

**2019 Annual Report on Interbasin Transfers  
for  
The Cities of Concord and Kannapolis**

Prepared for and by:

**City of Concord**



**City of Kannapolis**



Submitted to:

**North Carolina Division of Water Resources**

March 2020

# Executive Summary

The 2019 Annual Report on Interbasin Transfers (IBTs) for the Cities of Concord and Kannapolis (Cities) includes monitoring data for daily tracking of IBT amounts and documentation of compliance with all IBT Certificate conditions. Annual reports were previously prepared for calendar years 2007 through 2018 and are available on the North Carolina Division of Water Resources (NCDWR) website. The reports for earlier years can be found at the following website: <https://deq.nc.gov/node/82755>.

The North Carolina Environmental Management Commission (EMC) approved the Cities' IBT Certificate in January 2007 authorizing transfers of up to 10 million gallons per day (mgd) from the Catawba River Basin to the Rocky River Basin and 10 mgd from the Yadkin River Basin to the Rocky River Basin. Additionally, a grandfathered IBT of 6 mgd authorizes transfer from Second Creek, located in the South Yadkin River Basin, to the Rocky River Basin. The terms "Cities" and "Certificate Holders" are used interchangeably herein.

In 2019, the Certificate Holders complied with all conditions of their IBT Certificate. The Cities of Concord and Kannapolis had a maximum daily transfer from the Catawba River Basin of 1.18 mgd during 2019. The maximum daily transfer from the Yadkin River Basin was 4.56 mgd.

In 2019, the City of Kannapolis pumped water from Second Creek to Kannapolis Lake under its South Yadkin River Basin grandfathered IBT. The maximum daily transfer under the grandfathered IBT from the South Yadkin River Basin to the Rocky River Basin in 2019 was 0 mgd. The 2019 IBT daily transfers for Concord and Kannapolis are shown in Figure ES-1.

In addition, a settlement was reached in 2010 on a lawsuit filed by the Catawba River Foundation, Inc. and the Protect the Catawba Coalition. While this does not change the IBT Certificate or required reporting in any way, the Cities did agree to some operational conditions regarding the Catawba River Basin during times of drought.

**Table ES-1**

2019 IBT Average Annual & Maximum Day Demands for Concord and Kannapolis Service Areas

Year	Catawba River Basin			Yadkin River Basin			Second Creek <sup>c,d</sup> (South Yadkin River Basin)		
	Water Purchase (mgd)		IBT as % of Certificate <sup>a</sup>	Water Purchase (mgd)		IBT as % of Certificate <sup>b,c</sup>	Water Transfer (mgd)		IBT as % of Grandfathered amount
	Average Annual	Max. Day	Max. Day	Average Annual	Max. Day	Max. Day	Average Annual	Max. Day	Max. Day
2019	0.003	1.18	11.79%	3.13	4.56	45.63%	-0.30	0	0%

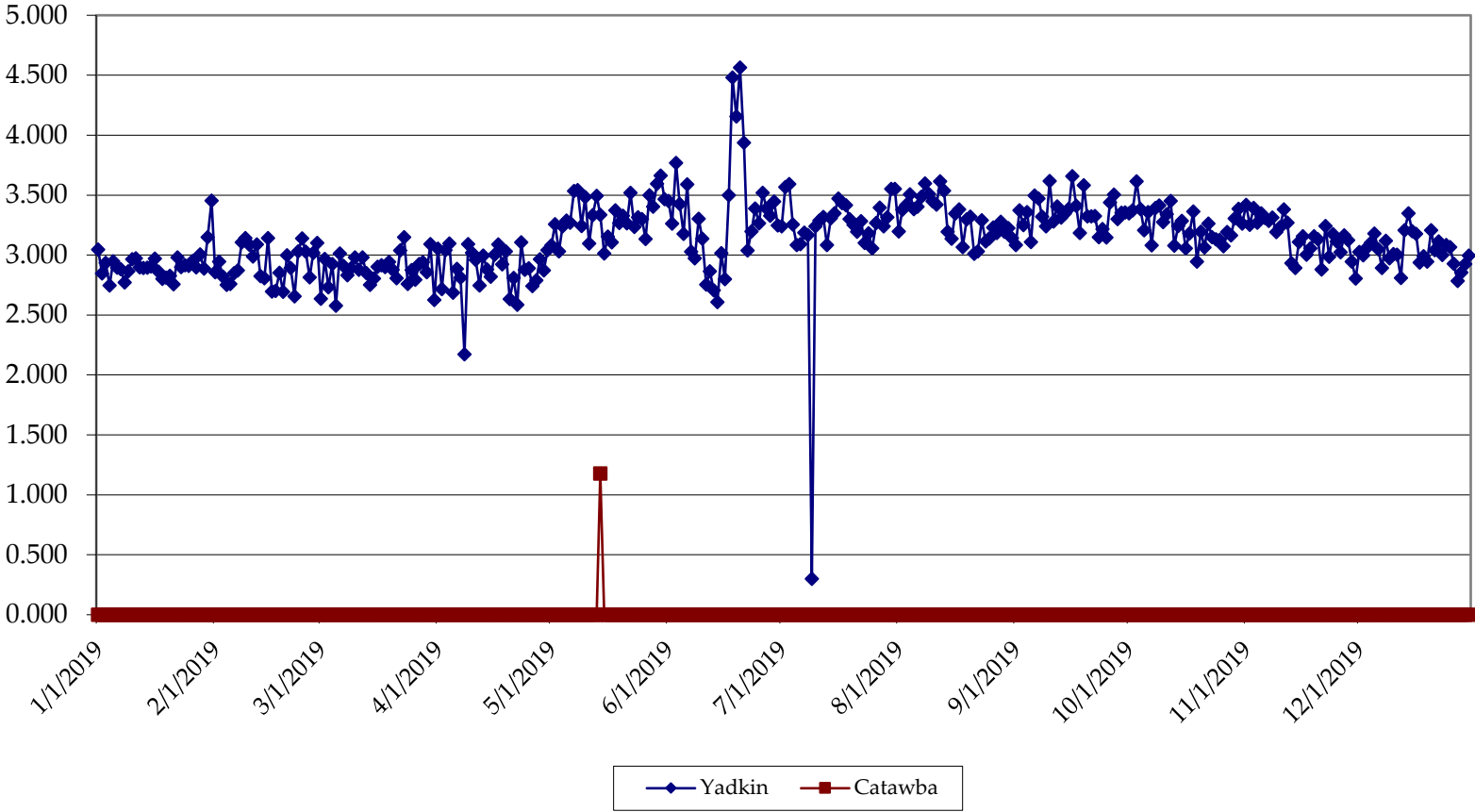
<sup>a</sup> Maximum Day IBT of 10 mgd from the Catawba River Basin.

<sup>b</sup> Maximum Day IBT of 10 mgd from the Yadkin River Basin.

<sup>c</sup> The grandfathered 6-mgd Maximum Day IBT limit from Second Creek (South Yadkin River Basin) into the Rocky River Basin is not included in the 10-mgd Maximum Day IBT limit for the Yadkin River Basin.

<sup>d</sup> There was no transfer from Second Creek, therefore these numbers are negative.

2019 Daily IBT Per Basin (mgd)



**Figure ES-1**  
2019 Daily Interbasin Transfers by Basin

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Daily Interbasin Transfer Amounts for 2019

# Acronyms and Abbreviations

DMAC	Drought Management Advisory Council
EMC	Environmental Management Commission
FERC	Federal Energy Regulatory Commission
IBT	Interbasin Transfer
LIP	Low Inflow Protocol
mgd	million gallons per day
NCDWR	North Carolina Division of Water Resources
WSRP	Water Shortage Response Plan
WTP	Water Treatment Plant

# 1.0 - Introduction

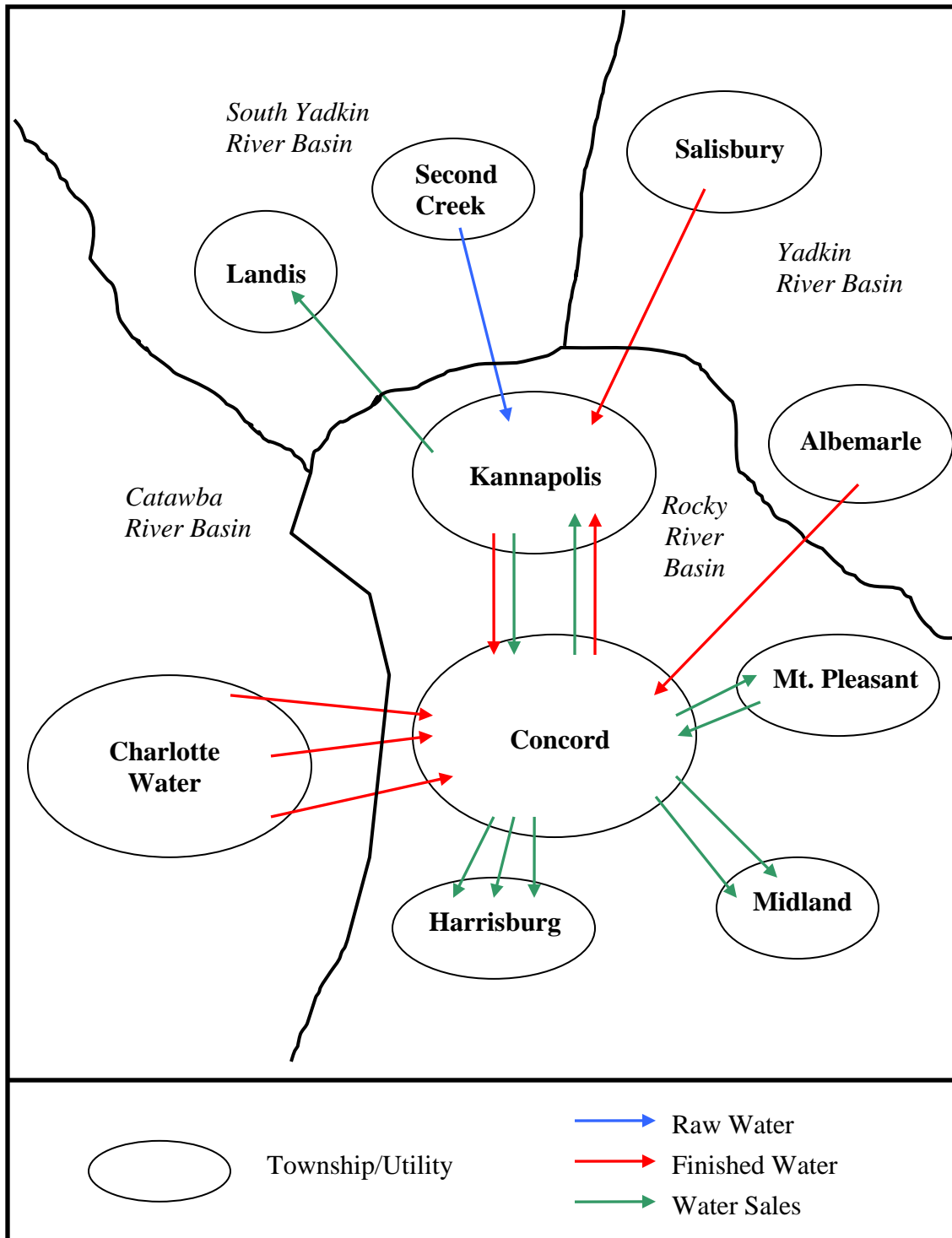
The Cities of Concord and Kannapolis (Cities) received an interbasin transfer (IBT) Certificate, which was originally approved on January 10, 2007, and signed into effect on January 25, 2007. The North Carolina Environmental Management Commission (EMC) has authorized transfers of up to 10 million gallons per day (mgd) from the Catawba River Basin to the Rocky River Basin and 10 mgd from the Yadkin River Basin to the Rocky River Basin. As a condition of the IBT Certificate, the Cities are required to produce an Annual Report that documents transfers over the past year. Annual reports were also prepared for calendar years 2007 through 2018 and are available on the North Carolina Division of Water Resources (NCDWR) website. The reports for earlier years can be found at the following website: <https://deq.nc.gov/node/82755>.

The Cities provide water to each other, various municipalities in the area (including: Mount Pleasant, Midland, Harrisburg, and Landis), and unincorporated areas of Cabarrus County. Concord owns and operates the water distribution system used by the Town of Midland. Charlotte Water and the City of Salisbury currently have contracts to provide water to the Cities from the Catawba and Yadkin River Basins, respectively.

The terms “Cities” and “Certificate Holders” are used interchangeably herein. Figure 1-1 illustrates the ability to transfer water among the Certificate Holders and all municipalities served by the Certificate Holders.

**Figure 1-1**

Water Connections of the Certificate Holders and All Municipalities Served by the Certificate Holders



## 2.0 - IBT Monitoring

### 2.1 - Service Area Water Demand

Table 2-1 presents 2019 annual average water production for the Certificate Holders based on finished water produced at the Hillgrove, Coddle Creek, and Kannapolis Water Treatment Plants (WTPs). It also shows finished water purchases from Charlotte Water, the City of Salisbury and the City of Albemarle, if they occurred. Additionally, Table 2-1 presents the 2019 annual average IBT (or water purchases) from each basin covered by the IBT Certificate and from Second Creek, from which transfers are authorized by a grandfathered IBT. In 2019, finished water production averaged 13.74 mgd, purchased IBT finished water averaged 0.003 mgd for Catawba River Basin, 3.13 mgd for the Yadkin River Basin and -0.30 mgd for Second Creek. The combined 2019 annual average water use for the Certificate Holders was 16.57 mgd.

**Table 2-1**

2019 Water Production or Purchases by River Basin

		2019			Annual Average Combined Water Use (mgd)
		Annual Average Purchased Water (mgd)			
Certificate Holders	Annual Average Finished Water Produced <sup>a</sup> (mgd)	Catawba River Basin <sup>b</sup>	Yadkin River Basin	Second Creek	
Concord & Kannapolis	13.74	0.003	3.13	-0.30	16.57

<sup>a</sup> Water produced within Rocky River Basin; may include water from Second Creek transferred directly into Kannapolis Lake.

### 2.2 - Interbasin Transfers

Daily IBT amounts for the Certificate Holders are included in the Appendix. Data is provided for the period January 1, 2019 through December 31, 2019. The maximum day IBT from the Catawba River Basin during the calendar year 2019 was 1.18 mgd. This represents 11.79% of the permitted maximum day, 10 mgd IBT from the Catawba River Basin under the Certificate approved by the EMC in January 2007. The maximum day IBT from the Yadkin River Basin during the calendar year 2019 was 4.56 mgd. This represents 45.63% of the permitted maximum day, 10 mgd IBT from the Yadkin River Basin under the Certificate. There were transfers of water to Second Creek with a maximum day IBT 0 mgd, which represents 0% of the permitted maximum day, 6 mgd IBT from the South Yadkin River Basin under the grandfathered Certificate. Table 2-2 shows the IBT use for the Certificate Holders and the percentage of use from the Catawba and Yadkin River Basins.



**Table 2-2**

2019 IBT Average Annual & Maximum Day Demands for Concord and Kannapolis Service Areas

Year	Catawba River Basin			Yadkin River Basin			Second Creek <sup>c,d</sup> (South Yadkin River Basin)		
	Water Purchase (mgd)		IBT as % of Certificate <sup>a</sup>	Water Purchase (mgd)		IBT as % of Certificate <sup>b,c</sup>	Water Transfer (mgd)		IBT as % of Grand-fathered amount
	Average Annual	Max. Day	Max. Day	Average Annual	Max. Day	Max. Day	Average Annual	Max. Day	Max. Day
2019	0.003	1.18	11.79%	3.13	4.56	45.63%	-0.30	0	0%

<sup>a</sup> Maximum Day IBT of 10 mgd from the Catawba River Basin.

<sup>b</sup> Maximum Day IBT of 10 mgd from the Yadkin River Basin.

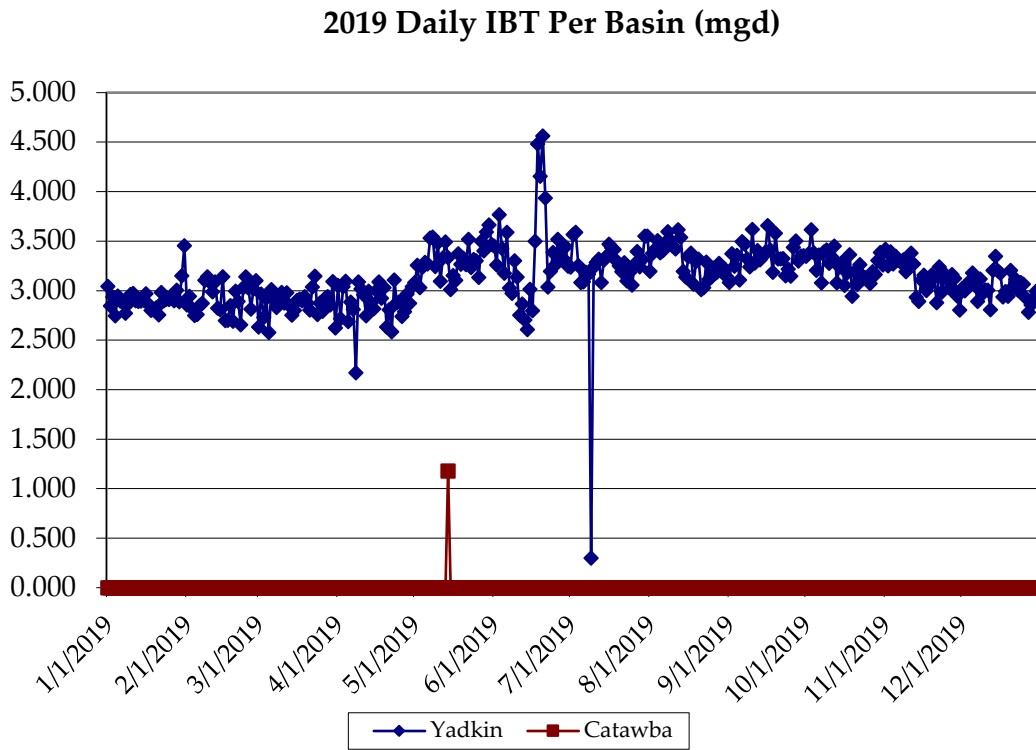
<sup>c</sup> The grandfathered 6-mgd Maximum Day IBT limit from Second Creek (South Yadkin River Basin) into the Rocky River Basin is not included in the 10-mgd Maximum Day IBT limit for the Yadkin River Basin.

<sup>d</sup> There was no transfer from Second Creek, therefore these numbers are negative.

Figure 2-1 displays the daily IBT amounts for water purchases from the Catawba and Yadkin River Basins.

**Figure 2-1**

2019 Daily Interbasin Transfers by Basin



### 3.0 - Other Related Information

In 2010, a settlement was reached in a lawsuit filed by the Catawba River Foundation, Inc. and the Protect the Catawba Coalition. While this does not affect the IBT Certificate, its conditions, or required reporting in any way, the Cities did agree to some operational conditions regarding the Catawba River Basin during times of drought.

During designated droughts beyond July 1, 2015, following either Low Inflow Protocol (LIP) or Drought Management Advisory Council (DMAC) Drought Stage declaration, the Cities have agreed to limit the Catawba River Basin IBT so that it corresponds to water use reduction goals. A summary of this agreement is presented in Table 3-1.

**Table 3-1**

Catawba River Basin IBT during Drought Conditions

LIP Stage or DMAC Drought Stage	Maximum Day Transfer (mgd)
0 / Abnormally Dry	10.0
1 / Moderate Drought	9.0
2 / Severe Drought	8.5
3 / Extreme Drought	7.0
4 / Exceptional Drought	6.0

## 4.0 - Compliance with Certificate Conditions

A summary of the conditions of the IBT Certificate approved on January 10, 2007 along with the current status of compliance for each is provided below. Language from the certificate is followed by actions for each condition.

### 4.1 - Condition 1 (Federal Energy Regulatory Commission [FERC] Licensure)

*If at any time any legal requirement that (a) governs the operation of the hydroelectric facilities in the Catawba River Basin currently licensed as Federal Energy Regulatory Commission (FERC) Project No. P-2232 or in the Yadkin Pee-Dee River Basin currently licensed as FERC Project Nos. P-2206 and P-2197 and (b) governs or affects water use and/or quality, substantially differs from the actual or anticipated FERC license conditions or other legal requirement upon which the analysis underlying this Certificate is based, such as changes to minimum flow requirements or drought mitigation measures, the Commission may reopen and modify this Certificate.*

This condition requires no action by the Certificate Holders.

### 4.2 - Condition 2 (Drought Management Plan)

*Each Certificate Holder shall prepare a Drought Management Plan. The Cities shall implement measures corresponding to the most severe level of drought conditions in either the Catawba or Yadkin River Basins. The Cities shall not transfer any water to any other jurisdictions unless that jurisdiction agrees to be bound by this condition in full.*

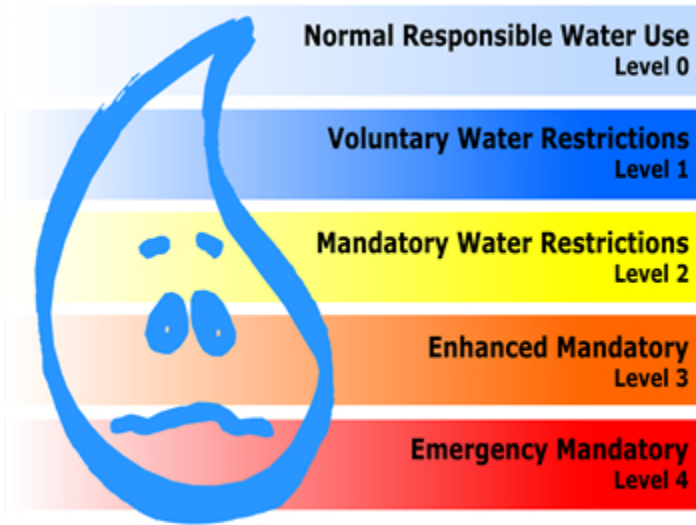
The Cities submitted the Drought Management Plan on July 31, 2007; comments were received on November 11, 2007, and the revised plan was submitted on January 8, 2008. The Drought Management Plan was incorporated into an updated Water Shortage Response Plan (WSRP) in 2010. The WSRP, prepared as a joint document for the Certificate Holders, is available on the NCDWR website at the following web address:

[http://www.ncwater.org/Water\\_Supply\\_Planning/Water\\_Shortage\\_Response\\_Plans/plan](http://www.ncwater.org/Water_Supply_Planning/Water_Shortage_Response_Plans/plan)

Table 4-1 shows Normal and Drought Stages 0-4, the names of each, the date the Catawba River Basin managers implemented Draft LIP actions in response to drought monitoring, the Yadkin-Pee Dee River Basin drought monitor, and the associated actions taken by the Cities.

Beginning in the winter of 2008, drought conditions in the state began to decrease, permitting an easing of drought restrictions for both the Catawba and Yadkin River Basins. Level 0, Normal Responsible Water Use, was in place from January 1 through December 31 of 2019 (Figure 4-1). Other outdoor water use conservation measures are encouraged but not required.

During the year, the Cities drought stages follow the drought stages of the Catawba-Wataree Water Management Group; hence the Cities stayed in Normal Responsible Water Use Level.



The Cities have agreements in place that include enforcement policies with other systems that purchase water from them.

**Table 4-1**

Concord and Kannapolis 2019 Normal and Drought Stages

2019 Period of Drought					
Drought Stage	Drought Monitor Classification	Catawba River Basin <sup>a</sup> (NC Drought Monitor)	Yadkin River Basin <sup>b</sup> (NC Drought Monitor)	Action by Cities	Cities' Actions Taken
	Normal	January 1 – July 8 December 3 – December 31	January 1 – June 10 December 3 – December 31		
0	Abnormally Dry	July 9 – September 23 November 26 – December 2	June 11 – September 23 November 26 – December 2		Voluntary conservation measures encouraged through public notification.
1	Moderate Drought	September 24 – September 30 October 29 – November 25	September 24 – October 7 October 29 – November 25		
2	Severe Drought	October 1 – October 28	October 8 – October 28		
3	Extreme Drought				
4	Exceptional Drought				

<sup>a</sup> The Catawba River Basin is listed as the drought stage declared by the Catawba-Wateree Water Management Group.

<sup>b</sup> The Yadkin River Basin is listed as the highest classification within the basin at a given date. Portions of the basin may be in a lower category.

### **4.3 - Condition 3 (Disaggregation of IBT Amount)**

*If the Certificate Holders discontinue their cooperative service agreement, then the permitted IBT amount will be allocated amongst the Certificate Holders based on their projected 2030 needs.*

The cooperative service agreement between the Certificate Holders remained in effect throughout 2019.

The Cities and local municipalities cooperatively and effectively communicate and manage their respective water distribution systems. The Cities sell water to each other and reconcile billing monthly. Additionally, Concord owns and operates the water distribution system for Midland, providing water service to all Midland customers. Harrisburg purchases water from Concord, measured by six meters. Concord also provides water service to unincorporated areas of Cabarrus County. Mount Pleasant did not purchase water from the City of Concord in 2019. Further emphasizing the interconnected nature of the Cities and local municipalities, Kannapolis provides water to Landis, located in the South Yadkin River Basin, which is not subject to this IBT Certificate.

### **4.4 - Condition 4 (Compliance and Monitoring Plan)**

*In cooperation with the Division of Water Resources, the Certificate Holders shall develop an IBT Compliance and Monitoring Plan.*

The Cities submitted the Compliance and Monitoring Plan on July 31, 2007. This plan was finalized in December 2007.

### **4.5 - Condition 5 (EMC Consideration of Impacts)**

*The EMC may reopen the Certificate and adjust existing or require new conditions to ensure detrimental impacts are mitigated if environmental impacts are found to be substantially different from those projected in the EMC's Findings of Fact.*

This condition requires no action by the Certificate Holders. The EMC did not take action on this condition in 2019.

### **4.6 - Condition 6 (20-Year Certificate Evaluation)**

*In twenty years from the date of the Certificate, the Cities shall submit a written report to the EMC to include: (a) summary of transfers for the previous twenty years, (b) discussion of any changes to the environmental impacts assessment from IBT transfers, (c) summary of all actions to address actual or potential drought conditions, (d) recommendations for any changes to the Certificate, (e) details on consultation with interested stakeholders, and (f) certification of compliance with Certificate. This will continue at 20-year intervals.*

The IBT Certificate was approved on January 10, 2007 and signed into effect on January 25, 2007; therefore, the first 20-year certificate evaluation report will be completed in 2027.

## **4.7 - Condition 7 (Limit of Certificate)**

*The Certificate does not exempt the Cities from compliance with any other requirements of law.*

This condition requires no action by the Cities.

# **APPENDIX**

## **Daily Interbasin Transfer Amounts for 2019**



2019 Concord-Kannapolis IBT Tracking

Condition of IBT Certificate (January 25, 2007)

Maximum day transfer from the Catawba River Basin 10 MGD  
 Maximum day transfer from the Yadkin Pee-Dee River Basin 10 MGD  
 Maximum day transfer from the South Yadkin River Basin (grandfather) 6 MGD  
 Maximum day transfer to the South Yadkin River Basin (cannot exceed transfer from South Yadkin by more than 1.99 MGD)

Calculated Fields

Map Code Source Basin	Water Transfer (MGD) to Rocky River Basin				Water Sales (MGD)		IBT Totals Per Basin				Interbasin Transfer						
	Salisbury 1		Albemarle 1	Charlotte 1-3	South Yadkin	South Yadkin	Yadkin	Catawba	Grandfathered IBT from Second Creek - South Yadkin River Basin								
	South Yadkin	Yadkin	Yadkin	Catawba					Kannapolis water sales to Landis	Total South Yadkin IBT <sup>1</sup>	Total Yadkin IBT	Total Catawba IBT	Catawba	% of Permitted MDD Transfer	Yadkin	% of Permitted MDD Transfer	IBT from South Yadkin to South Yadkin River Basin
DATE	Raw Water to Kannapolis Lake from Second Creek	Salisbury Finished water Interconnection with Kannapolis	Albemarle Finished water Interconnection with Concord	Charlotte Water Interconnections with Concord													
1/1/2019	0.000	0.000	3.045	0.000	0.199	-0.199	3.045	0.000	0.000	0.000%	3.045	30.450%	-0.199	-3.317%	0.199	10.000%	
1/2/2019	0.000	0.000	2.847	0.000	0.251	-0.251	2.847	0.000	0.000	0.000%	2.847	28.470%	-0.251	-4.183%	0.251	12.613%	
1/3/2019	0.000	0.000	2.936	0.000	0.250	-0.250	2.936	0.000	0.000	0.000%	2.936	29.360%	-0.250	-4.167%	0.250	12.563%	
1/4/2019	0.000	0.000	2.747	0.000	0.497	-0.497	2.747	0.000	0.000	0.000%	2.747	27.470%	-0.497	-8.283%	0.497	24.975%	
1/5/2019	0.000	0.000	2.948	0.000	0.253	-0.253	2.948	0.000	0.000	0.000%	2.948	29.480%	-0.253	-4.217%	0.253	12.714%	
1/6/2019	0.000	0.000	2.895	0.000	0.256	-0.256	2.895	0.000	0.000	0.000%	2.895	28.950%	-0.256	-4.267%	0.256	12.864%	
1/7/2019	0.000	0.000	2.881	0.000	0.246	-0.246	2.881	0.000	0.000	0.000%	2.881	28.810%	-0.246	-4.100%	0.246	12.362%	
1/8/2019	0.000	0.000	2.771	0.000	0.242	-0.242	2.771	0.000	0.000	0.000%	2.771	27.710%	-0.242	-4.033%	0.242	12.161%	
1/9/2019	0.000	0.000	2.865	0.000	0.209	-0.209	2.865	0.000	0.000	0.000%	2.865	28.650%	-0.209	-3.483%	0.209	10.503%	
1/10/2019	0.000	0.000	2.964	0.000	0.243	-0.243	2.964	0.000	0.000	0.000%	2.964	29.640%	-0.243	-4.050%	0.243	12.211%	
1/11/2019	0.000	0.000	2.974	0.000	0.206	-0.206	2.974	0.000	0.000	0.000%	2.974	29.740%	-0.206	-3.433%	0.206	10.352%	
1/12/2019	0.000	0.000	2.897	0.000	0.248	-0.248	2.897	0.000	0.000	0.000%	2.897	28.970%	-0.248	-4.133%	0.248	12.462%	
1/13/2019	0.000	0.000	2.891	0.000	0.249	-0.249	2.891	0.000	0.000	0.000%	2.891	28.910%	-0.249	-4.150%	0.249	12.513%	
1/14/2019	0.000	0.000	2.895	0.000	0.206	-0.206	2.895	0.000	0.000	0.000%	2.895	28.950%	-0.206	-3.433%	0.206	10.352%	
1/15/2019	0.000	0.000	2.906	0.000	0.243	-0.243	2.906	0.000	0.000	0.000%	2.906	29.060%	-0.243	-4.050%	0.243	12.211%	
1/16/2019	0.000	0.000	2.969	0.000	0.214	-0.214	2.969	0.000	0.000	0.000%	2.969	29.690%	-0.214	-3.567%	0.214	10.754%	
1/17/2019	0.000	0.000	2.863	0.000	0.246	-0.246	2.863	0.000	0.000	0.000%	2.863	28.630%	-0.246	-4.100%	0.246	12.362%	
1/18/2019	0.000	0.000	2.801	0.000	0.267	-0.267	2.801	0.000	0.000	0.000%	2.801	28.010%	-0.267	-4.450%	0.267	13.417%	
1/19/2019	0.000	0.000	2.812	0.000	0.212	-0.212	2.812	0.000	0.000	0.000%	2.812	28.120%	-0.212	-3.533%	0.212	10.653%	
1/20/2019	0.000	0.000	2.827	0.000	0.247	-0.247	2.827	0.000	0.000	0.000%	2.827	28.270%	-0.247	-4.117%	0.247	12.412%	
1/21/2019	0.000	0.000	2.757	0.000	0.203	-0.203	2.757	0.000	0.000	0.000%	2.757	27.570%	-0.203	-3.383%	0.203	10.201%	
1/22/2019	0.000	0.000	2.981	0.000	0.245	-0.245	2.981	0.000	0.000	0.000%	2.981	29.810%	-0.245	-4.083%	0.245	12.312%	
1/23/2019	0.000	0.000	2.900	0.000	0.205	-0.205	2.900	0.000	0.000	0.000%	2.900	29.000%	-0.205	-3.417%	0.205	10.302%	
1/24/2019	0.000	0.000	2.915	0.000	0.319	-0.319	2.915	0.000	0.000	0.000%	2.915	29.150%	-0.319	-5.317%	0.319	16.030%	
1/25/2019	0.000	0.000	2.911	0.000	0.200	-0.200	2.911	0.000	0.000	0.000%	2.911	29.110%	-0.200	-3.333%	0.200	10.050%	
1/26/2019	0.000	0.000	2.950	0.000	0.248	-0.248	2.950	0.000	0.000	0.000%	2.950	29.500%	-0.248	-4.133%	0.248	12.462%	
1/27/2019	0.000	0.000	2.897	0.000	0.201	-0.201	2.897	0.000	0.000	0.000%	2.897	28.970%	-0.201	-3.350%	0.201	10.101%	
1/28/2019	0.000	0.000	3.006	0.000	0.248	-0.248	3.006	0.000	0.000	0.000%	3.006	30.060%	-0.248	-4.133%	0.248	12.462%	
1/29/2019	0.000	0.000	2.898	0.000	0.241	-0.241	2.898	0.000	0.000	0.000%	2.898	28.980%	-0.241	-4.017%	0.241	12.111%	
1/30/2019	0.000	0.000	3.149	0.000	0.211	-0.211	3.149	0.000	0.000	0.000%	3.149	31.490%	-0.211	-3.517%	0.211	10.603%	
1/31/2019	0.000	0.000	3.454	0.000	0.251	-0.251	3.454	0.000	0.000	0.000%	3.454	34.540%	-0.251	-4.183%	0.251	12.613%	
2/1/2019	0.000	0.000	2.857	0.000	0.261	-0.261	2.857	0.000	0.000	0.000%	2.857	28.570%	-0.261	-4.350%	0.261	13.116%	
2/2/2019	0.000	0.000	2.944	0.000	0.228	-0.228	2.944	0.000	0.000	0.000%	2.944	29.440%	-0.228	-3.800%	0.228	11.457%	
2/3/2019	0.000	0.000	2.822	0.000	0.234	-0.234	2.822	0.000	0.000	0.000%	2.822	28.220%	-0.234	-3.900%	0.234	11.759%	
2/4/2019	0.000	0.000	2.751	0.000	0.247	-0.247	2.751	0.000	0.000	0.000%	2.751	27.510%	-0.247	-4.117%	0.247	12.412%	
2/5/2019	0.000	0.000	2.759	0.000	0.265	-0.265	2.759	0.000	0.000	0.000%	2.759	27.590%	-0.265	-4.417%	0.265	13.317%	
2/6/2019	0.000	0.000	2.849	0.000	0.208	-0.208	2.849	0.000	0.000	0.000%	2.849	28.490%	-0.208	-3.467%	0.208	10.452%	
2/7/2019	0.000	0.000	2.871	0.000	0.243	-0.243	2.871	0.000	0.000	0.000%	2.871	28.710%	-0.243	-4.050%	0.243	12.211%	
2/8/2019	0.000	0.000	3.106	0.000	0.205	-0.205	3.106	0.000	0.000	0.000%	3.106	31.060%	-0.205	-3.417%	0.205	10.302%	
2/9/2019	0.000	0.000	3.141	0.000	0.247	-0.247	3.141	0.000	0.000	0.000%	3.141	31.410%	-0.247	-4.117%	0.247	12.412%	
2/10/2019	0.000	0.000	3.086	0.000	0.232	-0.232	3.086	0.000	0.000	0.000%	3.086	30.860%	-0.232	-3.867%	0.232	11.658%	
2/11/2019	0.000	0.000	2.988	0.000	0.227	-0.227	2.988	0.000	0.000	0.000%	2.988	29.880%	-0.227	-3.783%	0.227	11.407%	
2/12/2019	0.000	0.000	3.089	0.000	0.244	-0.244	3.089	0.000	0.000	0.000%	3.089	30.890%	-0.244	-4.067%	0.244	12.261%	
2/13/2019	0.000	0.000	2.825	0.000	0.222	-0.222	2.825	0.000	0.000	0.000%	2.825	28.250%	-0.222	-3.700%	0.222	11.156%	
2/14/2019	0.000	0.000	2.807	0.000	0.246	-0.246	2.807	0.000	0.000	0.000%	2.807	28.070%	-0.246	-4.100%	0.246	12.362%	
2/15/2019	0.000	0.000	3.142	0.000	0.243	-0.243	3.142	0.000	0.000	0.000%	3.142	31.420%	-0.243	-4.050%	0.243	12.211%	
2/16/2019	0.000	0.000	2.697	0.000	0.200	-0.200	2.697	0.000	0.000	0.000%	2.697	26.970%	-0.200	-3.333%	0.200	10.050%	
2/17/2019	0.000	0.000	2.701	0.000	0.253	-0.253	2.701	0.000	0.000	0.000%	2.701	27.010%	-0.253	-4.217%	0.253	12.714%	
2/18/2019	0.000	0.000	2.851	0.000	0.266	-0.266	2.851	0.000	0.000	0.000%	2.851	28.510%	-0.266	-4.433%	0.266	13.367%	
2/19/2019	0.000	0.000	2.693	0.000	0.253	-0.253	2.693	0.000	0.000	0.000%	2.693	26.930%	-0.253	-4.217%	0.253	12.714%	
2/20/2019	0.000	0.000	2.997	0.000	0.205	-0.205	2.997	0.000	0.000	0.000%	2.997	29.970%	-0.205	-3.417%	0.205	10.302%	
2/21/2019	0.000	0.000	2.893	0.000	0.201	-0.201	2.893	0.000	0.000	0.000%	2.893	28.930%	-0.201	-3.350%	0.201	10.101%	
2/22/2019	0.000	0.000	2.656	0.000	0.239	-0.239	2.656	0.000	0.000	0.000%	2.656	26.560%	-0.239	-3.983%	0.239	12.010%	
2/23/2019	0.000	0.000	3.030	0.000	0.282	-0.282	3.030	0.000	0.000	0.000%	3.030	30.300%	-0.282	-4.700%	0.282	14.171%	
2/24/2019	0.000	0.000	3.140	0.000	0.262	-0.262	3.140	0.000	0.000	0.000%	3.140	31.400%	-0.262	-4.367%	0.262	13.166%	
2/25/2019	0.000	0.000	3.029	0.000	0.203	-0.203	3.029	0.000	0.000	0.000%	3.029	30.290%	-0.203	-3.383%	0.203	10.201%	
2/26/2019	0.000	0.000	2.813	0.000	0.246	-0.246	2.813	0.000	0.000	0.000%	2.813	28.130%	-0.246	-4.100%	0.246	12.362%	
2/27/2019	0.000	0.000	3.018	0.000	0.205	-0.205	3.018	0.000	0.000	0.000%	3.018	30.180%	-0.205	-3.417%	0.205	10.302%	
2/28/2019	0.000	0.000	3.102	0.000	0.214	-0.214	3.102	0.000	0.000	0.000%	3.102	31.020%	-0.214	-3.567%	0.214	10.754%	
3/1/2019	0.000	0.000	2.635	0.000	0.2	-0.200	2.635	0.000	0.000	0.000%	2.635	26.350%	-0.200	-3.333%	0.200	10.050%	

Map Code Source Basin	Water Transfer (MGD) to Rocky River Basin				Water Sales (MGD)		IBT Totals Per Basin			Interbasin Transfer						
	Salisbury 1		Albemarle 1		Charlotte 1-3		NOTE: All Wastewater discharge is to the Rocky River from RRWWTP, excluding water sales to Landis (subtracted from Total South Yadkin IBT).									
	South Yadkin	Yadkin	Yadkin	Catawba	South Yadkin	South Yadkin	Yadkin	Catawba								
DATE	Raw Water to Kannapolis Lake from Second Creek	Salisbury Finished water Interconnection with Kannapolis	Albemarle Finished water Interconnection with Concord	Charlotte Water Interconnections with Concord	Kannapolis Finished water sales to Landis	Total South Yadkin IBT <sup>1</sup>	Total Yadkin IBT	Total Catawba IBT	Catawba	% of Permitted MDD Transfer	Yadkin	% of Permitted MDD Transfer	Grandfathered IBT from Second Creek - South Yadkin River Basin	% of Permitted MDD Transfer	IBT from Yadkin to South Yadkin River Basin	% of Permitted MDD Transfer
3/2/2019	0.000	0.000	2.967	0.000	0.220	-0.220	2.967	0.000	0.000	0.000%	2.967	29.670%	-0.220	-3.667%	0.220	11.055%
3/3/2019	0.000	0.000	2.730	0.000	0.288	-0.288	2.730	0.000	0.000	0.000%	2.730	27.300%	-0.288	-4.800%	0.288	14.472%
3/4/2019	0.000	0.000	2.925	0.000	0.204	-0.204	2.925	0.000	0.000	0.000%	2.925	29.250%	-0.204	-3.400%	0.204	10.251%
3/5/2019	0.000	0.000	2.578	0.000	0.243	-0.243	2.578	0.000	0.000	0.000%	2.578	25.780%	-0.243	-4.050%	0.243	12.211%
3/6/2019	0.000	0.000	3.012	0.000	0.205	-0.205	3.012	0.000	0.000	0.000%	3.012	30.120%	-0.205	-3.417%	0.205	10.302%
3/7/2019	0.000	0.000	2.910	0.000	0.25	-0.250	2.910	0.000	0.000	0.000%	2.910	29.100%	-0.250	-4.167%	0.250	12.563%
3/8/2019	0.000	0.000	2.832	0.000	0.202	-0.202	2.832	0.000	0.000	0.000%	2.832	28.320%	-0.202	-3.367%	0.202	10.151%
3/9/2019	0.000	0.000	2.889	0.000	0.196	-0.196	2.889	0.000	0.000	0.000%	2.889	28.890%	-0.196	-3.267%	0.196	9.849%
3/10/2019	0.000	0.000	2.981	0.000	0.25	-0.250	2.981	0.000	0.000	0.000%	2.981	29.810%	-0.250	-4.167%	0.250	12.563%
3/11/2019	0.000	0.000	2.877	0.000	0.202	-0.202	2.877	0.000	0.000	0.000%	2.877	28.770%	-0.202	-3.367%	0.202	10.151%
3/12/2019	0.000	0.000	2.980	0.000	0.244	-0.244	2.980	0.000	0.000	0.000%	2.980	29.800%	-0.244	-4.067%	0.244	12.261%
3/13/2019	0.000	0.000	2.849	0.000	0.303	-0.303	2.849	0.000	0.000	0.000%	2.849	28.490%	-0.303	-5.050%	0.303	15.226%
3/14/2019	0.000	0.000	2.752	0.000	0.263	-0.263	2.752	0.000	0.000	0.000%	2.752	27.520%	-0.263	-4.383%	0.263	13.216%
3/15/2019	0.000	0.000	2.803	0.000	0.223	-0.223	2.803	0.000	0.000	0.000%	2.803	28.030%	-0.223	-3.717%	0.223	11.206%
3/16/2019	0.000	0.000	2.902	0.000	0.375	-0.375	2.902	0.000	0.000	0.000%	2.902	29.020%	-0.375	-6.250%	0.375	18.844%
3/17/2019	0.000	0.000	2.915	0.000	0.257	-0.257	2.915	0.000	0.000	0.000%	2.915	29.150%	-0.257	-4.283%	0.257	12.915%
3/18/2019	0.000	0.000	2.900	0.000	0.238	-0.238	2.900	0.000	0.000	0.000%	2.900	29.000%	-0.238	-3.967%	0.238	11.960%
3/19/2019	0.000	0.000	2.942	0.000	0.232	-0.232	2.942	0.000	0.000	0.000%	2.942	29.420%	-0.232	-3.867%	0.232	11.658%
3/20/2019	0.000	0.000	2.877	0.000	0.255	-0.255	2.877	0.000	0.000	0.000%	2.877	28.770%	-0.255	-4.250%	0.255	12.814%
3/21/2019	0.000	0.000	2.806	0.000	0.289	-0.289	2.806	0.000	0.000	0.000%	2.806	28.060%	-0.289	-4.817%	0.289	14.523%
3/22/2019	0.000	0.126	2.911	0.000	0.219	-0.219	3.037	0.000	0.000	0.000%	3.037	30.370%	-0.219	-3.650%	0.219	11.005%
3/23/2019	0.000	0.302	2.846	0.000	0.249	-0.249	3.148	0.000	0.000	0.000%	3.148	31.480%	-0.249	-4.150%	0.249	12.513%
3/24/2019	0.000	0.000	2.760	0.000	0.168	-0.168	2.760	0.000	0.000	0.000%	2.760	27.600%	-0.168	-2.800%	0.168	8.442%
3/25/2019	0.000	0.000	2.875	0.000	0.120	-0.120	2.875	0.000	0.000	0.000%	2.875	28.750%	-0.120	-2.000%	0.120	6.030%
3/26/2019	0.000	0.000	2.793	0.000	0.000	0.000	2.793	0.000	0.000	0.000%	2.793	27.930%	0.000	0.000%	0.000	0.000%
3/27/2019	0.000	0.000	2.924	0.000	0.189	-0.189	2.924	0.000	0.000	0.000%	2.924	29.240%	-0.189	-3.150%	0.189	9.497%
3/28/2019	0.000	0.000	2.940	0.000	0.235	-0.235	2.940	0.000	0.000	0.000%	2.940	29.400%	-0.235	-3.917%	0.235	11.809%
3/29/2019	0.000	0.000	2.857	0.000	0.255	-0.255	2.857	0.000	0.000	0.000%	2.857	28.570%	-0.255	-4.250%	0.255	12.814%
3/30/2019	0.000	0.000	3.091	0.000	0.270	-0.270	3.091	0.000	0.000	0.000%	3.091	30.910%	-0.270	-4.500%	0.270	13.568%
3/31/2019	0.000	0.000	2.625	0.000	0.267	-0.267	2.625	0.000	0.000	0.000%	2.625	26.250%	-0.267	-4.450%	0.267	13.417%
4/1/2019	0.000	0.000	3.053	0.000	0.263	-0.263	3.053	0.000	0.000	0.000%	3.053	30.530%	-0.263	-4.383%	0.263	13.216%
4/2/2019	0.000	0.000	2.716	0.000	0.241	-0.241	2.716	0.000	0.000	0.000%	2.716	27.160%	-0.241	-4.017%	0.241	12.111%
4/3/2019	0.000	0.000	3.041	0.000	0.232	-0.232	3.041	0.000	0.000	0.000%	3.041	30.410%	-0.232	-3.867%	0.232	11.658%
4/4/2019	0.000	0.000	3.096	0.000	0.048	-0.048	3.096	0.000	0.000	0.000%	3.096	30.960%	-0.048	-0.800%	0.048	2.412%
4/5/2019	0.000	0.000	2.687	0.000	0.000	0.000	2.687	0.000	0.000	0.000%	2.687	26.870%	0.000	0.000%	0.000	0.000%
4/6/2019	0.000	0.000	2.884	0.000	0.000	0.000	2.884	0.000	0.000	0.000%	2.884	28.840%	0.000	0.000%	0.000	0.000%
4/7/2019	0.000	0.000	2.812	0.000	0.117	-0.117	2.812	0.000	0.000	0.000%	2.812	28.120%	-0.117	-1.950%	0.117	5.879%
4/8/2019	0.000	0.000	2.172	0.000	0.252	-0.252	2.172	0.000	0.000	0.000%	2.172	21.720%	-0.252	-4.200%	0.252	12.663%
4/9/2019	0.000	0.000	3.090	0.000	0.027	-0.027	3.090	0.000	0.000	0.000%	3.090	30.900%	-0.027	-0.450%	0.027	1.357%
4/10/2019	0.000	0.000	3.018	0.000	0.024	-0.024	3.018	0.000	0.000	0.000%	3.018	30.180%	-0.024	-0.400%	0.024	1.206%
4/11/2019	0.000	0.000	2.959	0.000	0.232	-0.232	2.959	0.000	0.000	0.000%	2.959	29.590%	-0.232	-3.867%	0.232	11.658%
4/12/2019	0.000	0.000	2.747	0.000	0.228	-0.228	2.747	0.000	0.000	0.000%	2.747	27.470%	-0.228	-3.800%	0.228	11.457%
4/13/2019	0.000	0.000	2.996	0.000	0.170	-0.170	2.996	0.000	0.000	0.000%	2.996	29.960%	-0.170	-2.833%	0.170	8.543%
4/14/2019	0.000	0.000	2.880	0.000	0.21	-0.210	2.880	0.000	0.000	0.000%	2.880	28.800%	-0.210	-3.500%	0.210	10.553%
4/15/2019	0.000	0.000	2.819	0.000	0.334	-0.334	2.819	0.000	0.000	0.000%	2.819	28.190%	-0.334	-5.567%	0.334	16.784%
4/16/2019	0.000	0.000	3.002	0.000	0.206	-0.206	3.002	0.000	0.000	0.000%	3.002	30.020%	-0.206	-3.433%	0.206	10.352%
4/17/2019	0.000	0.000	3.088	0.000	0.200	-0.200	3.088	0.000	0.000	0.000%	3.088	30.880%	-0.200	-3.333%	0.200	10.050%
4/18/2019	0.000	0.000	2.923	0.000	0.264	-0.264	2.923	0.000	0.000	0.000%	2.923	29.230%	-0.264	-4.400%	0.264	13.266%
4/19/2019	0.000	0.000	3.031	0.000	0.197	-0.197	3.031	0.000	0.000	0.000%	3.031	30.310%	-0.197	-3.283%	0.197	9.899%
4/20/2019	0.000	0.000	2.632	0.000	0.241	-0.241	2.632	0.000	0.000	0.000%	2.632	26.320%	-0.241	-4.017%	0.241	12.111%
4/21/2019	0.000	0.000	2.809	0.000	0.252	-0.252	2.809	0.000	0.000	0.000%	2.809	28.090%	-0.252	-4.200%	0.252	12.663%
4/22/2019	0.000	0.000	2.584	0.000	0.272	-0.272	2.584	0.000	0.000	0.000%	2.584	25.840%	-0.272	-4.533%	0.272	13.668%
4/23/2019	0.000	0.000	3.107	0.000	0.265	-0.265	3.107	0.000	0.000	0.000%	3.107	31.070%	-0.265	-4.417%	0.265	13.317%
4/24/2019	0.000	0.000	2.878	0.000	0.29	-0.290	2.878	0.000	0.000	0.000%	2.878	28.780%	-0.290	-4.833%	0.290	14.573%
4/25/2019	0.000	0.000	2.889	0.000	0.253	-0.253	2.889	0.000	0.000	0.000%	2.889	28.890%	-0.253	-4.217%	0.253	12.714%
4/26/2019	0.000	0.000	2.741	0.000	0.248	-0.248	2.741	0.000	0.000	0.000%	2.741	27.410%	-0.248	-4.133%	0.248	12.462%
4/27/2019	0.000	0.000	2.789	0.000	0.347	-0.347	2.789	0.000	0.000	0.000%	2.789	27.890%	-0.347	-5.783%	0.347	17.437%
4/28/2019	0.000	0.000	2.965	0.000	0.281	-0.281	2.965	0.000	0.000	0.000%	2.965	29.650%	-0.281	-4.683%	0.281	14.121%
4/29/2019	0.000	0.000	2.871	0.000	0.303	-0.303	2.871	0.000	0.000	0.000%	2.871	28.710%	-0.303	-5.050%	0.303	15.226%
4/30/2019	0.000	0.000	3.041	0.000	0.324	-0.324	3.041	0.000	0.000	0.000%	3.041	30.410%	-0.324	-5.400%	0.324	16.281%
5/1/2019	0.000	0.000	3.082	0.000	0.283	-0.283	3.082	0.000	0.000	0.000%	3.082	30.820%	-0.283	-4.717%	0.283	14.221%
5/2/2019	0.000	0.000	3.257	0.000	0.298	-0.298	3.257	0.000	0.000	0.000%	3.257	32.570%	-0.298	-4.967%	0.298	14.975%
5/3/2019	0.000	0.000	3.090	0.000	0.286	-0.286	3.090	0.000	0.000	0.000%	3.090	30.900%	-0.286	-4.767%	0.286	14.572%
5/4/2019	0.000	0.000	3.239	0.000	0.280	-0.280	3.239	0.000	0.000	0.000%	3.239	32.390%	-0.280	-4.667%	0.280	14.070%
5/5/2019	0.000	0.000	3.287	0.000	0.264	-0.264	3.287	0.000	0.000	0.000%	3.287	32.870%	-0.264	-4.400%	0.264	13.266%
5/6/2019	0.000	0.000	3.269	0.000	0.323	-0.323	3.269	0.000	0.000	0.000%	3					

Map Code Source Basin	Water Transfer (MGD) to Rocky River Basin				Water Sales (MGD)		IBT Totals Per Basin				Interbasin Transfer					
	Salisbury 1		Albemarle 1		Charlotte 1-3		NOTE: All Wastewater discharge is to the Rocky River from RRWWTP, excluding water sales to Landis (subtracted from Total South Yadkin IBT).									
	South Yadkin	Yadkin	Yadkin	Catawba	South Yadkin	South Yadkin	Yadkin	Catawba								
DATE	Raw Water to Kannapolis Lake from Second Creek	Salisbury Finished water Interconnection with Kannapolis	Albemarle Finished water Interconnection with Concord	Charlotte Water Interconnections with Concord	Kannapolis Finished water sales to Landis	Total South Yadkin IBT <sup>1</sup>	Total Yadkin IBT	Total Catawba IBT	Catawba	% of Permitted MDD Transfer	Yadkin	% of Permitted MDD Transfer	Grandfathered IBT from Second Creek - South Yadkin River Basin	% of Permitted MDD Transfer	IBT from Yadkin to South Yadkin River Basin	% of Permitted MDD Transfer
5/9/2019	0.000	0.000	3.243	0.000	0.392	-0.392	3.243	0.000	0.000	0.000%	3.243	32.430%	-0.392	-6.533%	0.392	19.698%
5/10/2019	0.000	0.000	3.484	0.000	0.349	-0.349	3.484	0.000	0.000	0.000%	3.484	34.840%	-0.349	-5.817%	0.349	17.538%
5/11/2019	0.000	0.000	3.097	0.000	0.298	-0.298	3.097	0.000	0.000	0.000%	3.097	30.970%	-0.298	-4.967%	0.298	14.975%
5/12/2019	0.000	0.000	3.332	0.000	0.310	-0.310	3.332	0.000	0.000	0.000%	3.332	33.320%	-0.310	-5.167%	0.310	15.578%
5/13/2019	0.000	0.000	3.494	0.000	0.362	-0.362	3.494	0.000	0.000	0.000%	3.494	34.940%	-0.362	-6.033%	0.362	18.191%
5/14/2019	0.000	0.000	3.334	1.179	0.356	-0.356	3.334	1.179	1.179	11.790%	3.334	33.340%	-0.356	-5.933%	0.356	17.889%
5/15/2019	0.000	0.000	3.013	0.000	0.318	-0.318	3.013	0.000	0.000	0.000%	3.013	30.130%	-0.318	-5.300%	0.318	15.980%
5/16/2019	0.000	0.000	3.153	0.000	0.402	-0.402	3.153	0.000	0.000	0.000%	3.153	31.530%	-0.402	-6.700%	0.402	20.201%
5/17/2019	0.000	0.000	3.106	0.000	0.326	-0.326	3.106	0.000	0.000	0.000%	3.106	31.060%	-0.326	-5.433%	0.326	16.382%
5/18/2019	0.000	0.000	3.373	0.000	0.362	-0.362	3.373	0.000	0.000	0.000%	3.373	33.730%	-0.362	-6.033%	0.362	18.191%
5/19/2019	0.000	0.000	3.267	0.000	0.363	-0.363	3.267	0.000	0.000	0.000%	3.267	32.670%	-0.363	-6.050%	0.363	18.241%
5/20/2019	0.000	0.000	3.327	0.000	0.345	-0.345	3.327	0.000	0.000	0.000%	3.327	33.270%	-0.345	-5.750%	0.345	17.337%
5/21/2019	0.000	0.000	3.264	0.000	0.360	-0.360	3.264	0.000	0.000	0.000%	3.264	32.640%	-0.360	-6.000%	0.360	18.090%
5/22/2019	0.000	0.000	3.518	0.000	0.335	-0.335	3.518	0.000	0.000	0.000%	3.518	35.180%	-0.335	-5.583%	0.335	16.834%
5/23/2019	0.000	0.000	3.234	0.000	0.354	-0.354	3.234	0.000	0.000	0.000%	3.234	32.340%	-0.354	-5.900%	0.354	17.789%
5/24/2019	0.000	0.000	3.316	0.000	0.402	-0.402	3.316	0.000	0.000	0.000%	3.316	33.160%	-0.402	-6.700%	0.402	20.201%
5/25/2019	0.000	0.000	3.301	0.000	0.360	-0.360	3.301	0.000	0.000	0.000%	3.301	33.010%	-0.360	-6.000%	0.360	18.090%
5/26/2019	0.000	0.000	3.134	0.000	0.362	-0.362	3.134	0.000	0.000	0.000%	3.134	31.340%	-0.362	-6.033%	0.362	18.191%
5/27/2019	0.000	0.000	3.500	0.000	0.422	-0.422	3.500	0.000	0.000	0.000%	3.500	35.000%	-0.422	-7.033%	0.422	21.206%
5/28/2019	0.000	0.000	3.402	0.000	0.421	-0.421	3.402	0.000	0.000	0.000%	3.402	34.020%	-0.421	-7.017%	0.421	21.156%
5/29/2019	0.000	0.000	3.594	0.000	0.409	-0.409	3.594	0.000	0.000	0.000%	3.594	35.940%	-0.409	-6.817%	0.409	20.553%
5/30/2019	0.000	0.000	3.663	0.000	0.446	-0.446	3.663	0.000	0.000	0.000%	3.663	36.630%	-0.446	-7.433%	0.446	22.412%
5/31/2019	0.000	0.000	3.466	0.000	0.340	-0.340	3.466	0.000	0.000	0.000%	3.466	34.660%	-0.340	-5.667%	0.340	17.085%
6/1/2019	0.000	0.000	3.451	0.000	0.384	-0.384	3.451	0.000	0.000	0.000%	3.451	34.510%	-0.384	-6.400%	0.384	19.598%
6/2/2019	0.000	0.000	3.261	0.000	0.360	-0.360	3.261	0.000	0.000	0.000%	3.261	32.610%	-0.360	-6.000%	0.360	18.090%
6/3/2019	0.000	0.000	3.767	0.000	0.384	-0.384	3.767	0.000	0.000	0.000%	3.767	37.670%	-0.384	-6.400%	0.384	18.141%
6/4/2019	0.000	0.000	3.427	0.000	0.357	-0.357	3.427	0.000	0.000	0.000%	3.427	34.270%	-0.357	-5.883%	0.357	17.709%
6/5/2019	0.000	0.000	3.177	0.000	0.353	-0.353	3.177	0.000	0.000	0.000%	3.177	31.770%	-0.353	-5.883%	0.353	17.789%
6/6/2019	0.000	0.000	3.590	0.000	0.376	-0.376	3.590	0.000	0.000	0.000%	3.590	35.900%	-0.376	-6.267%	0.376	18.044%
6/7/2019	0.000	0.000	3.027	0.000	0.365	-0.365	3.027	0.000	0.000	0.000%	3.027	30.270%	-0.365	-6.083%	0.365	18.150%
6/8/2019	0.000	0.000	2.972	0.000	0.343	-0.343	2.972	0.000	0.000	0.000%	2.972	29.720%	-0.343	-5.717%	0.343	17.613%
6/9/2019	0.000	0.000	3.303	0.000	0.307	-0.307	3.303	0.000	0.000	0.000%	3.303	33.030%	-0.307	-5.117%	0.307	15.920%
6/10/2019	0.000	0.000	3.136	0.000	0.336	-0.336	3.136	0.000	0.000	0.000%	3.136	31.360%	-0.336	-5.600%	0.336	17.774%
6/11/2019	0.000	0.000	2.753	0.000	0.354	-0.354	2.753	0.000	0.000	0.000%	2.753	27.530%	-0.354	-5.900%	0.354	18.090%
6/12/2019	0.000	0.000	2.865	0.000	0.303	-0.303	2.865	0.000	0.000	0.000%	2.865	28.650%	-0.303	-5.050%	0.303	15.497%
6/13/2019	0.000	0.000	2.705	0.000	0.348	-0.348	2.705	0.000	0.000	0.000%	2.705	27.050%	-0.348	-5.800%	0.348	17.955%
6/14/2019	0.000	0.000	2.607	0.000	0.386	-0.386	2.607	0.000	0.000	0.000%	2.607	26.070%	-0.386	-6.433%	0.386	18.462%
6/15/2019	0.000	0.000	3.015	0.000	0.366	-0.366	3.015	0.000	0.000	0.000%	3.015	30.150%	-0.366	-6.100%	0.366	18.157%
6/16/2019	0.000	0.000	2.798	0.000	0.325	-0.325	2.798	0.000	0.000	0.000%	2.798	27.980%	-0.325	-5.417%	0.325	16.045%
6/17/2019	0.000	0.000	3.499	0.000	0.372	-0.372	3.499	0.000	0.000	0.000%	3.499	34.990%	-0.372	-6.200%	0.372	17.689%
6/18/2019	0.000	0.000	4.481	0.000	0.352	-0.352	4.481	0.000	0.000	0.000%	4.481	44.810%	-0.352	-5.867%	0.352	17.472%
6/19/2019	0.000	0.000	4.156	0.000	0.355	-0.355	4.156	0.000	0.000	0.000%	4.156	41.560%	-0.355	-5.917%	0.355	16.935%
6/20/2019	0.000	0.000	4.563	0.000	0.329	-0.329	4.563	0.000	0.000	0.000%	4.563	45.630%	-0.329	-5.483%	0.329	16.352%
6/21/2019	0.000	0.000	3.936	0.000	0.302	-0.302	3.936	0.000	0.000	0.000%	3.936	39.360%	-0.302	-5.033%	0.302	15.332%
6/22/2019	0.000	0.000	3.038	0.000	0.341	-0.341	3.038	0.000	0.000	0.000%	3.038	30.380%	-0.341	-5.683%	0.341	16.281%
6/23/2019	0.000	0.000	3.197	0.000	0.316	-0.316	3.197	0.000	0.000	0.000%	3.197	31.970%	-0.316	-5.267%	0.316	15.307%
6/24/2019	0.000	0.000	3.388	0.000	0.329	-0.329	3.388	0.000	0.000	0.000%	3.388	33.880%	-0.329	-5.483%	0.329	16.693%
6/25/2019	0.000	0.000	3.264	0.000	0.342	-0.342	3.264	0.000	0.000	0.000%	3.264	32.640%	-0.342	-5.700%	0.342	15.915%
6/26/2019	0.000	0.000	3.518	0.000	0.341	-0.341	3.518	0.000	0.000	0.000%	3.518	35.180%	-0.341	-5.683%	0.341	15.613%
6/27/2019	0.000	0.000	3.389	0.000	0.405	-0.405	3.389	0.000	0.000	0.000%	3.389	33.890%	-0.405	-6.750%	0.405	19.698%
6/28/2019	0.000	0.000	3.328	0.000	0.339	-0.339	3.328	0.000	0.000	0.000%	3.328	33.280%	-0.339	-5.650%	0.339	16.613%
6/29/2019	0.000	0.000	3.445	0.000	0.374	-0.374	3.445	0.000	0.000	0.000%	3.445	34.450%	-0.374	-6.233%	0.374	17.010%
6/30/2019	0.000	0.000	3.248	0.000	0.364	-0.364	3.248	0.000	0.000	0.000%	3.248	32.480%	-0.364	-6.067%	0.364	18.824%
7/1/2019	0.000	0.000	3.239	0.000	0.365	-0.365	3.239	0.000	0.000	0.000%	3.239	32.390%	-0.365	-6.083%	0.365	18.623%
7/2/2019	0.000	0.000	3.567	0.000	0.402	-0.402	3.567	0.000	0.000	0.000%	3.567	35.670%	-0.402	-6.700%	0.402	18.623%
7/3/2019	0.000	0.000	3.591	0.000	0.406	-0.406	3.591	0.000	0.000	0.000%	3.591	35.910%	-0.406	-6.767%	0.406	22.211%
7/4/2019	0.000	0.000	3.254	0.000	0.365	-0.365	3.254	0.000	0.000	0.000%	3.254	32.540%	-0.365	-6.083%	0.365	17.889%
7/5/2019	0.000	0.000	3.084	0.000	0.354	-0.354	3.084	0.000	0.000	0.000%	3.084	30.840%	-0.354	-5.900%	0.354	17.494%
7/6/2019	0.000	0.000	3.090	0.000	0.361	-0.361	3.090	0.000	0.000	0.000%	3.090	30.900%	-0.361	-6.017%	0.361	17.312%
7/7/2019	0.000	0.000	3.187	0.000	0.374	-0.374	3.187	0.000	0.000	0.000%	3.187	31.870%	-0.374	-6.233%	0.374	19.598%
7/8/2019	0.000	0.000	3.167	0.000	0.349	-0.349	3.167	0.000	0.000	0.000%	3.167	31.670%	-0.349	-5.817%	0.349	17.050%
7/9/2019	0.000	0.000	3.200	0.000	0.372	-0.372	3.200	0.000	0.000	0.000%	3.200	32.000%	-0.372	-6.200%	0.372	18.457%
7/10/2019	0.000	0.000	3.239	0.000	0.344	-0.344	3.239	0.000	0.000	0.000%	3.239	32.390%	-0.344	-5.733%	0.344	15.075%
7/11/2019	0.000	0.000	3.287	0.000	0.369	-0.369	3.287	0.000	0.000	0.000%	3.287	32.870%	-0.369	-6.150%	0.369	18.573%
7/12/2019	0.000	0.000	3.317	0.000	0.296	-0.296	3.317	0.000	0.000	0.000%	3.317	33.170%	-0.296	-4.933%	0.296	14.573%
7/13/2019	0.000	0.000	3.083	0.000	0.314	-0.314	3.083	0.000								

Map Code Source Basin	Water Transfer (MGD) to Rocky River Basin				Water Sales (MGD)		IBT Totals Per Basin				Interbasin Transfer					
	Salisbury 1		Albemarle 1		Charlotte 1-3		NOTE: All Wastewater discharge is to the Rocky River from RRWWTP, excluding water sales to Landis (subtracted from Total South Yadkin IBT).									
	South Yadkin	Yadkin	Yadkin	Catawba	South Yadkin	South Yadkin	Yadkin	Catawba								
DATE	Raw Water to Kannapolis Lake from Second Creek	Salisbury Finished water Interconnection with Kannapolis	Albemarle Finished water Interconnection with Concord	Charlotte Water Interconnections with Concord	Kannapolis Finished water sales to Landis	Total South Yadkin IBT <sup>1</sup>	Total Yadkin IBT	Total Catawba IBT	Catawba	% of Permitted MDD Transfer	Yadkin	% of Permitted MDD Transfer	Grandfathered IBT from Second Creek - South Yadkin Basin	% of Permitted MDD Transfer	IBT from Yadkin to South Yadkin River Basin	% of Permitted MDD Transfer
7/16/2019	0.000	0.000	3.471	0.000	0.342	-0.342	3.471	0.000	0.000	0.000%	3.471	34.710%	-0.342	-5.700%	0.224	11.256%
7/17/2019	0.000	0.000	3.434	0.000	0.349	-0.349	3.434	0.000	0.000	0.000%	3.434	34.340%	-0.349	-5.817%	0.220	11.055%
7/18/2019	0.000	0.000	3.416	0.000	0.379	-0.379	3.416	0.000	0.000	0.000%	3.416	34.160%	-0.379	-6.317%	0.230	11.558%
7/19/2019	0.000	0.000	3.299	0.000	0.408	-0.408	3.299	0.000	0.000	0.000%	3.299	32.990%	-0.408	-6.800%	0.220	11.055%
7/20/2019	0.000	0.000	3.251	0.000	0.416	-0.416	3.251	0.000	0.000	0.000%	3.251	32.510%	-0.416	-6.933%	0.215	10.804%
7/21/2019	0.000	0.000	3.194	0.000	0.354	-0.354	3.194	0.000	0.000	0.000%	3.194	31.940%	-0.354	-5.900%	0.225	11.307%
7/22/2019	0.000	0.000	3.282	0.000	0.407	-0.407	3.282	0.000	0.000	0.000%	3.282	32.820%	-0.407	-6.783%	0.223	11.206%
7/23/2019	0.000	0.000	3.100	0.000	0.322	-0.322	3.100	0.000	0.000	0.000%	3.100	31.000%	-0.322	-5.367%	0.235	11.809%
7/24/2019	0.000	0.000	3.182	0.000	0.315	-0.315	3.182	0.000	0.000	0.000%	3.182	31.820%	-0.315	-5.250%	0.250	12.563%
7/25/2019	0.000	0.000	3.057	0.000	0.359	-0.359	3.057	0.000	0.000	0.000%	3.057	30.570%	-0.359	-5.983%	0.243	12.211%
7/26/2019	0.000	0.000	3.268	0.000	0.378	-0.378	3.268	0.000	0.000	0.000%	3.268	32.680%	-0.378	-6.300%	0.280	14.070%
7/27/2019	0.000	0.000	3.396	0.000	0.357	-0.357	3.396	0.000	0.000	0.000%	3.396	33.960%	-0.357	-5.950%	0.381	19.146%
7/28/2019	0.000	0.000	3.240	0.000	0.409	-0.409	3.240	0.000	0.000	0.000%	3.240	32.400%	-0.409	-6.817%	0.265	13.317%
7/29/2019	0.000	0.000	3.315	0.000	0.379	-0.379	3.315	0.000	0.000	0.000%	3.315	33.150%	-0.379	-6.317%	0.266	13.367%
7/30/2019	0.000	0.000	3.551	0.000	0.366	-0.366	3.551	0.000	0.000	0.000%	3.551	35.510%	-0.366	-6.100%	0.250	12.563%
7/31/2019	0.000	0.000	3.551	0.000	0.344	-0.344	3.551	0.000	0.000	0.000%	3.551	35.510%	-0.344	-5.733%	0.245	12.312%
8/1/2019	0.000	0.000	3.197	0.000	0.391	-0.391	3.197	0.000	0.000	0.000%	3.197	31.970%	-0.391	-6.517%	0.300	15.075%
8/2/2019	0.000	0.000	3.378	0.000	0.381	-0.381	3.378	0.000	0.000	0.000%	3.378	33.780%	-0.381	-6.350%	0.279	14.020%
8/3/2019	0.000	0.000	3.419	0.000	0.413	-0.413	3.419	0.000	0.000	0.000%	3.419	34.190%	-0.413	-6.883%	0.262	13.166%
8/4/2019	0.000	0.000	3.506	0.000	0.369	-0.369	3.506	0.000	0.000	0.000%	3.506	35.060%	-0.369	-6.150%	0.316	15.879%
8/5/2019	0.000	0.000	3.383	0.000	0.390	-0.390	3.383	0.000	0.000	0.000%	3.383	33.830%	-0.390	-6.500%	0.218	10.955%
8/6/2019	0.000	0.000	3.403	0.000	0.403	-0.403	3.403	0.000	0.000	0.000%	3.403	34.030%	-0.403	-6.717%	0.245	12.312%
8/7/2019	0.000	0.000	3.487	0.000	0.356	-0.356	3.487	0.000	0.000	0.000%	3.487	34.870%	-0.356	-5.933%	0.274	13.769%
8/8/2019	0.000	0.000	3.598	0.000	0.390	-0.390	3.598	0.000	0.000	0.000%	3.598	35.980%	-0.390	-6.500%	0.235	11.809%
8/9/2019	0.000	0.000	3.510	0.000	0.399	-0.399	3.510	0.000	0.000	0.000%	3.510	35.100%	-0.399	-6.650%	0.230	11.558%
8/10/2019	0.000	0.000	3.449	0.000	0.415	-0.415	3.449	0.000	0.000	0.000%	3.449	34.490%	-0.415	-6.917%	0.251	12.613%
8/11/2019	0.000	0.000	3.421	0.000	0.361	-0.361	3.421	0.000	0.000	0.000%	3.421	34.210%	-0.361	-6.017%	0.219	11.005%
8/12/2019	0.000	0.000	3.615	0.000	0.429	-0.429	3.615	0.000	0.000	0.000%	3.615	36.150%	-0.429	-7.150%	0.237	11.910%
8/13/2019	0.000	0.000	3.537	0.000	0.408	-0.408	3.537	0.000	0.000	0.000%	3.537	35.370%	-0.408	-6.800%	0.215	10.804%
8/14/2019	0.000	0.000	3.195	0.000	0.377	-0.377	3.195	0.000	0.000	0.000%	3.195	31.950%	-0.377	-6.283%	0.220	11.055%
8/15/2019	0.000	0.000	3.137	0.000	0.383	-0.383	3.137	0.000	0.000	0.000%	3.137	31.370%	-0.383	-6.383%	0.190	9.548%
8/16/2019	0.000	0.000	3.345	0.000	0.451	-0.451	3.345	0.000	0.000	0.000%	3.345	33.450%	-0.451	-7.517%	0.225	11.307%
8/17/2019	0.000	0.000	3.381	0.000	0.406	-0.406	3.381	0.000	0.000	0.000%	3.381	33.810%	-0.406	-6.767%	0.273	13.719%
8/18/2019	0.000	0.000	3.067	0.000	0.392	-0.392	3.067	0.000	0.000	0.000%	3.067	30.670%	-0.392	-6.533%	0.235	11.809%
8/19/2019	0.000	0.000	3.297	0.000	0.362	-0.362	3.297	0.000	0.000	0.000%	3.297	32.970%	-0.362	-6.033%	0.242	12.161%
8/20/2019	0.000	0.000	3.320	0.000	0.373	-0.373	3.320	0.000	0.000	0.000%	3.320	33.200%	-0.373	-6.217%	0.175	8.794%
8/21/2019	0.000	0.000	3.010	0.000	0.341	-0.341	3.010	0.000	0.000	0.000%	3.010	30.100%	-0.341	-5.683%	0.260	13.065%
8/22/2019	0.000	0.000	3.031	0.000	0.332	-0.332	3.031	0.000	0.000	0.000%	3.031	30.310%	-0.332	-5.533%	0.180	9.045%
8/23/2019	0.000	0.000	3.289	0.000	0.332	-0.332	3.289	0.000	0.000	0.000%	3.289	32.890%	-0.332	-5.533%	0.236	11.859%
8/24/2019	0.000	0.000	3.114	0.000	0.345	-0.345	3.114	0.000	0.000	0.000%	3.114	31.140%	-0.345	-5.750%	0.261	13.116%
8/25/2019	0.000	0.000	3.138	0.000	0.319	-0.319	3.138	0.000	0.000	0.000%	3.138	31.380%	-0.319	-5.317%	0.248	12.462%
8/26/2019	0.000	0.000	3.229	0.000	0.360	-0.360	3.229	0.000	0.000	0.000%	3.229	32.290%	-0.360	-6.000%	0.234	11.759%
8/27/2019	0.000	0.000	3.184	0.000	0.350	-0.350	3.184	0.000	0.000	0.000%	3.184	31.840%	-0.350	-5.833%	0.269	13.518%
8/28/2019	0.000	0.000	3.278	0.000	0.327	-0.327	3.278	0.000	0.000	0.000%	3.278	32.780%	-0.327	-5.450%	0.295	14.824%
8/29/2019	0.000	0.000	3.195	0.000	0.365	-0.365	3.195	0.000	0.000	0.000%	3.195	31.950%	-0.365	-6.083%	0.200	10.050%
8/30/2019	0.000	0.000	3.224	0.000	0.381	-0.381	3.224	0.000	0.000	0.000%	3.224	32.240%	-0.381	-6.350%	0.170	8.543%
8/31/2019	0.000	0.000	3.141	0.000	0.351	-0.351	3.141	0.000	0.000	0.000%	3.141	31.410%	-0.351	-5.850%	0.374	18.794%
9/1/2019	0.000	0.000	3.084	0.000	0.288	-0.288	3.084	0.000	0.000	0.000%	3.084	30.840%	-0.288	-4.800%	0.454	22.814%
9/2/2019	0.000	0.000	3.373	0.000	0.376	-0.376	3.373	0.000	0.000	0.000%	3.373	33.730%	-0.376	-6.267%	0.376	18.894%
9/3/2019	0.000	0.000	3.249	0.000	0.384	-0.384	3.249	0.000	0.000	0.000%	3.249	32.490%	-0.384	-6.400%	0.384	19.296%
9/4/2019	0.000	0.000	3.357	0.000	0.334	-0.334	3.357	0.000	0.000	0.000%	3.357	33.570%	-0.334	-5.567%	0.334	16.784%
9/5/2019	0.000	0.000	3.109	0.000	0.383	-0.383	3.109	0.000	0.000	0.000%	3.109	31.090%	-0.383	-6.383%	0.383	19.246%
9/6/2019	0.000	0.000	3.496	0.000	0.363	-0.363	3.496	0.000	0.000	0.000%	3.496	34.960%	-0.363	-6.050%	0.363	18.241%
9/7/2019	0.000	0.000	3.470	0.000	0.381	-0.381	3.470	0.000	0.000	0.000%	3.470	34.700%	-0.381	-6.350%	0.381	19.146%
9/8/2019	0.000	0.000	3.321	0.000	0.373	-0.373	3.321	0.000	0.000	0.000%	3.321	33.210%	-0.373	-6.217%	0.373	18.744%
9/9/2019	0.000	0.000	3.240	0.000	0.391	-0.391	3.240	0.000	0.000	0.000%	3.240	32.400%	-0.391	-6.517%	0.391	19.648%
9/10/2019	0.000	0.000	3.618	0.000	0.391	-0.391	3.618	0.000	0.000	0.000%	3.618	36.180%	-0.391	-6.517%	0.391	19.648%
9/11/2019	0.000	0.000	3.280	0.000	0.339	-0.339	3.280	0.000	0.000	0.000%	3.280	32.800%	-0.339	-5.650%	0.339	17.035%
9/12/2019	0.000	0.000	3.405	0.000	0.396	-0.396	3.405	0.000	0.000	0.000%	3.405	34.050%	-0.396	-6.600%	0.396	19.899%
9/13/2019	0.000	0.000	3.313	0.000	0.353	-0.353	3.313	0.000	0.000	0.000%	3.313	33.130%	-0.353	-5.883%	0.353	17.739%
9/14/2019	0.000	0.000	3.346	0.000	0.393	-0.393	3.346	0.000	0.000	0.000%	3.346	33.460%	-0.393	-6.550%	0.393	19.749%
9/15/2019	0.000	0.000	3.385	0.000	0.369	-0.369	3.385	0.000	0.000	0.000%	3.385	33.850%	-0.369	-6.150%	0.369	18.543%
9/16/2019	0.000	0.000	3.657	0.000	0.431	-0.431	3.657	0.000	0.000	0.000%	3.657	36.570%	-0.431	-7.183%	0.431	21.658%
9/17/2019	0.000	0.000	3.412	0.000	0.384	-0.384	3.412	0.000	0.000	0.000%	3.412	34.120%	-0.384	-6.400%	0.384	19.296%
9/18/2019	0.000	0.000	3.185	0.000	0.370	-0.370	3.185	0.000	0.000	0.000%	3.185	31.850%	-0.370	-6.167%	0.370	18.593%
9/19/2019	0.000	0.000	3.581	0.000	0.374	-0.374	3.581	0.000	0.00							

Map Code Source Basin	Water Transfer (MGD) to Rocky River Basin				Water Sales (MGD)		IBT Totals Per Basin		Interbasin Transfer							
	Salisbury 1		Albemarle 1		Charlotte 1-3		NOTE: All Wastewater discharge is to the Rocky River from RRWWTP, excluding water sales to Landis (subtracted from Total South Yadkin IBT).									
	South Yadkin	Yadkin	Yadkin	Catawba	South Yadkin	South Yadkin	Yadkin	Catawba								
DATE	Raw Water to Kannapolis Lake from Second Creek	Salisbury Finished water Interconnection with Kannapolis	Albemarle Finished water Interconnection with Concord	Charlotte Water Interconnections with Concord	Kannapolis Finished water sales to Landis	Total South Yadkin IBT <sup>1</sup>	Total Yadkin IBT	Total Catawba IBT	Catawba	% of Permitted MDD Transfer	Yadkin	% of Permitted MDD Transfer	Grandfathered IBT from Second Creek - South Yadkin River Basin	% of Permitted MDD Transfer	IBT from Yadkin to South Yadkin River Basin	% of Permitted MDD Transfer
9/22/2019	0.000	0.000	3.324	0.000	0.354	-0.354	3.324	0.000	0.000	0.000%	3.324	33.240%	-0.354	-5.900%	0.354	17.789%
9/23/2019	0.000	0.000	3.150	0.000	0.411	-0.411	3.150	0.000	0.000	0.000%	3.150	31.500%	-0.411	-6.850%	0.411	20.653%
9/24/2019	0.000	0.000	3.218	0.000	0.385	-0.385	3.218	0.000	0.000	0.000%	3.218	32.180%	-0.385	-6.417%	0.385	19.347%
9/25/2019	0.000	0.000	3.146	0.000	0.401	-0.401	3.146	0.000	0.000	0.000%	3.146	31.460%	-0.401	-6.683%	0.401	20.151%
9/26/2019	0.000	0.000	3.438	0.000	0.335	-0.335	3.438	0.000	0.000	0.000%	3.438	34.380%	-0.335	-5.583%	0.335	16.834%
9/27/2019	0.000	0.000	3.504	0.000	0.430	-0.430	3.504	0.000	0.000	0.000%	3.504	35.040%	-0.430	-7.167%	0.430	21.608%
9/28/2019	0.000	0.000	3.300	0.000	0.412	-0.412	3.300	0.000	0.000	0.000%	3.300	33.000%	-0.412	-6.867%	0.412	20.704%
9/29/2019	0.000	0.000	3.352	0.000	0.415	-0.415	3.352	0.000	0.000	0.000%	3.352	33.520%	-0.415	-6.917%	0.415	20.854%
9/30/2019	0.000	0.000	3.355	0.000	0.396	-0.396	3.355	0.000	0.000	0.000%	3.355	33.550%	-0.396	-6.600%	0.396	19.899%
10/1/2019	0.000	0.000	3.348	0.000	0.419	-0.419	3.348	0.000	0.000	0.000%	3.348	33.480%	-0.419	-6.983%	0.419	21.055%
10/2/2019	0.000	0.000	3.372	0.000	0.424	-0.424	3.372	0.000	0.000	0.000%	3.372	33.720%	-0.424	-7.067%	0.424	21.307%
10/3/2019	0.000	0.000	3.615	0.000	0.445	-0.445	3.615	0.000	0.000	0.000%	3.615	36.150%	-0.445	-7.417%	0.445	22.362%
10/4/2019	0.000	0.000	3.382	0.000	0.440	-0.440	3.382	0.000	0.000	0.000%	3.382	33.820%	-0.440	-7.333%	0.440	22.111%
10/5/2019	0.000	0.000	3.206	0.000	0.406	-0.406	3.206	0.000	0.000	0.000%	3.206	32.060%	-0.406	-6.767%	0.406	20.402%
10/6/2019	0.000	0.000	3.359	0.000	0.359	-0.359	3.359	0.000	0.000	0.000%	3.359	33.590%	-0.359	-5.983%	0.359	18.040%
10/7/2019	0.000	0.000	3.080	0.000	0.423	-0.423	3.080	0.000	0.000	0.000%	3.080	30.800%	-0.423	-7.050%	0.423	21.256%
10/8/2019	0.000	0.000	3.393	0.000	0.413	-0.413	3.393	0.000	0.000	0.000%	3.393	33.930%	-0.413	-6.883%	0.413	20.754%
10/9/2019	0.000	0.000	3.413	0.000	0.391	-0.391	3.413	0.000	0.000	0.000%	3.413	34.130%	-0.391	-6.517%	0.391	19.648%
10/10/2019	0.000	0.000	3.275	0.000	0.342	-0.342	3.275	0.000	0.000	0.000%	3.275	32.750%	-0.342	-5.700%	0.342	17.186%
10/11/2019	0.000	0.000	3.340	0.000	0.364	-0.364	3.340	0.000	0.000	0.000%	3.340	33.400%	-0.364	-6.067%	0.364	18.291%
10/12/2019	0.000	0.000	3.451	0.000	0.342	-0.342	3.451	0.000	0.000	0.000%	3.451	34.510%	-0.342	-5.700%	0.342	17.186%
10/13/2019	0.000	0.000	3.079	0.000	0.308	-0.308	3.079	0.000	0.000	0.000%	3.079	30.790%	-0.308	-5.133%	0.308	15.477%
10/14/2019	0.000	0.000	3.242	0.000	0.343	-0.343	3.242	0.000	0.000	0.000%	3.242	32.420%	-0.343	-5.717%	0.343	17.236%
10/15/2019	0.000	0.000	3.285	0.000	0.371	-0.371	3.285	0.000	0.000	0.000%	3.285	32.850%	-0.371	-6.183%	0.371	18.643%
10/16/2019	0.000	0.000	3.055	0.000	0.415	-0.415	3.055	0.000	0.000	0.000%	3.055	30.550%	-0.415	-6.917%	0.415	20.854%
10/17/2019	0.000	0.000	3.180	0.000	0.356	-0.356	3.180	0.000	0.000	0.000%	3.180	31.800%	-0.356	-5.933%	0.356	17.889%
10/18/2019	0.000	0.000	3.363	0.000	0.433	-0.433	3.363	0.000	0.000	0.000%	3.363	33.630%	-0.433	-7.217%	0.433	21.759%
10/19/2019	0.000	0.000	2.944	0.000	0.347	-0.347	2.944	0.000	0.000	0.000%	2.944	29.440%	-0.347	-5.783%	0.347	17.437%
10/20/2019	0.000	0.000	3.194	0.000	0.402	-0.402	3.194	0.000	0.000	0.000%	3.194	31.940%	-0.402	-6.700%	0.402	20.201%
10/21/2019	0.000	0.000	3.063	0.000	0.430	-0.430	3.063	0.000	0.000	0.000%	3.063	30.630%	-0.430	-7.167%	0.430	21.608%
10/22/2019	0.000	0.000	3.263	0.000	0.430	-0.430	3.263	0.000	0.000	0.000%	3.263	32.630%	-0.430	-7.167%	0.430	21.608%
10/23/2019	0.000	0.000	3.149	0.000	0.419	-0.419	3.149	0.000	0.000	0.000%	3.149	31.490%	-0.419	-6.983%	0.419	21.055%
10/24/2019	0.000	0.000	3.132	0.000	0.424	-0.424	3.132	0.000	0.000	0.000%	3.132	31.320%	-0.424	-7.067%	0.424	21.307%
10/25/2019	0.000	0.000	3.126	0.000	0.407	-0.407	3.126	0.000	0.000	0.000%	3.126	31.260%	-0.407	-6.783%	0.407	20.452%
10/26/2019	0.000	0.000	3.073	0.000	0.389	-0.389	3.073	0.000	0.000	0.000%	3.073	30.730%	-0.389	-6.483%	0.389	19.548%
10/27/2019	0.000	0.000	3.193	0.000	0.417	-0.417	3.193	0.000	0.000	0.000%	3.193	31.930%	-0.417	-6.950%	0.417	20.955%
10/28/2019	0.000	0.000	3.163	0.000	0.450	-0.450	3.163	0.000	0.000	0.000%	3.163	31.630%	-0.450	-7.500%	0.450	22.613%
10/29/2019	0.000	0.000	3.305	0.000	0.524	-0.524	3.305	0.000	0.000	0.000%	3.305	33.050%	-0.524	-8.733%	0.524	26.332%
10/30/2019	0.000	0.000	3.396	0.000	0.446	-0.446	3.396	0.000	0.000	0.000%	3.396	33.960%	-0.446	-7.433%	0.446	22.412%
10/31/2019	0.000	0.000	3.261	0.000	0.363	-0.363	3.261	0.000	0.000	0.000%	3.261	32.610%	-0.363	-6.050%	0.363	18.241%
11/1/2019	0.000	0.000	3.419	0.000	0.321	-0.321	3.419	0.000	0.000	0.000%	3.419	34.190%	-0.321	-5.350%	0.321	16.131%
11/2/2019	0.000	0.000	3.252	0.000	0.293	-0.293	3.252	0.000	0.000	0.000%	3.252	32.520%	-0.293	-4.883%	0.293	14.724%
11/3/2019	0.000	0.000	3.393	0.000	0.338	-0.338	3.393	0.000	0.000	0.000%	3.393	33.930%	-0.338	-5.833%	0.338	16.985%
11/4/2019	0.000	0.000	3.270	0.000	0.314	-0.314	3.270	0.000	0.000	0.000%	3.270	32.700%	-0.314	-5.233%	0.314	15.779%
11/5/2019	0.000	0.000	3.348	0.000	0.289	-0.289	3.348	0.000	0.000	0.000%	3.348	33.480%	-0.289	-4.817%	0.289	14.523%
11/6/2019	0.000	0.000	3.309	0.000	0.358	-0.358	3.309	0.000	0.000	0.000%	3.309	33.090%	-0.358	-5.967%	0.358	17.990%
11/7/2019	0.000	0.000	3.285	0.000	0.302	-0.302	3.285	0.000	0.000	0.000%	3.285	32.850%	-0.302	-5.033%	0.302	15.176%
11/8/2019	0.000	0.000	3.313	0.000	0.253	-0.253	3.313	0.000	0.000	0.000%	3.313	33.130%	-0.253	-4.217%	0.253	12.714%
11/9/2019	0.000	0.000	3.193	0.000	0.256	-0.256	3.193	0.000	0.000	0.000%	3.193	31.930%	-0.256	-4.267%	0.256	12.864%
11/10/2019	0.000	0.000	3.231	0.000	0.256	-0.256	3.231	0.000	0.000	0.000%	3.231	32.310%	-0.256	-4.267%	0.256	12.864%
11/11/2019	0.000	0.000	3.380	0.000	0.256	-0.256	3.380	0.000	0.000	0.000%	3.380	33.800%	-0.256	-4.267%	0.256	12.864%
11/12/2019	0.000	0.000	3.271	0.000	0.249	-0.249	3.271	0.000	0.000	0.000%	3.271	32.710%	-0.249	-4.150%	0.249	12.513%
11/13/2019	0.000	0.000	2.933	0.000	0.262	-0.262	2.933	0.000	0.000	0.000%	2.933	29.330%	-0.262	-4.367%	0.262	13.166%
11/14/2019	0.000	0.000	2.891	0.000	0.269	-0.269	2.891	0.000	0.000	0.000%	2.891	28.910%	-0.269	-4.483%	0.269	13.518%
11/15/2019	0.000	0.000	3.109	0.000	0.207	-0.207	3.109	0.000	0.000	0.000%	3.109	31.090%	-0.207	-3.450%	0.207	10.402%
11/16/2019	0.000	0.000	3.156	0.000	0.255	-0.255	3.156	0.000	0.000	0.000%	3.156	31.560%	-0.255	-4.250%	0.255	12.814%
11/17/2019	0.000	0.000	3.003	0.000	0.253	-0.253	3.003	0.000	0.000	0.000%	3.003	30.030%	-0.253	-4.217%	0.253	12.714%
11/18/2019	0.000	0.000	3.055	0.000	0.265	-0.265	3.055	0.000	0.000	0.000%	3.055	30.550%	-0.265	-4.477%	0.265	13.317%
11/19/2019	0.000	0.000	3.157	0.000	0.262	-0.262	3.157	0.000	0.000	0.000%	3.157	31.570%	-0.262	-4.367%	0.262	13.166%
11/20/2019	0.000	0.000	3.132	0.000	0.213	-0.213	3.132	0.000	0.000	0.000%	3.132	31.320%	-0.213	-3.550%	0.213	10.704%
11/21/2019	0.000	0.000	2.879	0.000	0.312	-0.312	2.879	0.000	0.000	0.000%	2.879	28.790%	-0.312	-5.200%	0.312	15.678%
11/22/2019	0.000	0.000	3.242	0.000	0.208	-0.208	3.242	0.000	0.000	0.000%	3.242	32.420%	-0.208	-3.467%	0.208	10.452%
11/23/2019	0.000	0.000	2.996	0.000	0.258	-0.258	2.996	0.000	0.000	0.000%	2.996	29.960%	-0.258	-4.300%	0.258	12.965%
11/24/2019	0.000	0.000	3.173	0.000	0.258	-0.258	3.173	0.000	0.000	0.000%	3.173	31.730%	-0.258	-4.300%	0.258	12.965%
11/25/2019	0.000	0.000	3.114	0.000	0.257	-0.257	3.114	0.000	0.000	0.000%	3.114	31.140%	-0.257	-4.283%	0.257	12.915%
11/26/2019	0.000	0.000	3.													

Map Code Source Basin	Water Transfer (MGD) to Rocky River Basin				Water Sales (MGD)		IBT Totals Per Basin			Interbasin Transfer							
	Salisbury 1		Albemarle 1		Charlotte 1-3		NOTE: All Wastewater discharge is to the Rocky River from RRWWTP, excluding water sales to Landis (subtracted from Total South Yadkin IBT).										
	South Yadkin	Yadkin	Yadkin	Yadkin	Catawba	South Yadkin	South Yadkin	Yadkin	Catawba								
DATE	Raw Water to Kannapolis Lake from Second Creek	Salisbury Finished water Interconnection with Kannapolis	Finished water Interconnection with Concord	Albemarle Finished water Interconnection with Concord	Charlotte Water Interconnections with Concord	Kannapolis Finished water sales to Landis	Total South Yadkin IBT <sup>1</sup>	Total Yadkin IBT	Total Catawba IBT	Catawba	% of Permitted MDD Transfer	Yadkin	% of Permitted MDD Transfer	Grandfathered IBT from Second Creek - South Yadkin River Basin	% of Permitted MDD Transfer	IBT from Yadkin to South Yadkin River Basin	% of Permitted MDD Transfer
11/29/2019	0.000	0.000	2.946	0.000	0.000	0.201	-0.201	2.946	0.000	0.000	0.000%	2.946	29.460%	-0.201	-3.350%	0.201	10.101%
11/30/2019	0.000	0.000	2.805	0.000	0.000	0.251	-0.251	2.805	0.000	0.000	0.000%	2.805	28.050%	-0.251	-4.183%	0.251	12.613%
12/1/2019	0.000	0.000	3.026	0.000	0.000	0.209	-0.209	3.026	0.000	0.000	0.000%	3.026	30.260%	-0.209	-3.483%	0.209	10.503%
12/2/2019	0.000	0.000	2.999	0.000	0.000	0.283	-0.283	2.999	0.000	0.000	0.000%	2.999	29.990%	-0.283	-4.717%	0.283	14.221%
12/3/2019	0.000	0.000	3.062	0.000	0.000	0.256	-0.256	3.062	0.000	0.000	0.000%	3.062	30.620%	-0.256	-4.267%	0.256	12.864%
12/4/2019	0.000	0.000	3.100	0.000	0.000	0.214	-0.214	3.100	0.000	0.000	0.000%	3.100	31.000%	-0.214	-3.567%	0.214	10.754%
12/5/2019	0.000	0.000	3.179	0.000	0.000	0.257	-0.257	3.179	0.000	0.000	0.000%	3.179	31.790%	-0.257	-4.283%	0.257	12.915%
12/6/2019	0.000	0.000	3.049	0.000	0.000	0.271	-0.271	3.049	0.000	0.000	0.000%	3.049	30.490%	-0.271	-4.517%	0.271	13.618%
12/7/2019	0.000	0.000	2.892	0.000	0.000	0.284	-0.284	2.892	0.000	0.000	0.000%	2.892	28.920%	-0.284	-4.733%	0.284	14.271%
12/8/2019	0.000	0.000	3.118	0.000	0.000	0.239	-0.239	3.118	0.000	0.000	0.000%	3.118	31.180%	-0.239	-3.983%	0.239	12.010%
12/9/2019	0.000	0.000	2.972	0.000	0.000	0.283	-0.283	2.972	0.000	0.000	0.000%	2.972	29.720%	-0.283	-4.717%	0.283	14.221%
12/10/2019	0.000	0.000	3.008	0.000	0.000	0.252	-0.252	3.008	0.000	0.000	0.000%	3.008	30.080%	-0.252	-4.200%	0.252	12.663%
12/11/2019	0.000	0.000	3.004	0.000	0.000	0.219	-0.219	3.004	0.000	0.000	0.000%	3.004	30.040%	-0.219	-3.650%	0.219	11.005%
12/12/2019	0.000	0.000	2.808	0.000	0.000	0.263	-0.263	2.808	0.000	0.000	0.000%	2.808	28.080%	-0.263	-4.383%	0.263	13.216%
12/13/2019	0.000	0.000	3.207	0.000	0.000	0.248	-0.248	3.207	0.000	0.000	0.000%	3.207	32.070%	-0.248	-4.133%	0.248	12.482%
12/14/2019	0.000	0.000	3.348	0.000	0.000	0.220	-0.220	3.348	0.000	0.000	0.000%	3.348	33.480%	-0.220	-3.667%	0.220	11.055%
12/15/2019	0.000	0.000	3.199	0.000	0.000	0.247	-0.247	3.199	0.000	0.000	0.000%	3.199	31.990%	-0.247	-4.117%	0.247	12.412%
12/16/2019	0.000	0.000	3.177	0.000	0.000	0.256	-0.256	3.177	0.000	0.000	0.000%	3.177	31.770%	-0.256	-4.267%	0.256	12.864%
12/17/2019	0.000	0.000	2.938	0.000	0.000	0.251	-0.251	2.938	0.000	0.000	0.000%	2.938	29.380%	-0.251	-4.183%	0.251	12.613%
12/18/2019	0.000	0.000	2.991	0.000	0.000	0.265	-0.265	2.991	0.000	0.000	0.000%	2.991	29.910%	-0.265	-4.417%	0.265	13.317%
12/19/2019	0.000	0.000	2.945	0.000	0.000	0.260	-0.260	2.945	0.000	0.000	0.000%	2.945	29.450%	-0.260	-4.333%	0.260	13.065%
12/20/2019	0.000	0.000	3.206	0.000	0.000	0.213	-0.213	3.206	0.000	0.000	0.000%	3.206	32.060%	-0.213	-3.550%	0.213	10.704%
12/21/2019	0.000	0.000	3.040	0.000	0.000	0.252	-0.252	3.040	0.000	0.000	0.000%	3.040	30.400%	-0.252	-4.200%	0.252	12.663%
12/22/2019	0.000	0.000	3.114	0.000	0.000	0.258	-0.258	3.114	0.000	0.000	0.000%	3.114	31.140%	-0.258	-4.300%	0.258	12.965%
12/23/2019	0.000	0.000	3.001	0.000	0.000	0.309	-0.309	3.001	0.000	0.000	0.000%	3.001	30.010%	-0.309	-5.150%	0.309	15.528%
12/24/2019	0.000	0.000	3.084	0.000	0.000	0.217	-0.217	3.084	0.000	0.000	0.000%	3.084	30.840%	-0.217	-3.617%	0.217	10.905%
12/25/2019	0.000	0.000	3.066	0.000	0.000	0.203	-0.203	3.066	0.000	0.000	0.000%	3.066	30.660%	-0.203	-3.383%	0.203	10.201%
12/26/2019	0.000	0.000	2.928	0.000	0.000	0.205	-0.205	2.928	0.000	0.000	0.000%	2.928	29.280%	-0.205	-3.417%	0.205	10.302%
12/27/2019	0.000	0.000	2.783	0.000	0.000	0.247	-0.247	2.783	0.000	0.000	0.000%	2.783	27.830%	-0.247	-4.117%	0.247	12.412%
12/28/2019	0.000	0.000	2.855	0.000	0.000	0.199	-0.199	2.855	0.000	0.000	0.000%	2.855	28.550%	-0.199	-3.317%	0.199	10.000%
12/29/2019	0.000	0.000	2.925	0.000	0.000	0.202	-0.202	2.925	0.000	0.000	0.000%	2.925	29.250%	-0.202	-3.367%	0.202	10.151%
12/30/2019	0.000	0.000	2.996	0.000	0.000	0.202	-0.202	2.996	0.000	0.000	0.000%	2.996	29.960%	-0.202	-3.367%	0.202	10.151%
12/31/2019	0.000	0.000	3.196	0.000	0.000	0.243	-0.243	3.196	0.000	0.000	0.000%	3.196	31.960%	-0.243	-4.050%	0.243	12.211%
<b>AVG 2019</b>	0.000	0.001	3.136	0.003	0.000	0.305	0.208	3.129	0.003	0.000	0.003%	3.129	31.291%	-0.304	-5.070%	0.275	13.814%
<b>MAX 2019</b>	0.000	0.302	4.563	1.179	0.000	0.524	0.449	4.563	1.179	0.000	1.179%	4.563	45.630%	0.000	0.000%	0.524	26.332%

<sup>1</sup> Transfers from Second Creek to Kannapolis Lake (South Yadkin Basin to Rocky River Basin) shall not exceed 6 MGD; positive numbers represent this direction of transfer as dominate  
Transfers from Kannapolis (via purchase from Salisbury) to Landis (Yadkin Basin to South Yadkin Basin) shall not exceed 2 MGD; negative numbers represent this direction of transfer as the dominate