

**Minutes of the South Fulton Municipal Regional Water And
Sewer Authority Meeting Held on January 14th, 2020,
At 56 SW Malone Street, Fairburn, GA**

BOARD MEMBERS PRESENT: Vince R. Williams, J. Clark Boddie, Elizabeth Carr Hurst, Shayla J. Nealy, Sonja Fillingame, Laura Mullis and James Whitmore

BOARD MEMBERS ABSENT: None

Consultants Present: Dennis Davenport, Dan Post, Laura Benz and Andrea Gray

Others Present: Other unknown persons

Call To Order: Chairwoman Shayla J. Nealy called the meeting to order at 7:00 PM.

Election of Board Officers for year 2020:

Secretary / Treasurer:

Vince R. Williams nominated J. Clark Boddie to be elected the position of Secretary Treasurer, seconded by Elizabeth Carr Hurst. A vote was taken, the motion passed unanimously.

Vice Chairman:

Vince R. Williams nominated Elizabeth Carr Hurst to be elected the position of Vice Chairlady, seconded by James Whitmore. A vote was taken, the motion passed unanimously.

Chairman:

Vince R. Williams nominated Shayla J. Nealy to be elected the position of Chairlady, seconded by Laura Mullis. A vote was taken, the motion passed unanimously.

At this point Chairman Shayla J. Nealy continues with the meeting.

Approval Of The Minutes: A motion was made by Vince R. Williams to approve the minutes of the January 14th, 2020 meeting with corrections, seconded by Vince R. Williams with corrections. A vote was taken, the motion passed unanimously.

New Business: None

Old Business: None

Reports:

Legal – Dennis Davenport had nothing to report this month

Finance – Dan Post reviewed with the Board:

1. The December 2019 financial statement.
2. Requested approval for draw number 201 in the amount of \$13,585.70 from the construction account.

Vince R. Williams made a motion to approve draw number 201 in the amount of \$13,585.70 from the construction account seconded by J. Clark Boddie. A vote was taken, the motion passed unanimously.

3. Cash flow report
4. The Public Liability Insurance application is ready for the Boards signature.
5. Mr. Post stated that he has the 1099's for everyone

Project Managers – Laura Benz and Andrea Gray reviewed with the Board:

See attached memorandum for details

1. District Audit Update
 - a. Comment responses
2. Water Withdrawal Application Process:
 - a. Updated Schnabel report

- b. Swap
- 3. Monastery Credits
 - a. Compensatory Mitigation
 - b. Assessments Evaluation

J. Clark Boddie made a motion to do a Value Assessment Evaluation for mitigation credits, seconded by Vince R. Williams. A vote was taken, the motion passed unanimously.

- 4. Mitigation Credits
 - a. Mitigation Management requested a 6 month extension for wetland credits

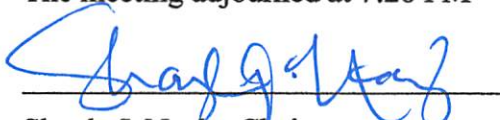
Vince R. Williams made a motion to give a 6 month extension for Mitigation Management, seconded by Sonja Fillingame. A vote was taken, the motion passed unanimously.

- 5. Litigation
 - a. Update on Water Wars

Executive Session: None

Vince R. Williams made a motion to adjourn the meeting, seconded by J. Clark Boddie. A vote was taken, the motion passed unanimously.

The meeting adjourned at 7:26 PM



Shayla J. Nealy, Chairwoman

February 11th, 2020

Date Minutes Approved by Board

MEMORANDUM

To: S. Fulton Municipal Regional Water & Sewer Authority Member Cities Councils
(Fairburn, Palmetto and Union City)

From: Laura Benz & Andrea Gray

Date: January 14, 2020

Re: S. Fulton Authority Project Update

Water Withdrawal Application/Process:

Minimum Instream Flow: EPD and the Authority have worked together over the past year to establish a minimum instream flow for the requested direct withdrawal. In August 2019, EPD agreed that a site-specific study was appropriate and, based on an agreed-upon scope, the Authority commissioned Schnabel Engineering and CCR Environmental to complete both the modeling and field work on a one-mile stretch of the Chattahoochee River. In September 2019, the study was presented to EPD which approved the parameters examined but later requested that the study be extended to the Whitesburg gage which is the closest node for which EPD already has modeling data. EPD also informed the Authority that it updated the Res Sim modeling to include the current drought which now shows only two days over the 73-year modeling period that the Authority would be partially without its full permitted withdrawal amount with shortages of 4.3 mgd (8 cfs) and 5.9 mgd (11 cfs).

At its December 2019 meeting, the Authority authorized Schnabel and CCR to extend the site-specific study to the Whitesburg gage. Schnabel's work is complete and attached for your review. The report shows that the additional 2019 data provided and incorporated into the analysis by EPD, results in the proposed non-depletable flow having less impacts than anticipated. There are two days where the required water for the withdrawal would be unavailable from the river. By implementing the alternative non-depletable flow of approximately 12 cfs less in November and 8 cfs less in December, the Authority will be able to meet its non-depletable flow throughout the 72-year period of record. The difference in flow depth will be 0.03ft or less (<1% of flow depth) and result in a 0.01 ft/second or less reduction in flow velocity. Due to weather, CCR Environmental has not been able to complete its fieldwork but anticipates completing it within the next two weeks, pending the weather and ability to safely access the river. Once complete, the collective report will be submitted to EPD for final review. If approved, the alternate minimum instream flow will allow the Authority to meet its full 13.25 mgd need 365 days per year.

Comment Responses: On May 8, 2019, EPD provided the Authority with three comment letters received in response to the March 8, 2019 Public Notice of the draft water withdrawal permit. The comments were received from: The City of Atlanta, the Atlanta Regional Commission and the Chattahoochee River Keeper. The Authority's consultants prepared detailed responses to all comments which required over 32 pages of text and 68 exhibits. The total submission is approximately 2,600 pages. EPD advised the Authority to hold the responses until the district audits were also ready to be submitted. The Authority will conduct a final review of the responses and submit the final version to EPD in January.

District Audits: The Atlanta Regional Commission ("ARC") and the Metropolitan North Georgia Water Planning District ("MNGWPD") aid communities in completing audit documentation. Fairburn, Palmetto, and Union City representatives met with ARC and MNGWPD representatives on August 21st, August 27th and September 4th respectively. All cities provided draft audits which were coordinated with ARC for final

comments before submission to EPD. All cities have addressed ARC's comments and are prepared to submit final versions of the audits for EPD approval. Copies of the audits will be included in the comment responses.

Treatability Analysis: An engineering report will be required as a part of the Water System Permit (a separate permit required to operate the system which is issued upon construction of the facilities).

SWAP: ARC provided a draft SWAP document on December 5th. The draft was emailed to each City's utility director as well as the engineer that had been assisting on the District Audit. Comments were submitted to ARC on December 19th. The final report was originally anticipated by January 1, 2020, but after review of the comments, ARC provided notice that the completion date was extended to February 2020.

Next Steps: Submit the District audits, obtain Authority input and submit comment responses, obtain EPD approval of the site-specific study to support alternate nondepletable flow proposal, update the engineering RFP for the preliminary engineering work and refine the budget and cost estimates accordingly and evaluate sources of funds including additional GEFA loans.

Compensatory Mitigation

Site Specific Sites: The Mitigation Bankers continue to work through the mitigation bank authorization process and the coordination with new regulatory guidance. The Prospectus for the Mulberry Creek site was submitted in January and is moving forward with development of the mitigation banking instrument.

Resale of Mitigation Credits:

Monastery: A check for the sale of 3.68 wetland credits is currently being processed and will be provided to the Authority in the amount of \$71,760.00. There are Statements of Credit Availability for 28.67 wetland credits at \$55,000/credit and 10.19 wetland credits at \$50,000/credit which results in a total of an additional \$858,115.00 that is expected within the first quarter of 2020. When all anticipated sales are completed the Authority will have received a total of \$929,875.00. Upon the sale being completed and receipt of the payment, correspondence will be submitted to the USACE releasing all interest in the 42.54 credits per the modification of the mitigation banking instrument.

Blue Creek: Two credit sales closed in December totaling 746.17 stream credits and payment was received in December. Correspondence releasing the Authority's interest in those credits has been prepared for submission to the USACE. No additional Statement of Credit Availability forms have been executed.

Waters Wars Litigation Update

On December 11, 2019, Special Master Paul J. Kelly, Jr. issued his "Report of the Special Master". After careful analysis of all evidence, briefs and arguments provided by both Florida and Georgia in the ongoing Supreme Court case, Judge Kelly concluded:

"I do not recommend that the Supreme Court grant Florida's request for a decree equitably apportioning the waters of the ACF Basin because the evidence has not shown harm to Florida caused by Georgia; the evidence has shown that Georgia's water use is reasonable; and the evidence has not shown that the benefits of apportionment would substantially outweigh the potential harms."



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MEMORANDUM

TO:	Ms. Shayla Nealy, Chairperson	DATE:	January 14, 2020
COMPANY:	South Fulton Municipal Regional Water and Sewer Authority	SUBJECT:	Proposed Non-Depletable Flow (NDF)
ADDRESS:	5047 Union Street Union City, GA 30291-1497	PROJECT NAME/NO.:	19C35004.00
FROM:	Melinda Dirdal, PE John Harrison, PE, D.WRE	CC:	Ms. Laura Benz Ms. Andrea Gray

BACKGROUND

The South Fulton Municipal Regional Water & Sewer Authority (“Authority”) has submitted a water withdrawal permit application to the Georgia Environmental Protection Division (“GA EPD”) to withdraw a monthly average of 13.25 mgd from the Chattahoochee River near its confluence with Bear Creek. In meeting the minimum instream flow requirements for water withdrawals, GA EPD proposed a non-depletable flow (NDF) regime using streamflow data through 2010 and incorporating the USACE HEC-ResSim model. The USACE developed a reservoir simulation model for the Apalachicola-Chattahoochee-Flint (ACF) River Basin using HEC-ResSim 3.3.1.42 for the period of January 11, 1939, to January 1, 2012. Schnabel requested the most recent HEC-ResSim model from GA EPD via Ms. Laura Benz and received the model referenced above on April 25, 2019. We reviewed scenario Alt7_OptKN2 (projected 2050 water use) to develop an understanding of the model. With the 2010 GA EPD NDF, the model indicates that there is a water deficit for 4 nonconsecutive days during the 72-year period of record. In a memorandum dated October 2, 2019, Schnabel proposed a revised NDF to eliminate the water deficit.

In November 2019, GA EPD updated their proposed NDF using streamflow data through 2019. They incorporated the 2019 NDF into the USACE HEC-ResSim model, which indicates that there is a water deficit for 2 nonconsecutive days during the 72-year period of record: December 5, 1960, and November 5, 1962. GA EPD also modeled Schnabel’s proposed NDF during the months with the modeled water deficit (November and December). Schnabel received the revised HEC-ResSim model from GA EPD via Ms. Laura Benz on November 7, 2019. The November 2019 HEC-ResSim model served as the basis of our assessment.

PROPOSED NON-DEPLETABLE FLOWS (NDF)

We assessed the availability of water in the Chattahoochee River for the Authority’s proposed withdrawal of 20.5 cfs (13.25 mgd) at the Bear Creek confluence using a proposed NDF regime. The proposed NDF regime allows the Authority to utilize the full withdrawal on all days of the modeled record period (Table 1).

SENT VIA: First Class Mail Overnight Service Email Other

Table 1: Non-Depletable Flows

	2019 GA EPD NDF (cfs)	Proposed NDF (cfs)	Difference (cfs)
January	1024	1024	0
February	1073	1073	0
March	1113	1113	0
April	1052	1152	0
May	1051	1051	0
June	996	996	0
July	969	969	0
August	949	949	0
September	943	943	0
October	956	956	0
November	882	870	-12
December	939	931	-8

DOWNSTREAM IMPACTS ANALYSIS

The HEC-ResSim model reflects the Water Control Manual (WCM) for the ACF River Basin. The four major federal reservoir projects in the ACF system are operated by the USACE in general accordance with the WCM:

- Buford Dam (Lake Sidney Lanier)
- West Point Dam and Lake
- Lake Walter F. George Dam and Lake
- Jim Woodruff Dam (Lake Seminole)

The water supply diversion of 20.5 cfs (13.25 mgd) at the confluence of Bear Creek with the Chattahoochee River was modeled using the 2019 GA EPD NDF and the proposed NDF, and impacts were evaluated at West Point Lake, which is the reservoir downstream of the proposed Bear Creek diversion. Parameters evaluated to reflect the impact of the proposed NDF on the Chattahoochee River include:

- Elevation of West Point Lake
- Chattahoochee River inflow into West Point Lake
- Chattahoochee River outflow from West Point Lake

Tables 2 through 4 include data from six time periods, including:

- The period of record (1939-2011)
- Drought Year (2008)
- Typical Wet Year (1973)
- Typical Normal Year (1952)
- Years with Observed Negligible Differences (1960 and 1962)

The analyses indicate that other than negligible differences observed in 1960 and 1962, there were no measurable differences in pool elevation, inflow, or outflow at West Point Lake upon implementation of the proposed NDF.

Table 2: West Point Lake Pool Elevation (ft)

Time Period	2019 GA EPD NDF			Proposed NDF			Difference ¹		
	max	min	mean	max	min	mean	max	min	mean
1939-2011	635.00	621.00	631.40	635.00	621.00	631.40	0.00	0.00	0.00
Dry Yr (2008)	632.69	621.20	629.27	632.69	621.20	629.27	0.00	0.00	0.00
Wet Yr (1973)	635.00	627.37	632.34	635.00	627.37	632.34	0.00	0.00	0.00
Typ Yr (1952)	635.00	627.50	631.10	635.00	627.50	631.10	0.00	0.00	0.00
1960	635.00	627.50	632.17	635.00	627.50	632.17	0.00	0.00	0.00
1962	635.00	627.63	631.49	635.00	627.63	631.49	0.00	0.00	0.00

¹Proposed NDF minus 2019 GA EPD NDF.

Table 3: West Point Lake Inflow (cfs)

Time Period	2019 GA EPD NDF			Proposed NDF			Difference (%) ¹		
	max	min	mean	max	min	mean	max	min	mean
1939-2011	51,381	377	4,863	51,381	377	4,863	0.00%	0.00%	0.00%
Dry Yr (2008)	7,962	668	2,214	7,962	668	2,214	0.00%	0.00%	0.00%
Wet Yr (1973)	23,613	2,105	7,758	23,613	2,105	7,758	0.00%	0.00%	0.00%
Typ Yr (1952)	24,648	1,497	4,895	24,648	1,497	4,895	0.00%	0.00%	0.00%
1960	23,553	1,515	5,060	23,553	1,515	5,060	0.00%	0.00%	0.00%
1962	23,942	1,355	5,558	23,942	1,355	5,558	0.00%	0.00%	0.00%

¹ The difference in flow is -0.42% and -0.56% on December 6, 1960, and November 6, 1962, respectively. All other days in the period of record have a difference of 0.00%.

Table 4: West Point Lake Outflow (cfs)

Time Period	2019 GA EPD NDF			Proposed NDF			Difference (%) ¹		
	max	min	mean	max	min	mean	max	min	mean
1939-2011	40,000	675	4,826	40,000	675	4,826	0.00%	0.00%	0.00%
Dry Yr (2008)	9,688	675	2,021	9,688	675	2,021	0.00%	0.00%	0.00%
Wet Yr (1973)	23,627	675	7,719	23,627	675	7,719	0.00%	0.00%	0.00%
Typ Yr (1952)	23,982	675	4,851	23,982	675	4,851	0.00%	0.00%	0.00%
1960	22,723	675	5,019	22,723	675	5,019	0.00%	0.00%	0.00%
1962	23,225	675	5,520	23,225	675	5,520	0.00%	0.00%	0.00%

¹ The difference in flow is -0.22% and -0.30% on December 6, 1960, and November 19, 1962, respectively. All other days in the period of record have a difference of 0.00%.

Flow differences in the Chattahoochee River downstream of the confluence of Bear Creek are insignificant. The revised HEC-ResSim model that includes the proposed NDF is available upon request.

FLOW DEPTH AND VELOCITY ANALYSIS

We compared flow depths resulting from the 2019 GA EPD NDF and the proposed NDF. We purchased the current Flood Insurance Study (FIS) steady flow 1D HEC-RAS model from FEMA. The model includes riverbed geometry of the Chattahoochee River, including 48 representative river cross sections of the segment between the confluence with Bear Creek and the Whitesburg gage. Schnabel revised the FEMA model flows to compute water surface profiles for the 2019

South Fulton Municipal Regional Water and Sewer Authority
Low Flow Compliance Assessment

GA EPD NDF and the proposed NDF, and compared flow depth and velocity for the two months with proposed changes to the NDF: November and December. For each month, the modeled difference in flow depth was 0.03 ft or less (<1% of flow depth) on the Chattahoochee River between the confluence of Bear Creek and the Whitesburg gage, with 0.01 ft/sec or less reduction in flow velocity. Detailed results are included in Attachment 1.

We appreciate this opportunity to be of continued support to the Authority. Please contact me if you have any questions regarding this memo.

SIGNED:



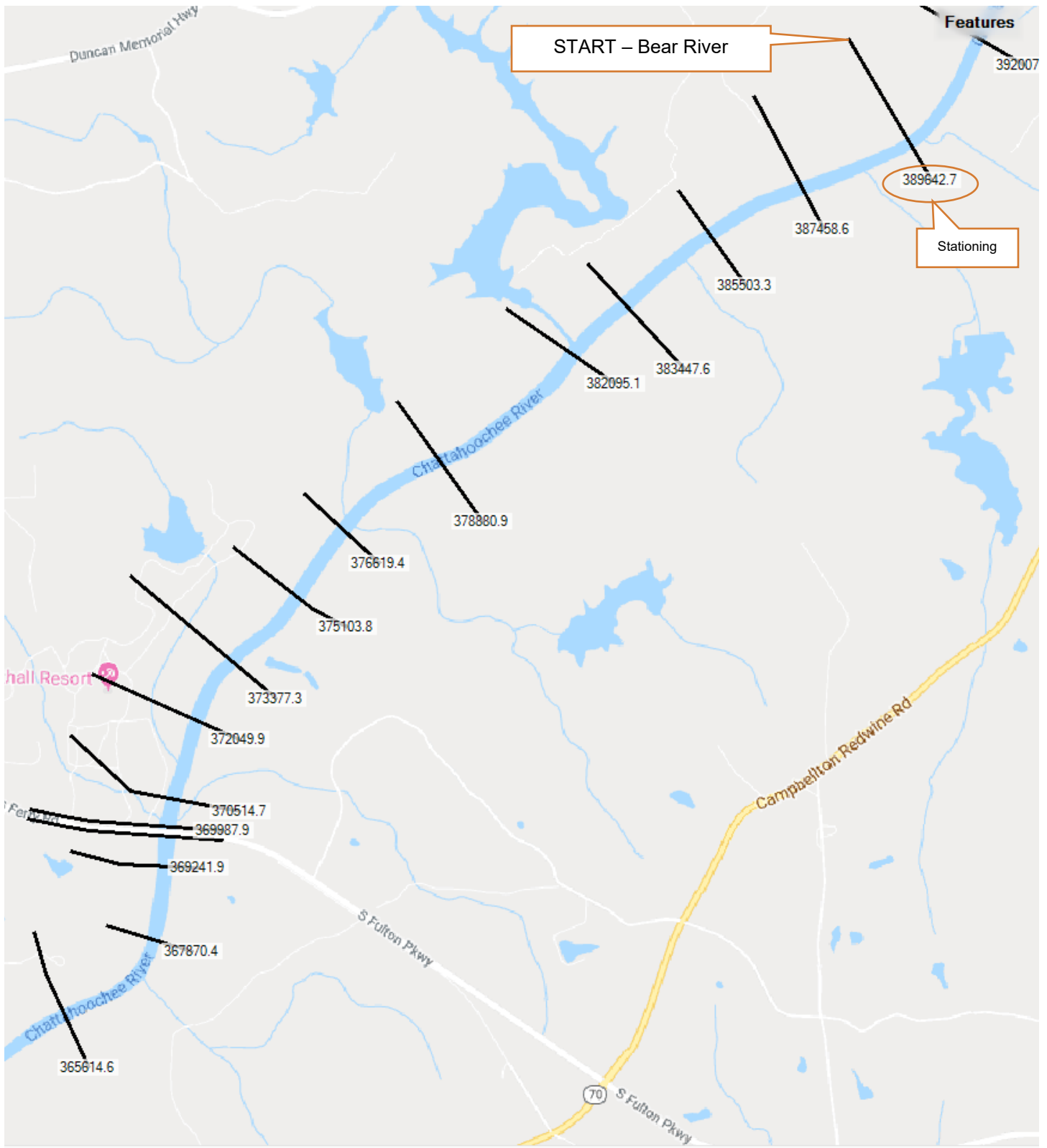
John P. Harrison, PE, D.WRE / Principal

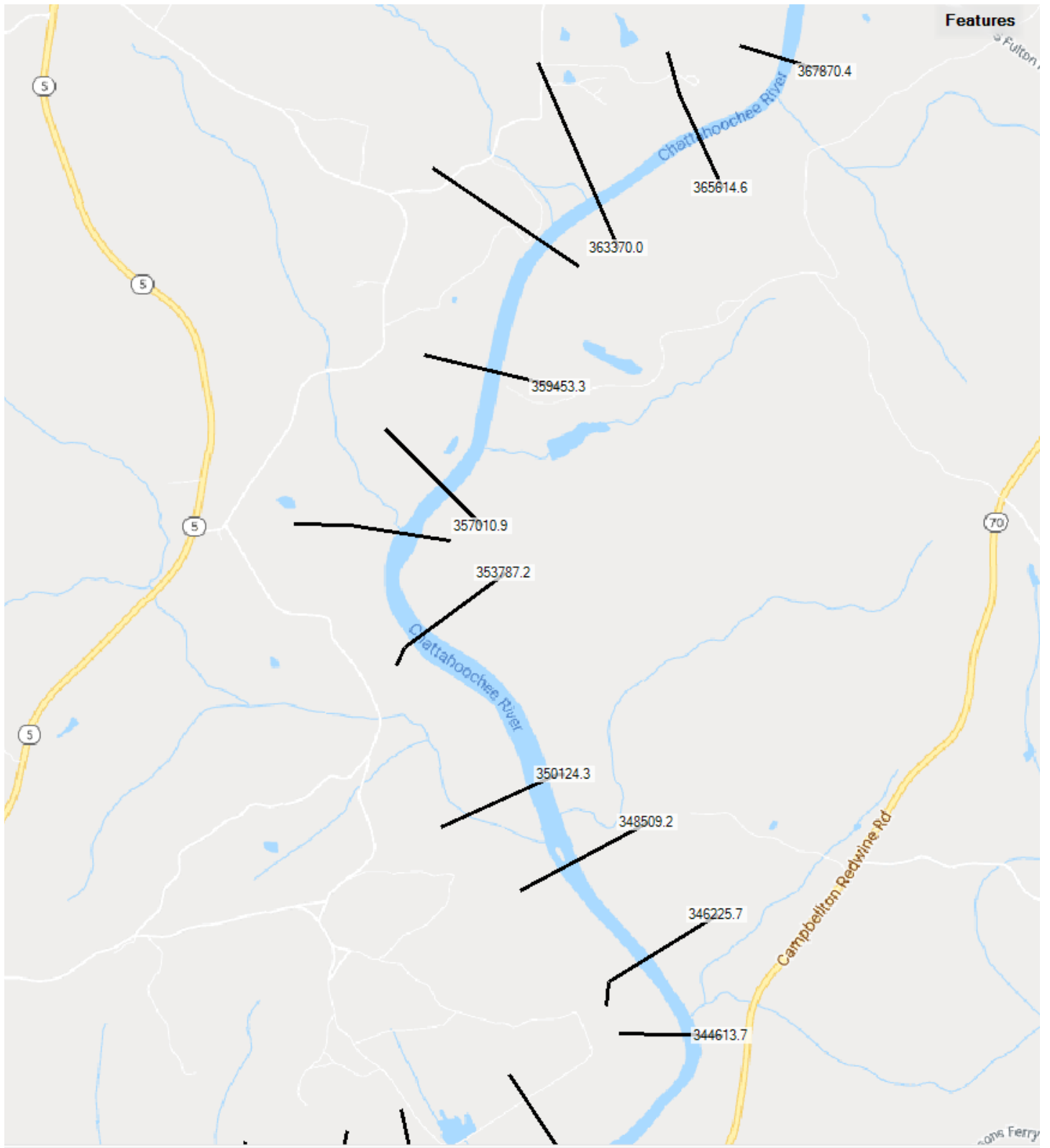
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Attachment: HEC-RAS Flow Depth and Velocity Results

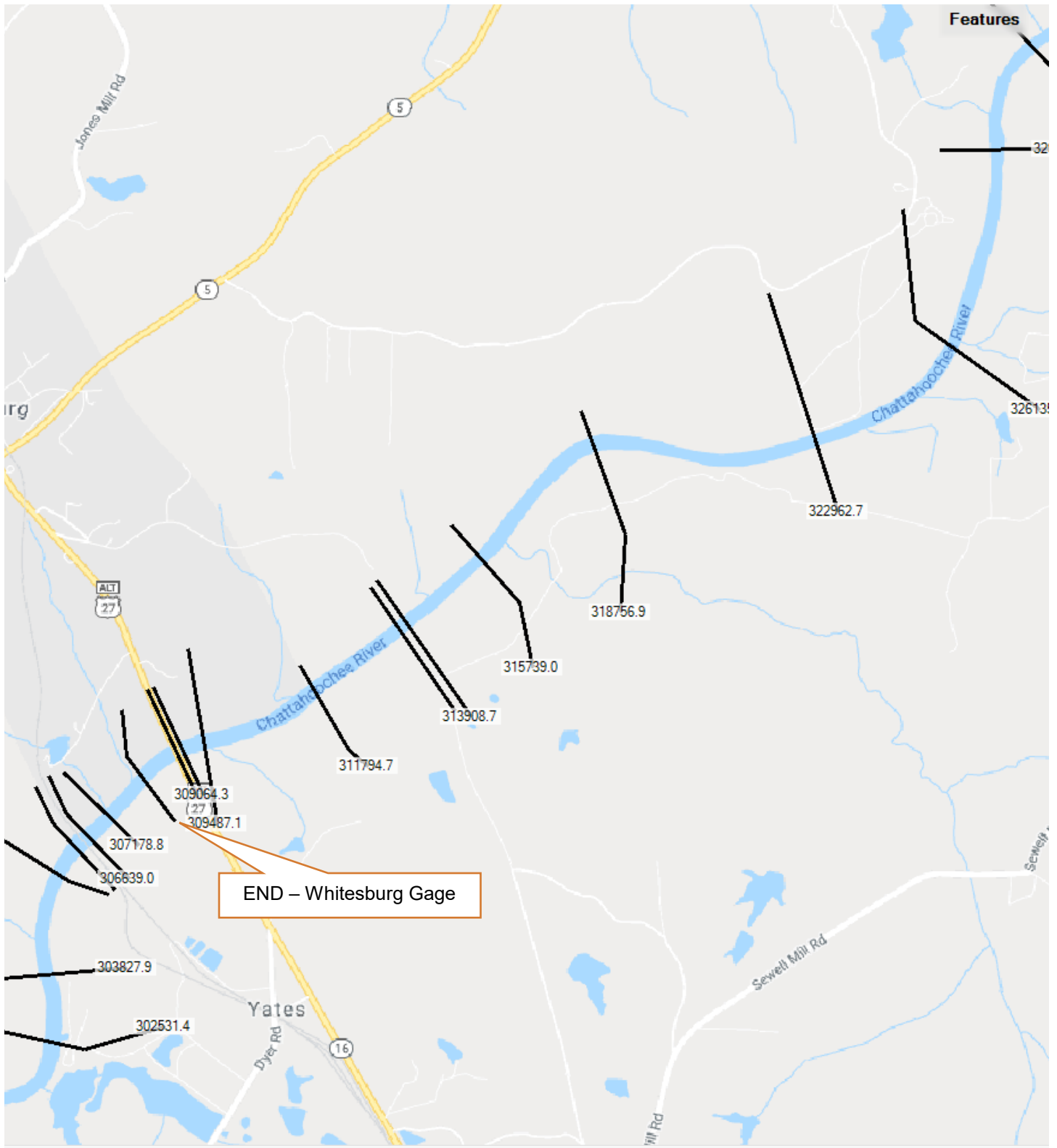
ATTACHMENT

HEC-RAS FLOW DEPTH AND VELOCITY RESULTS









HEC-RAS Station	Distance DS of Bear Creek (miles)	NOVEMBER			DECEMBER		
		Water Surface Elevation (ft)			Water Surface Elevation (ft)		
		2019 GA EPD NDF (882 cfs)	Proposed NDF (870 cfs)	ΔH (ft)	2019 GA EPD NDF (939 cfs)	Proposed NDF (931 cfs)	ΔH (ft)
389642.7	0.1	708.58	708.55	0.03	708.75	708.72	0.03
387458.6	0.5	708.23	708.19	0.04	708.38	708.36	0.02
385503.3	0.8	707.86	707.83	0.03	708.01	707.99	0.02
383447.6	1.2	707.39	707.36	0.03	707.54	707.52	0.02
382095.1	1.5	707.01	706.98	0.03	707.16	707.14	0.02
378880.9	2.1	706.01	705.98	0.03	706.16	706.14	0.02
376619.4	2.5	705.36	705.33	0.03	705.5	705.48	0.02
375103.8	2.8	704.95	704.92	0.03	705.09	705.07	0.02
373377.3	3.1	704.51	704.49	0.02	704.64	704.62	0.02
372049.9	3.4	704.2	704.17	0.03	704.31	704.29	0.02
370514.7	3.7	704.17	704.15	0.02	704.28	704.26	0.02
369987.9	3.8	704.06	704.04	0.02	704.16	704.15	0.01
369877.9	3.8	Bridge	Bridge	N/A	Bridge	Bridge	N/A
369812.8	3.8	703.57	703.54	0.03	703.73	703.71	0.02
369241.9	3.9	703.55	703.52	0.03	703.7	703.68	0.02
367870.4	4.2	703.47	703.44	0.03	703.62	703.6	0.02
365614.6	4.6	703.18	703.15	0.03	703.32	703.3	0.02
363370	5.0	702.91	702.89	0.02	703.05	703.03	0.02
362057.8	5.3	702.76	702.73	0.03	702.89	702.87	0.02
359453.3	5.8	702.42	702.4	0.02	702.54	702.53	0.01
357010.9	6.2	701.99	701.97	0.02	702.1	702.09	0.01
355893.7	6.4	701.69	701.67	0.02	701.79	701.78	0.01
353787.2	6.8	700.71	700.7	0.01	700.8	700.79	0.01
350124.3	7.5	698.1	698.08	0.02	698.2	698.19	0.01
348509.2	7.8	697.01	696.99	0.02	697.11	697.1	0.01
346225.7	8.3	695.64	695.62	0.02	695.75	695.73	0.02
344613.7	8.6	694.78	694.75	0.03	694.88	694.87	0.01
341061.1	9.3	693.27	693.25	0.02	693.37	693.36	0.01
338010.7	9.8	692.15	692.13	0.02	692.25	692.24	0.01
336123.7	10.2	691.42	691.4	0.02	691.52	691.5	0.02
334370.4	10.5	690.64	690.62	0.02	690.75	690.73	0.02
333260.9	10.7	690.06	690.03	0.03	690.17	690.16	0.01
332066.9	11.0	689.44	689.41	0.03	689.56	689.54	0.02
329938	11.4	687.92	687.89	0.03	688.05	688.03	0.02
326135.6	12.1	686.09	686.05	0.04	686.25	686.23	0.02
322962.7	12.7	685.72	685.69	0.03	685.88	685.86	0.02
318756.9	13.5	685.45	685.42	0.03	685.6	685.58	0.02
315739	14.0	685.31	685.28	0.03	685.45	685.43	0.02
313908.7	14.4	685.23	685.2	0.03	685.37	685.35	0.02
313741.5	14.4	685.22	685.19	0.03	685.35	685.34	0.01
311794.7	14.8	685.07	685.04	0.03	685.2	685.18	0.02
309487.1	15.2	684.6	684.58	0.02	684.71	684.7	0.01
309064.3	15.3	684.55	684.52	0.03	684.66	684.64	0.02
308979.1	15.3	Bridge	Bridge	N/A	Bridge	Bridge	N/A
308927.9	15.3	684.52	684.5	0.02	684.63	684.62	0.01
308120.8	15.5	684.52	684.49	0.03	684.63	684.61	0.02

