.00	0.00
4211	953.0	0.00	0.00
4360	953.0	0.00	0.00
4534	953.0	0.00	0.00
4765	953.0	0.00	0.00
4885	953.0	0.00	0.00

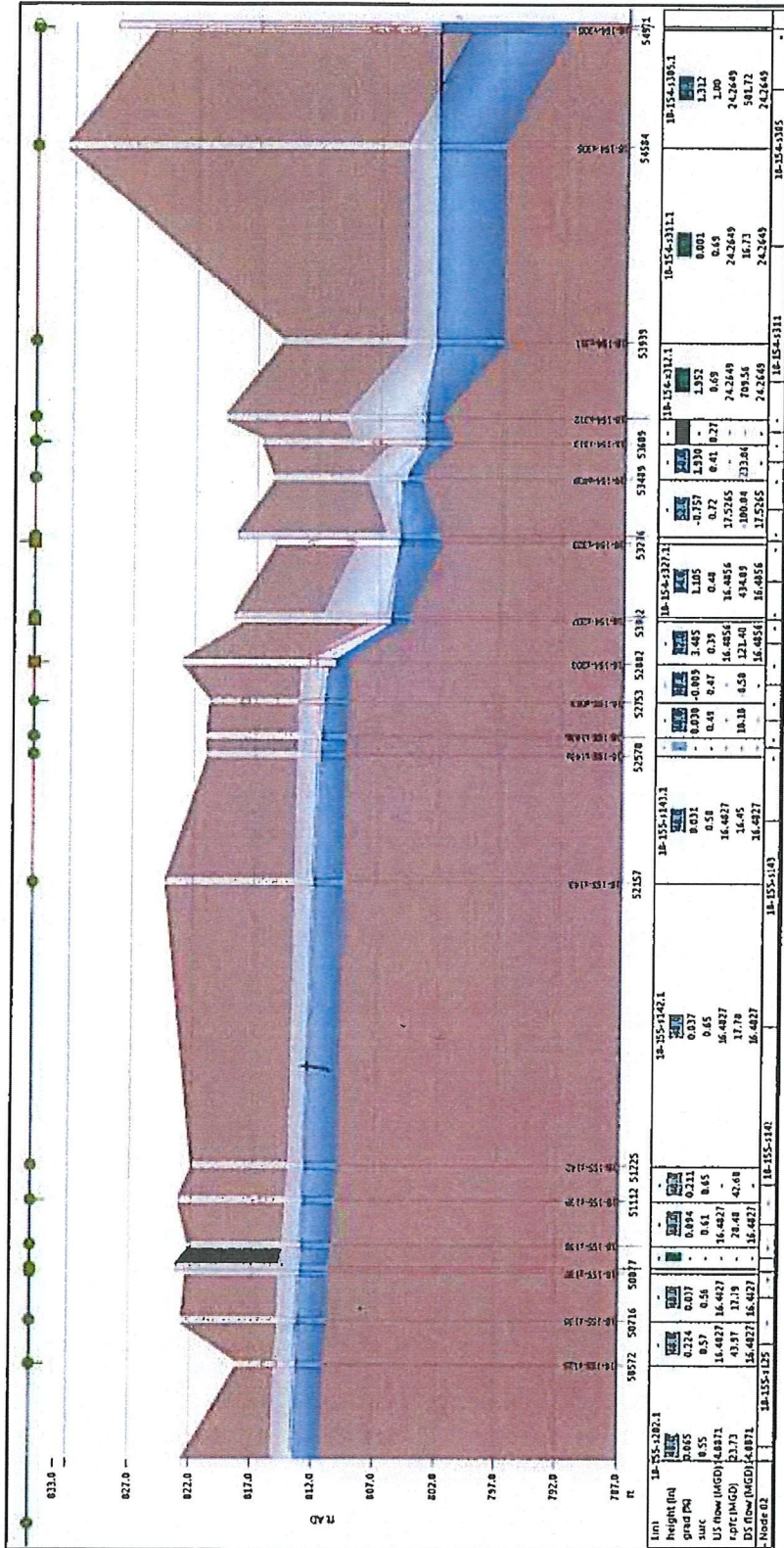


Section 9

Station	Top (ft)	Bottom (ft)	Area (sq ft)	Volume (cu ft)	Station	Top (ft)	Bottom (ft)	Area (sq ft)	Volume (cu ft)
40318	83.1	81.5	8.5	8.5	40318	83.1	81.5	8.5	8.5
40316	83.1	81.5	8.5	8.5	41319	83.1	81.5	8.5	8.5
41319	83.1	81.5	8.5	8.5	41781	83.1	81.5	8.5	8.5
41781	83.1	81.5	8.5	8.5	41315	83.1	81.5	8.5	8.5
41315	83.1	81.5	8.5	8.5	42157	83.1	81.5	8.5	8.5
42157	83.1	81.5	8.5	8.5	41960	83.1	81.5	8.5	8.5
41960	83.1	81.5	8.5	8.5	43123	83.1	81.5	8.5	8.5
43123	83.1	81.5	8.5	8.5	44214	83.1	81.5	8.5	8.5
44214	83.1	81.5	8.5	8.5	44872	83.1	81.5	8.5	8.5
44872	83.1	81.5	8.5	8.5					



Section 10



Section 11

Intergovernmental Agreement Max Month Daily Flow Capacity for Nancy Creek, North Fork Peachtree Creek, South Fork Peachtree Creek and Misc. is 59.23 MGD