

BRUNSWICK COUNTY INTERBASIN TRANSFER
2015 ANNUAL REPORT

Due to the decreased rainfall levels during the month of July 2015, the average day usage and peak day potable water usage were slightly higher than in the previous year. However, the total water production in the month of July at the Northwest Water treatment plant was 18.44 mgd or 76.8% of its permitted capacity. The potable water usage by customer class was up slightly for the wholesale customers, retail customers, and industrial customers when compared to 2014. The total interbasin transfer in the month of July was increased to 9.91 mgd.

Wastewater discharges decreased slightly versus the prior year due to the decreased rainfall. Most of the wastewater effluent was used as reclaimed water for irrigation of golf courses and tree farms and used for groundwater recharge.

The interconnection with the Little River Water Company was completed and placed into service. The County is nearing completion with its Advanced Meter Infrastructure Project which will improve our ability to track flows by basin.

	July 2015	July 2014
Total Water Production (mg)	689.143	591.182
Total Water Sold (mg)	591.396	543.619
Total IBT (mgd) Shallotte	9.56	8.11
Total IBT (mgd) Waccamaw	0.35	0.30
Total Wastewater Flow (mg)	202.0709	218.532

**AVERAGE DAY IN PEAK MONTH
TRANSFERRED BETWEEN RIVER BASINS**

	July-15 (mg)	July-15 (mgd)	
Northwest WTP	571.528	18.44	
NC 211 WTP	117.615	3.79	
Total Plant Flows	689.143	22.23	
Total Billed Flows	591.396	19.08	
Wholesale/Industrial Customers by Basin			
Cape Fear Basin			
ADM	35.514	1.15	
Bald Head Island	2.17493	0.07	
Caswell Beach	7.45207	0.24	
DAK Monomers	1.9106	0.06	
Brunswick Regional (H2GO)	76.23631	2.46	
Leland	14.631	0.47	
Navassa	3.06952	0.10	
Northwest	0.5371	0.02	
Oak Island	46.9335	1.51	
Primary Energy	19.82354	0.64	
Southport	22.79243	0.74	
Total Flows	231.075	7.45	
Shalotte River Basin			
Holden Beach	29.1621	0.94	
Ocean Isle Beach	40.22341	1.30	
Shalotte	15.13698	0.49	
Total Flows	84.52249	2.73	
Retail Flows	275.79851	8.90	
Cape Fear River Basin	96.61221805	3.12	35.03%
Shalotte River Basin	169.8091426	5.48	61.57%
Waccamaw River Basin	9.37714934	0.30	3.40%
	275.79851		
Total Billed Flow By Basin			
Cape Fear River Basin	327.6872181	55%	
Shalotte River Basin	254.3316326	43%	
Waccamaw River Basin	9.37714934	2%	
	591.396	100%	
Non Revenue Flow Allocation	97.747	3.15	
(Based upon Billed Percentages)			
Cape Fear	54.16073579		
Shalotte	42.03639202		
Waccamaw	1.549872195		
Total Transferred			
Cape Fear to Shalotte River Basin	296.3680246	9.56	

Cape Fear to Waccamaw River Basin	10.92702153	0.35
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Wastewater Discharges

NPDES Permits	July-15 (mg)	July-15 (mgd)
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Cape Fear River Basin		
Northeast Brunswick Regional WWTP	45.67478	1.473

Waccamaw River Basin		
Carolina Shores WWTP	11.729191	0.378

Non-Discharge Permits

Shallotte River Basin		
Sea Trail WWTP	6.711996	0.217
West Brunswick WRF	107.272152	3.460
Ocean Ridge WWTP	0	0.000
Shallotte WWTP	9.00374	0.290
Ocean Isle Beach WWTP	21.679013	0.699
Total Shallotte River Basin	144.666901	4.667

VOLME OF WATER TRANSFERRED BETWEEN RIVER BASINS IN 2015

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Northwest WTP	234.863	254.68	263.303	277.96	353.89	450.09	571.53	479.76	418.44	318.98	222.13	218.26
NC 211 WTP	71.29	44.16	68.899	84.588	115.89	123.66	117.62	99.46	55.32	71.86083	83.39	87.53
Total Plant Flows	306.153	298.84	332.202	362.548	469.78	573.75	689.143	579.216	473.753	318.984	305.519	305.79
Total Billed Flows	240.8516	262.4597	244.5507	301.6058	374.99	494.89	591.40	553.24	437.50	343.85	282.19	281.77

Wholesale/Industrial Customers by Basin

Cape Fear Basin

ADM	27.228	34.492	34.473	30.279	34.67	36.25	35.51	42.04	37.65	23.48	19.66	37.75
Bald Head Island	0.509	0.351	0.452	0.245	0.38	1.16	2.18	1.003	0.08	6.10	1.01	0.00
Caswell Beach	1.259	1.619	2.676	3.403	5.30	7.45	7.45	3.718	3.06	1.80	1.24	
DAK Monomers	2.346	2.807	3.529	3.717	4.23	5.24	1.91	0.82	1.20	1.47	0.54	0.65
Brunswick Regional (H2GO)	33.86	39.63	34.309	42.414	55.45	60.52	76.24	60.45	51.34	46.07	38.417	39.663
Leland	3.933	4.099	3.762	5.983	8.55	11.19	14.63	11.94	9.02	6.79	4.91	5.39
Navassa	1.843	4.498	2.595	2.648	2.83	2.52	3.07	2.83	2.19	2.21	2.27	2.30
Northwest	0.762	1.094	1.812	0.937	0.81	0.70	0.54	0.59	1.08	1.30	1.11	1.39
Oak Island	14.826	17.788	15.954	21.282	27.99	35.31	46.93	37.86	24.59	22.84	16.57	15.09
Capital Power	12.619	18.955	12.483	16.783	14.50	20.19	19.82	23.36	15.27	17.54	12.88	19.94
Southport	7.736	9.379	8.256	11.273	15.47	18.96	22.79	20.34	15.33	13.17	10.24	10.71

Total Flows	106.921	134.712	120.301	138.964	170.17	199.48	231.0751	204.943	160.796	142.755	108.831	132.892
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Shalotte River Basin

Holden Beach	4.033	4.874	4.279	8.229	13.31	20.19	29.162	23.359	15.270	17.539	12.875	19.936
Ocean Isle Beach	5.744	6.67	6.96	12.12	19.39	31.60	40.22	29.43	19.13	13.37	10.74	8.81
Shalotte	9.171	11.60	7.89	9.60	10.16	12.52	15.14	10.69	7.38	5.77	5.21	6.37

Total Flows	18.948	23.144	19.130	29.947	42.86	64.31	84.522	63.478	41.783	36.679	28.830	35.111
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Retail Flows	114.983	104.604	105.120	132.695	161.96	231.09	275.799	284.820	234.924	164.417	144.529	113.772
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Cape Fear River Basin	40.278	36.643	36.823	46.483	56.74	80.95	96.612	99.772	82.294	57.595	50.629	39.854
Shalotte River Basin	70.795	64.404	64.722	81.700	99.72	142.28	169.809	175.364	144.643	101.231	88.987	70.049
Waccamaw River Basin	3.9094	3.5565	3.5741	4.5116	5.51	7.86	9.3772	9.6839	7.9874	5.5902	4.9140	3.8682

Total Billed Flow By Basin

Cape Fear River Basin	147.199	171.355	157.124	185.447	226.90	280.43	327.687	304.715	243.090	200.350	159.460	172.746
Shallotte River Basin	89.743	87.548	83.852	111.647	142.58	206.60	254.331	238.842	186.426	137.910	117.817	105.160
Waccamaw River Basin	3.9094	3.5565	3.5741	4.5116	5.51	7.86	9.3772	9.6839	7.9874	5.5902	4.9140	3.8682
Cape Fear River Basin	61.12%	65.29%	64.25%	61.49%	0.61	0.57	55.41%	55.08%	55.56%	58.27%	56.51%	61.31%
Shallotte River Basin	37.26%	33.36%	34.29%	37.02%	0.38	0.42	43.01%	43.17%	42.61%	40.11%	41.75%	37.32%
Waccamaw River Basin	1.62%	1.36%	1.46%	1.50%	0.01	0.02	1.59%	1.75%	1.83%	1.63%	1.74%	1.37%

Non Revenue Flow Allocation

(Based upon Billed Percentages)

Cape Fear	39.90975	23.75197	56.31618	37.47125	57.36	44.69	54.16077	14.30669	20.14154	-14.4889	13.18272	14.72281
Shallotte	24.3317	12.13535	30.05411	22.55933	36.04	32.92	42.03636	11.21385	15.44655	-9.9734	9.740038	8.962603
Waccamaw	1.059947	0.49298	1.28101	0.911615	1.39	1.25	1.549874	0.454667	0.661808	-0.40427	0.406245	0.329683

Total Transferred

(Million Gallons)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cape Fear to Shallotte River Basin	114.074	99.684	113.906	134.207	178.62	239.52	296.368	250.055	201.872	127.937	127.557	114.123
Cape Fear to Waccamaw River Basin	4.9694	4.0495	4.8551	5.4232	6.90	9.11	10.9270	10.1385	8.6492	5.1859	5.3202	4.1979

Total Transferred

(Million Gallons Per Day)

Cape Fear to Shallotte River Basin	3.68	3.56	3.67	4.47	5.76	7.98	9.56	8.07	6.73	4.13	4.25	3.68
Cape Fear to Waccamaw River Basin	0.160	0.145	0.157	0.181	0.22	0.30	0.352	0.327	0.288	0.167	0.177	0.135

Wastewater Discharges

NPDES Permits

Cape Fear River Basin

Northeast Brunswick Regional WWTP	65.62142	53.62196	56.34374	48.4802	48.08	45.24	45.67	48.27661	37.96	73.93	64.13	58.98
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Waccamaw River Basin

Carolina Shores WWTP	10.01486	9.9792	10.5493	10.926	11.14	11.29	11.729.19	10.17299	10.39	13.14	12.21	12.32
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Non-Discharge Permits

Shallotte River Basin

Sea Trail WWTP	1.39	1.813	2.31	3.489	4.08	5.45	6.71	6.515	5.67	4.97	5.01	4.45
West Brunswick WRF	82.09	78.384	93.2494	91.666	94.73	95.17	107.27	94.659	76.47	129.09	105.62	85.72
Shallotte WWTP	1.45	2.623	1.891	3.63	4.94	6.14	9.01	7.98	7.91	3.82	6.70	6.62
Ocean Isle Beach WWTP	8.934	7.67	9.27	11.399	15.41	21.60	21.68	17.282	12.82	13.62	7.76	5.88
Total Shallotte River Basin	93.864	90.49	106.7204	110.184	119.16	128.36	144.6732	126.436	102.8756	151.495	125.0886	102.6756