State of New Jersey
Department of Environmental Protection

2024 NEW JERSEY STATEWIDE WATER SUPPLY PLAN

APPENDIX A

STREAM LOW FLOW MARGIN (LFM) METHOD RESULTS

STREAM LOW FLOW MARGIN (LFM) METHOD RESULTS

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LFM METHOD DESCRIPTION

The Low Flow Margin (LFM) method is used by DEP to estimate the amount of water-table (unconfined) aquifer and surface water[1] that can be sustainably withdrawn in each HUC11 drainage basin (Snook, Domber, & Hoffman, 2013). This approach assumes that a certain amount of streamflow can be lost without causing adverse ecological and water supply impacts. LFM is designed to be an estimate of water availability at low-flow periods. The amount of water that can be lost via depletive or consumptive water uses[2] is estimated as a percentage of the difference between the September median flow and the 7Q10 flow. The flow statistics are calculated for each of New Jersey's 151 HUC11 drainage basins. September median flow is the average monthly flow in September where half of the observed Septembers are higher and the other half are lower. 7Q10 is defined as the annual seven-day minimum flow that occurs on average once in ten years. The difference between the September median and the 7Q10 is referred to as the margin (see LFM column in A tables). A percentage of the LFM is determined as a planning threshold for excessive depletive and consumptive loss (known as Available Water). This Plan uses 25% of the LFM as a planning threshold, reserving the remaining 75% for ecological maintenance and downstream flows. If a HUC11's net water loss exceeds this threshold, it is considered to have potential water-availability shortages, and further analysis is needed.

The 25% threshold used in the 2017 Plan was reconfirmed based upon a more detailed analysis of daily streamflow at a set of 24 USGS continuous record stream gages. The reanalysis was completed using the Ecologic Limits of Hydrologic Alteration or ELOHA method and specifically the New Jersey Hydrologic Assessment Tool (NJHAT). See Table X for a summary of results of this analysis which showed an average of 23% for all the basins with a range of 10% to 40%. Based upon the larger uncertainties associated with the method and data, it is reasonable to use the same 25% value for this analysis.

Table X: Calibration of the Stream Low Flow Margin Method Using NJHAT

ID	Gage Number	Name	Baseline Period	Drainage Area (mi^2)	Stream Type Classification	Stream Flow Reduction (CFS)	Stream Flow Reduction (mgd)	* September Median (mgd)	* 7Q10 (mgd)	Stream Stat Violation	LFM Difference of 7Q10 and September Median (mgd)	** Percent of LFM
1	**01464000**	**Assunpink Creek @ Trenton**	1923-1956	91	A	3.891	2.51	26.5	7.97	DL4	18.53	14%
2	**01410150**	**East Branch Bass River near New Gretna**	1978-2005	8.11	D	0.581	0.38	7.11	4.17	DL4	2.94	13%

[1] The LFM method does not consider surface water that is regulated in a surface water supply reservoir system (aka a system with a defined safe yield).

[2] Consumptive loss means water is removed from the water supply resource (ground or surface water), used, and lost to the atmosphere, generally through evapotranspiration. Depletive loss means the withdrawal of water from a water supply resource where the water, once used, is not discharged to the same water supply resource in such a manner as to be useable within the same watershed (e.g., exported out of the watershed); it may be available for use elsewhere in the state if discharged to fresh waters.

ID	Gage Number	Name	Baseline Period	Drainage Area (mi^2)	Stream Type Classification	Stream Flow Reduction (CFS)	Stream Flow Reduction (mgd)	* September Median (mgd)	* 7Q10 (mgd)	Stream Stat Violation	LFM Difference of 7Q10 and September Median (mgd)	** Percent of LFM
3	01440000	Flatbrook near Flatbrookville	1923-2005	64	A	4.9	3.17	13.57	4.75	ML6	8.82	36%
4	01411000	Great Egg Harbor River @ Folsom	1925-1970	57.1	B	5.5	3.55	28.44	14.01	FH10/DL1	14.43	25%
5	01408000	Manasquan River @ Squankum	1931-1956	44	A	3.5	2.26	21.97	10.83	ML8	11.14	20%
6	01409400	Mullica River near Batsto	1957-2005	46.7	B	6	3.88	25.85	9.39	ML4	16.46	24%
7	01457000	Musconetcong River near Bloomsbury	1921-1972	141	B	9	5.82	67.86	29.57	DL1	38.29	15%
8	01379000	Passaic River near Millington	1921-1979	55.4	A	2.5	1.62	9.51	1.81	ML5	7.7	21%
9	01443500	Paulins Kill @ Blairstown	1921-1975	126	A	11.5	7.43	34.9	10.59	ML7	24.31	31%
10	01477120	Racoon Creek near Swedesboro	1966-2005	26.9	C	2	1.29	10.99	4.75	ML4/ML6/ ML8	6.24	21%
11	01384500	Ringwood Creek near Wanaque	1934-1978	19.1	C	0.85	0.55	2.13	0.24	ML5	1.89	29%
12	01380450	Rockaway River @ Main Street @ Boonton	1937-1959	116	A	14	9.05	38.78	9.61	ML6	29.17	31%
13	01465850	South Branch Rancocas Creek @ Vincentown	1961-1975	64.5	B	3.6	2.33	19.35	5.75	DL1	13.6	17%
14	01396500	South Branch Raritan River near High Bridge	1918-1970	65.3	A	4.5	2.91	29.73	14.24	ML4	15.49	19%
15	01408500	Toms River near Toms River	1928-1963	123	B	8.5	5.49	73.68	42.93	DL1	30.75	18%
16	01411300	Tuckahoe River @ Head of River	1969-2005	30.8	C	1	0.65	10.99	4.65	ML5	6.34	10%

ID	Gage Number	Name	Baseline Period	Drainage Area (mi^2)	Stream Type Classification	Stream Flow Reduction (CFS)	Stream Flow Reduction (mgd)	* September Median (mgd)	* 7Q10 (mgd)	Stream Stat Violation	LFM Difference of 7Q10 and September Median (mgd)	** Percent of LFM
17	**01409280**	**Westecunk Creek @ Stafford Forge**	1979-1988	15.8	D	3.5	2.26	14.28	8.67	ML8/FH3	5.61	40%
18	**01381500**	**(1) Whippany River @ Morristown**	1921-1952	29.4	C	2.5	1.62			ML4	5.153	31%
19	**01398000**	**Neshanic River @ Reaville**	1930-1962	25.7	A	0.3	0.19	1.55	0.12	ML6	1.43	14%
20	**01409500**	**Batsto River @ Batsto**	1927-2005	67.8	B	9.5	6.14	43.95	26.14	ML9	17.81	34%
21	**01467000**	**N. Branch Rancocas near Pemberton**	1921-2005	118	B	10	6.46	53	22.3	ML3	30.7	21%
22	**01399500**	**(2) Lamington River near Pottersville**	1921-1950	32.8	C	2.875	1.86			ML4	7.7	24%
23	**01396660**	**(3) Mulhockaway Creek @ Van Syckel**	1977-2005	11.8	C	0.6	0.39			ML7	1.9	20%
24	**01386000**	**West Brook near Wanaque**	1934-1978	11.8	C	0.45	0.29	1.94	0.38	ML6/FL1	1.56	19%
											Average =	**23%**

Notes

(1) - From area ratio of Whippany River HUC11 02030103020 LFM Analysis (69.9 mi^2 and 12.2 LFM)
(2) - From area ratio of downstream gage 01399780 flow stats (99 mi^2 and 23.2 LFM)
(3) - From area ratio of downstream gage 01396700 flow stats (20.5 mi^2 and 3.26 LFM)
DL1: Annual minimum daily flow. (cfs)
DL4: Annual Minimum of 30-day moving average flow. (cfs)
ML3: Mean or median (user choice) of March of minimum flow values. Determine the minimum flow for each March over the entire flow record. (cfs)
ML4: Mean or median (user choice) of April of minimum flow values. Determine the minimum flow for each April over the entire flow record. (cfs)
ML5: Mean or median (user choice) of May of minimum flow values. Determine the minimum flow for each May over the entire flow record. (cfs)
ML6: Mean or median (user choice) of June of minimum flow values. Determine the minimum flow for each June over the entire flow record. (cfs)
ML7: Mean or median (user choice) of July of minimum flow values. Determine the minimum flow for each July over the entire flow record. (cfs)
ML8: Mean or median (user choice) of August of minimum flow values. Determine the minimum flow for each August over the entire flow record. (cfs)
ML9: Mean or median (user choice) of September of minimum flow values. Determine the minimum flow for each September over the entire flow record. (cfs)
FH3: High Flood pulse count. (number of days/year)
FH10: Flood frequency. (number of events/year)

ID	Gage Number	Name	Baseline Period	Drainage Area (mi^2)	Stream Type Classification	Stream Flow Reduction (CFS)	Stream Flow Reduction (mgd)	* September Median (mgd)	* 7Q10 (mgd)	Stream Stat Violation	LFM Difference of 7Q10 and September Median (mgd)	** Percent of LFM

FL1: Low flood pulse count. (number of events/year)

***September Median and 7Q10 Flows were obtained from New Jersey Geological Survey Technical Memorandum 13-3, Domber, S., Snook, I., Hoffman, J.L., 2013, "Using the Stream Low Flow Margin Method to Assess Water Availability in New Jersey's Water-Table-Aquifer Systems."

****The "Percentages" column is the Stream Flow Reduction divided by the "Difference of 7Q10 and September Median".

To identify potential water-availability shortages, the net volume of water lost to depletive and consumptive water uses (see Net Dep-Con columns in B tables) and the volume of water still available for additional depletive and consumptive loss (known as Remaining Available Water) are calculated for each HUC11. To calculate net consumptive and depletive loss, a three-year running average of individual years was calculated for each HUC11. The largest three-year running average value was utilized for each HUC11. Loss calculations consider both current and full allocation water use rates and loss from eight different water use groups (power generation, public supply, agriculture, irrigation, industrial, commercial, mining, and unclassified). Remaining Available Water (RAW) is the difference between the amount of water available at the 25% threshold and calculated net depletive and consumptive losses for each HUC11. HUC11s with potential water availability shortages have a RAW value of 0.

The LFM method is one screening tool used to identify watersheds with potential water availability shortages but is not intended to replace other more rigorous and data-intensive methods for examining water availability. The LFM method does not account for limitations of available water due to water quality or existing regulatory programs, and the method is periodically updated as new water use data and information become available.

WATERSHED MANAGEMENT AREA 01

UPPER DELAWARE

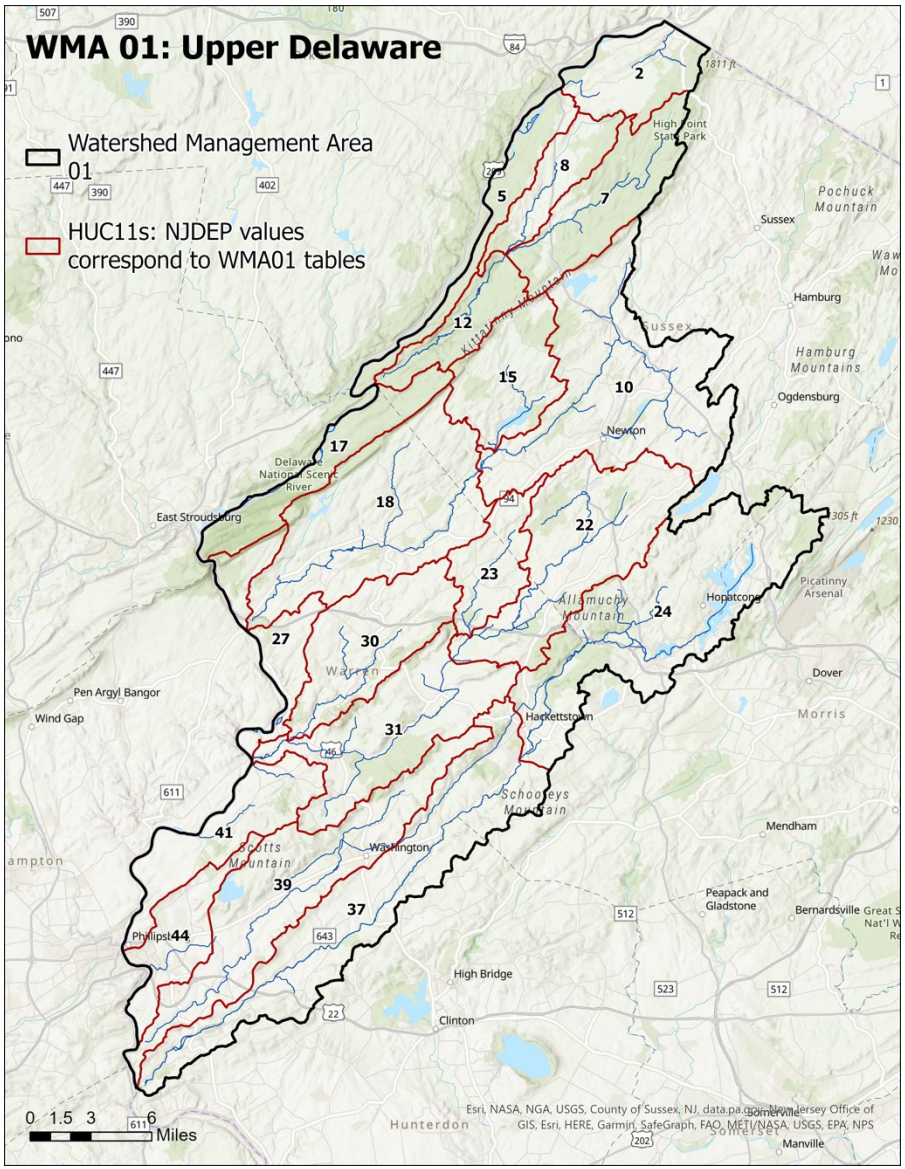

Table 1A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
2	**02040104090**	Shimers Brook / Clove Brook	22.8	22.1	5.7	1.7	25%	3.9			Yes			0	
5	**02040104110**	Walpack Bend / Montague Riverfront	18.0	16.1	3.3	0.9	25%	2.5			Yes			0	
8	**02040104130**	Little Flat Brook	16.8	16.8	3.1	0.8	25%	2.3			Yes			0	
7	**02040104140**	Big Flat Brook	32.6	32.6	5.9	1.6	25%	4.3			Yes			0	
12	**02040104150**	Flat Brook	16.9	66.2	4.9	2.5	25%	2.4						0	
17	**02040104240**	Van Campens Brook / Dunnfield Creek	23.3	22.1	4.9	1.2	25%	3.6			Yes			0	
15	**02040105030**	Trout Brook / Swartswood Lake	27.8	27.8	4.7	0.8	25%	3.9			Yes			0	
10	**02040105040***	Paulins Kill (above Stillwater Village)	79.4	107.1	23.6	8.3	25%	15.2	Partial					0	
18	**02040105050***	Paulins Kill (below Stillwater Village)	69.8	176.8	18.6	5.0	25%	13.6	Partial		Yes			0	
27	**02040105060***	Stony Brook / Delawanna Creek	19.7	18.7	3.9	1.0	25%	3.0	Partial		Yes			0	
22	**02040105070***	Pequest River (above/incl Bear Swamp)	54.7	72.9	12.6	2.8	25%	9.8	Partial		Yes			0	

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
23	**02040105080***	Bear Creek	18.3	18.3	4.0	1.0	25%	3.0	Partial		Yes			0	
31	**02040105090**	Pequest River (below Bear Swamp)	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.												
30	**02040105100***	Beaver Brook	36.7	36.7	5.9	1.5	25%	4.5	Partial		Yes			0	
41	**02040105110**	Pophandusing Brook / Buckhorn Creek	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.												
44	**02040105120**	Lopatcong Creek	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.												
39	**02040105140**	Pohatcong Creek	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.												
24	**02040105150**	Musconetcong River (above Trout Brook)	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.												
37	**02040105160**	Musconetcong River (below incl Trout Bk)	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.												

***The Highlands Council has responsibility for the calculation of water availability in those watersheds located in the Highlands Region. The Highlands Council utilizes HUC14s to analyze water availability and imposes low flow margin thresholds based on the Regional Master Plan Land Use Capability Zones of each HUC14. These thresholds and other specifics regarding the Highlands Council's processes can be found in the Highlands Regional Master Plan and the associated Technical Report "Water Resources Volume II: Water Use and Availability".**

Table 1B. Summary of HUC11 Remaining Available Water and Full Allocation

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Current Largest Loss	Current Largest Loss % Available Water	Full Allocation Largest Loss	Full Allocation Largest Loss % Available Water
2	**02040104090**	Shimers Brook / Clove Brook	2014	1.0	0.2	19%	0.8	0.4	41%	0.6	Potable	17%	Potable	50%
5	**02040104110**	Walpack Bend / Montague Riverfront	2013	0.6	0.0	2%	0.6	0.0	0%	0.6	Potable	2%	Potable	N/A
8	**02040104130**	Little Flat Brook	2013	0.6	0.0	5%	0.5	0.0	9%	0.5	Potable	5%	Potable	N/A
7	**02040104140**	Big Flat Brook	2014	1.1	0.0	0%	1.1	0.0	0%	1.1	Minimal Loss	0%	Potable	N/A
12	**02040104150**	Flat Brook	2015	0.6	0.0	0%	0.6	0.0	0%	0.6	Potable	0%	Potable	N/A
17	**02040104240**	Van Campens Brook / Dunnfield Creek	2013	0.9	0.0	2%	0.9	0.0	3%	0.9	Potable	2%	Potable	N/A
15	**02040105030**	Trout Brook / Swartswood Lake	2020	1.0	0.1	5%	0.9	0.1	9%	0.9	Potable	5%	Potable	N/A
10	**02040105040***	Paulins Kill (above Stillwater Village)	2017	3.8	1.6	42%	2.2	5.9	156%	0.0	Potable	21%	Potable	100%
18	**02040105050***	Paulins Kill (below Stillwater Village)	2014	3.4	0.2	5%	3.2	0.9	26%	2.5	Potable	4%	Potable	23%
27	**02040105060***	Stony Brook / Delawanna Creek	2016	0.7	0.0	2%	0.7	0.1	12%	0.6	Potable	2%	Ag/Irr	12%
22	**02040105070***	Pequest River (above/incl Bear Swamp)	2015	2.5	1.2	48%	1.3	3.3	136%	0.0	Potable	24%	Potable	87%
23	**02040105080***	Bear Creek	2020	0.7	0.0	2%	0.7	0.1	18%	0.6	Potable	2%	Potable	18%
31	**02040105090**	Pequest River (below Bear Swamp)	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.											

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Current Largest Loss	Current Largest Loss % Available Water	Full Allocation Largest Loss	Full Allocation Largest Loss % Available Water
30	**02040105100***	Beaver Brook	2014	1.1	0.1	7%	1.0	0.9	84%	0.2	Potable	5%	Ag/Irr	51%
41	**02040105110**	Pophandusing Brook / Buckhorn Creek	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.											
44	**02040105120**	Lopatcong Creek	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.											
39	**02040105140**	Pohatcong Creek	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.											
24	**02040105150**	Musconetcong River (above Trout Brook)	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.											
37	**02040105160**	Musconetcong River (below incl Trout Bk)	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.											

***The Highlands Council has responsibility for the calculation of water availability in those watersheds located in the Highlands Region. The Highlands Council utilizes HUC14s to analyze water availability and imposes low flow margin thresholds based on the Regional Master Plan Land Use Capability Zones of each HUC14. These thresholds and other specifics regarding the Highlands Council's processes can be found in the Highlands Regional Master Plan and the associated Technical Report "Water Resources Volume II: Water Use and Availability".**

Table 1C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
2	**02040104090**	Shimers Brook / Clove Brook	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.0
5	**02040104110**	Walpack Bend / Montague Riverfront	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	**02040104130**	Little Flat Brook	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
7	02040104140	Big Flat Brook	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	02040104150	Flat Brook	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	02040104240	Van Campens Brook /Dunnfield Creek	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0
15	02040105030	Trout Brook / Swartswood Lake	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0
10	02040105040*	Paulins Kill (above Stillwater Village)	1.5	0.0	1.1	0.0	6.4	0.0	0.0	0.1	0.1	0.0	0.0	2.4	6.5	0.0	9.0	0.0
18	02040105050*	Paulins Kill (below Stillwater Village)	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.7	0.0
27	02040105060*	Stony Brook / Delawanna Creek	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	142.4	0.3	142.4	0.0	142.7	1.1
22	02040105070*	Pequest River (above/incl Bear Swamp)	0.8	0.0	1.0	0.0	0.0	0.5	0.1	0.0	0.1	0.0	0.0	2.0	0.2	0.0	2.2	0.0
23	02040105080*	Bear Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	02040105090	Pequest River (below Bear Swamp)	3.1	0.0	0.7	0.4	0.0	6.2	0.1	0.0	0.0	0.0	0.0	9.3	0.1	0.0	9.4	0.0
30	02040105100	Beaver Brook	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0
41	02040105110	Pophandusing Brook /Buckhorn Creek	0.6	0.0	0.2	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.9	3.4
44	02040105120	Lopatcong Creek	0.2	0.0	0.2	0.1	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.9	0.0	2.3	0.0
39	02040105140	Pohatcong Creek	1.1	0.0	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	1.6	0.0
24	02040105150	Musconetcong River (above Trout Brook)	3.7	0.0	1.7	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	4.9	0.3	0.0	5.3	0.0
37	02040105160	Musconetcong River (below incl Trout Bk)	1.9	0.0	1.0	0.2	0.0	0.0	0.0	0.2	0.1	0.0	0.0	3.0	0.1	0.0	3.2	0.0

Table 1D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
2	02040104090	Shimers Brook / Clove Brook	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2
5	02040104110	Walpack Bend / Montague Riverfront	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	02040104130	Little Flat Brook	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
7	02040104140	Big Flat Brook	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	02040104150	Flat Brook	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	02040104240	Van Campens Brook / Dunnfield Creek	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
15	02040105030	Trout Brook / Swartswood Lake	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2
10	02040105040	Paulins Kill (above Stillwater Village)	0.0	0.7	0.0	0.8	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.9	6.5	7.4
18	02040105050	Paulins Kill (below Stillwater Village)	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5
27	02040105060	Stony Brook / Delawanna Creek	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	142.4	0.3	142.4	142.7
22	02040105070	Pequest River (above/incl Bear Swamp)	0.0	0.2	0.0	0.7	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.8	0.3	1.0
23	02040105080	Bear Creek	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	02040105090	Pequest River (below Bear Swamp)	0.0	0.4	0.0	0.5	0.3	0.0	5.8	0.0	0.0	0.0	0.0	0.0	6.7	0.4	7.0
30	02040105100	Beaver Brook	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2
41	02040105110	Pophandusing Brook / Buckhorn Creek	0.0	0.3	0.0	0.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.3	1.6
44	02040105120	Lopatcong Creek	0.0	2.3	0.0	0.1	0.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.2	3.9	4.1
39	02040105140	Pohatcong Creek	0.0	0.6	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.2
24	02040105150	Musconetcong River (above Trout Brook)	0.1	2.0	0.0	1.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.3	3.6
37	02040105160	Musconetcong River (below incl Trout Bk)	0.0	2.0	0.0	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	2.9

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.
3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.
4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.

WATERSHED MANAGEMENT AREA 02

WALLKILL

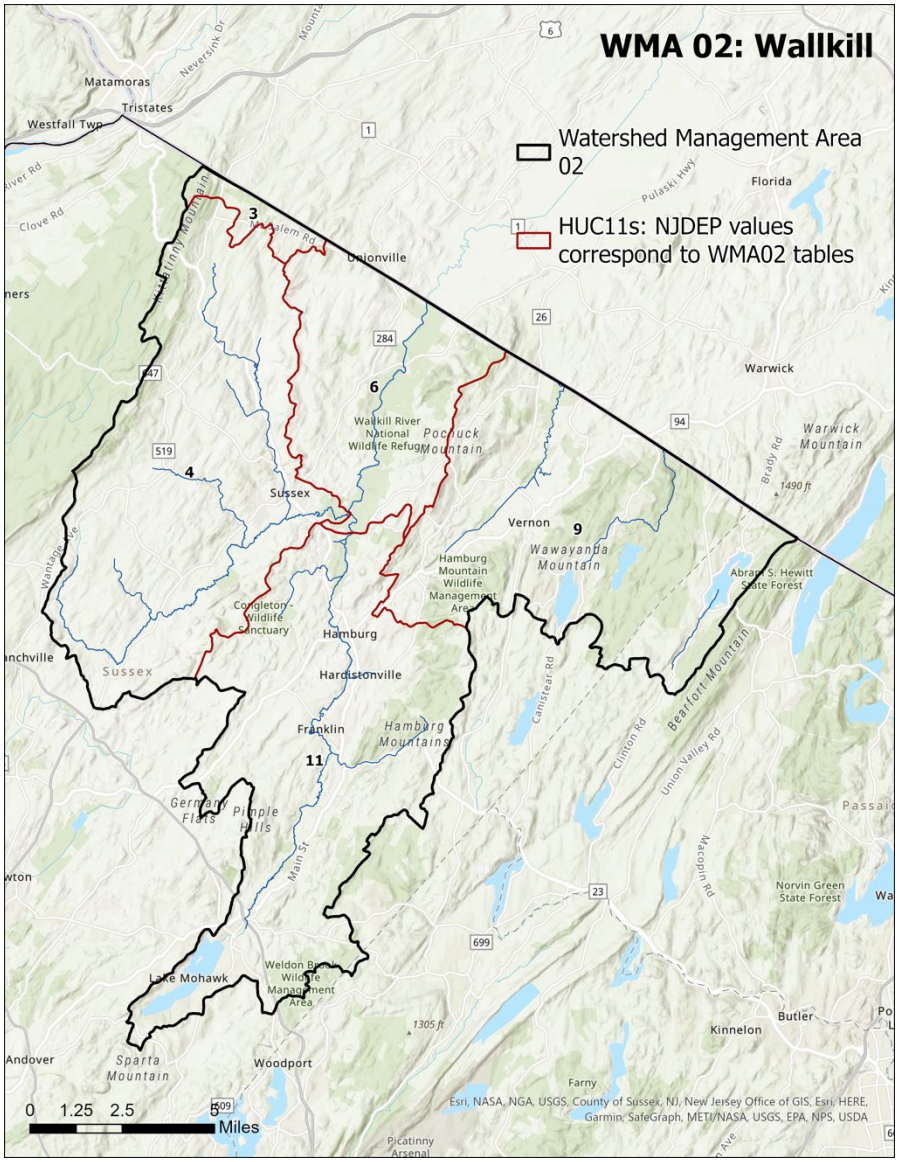

Table 2A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Watershed Area (mi^2)	Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
3	**02020007000**	Rutgers Creek tribs	3.2	3.2	Not Calc.	Not Calc.	25%	0.3						0	
11	**02020007010***	Wallkill River (above road to Martins)	61.0	61.0	11.1	2.7	25%	8.4	Partial		Yes			0	
4	**02020007020**	Papakating Creek	60.6	60.6	6.2	1.2	25%	5.0			Yes			0	
6	**02020007030***	Wallkill River (below road to Martins)	29.2	153.7	3.8	0.8	25%	3.0	Partial		Yes			0	
9	**02020007040**	Pochuck Creek	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.												

***The Highlands Council has responsibility for the calculation of water availability in those watersheds located in the Highlands Region. The Highlands Council utilizes HUC14s to analyze water availability and imposes low flow margin thresholds based on the Regional Master Plan Land Use Capability Zones of each HUC14. These thresholds and other specifics regarding the Highlands Council's processes can be found in the Highlands Regional Master Plan and the associated Technical Report "Water Resources Volume II: Water Use and Availability".**

Table 2B. Summary of HUC11 Remaining Available Water and Full Allocation

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
3	**02020007000**	Rutgers Creek tribs												
11	**02020007010***	Wallkill River (above road to Martins)	2016	2.1	1.2	57%	0.9	2.5	116%	0.0	Potable	31%	Potable	90%
4	**02020007020**	Papakating Creek	2013	1.2	0.4	29%	0.9	1.4	111%	0.0	Potable	24%	Potable	100%

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
6	**02020007030***	Wallkill River (below road to Martins)	2014	0.7	0.1	15%	0.6	0.8	103%	0.0	Potable	15%	Potable	100%
9	**02020007040**	Pochuck Creek	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.											

***The Highlands Council has responsibility for the calculation of water availability in those watersheds located in the Highlands Region. The Highlands Council utilizes HUC14s to analyze water availability and imposes low flow margin thresholds based on the Regional Master Plan Land Use Capability Zones of each HUC14. These thresholds and other specifics regarding the Highlands Council's processes can be found in the Highlands Regional Master Plan and the associated Technical Report "Water Resources Volume II: Water Use and Availability".**

Table 2C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
3	**02020007000**	Rutgers Creek tribs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	**02020007010**	Wallkill River (above road to Martins)	1.9	0.0	0.6	0.2	0.1	0.0	0.0	0.3	0.3	0.0	0.0	2.7	0.4	0.0	3.0	0.7
4	**02020007020**	Papakating Creek	0.0	0.2	0.7	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.6	0.3	0.0	0.9	0.0
6	**02020007030**	Wallkill River (below road to Martins)	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.6	0.0
9	**02020007040**	Pochuck Creek	0.9	0.0	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	2.1	0.0

Table 2D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
3	**02020007000**	Rutgers Creek tribs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	**02020007010**	Wallkill River (above road to Martins)	0.0	1.1	0.0	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	1.8

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
4	02020007020	Papakating Creek	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5
6	02020007030	Wallkill River (below road to Martins)	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4
9	02020007040	Pochuck Creek	0.0	0.0	0.0	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	1.1

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.
3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.
4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.

WATERSHED MANAGEMENT AREA 03

POMPTON, PEQUANNOCK, WANAQUE, AND RAMAPO[1]

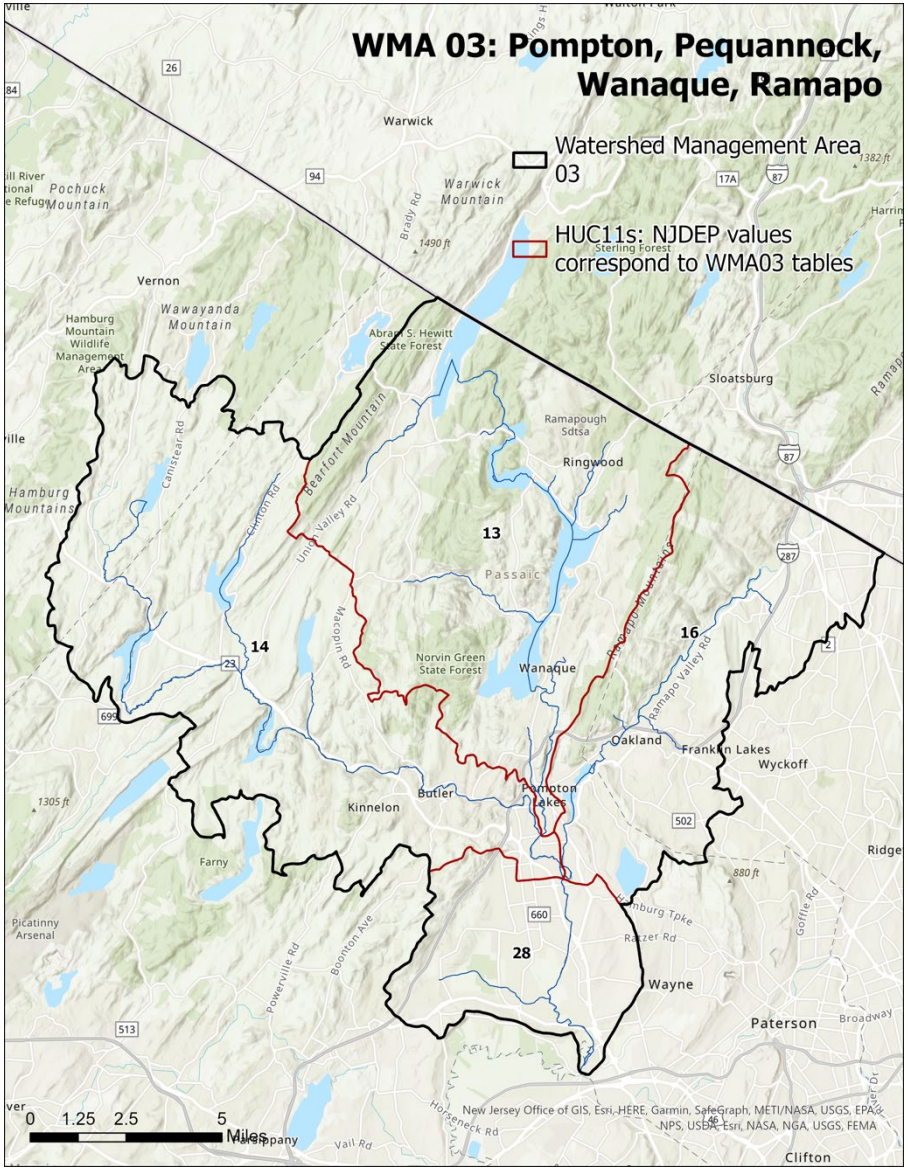

Table 3A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
14	02030103050	Pequannock River	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.												
13	02030103070	Wanaque River	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.												
16	02030103100*	Ramapo River	47.8	161.0	8.0	3.0	25%	5.0	Partial	Yes				8	
28	02030103110*	Pompton River	24.0	378.6	4.6	0.9	25%	3.7	Partial	Yes	Yes	Yes		0	

***The Highlands Council has responsibility for the calculation of water availability in those watersheds located in the Highlands Region. The Highlands Council utilizes HUC14s to analyze water availability and imposes low flow margin thresholds based on the Regional Master Plan Land Use Capability Zones of each HUC14. These thresholds and other specifics regarding the Highlands Council's processes can be found in the Highlands Regional Master Plan and the associated Technical Report "Water Resources Volume II: Water Use and Availability".**

Table 3B. Summary of HUC11 Remaining Available Water and Full Allocation

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
14	02030103050	Pequannock River	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.											
13	02030103070	Wanaque River	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.											
16	02030103100*	Ramapo River	2014	1.3	5.8	465%	0.0	6.5	515%	0.0	Potable	100%	Potable	100%
28	02030103110*	Pompton River	2016	0.9	-1.4	Net Gain	2.3	1.1	114%	0.0	Non-Ag Irr	19%	Potable	43%

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Table 3C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
14	**02030103050**	Pequannock River	2.1	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	2.9	31.5
13	**02030103070**	Wanaque River	2.8	0.0	1.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.1	0.0	3.7	114.0
16	**02030103100**	Ramapo River	7.2	0.0	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3	0.0	0.0	7.3	0.0
28	**02030103110**	Pompton River	2.9	0.0	0.3	0.0	0.8	0.0	0.1	0.2	0.0	0.0	0.0	3.0	0.9	0.0	4.0	83.5

Table 3D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
14	**02030103050**	Pequannock River	0.0	0.1	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.1	1.0
13	**02030103070**	Wanaque River	0.0	0.9	0.0	0.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	2.0
16	**02030103100**	Ramapo River	0.0	0.8	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.8	1.4
28	**02030103110**	Pompton River	0.0	4.3	0.0	0.2	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.2	5.1	5.3

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.
3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.
4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.

WATERSHED MANAGEMENT AREA 04

LOWER PASSAIC AND SADDLE[1]

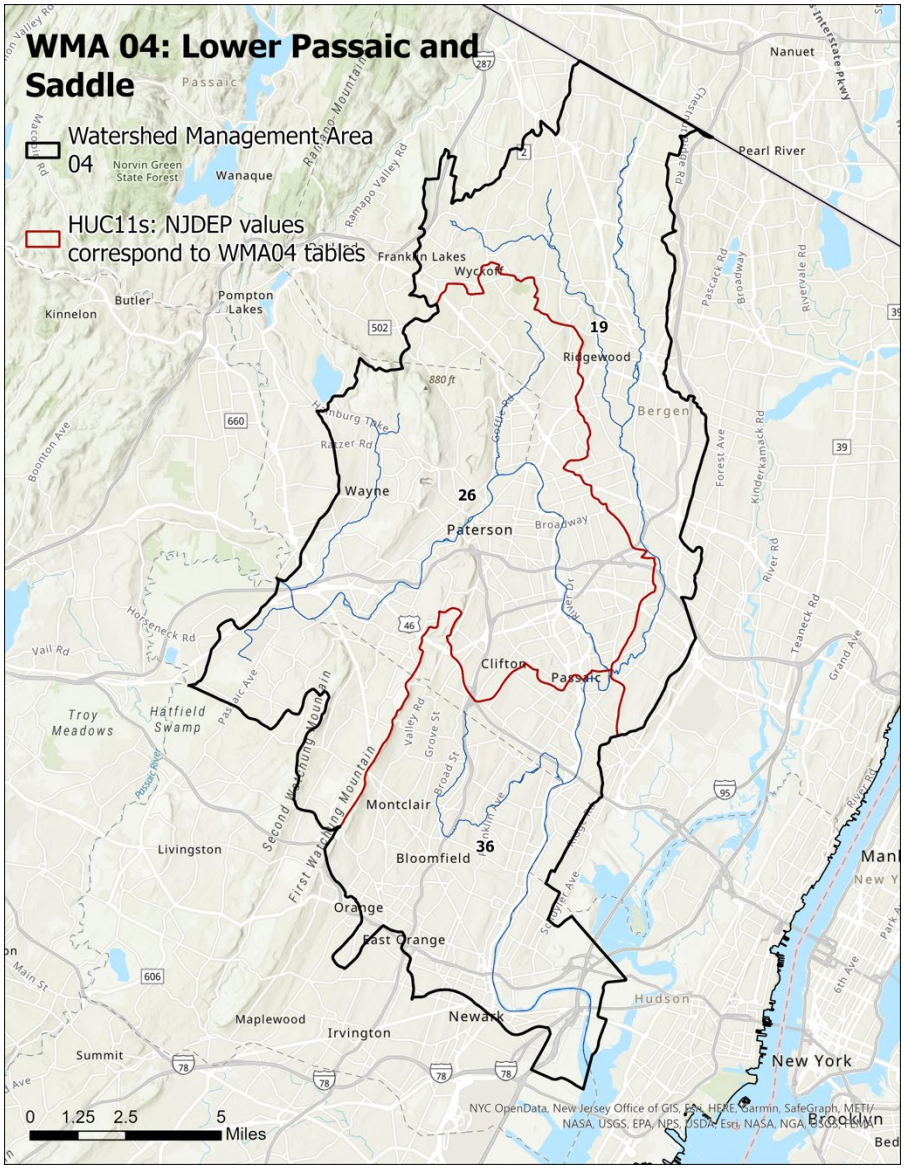

Table 4A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
26	**02030103120**	Passaic River Lower (Saddle to Pompton)	83.4	823.3	16.3	6.0	25%	10.3		Yes		Yes		4	
19	**02030103140***	Saddle River	51.5	59.5	28.7	13.7	25%	15.0	Partial	Yes				0	
36	**02030103150**	Passaic River Lower (Nwk Bay to Saddle)	53.6	936.3	22.5	11.9	25%	10.5				Yes		0	Yes

***The Highlands Council has responsibility for the calculation of water availability in those watersheds located in the Highlands Region. The Highlands Council utilizes HUC14s to analyze water availability and imposes low flow margin thresholds based on the Regional Master Plan Land Use Capability Zones of each HUC14. These thresholds and other specifics regarding the Highlands Council's processes can be found in the Highlands Regional Master Plan and the associated Technical Report "Water Resources Volume II: Water Use and Availability".**

Table 4B. Summary of HUC11 Remaining Available Water and Full Allocation

					Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
26	**02030103120**	Passaic River Lower (Saddle to Pompton)	2015	2.6	4.9	190%	0.0	30.1	1,164%	0.0	Potable	100%	Pow Gen	100%
19	**02030103140***	Saddle River	2015	3.7	0.0	0%	3.7	8.2	218%	0.0	Non-Ag Irr	16%	Potable	100%
36	**02030103150**	Passaic River Lower (Nwk Bay to Saddle)	2013	2.6	2.2	84%	0.4	4.7	180%	0.0	Potable	73%	Potable	100%

***The Highlands Council has responsibility for the calculation of water availability in those watersheds located in the Highlands Region. The Highlands Council utilizes HUC14s to analyze water availability and imposes low flow margin thresholds based on the Regional Master Plan Land Use Capability Zones of each HUC14. These thresholds and other specifics regarding the Highlands Council's processes can be found in the Highlands Regional Master Plan and the associated Technical Report "Water Resources Volume II: Water Use and Availability".**

Table 4C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
26	**02030103120**	Passaic River Lower (Saddle to Pompton)	12.8	0.0	0.8	0.9	1.9	0.1	0.0	0.4	0.2	0.0	0.0	13.5	2.2	0.0	15.6	70.9
19	**02030103140**	Saddle River	9.2	0.0	1.2	0.2	1.2	0.1	0.0	0.7	0.1	0.0	0.0	10.3	1.3	0.0	11.5	1.1
36	**02030103150**	Passaic River Lower (Nwk Bay to Saddle)	2.1	0.0	0.1	0.3	0.0	0.0	0.0	0.2	0.2	0.0	0.0	2.4	0.2	0.0	2.6	0.0

Table 4D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
26	**02030103120**	Passaic River Lower (Saddle to Pompton)	0.0	7.5	0.0	0.6	0.8	1.7	0.0	0.0	0.0	0.0	0.0	0.0	1.4	9.3	10.7
19	**02030103140**	Saddle River	0.0	9.2	0.0	0.9	0.2	1.1	0.1	0.0	0.1	0.0	0.0	0.0	1.2	10.3	11.5
36	**02030103150**	Passaic River Lower (Nwk Bay to Saddle)	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.
3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.
4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.

WATERSHED MANAGEMENT AREA 05

HACKENSACK, HUDSON, AND PASCACK[1]

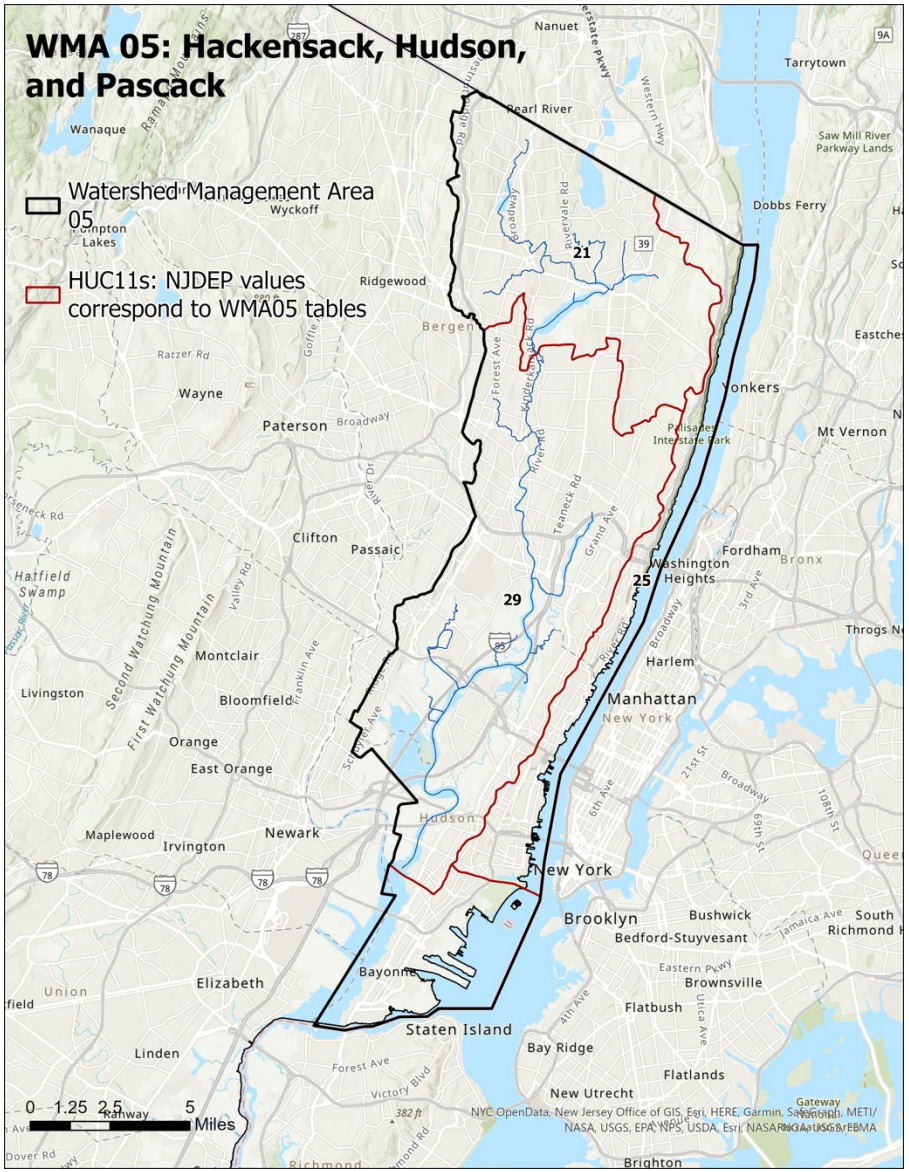

Table 5A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
25	**02030101170**	Hudson River	29.1	44.4	8.3	4.1	25%	4.2						0	Yes
21	**02030103170**	Hackensack R (above Hirshfeld Brook)	50.9	112.4	20.8	11.7	25%	9.0		Yes				8	
29	**02030103180**	Hackensack R (below/incl Hirshfeld Bk)	85.1	197.4	19.1	9.1	25%	10.0		Yes		Yes		0	Yes

Table 5B. Summary of HUC11 Remaining Available Water and Full Allocation

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
25	**02030101170**	Hudson River	2019	1.0	0.0	4%	1.0	0.1	8%	1.0	Non-Ag Irr	3%	Potable	6%
21	**02030103170**	Hackensack R (above Hirshfeld Brook)	2017	2.3	4.0	177%	0.0	6.4	283%	0.0	Potable	100%	Potable	100%
29	**02030103180**	Hackensack R (below/incl Hirshfeld Bk)	2015	2.5	-1.9	Net Gain	4.4	-1.4	Net Gain	3.9	Non-Ag Irr	11%	Non-Ag Irr	31%

Table 5C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
25	**02030101170**	Hudson River	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0
21	**02030103170**	Hackensack R (above Hirshfeld Brook)	4.2	0.0	0.5	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	4.4	0.1	0.0	4.5	100.1
29	**02030103180**	Hackensack R (below/incl Hirshfeld Bk)	0.3	0.0	0.1	0.5	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.9	0.1	0.0	1.1	1.3

Table 5D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
25	**02030101170**	Hudson River	0.0	0.0	26.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
21	**02030103170**	Hackensack R (above Hirshfeld Brook)	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5
29	**02030103180**	Hackensack R (below/ incl Hirshfeld Bk)	0.0	2.5	56.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.5	3.0

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.
3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.
4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.

WATERSHED MANAGEMENT AREA 06

UPPER AND MIDDLE PASSAIC, WHIPPANY, AND ROCKAWAY

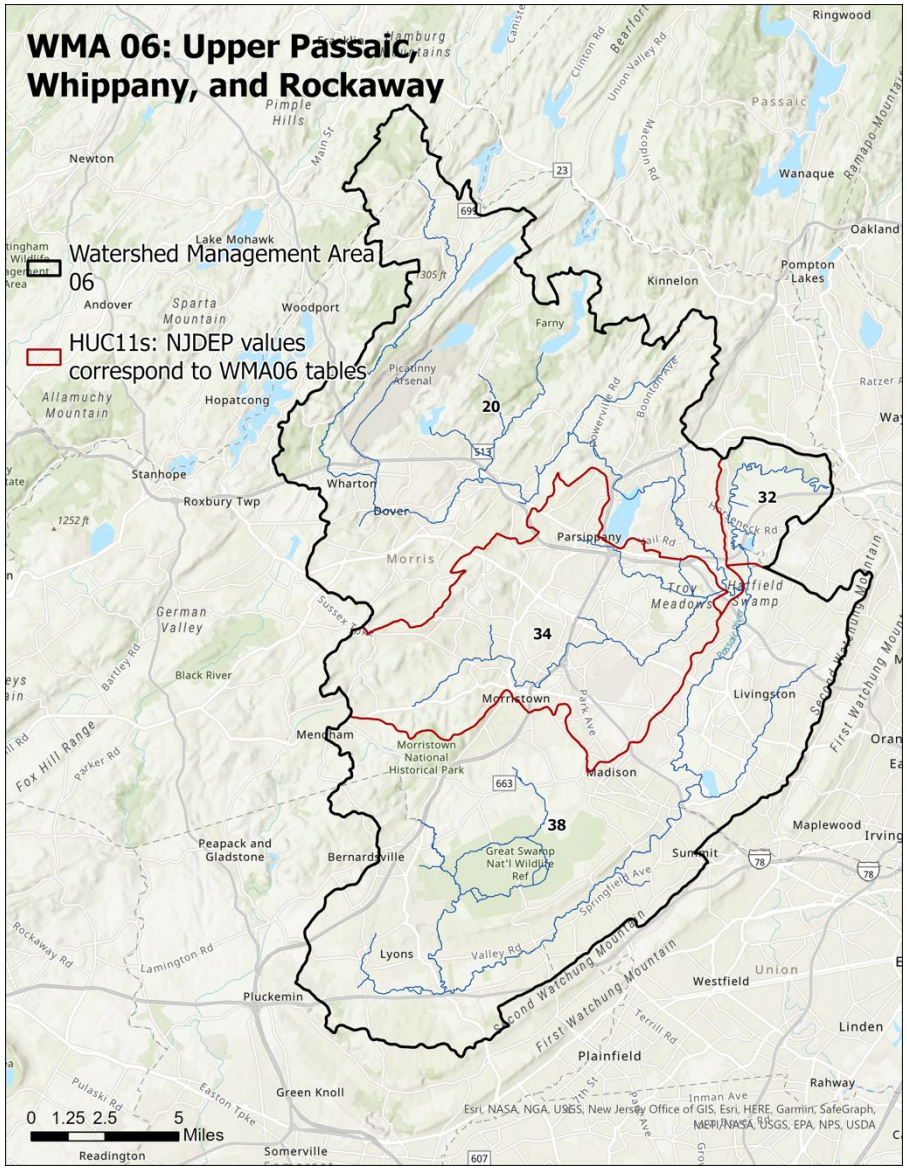

Table 6A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited[4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
38	**02030103010***	Passaic River Upr (above Pine Bk br)	143.2	349.4	29.7	7.1	25%	22.7	Partial	Yes	Yes	Yes	Yes	5	
34	**02030103020***	Whippany River	69.6	69.6	17.8	5.6	25%	12.2	Partial	Yes	Yes		Yes	8	
20	**02030103030**	Rockaway River	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.												
32	**02030103040***	Passaic River Upr (Pompton to Pine Bk)	11.9	361.3	2.7	0.7	25%	2.0	Partial	Yes	Yes	Yes	Yes	0	

***The Highlands Council has responsibility for the calculation of water availability in those watersheds located in the Highlands Region. The Highlands Council utilizes HUC14s to analyze water availability and imposes low flow margin thresholds based on the Regional Master Plan Land Use Capability Zones of each HUC14. These thresholds and other specifics regarding the Highlands Council's processes can be found in the Highlands Regional Master Plan and the associated Technical Report "Water Resources Volume II: Water Use and Availability".**

Table 6B. Summary of HUC11 Remaining Available Water and Full Allocation

					Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
38	**02030103010***	Passaic River Upr (above Pine Bk br)	2017	5.7	8.4	147%	0.0	22.7	400%	0.0	Potable	100%	Potable	100%
34	**02030103020***	Whippany River	2017	3.0	12.2	402%	0.0	14.7	483%	0.0	Potable	100%	Potable	100%
20	**02030103030**	Rockaway River	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.											
32	**02030103040***	Passaic River Upr (Pompton to Pine Bk)	2013	0.5	0.1	21%	0.4	0.3	52%	0.2	Potable	18%	Potable	27%

***The Highlands Council has responsibility for the calculation of water availability in those watersheds located in the Highlands Region. The Highlands Council utilizes HUC14s to analyze water availability and imposes low flow margin thresholds based on the Regional Master Plan Land Use Capability Zones of each HUC14. These thresholds and**

other specifics regarding the Highlands Council's processes can be found in the Highlands Regional Master Plan and the associated Technical Report "Water Resources Volume II: Water Use and Availability".

Table 6C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
38	**02030103010**	Passaic River Upr (above Pine Bk br)	22.7	0.0	1.0	0.5	0.0	0.0	0.0	0.4	0.5	0.0	0.0	22.2	0.5	0.0	22.7	0.0
34	**02030103020**	Whippany River	17.9	0.0	0.3	0.7	0.0	0.0	0.0	0.1	0.1	0.0	0.0	17.1	0.1	0.0	17.2	2.1
20	**02030103030**	Rockaway River	10.2	0.8	2.0	0.3	0.1	0.0	0.0	0.1	0.2	0.0	0.0	11.4	1.0	0.0	12.4	48.3
32	**02030103040**	Passaic River Upr (Pompton to Pine Bk)	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0

Table 6D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
38	**02030103010**	Passaic River Upr (above Pine Bk br)	0.0	13.0	0.0	0.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	13.1	14.3
34	**02030103020**	Whippany River	0.0	4.1	0.0	0.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	4.1	4.9
20	**02030103030**	Rockaway River	0.0	15.1	0.0	1.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.8	15.2	17.0
32	**02030103040**	Passaic River Upr (Pompton to Pine Bk)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.
3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.
4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.

WATERSHED MANAGEMENT AREA 07

ARTHUR KILL

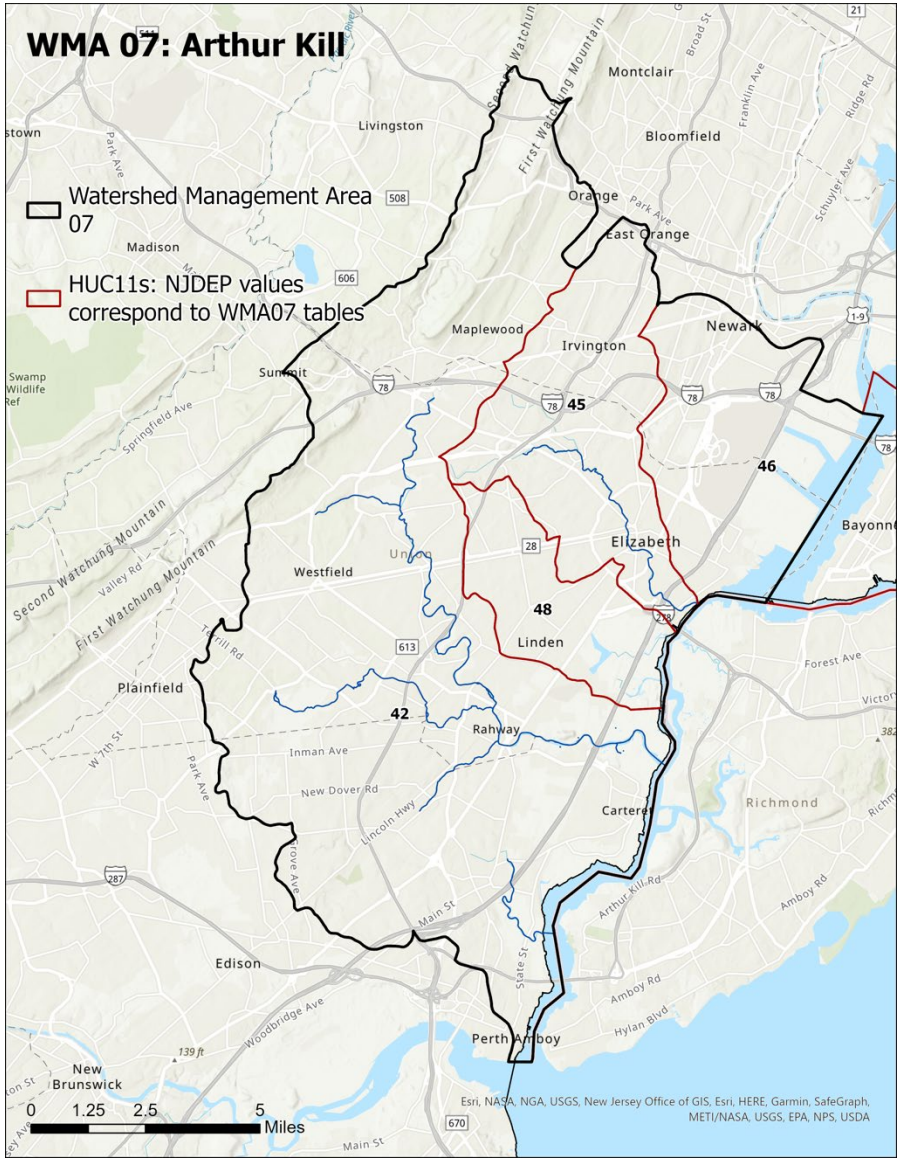

Table 7A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
46	**02030104010**	Newark Bay / Kill Van Kull / Upr NY Bay	43.6	967.0	Not Calc.	Not Calc.	25%	8.7				Yes	Yes	0	Yes
45	**02030104020**	Elizabeth River	22.9	42.8	10.4	5.7	25%	4.7					Yes	5	Yes
48	**02030104030**	Morses Creek / Piles Creek	12.0	11.8	2.6	1.2	25%	1.4					Yes	0	
42	**02030104050**	Rahway River / Woodbridge Creek	101.1	99.2	16.2	6.7	25%	9.5					Yes	8	Yes

Table 7B. Summary of HUC11 Remaining Available Water and Full Allocation

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
46	**02030104010**	Newark Bay / Kill Van Kull / Upr NY Bay												
45	**02030104020**	Elizabeth River	2013	1.2	2.4	204%	0.0	3.0	258%	0.0	Potable	100%	Potable	100%
48	**02030104030**	Morses Creek / Piles Creek	2013	0.3	0.0	14%	0.3	0.0	Net Gain	0.4	Non-Ag Irr	13%	Com/Ind/ Min	0%
42	**02030104050**	Rahway River / Woodbridge Creek	2014	2.4	14.6	610%	0.0	29.8	1250%	0.0	Potable	100%	Potable	100%

Table 7C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
46	**02030104010**	Newark Bay / Kill Van Kull / Upr NY Bay	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.4	0.1	0.0	0.5	0.0
45	**02030104020**	Elizabeth River	2.6	0.0	0.0	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	2.7	0.0	0.0	2.7	0.0
48	**02030104030**	Morses Creek / Piles Creek	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.1	0.0	0.0	3.1	1.1	3.1	0.0	4.2	0.0
42	**02030104050**	Rahway River / Woodbridge Creek	9.5	5.1	0.2	0.5	0.0	0.0	0.0	0.7	0.3	0.0	0.0	9.9	5.5	0.0	15.3	0.0

Table 7D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
46	**02030104010**	Newark Bay / Kill Van Kull / Upr NY Bay	0.0	0.0	217.2	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4
45	**02030104020**	Elizabeth River	0.0	0.0	54.8	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
48	**02030104030**	Morses Creek / Piles Creek	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	1.0	3.1	4.2
42	**02030104050**	Rahway River / Woodbridge Creek	0.0	0.0	31.2	0.2	0.5	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.7	0.0	0.8

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.

3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.
4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.

WATERSHED MANAGEMENT AREA 08

NORTH AND SOUTH BRANCH RARITAN

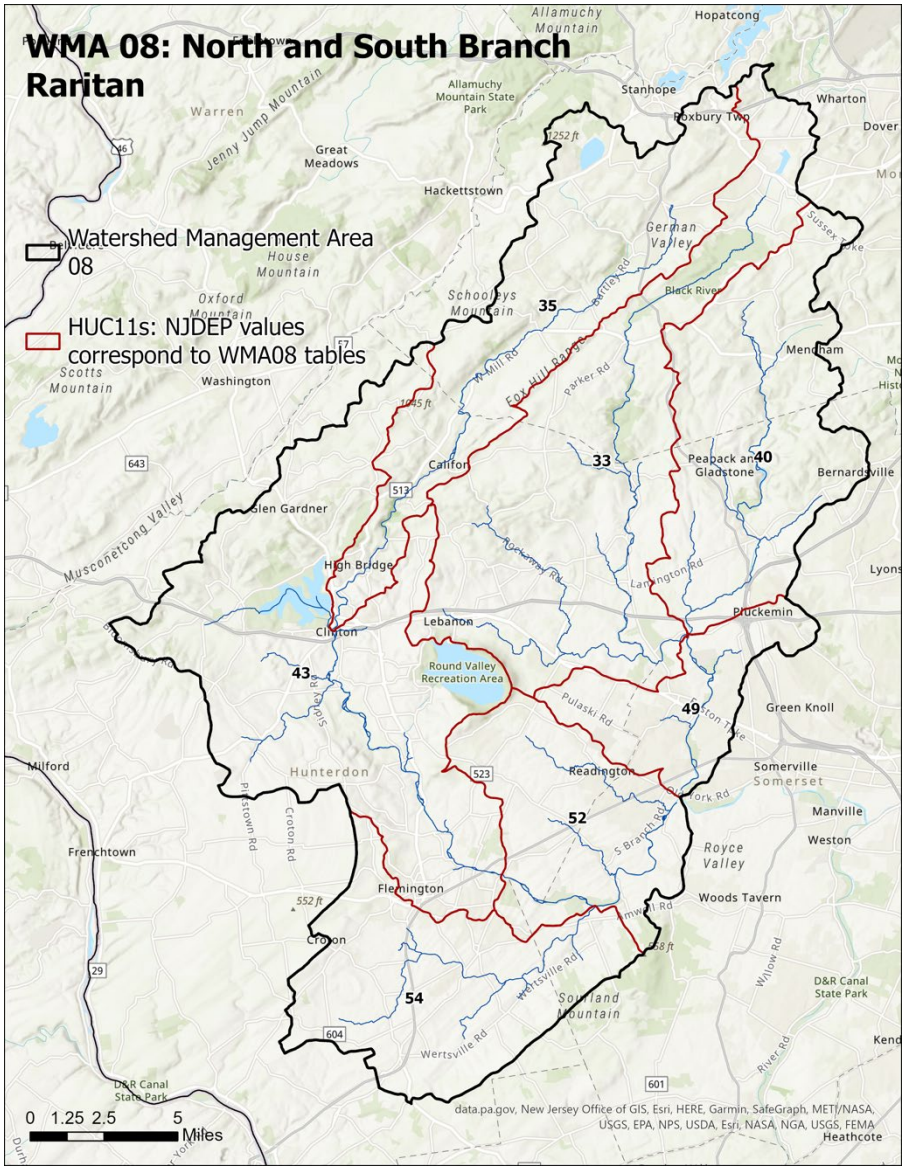

Table 8A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
35	**02030105010**	Raritan River SB (above Spruce Run)	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.												
43	**02030105020***	Raritan River SB (3 Brdgs to Spruce Run)	111.0	181.8	26.4	8.3	25%	18.1	Partial	Yes	Yes	Yes		0	
54	**02030105030**	Neshanic River	55.7	55.7	3.4	0.3	25%	3.1		Yes	Yes			4	
52	**02030105040***	Raritan River SB (NB to Three Bridges)	41.8	279.3	8.0	1.8	25%	6.1	Partial	Yes	Yes	Yes		0	
33	**02030105050***	Lamington River	99.3	99.2	32.7	9.5	25%	23.2	Partial	Yes	Yes			0	
40	**02030105060**	Raritan River NB (above Lamington)	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.												
49	**02030105070***	Raritan River NB (SB to Lamington)	25.5	188.7	2.1	0.3	25%	1.8	Partial	Yes	Yes			0	

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Table 8B. Summary of HUC11 Remaining Available Water and Full Allocation

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
35	**02030105010**	Raritan River SB (above	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.											

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
		Spruce Run)												
43	**02030105020***	Raritan River SB (3 Brdgs to Spruce Run)	2016	4.5	-0.8	Net Gain	5.3	2.8	61%	1.8	Ag/Irr	3%	Potable	43%
54	**02030105030**	Neshanic River	2013	0.8	0.8	107%	0.0	2.6	336%	0.0	Potable	57%	Potable	100%
52	**02030105040***	Raritan River SB (NB to Three Bridges)	2016	1.5	0.6	39%	0.9	1.7	113%	0.0	Non-Ag Irr	27%	Potable	79%
33	**02030105050***	Lamington River	2016	5.8	2.4	41%	3.4	9.1	156%	0.0	Potable	32%	Potable	100%
40	**02030105060**	Raritan River NB (above Lamington)	This HUC lies fully within the boundaries of the NJ Highlands. The Highlands Council is responsible for calculating water availability.											
49	**02030105070***	Raritan River NB (SB to Lamington)	2020	0.4	0.3	75%	0.1	1.3	302%	0.0	Potable	75%	Potable	100%

***The Highlands Council has responsibility for the calculation of water availability in those watersheds located in the Highlands Region. The Highlands Council utilizes HUC14s to analyze water availability and imposes low flow margin thresholds based on the Regional Master Plan Land Use Capability Zones of each HUC14. These thresholds and other specifics regarding the Highlands Council's processes can be found in the Highlands Regional Master Plan and the associated Technical Report "Water Resources Volume II: Water Use and Availability".**

Table 8C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
35	**02030105010**	Raritan River SB (above Spruce Run)	6.4	0.0	1.2	0.0	0.0	0.3	0.0	0.1	0.1	0.0	0.0	7.2	0.2	0.0	7.3	0.0
43	**02030105020**	Raritan River SB (3 Brdgs to Spruce Run)	2.1	0.0	1.6	0.2	0.3	0.1	0.0	0.0	0.1	0.0	0.0	3.6	0.4	0.0	4.0	9.5

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
54	02030105030	Neshanic River	0.3	0.0	1.0	0.0	0.0	0.1	0.0	0.2	0.2	0.0	0.0	1.5	0.2	0.0	1.7	0.0
52	02030105040	Raritan River SB (NB to Three Bridges)	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	1.0	0.4	0.0	1.5	0.0
33	02030105050	Lamington River	3.9	0.0	1.1	0.1	1.1	0.1	0.0	0.1	0.3	0.0	0.0	4.8	1.4	0.0	6.2	0.0
40	02030105060	Raritan River NB (above Lamington)	0.3	0.0	1.1	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	1.6	0.2	0.0	1.8	0.0
49	02030105070	Raritan River NB (SB to Lamington)	0.2	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.9	0.0

Table 8D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
35	02030105010	Raritan River SB (above Spruce Run)	0.0	0.9	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	1.8
43	02030105020	Raritan River SB (3 Brdgs to Spruce Run)	0.0	3.2	0.0	1.2	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1.4	3.4	4.8
54	02030105030	Neshanic River	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.8
52	02030105040	Raritan River SB (NB to Three Bridges)	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.9
33	02030105050	Lamington River	0.0	1.8	0.0	0.9	0.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.8	3.8
40	02030105060	Raritan River NB (above Lamington)	0.0	1.8	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.8	2.7
49	02030105070	Raritan River NB (SB to Lamington)	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.6

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.
3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.
4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.

WATERSHED MANAGEMENT AREA 09

LOWER RARITAN, SOUTH, AND LAWRENCE

Table 9A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
51	**02030105080**	Raritan River Lower (Millstone to NB/SB)	24.7	492.6	1.3	0.1	25%	1.2		Yes	Yes	Yes	Yes	6	
47	**02030105120***	Raritan R Lower (Lawrence to Millstone)	119.3	896.3	18.6	5.0	25%	13.6	Partial	Yes	Yes	Yes	Yes	2	
60	**02030105130**	Lawrence Brook	46.2	46.2	7.4	2.1	25%	5.3			Yes		Yes	8	
63	**02030105140**	Manalapan Brook	43.9	43.9	16.2	5.9	25%	10.3					Yes	8	
65	**02030105150**	Matchaponix Brook	44.3	44.2	20.5	10.4	25%	10.1					Yes	2	
55	**02030105160**	Raritan R Lower (below Lawrence)	73.2	1,103.8	14.9	2.5	25%	12.4			Yes	Yes	Yes	8	

***The Highlands Council has responsibility for the calculation of water availability in those watersheds located in the Highlands Region. The Highlands Council utilizes HUC14s to analyze water availability and imposes low flow margin thresholds based on the Regional Master Plan Land Use Capability Zones of each HUC14. These thresholds and other specifics regarding the Highlands Council's processes can be found in the Highlands Regional Master Plan and the associated Technical Report "Water Resources Volume II: Water Use and Availability".**

Table 9B. Summary of HUC11 Remaining Available Water and Full Allocation

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
51	**02030105080**	Raritan River Lower (Millstone to NB/SB)	2017	0.3	0.5	185%	0.0	1.1	388%	0.0	Non-Ag Irr	96%	Non-Ag Irr	100%

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
47	**02030105120***	Raritan R Lower (Lawrence to Millstone)	2013	3.4	10.2	301%	0.0	51.3	1,512%	0.0	Potable	100%	Potable	100%
60	**02030105130**	Lawrence Brook	2020	1.3	5.6	418%	0.0	11.4	857%	0.0	Potable	100%	Potable	100%
63	**02030105140**	Manalapan Brook	2013	2.6	2.9	114%	0.0	4.0	154%	0.0	Con Aq Leak	83%	Potable	55%
65	**02030105150**	Matchaponix Brook	2020	2.5	5.4	215%	0.0	2.6	104%	0.0	Potable	100%	Potable	85%
55	**02030105160**	Raritan R Lower (below Lawrence)	2016	3.1	11.2	360%	0.0	11.1	359%	0.0	Potable	100%	Potable	100%

***The Highlands Council has responsibility for the calculation of water availability in those watersheds located in the Highlands Region. The Highlands Council utilizes HUC14s to analyze water availability and imposes low flow margin thresholds based on the Regional Master Plan Land Use Capability Zones of each HUC14. These thresholds and other specifics regarding the Highlands Council's processes can be found in the Highlands Regional Master Plan and the associated Technical Report "Water Resources Volume II: Water Use and Availability".**

Table 9C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
51	**02030105080**	Raritan River Lower (Millstone to NB/SB)	0.0	0.0	0.5	0.2	0.0	0.0	0.2	0.3	0.1	0.0	0.0	0.9	0.3	0.0	1.1	0.0
47	**02030105120**	Raritan R Lower (Lawrence to Millstone)	15.9	0.0	1.6	1.1	0.1	0.0	0.0	0.6	0.2	0.0	0.0	17.2	0.2	0.0	17.4	126.5
60	**02030105130**	Lawrence Brook	0.0	4.2	0.1	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.3	4.4	1.0	5.7	0.0
63	**02030105140**	Manalapan Brook	0.5	0.0	0.5	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.9	0.4	2.1	3.4	0.0
65	**02030105150**	Matchaponix Brook	4.0	0.1	0.4	0.0	0.0	0.0	0.1	0.0	0.4	0.0	0.0	4.0	0.6	1.2	5.8	2.4
55	**02030105160**	Raritan R Lower (below Lawrence)	14.3	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.1	0.0	0.5	13.6	1.0

Table 9D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
51	**02030105080**	Raritan River Lower (Millstone to NB/SB)	0.0	0.0	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.6
47	**02030105120**	Raritan R Lower (Lawrence to Millstone)	0.0	5.0	0.0	1.2	1.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	2.2	5.0	7.2
60	**02030105130**	Lawrence Brook	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2
63	**02030105140**	Manalapan Brook	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.5
65	**02030105150**	Matchaponix Brook	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.4
55	**02030105160**	Raritan R Lower (below Lawrence)	0.0	0.0	0.0	0.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	2.4

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.
3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.
4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.

WATERSHED MANAGEMENT AREA 10

MILLSTONE

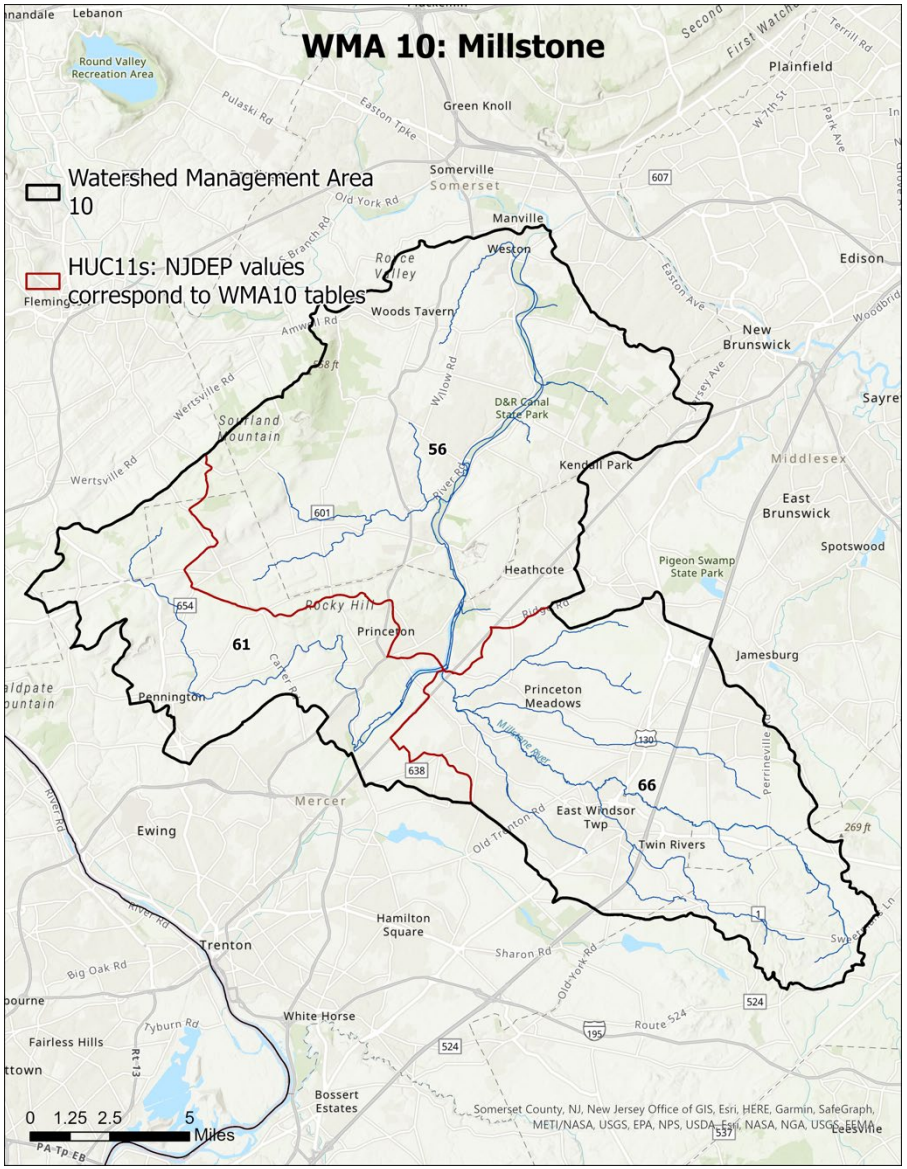

Table 10A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
61	**02030105090**	Stony Brook	55.4	55.3	3.4	0.2	25%	3.2		Yes	Yes			8	
66	**02030105100**	Millstone River (above Carnegie Lake)	98.8	98.8	18.6	4.4	25%	14.3		Yes	Yes			7	
56	**02030105110**	Millstone River (below/incl Carnegie Lk)	130.4	284.4	17.0	4.0	25%	13.0		Yes	Yes	Yes		0	

Table 10B. Summary of HUC11 Remaining Available Water and Full Allocation

					Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
61	**02030105090**	Stony Brook	2016	0.8	1.2	148%	0.0	3.8	474%	0.0	Potable	100%	Potable	100%
66	**02030105100**	Millstone River (above Carnegie Lake)	2020	3.6	5.4	152%	0.0	10.0	279%	0.0	Con Aq Leak	90%	Ag/Irr	100%
56	**02030105110**	Millstone River (below/incl Carnegie Lk)	2016	3.2	-6.9	Net Gain	10.1	-5.4	Net Gain	8.7	Non-Ag Irr	23%	Potable	99%

Table 10C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

			Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
DEP Value	HUC11	HUC11 Name	UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
61	**02030105090**	Stony Brook	1.1	0.0	0.5	0.1	0.0	0.0	0.0	0.1	0.2	0.0	0.0	1.8	0.2	0.0	1.9	0.0

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
66	**02030105100**	Millstone River (above Carnegie Lake)	5.4	0.0	1.1	0.1	0.0	1.0	0.1	0.1	0.5	0.0	0.0	7.0	0.7	3.2	10.8	0.0
56	**02030105110**	Millstone River (below/incl Carnegie Lk)	0.2	0.0	1.3	0.2	0.0	0.2	0.0	0.3	0.5	0.0	0.0	1.9	0.5	0.0	2.5	0.0

Table 10D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
61	**02030105090**	Stony Brook	0.0	0.2	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.2	0.7
66	**02030105100**	Millstone River (above Carnegie Lake)	0.0	4.1	0.0	0.8	0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.0	1.3	4.1	5.4
56	**02030105110**	Millstone River (below/incl Carnegie Lk)	0.0	8.1	0.0	0.9	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	1.2	8.2	9.4

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.
3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.
4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.

WATERSHED MANAGEMENT AREA 11

CENTRAL DELAWARE

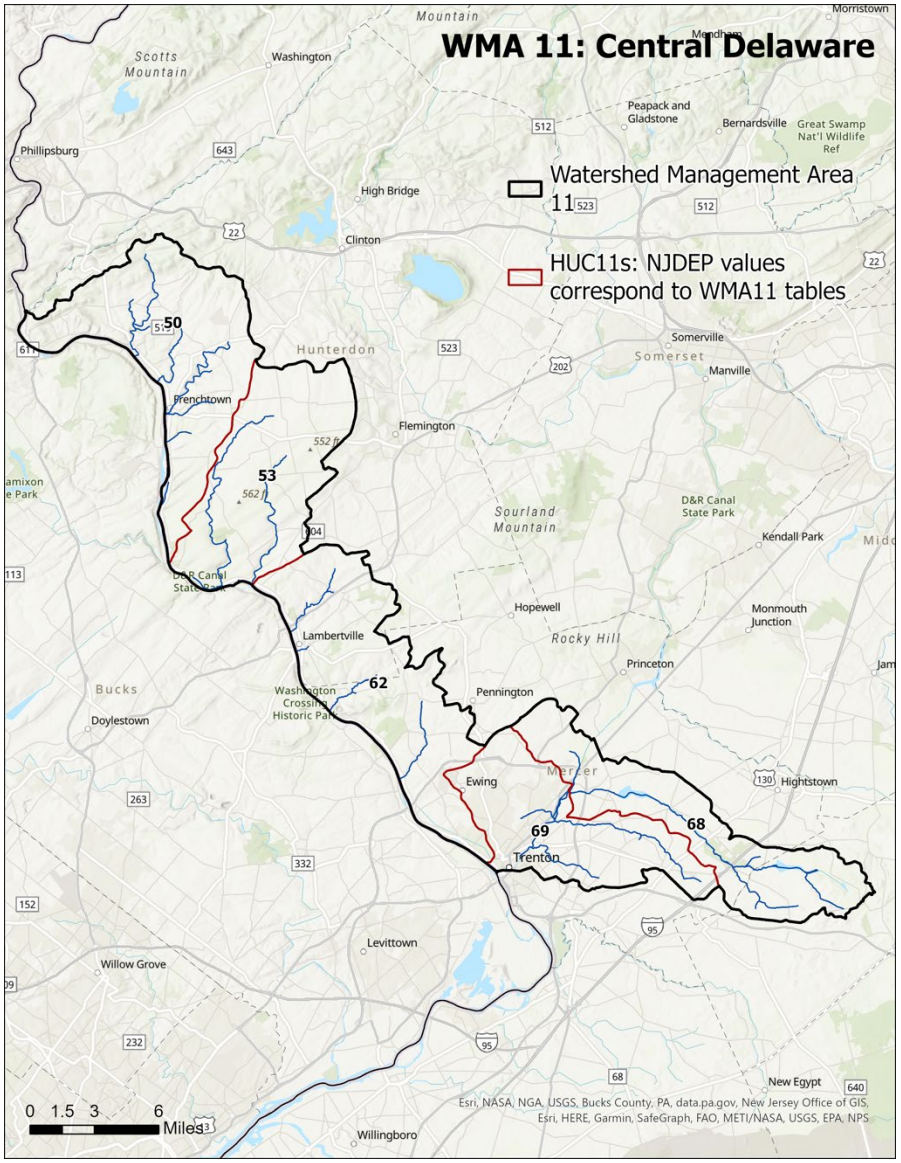

Table 11A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
50	**02040105170***	Hakihokake/ Harihokake/ Nishisakawick Ck	62.6	61.3	12.0	3.1	25%	8.9	Partial		Yes			0	
53	**02040105200**	Lockatong Creek / Wickecheoke Creek	54.4	54.1	3.1	0.4	25%	2.8			Yes			0	
62	**02040105210**	Alexauken Ck / Moore Ck / Jacobs Ck	62.6	61.1	3.2	0.2	25%	3.0			Yes			0	
68	**02040105230**	Assunpink Creek (above Shipetaukin Ck)	47.8	47.7	13.2	3.1	25%	10.1			Yes			0	
69	**02040105240**	Assunpink Creek (below Shipetaukin Ck)	44.6	92.2	13.8	5.0	25%	8.8						0	

***The Highlands Council has responsibility for the calculation of water availability in those watersheds located in the Highlands Region. The Highlands Council utilizes HUC14s to analyze water availability and imposes low flow margin thresholds based on the Regional Master Plan Land Use Capability Zones of each HUC14. These thresholds and other specifics regarding the Highlands Council's processes can be found in the Highlands Regional Master Plan and the associated Technical Report "Water Resources Volume II: Water Use and Availability".**

Table 11B. Summary of HUC11 Remaining Available Water and Full Allocation

					Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
50	**02040105170***	Hakihokake/ Harihokake/ Nishisakawick Ck	2020	2.2	0.4	20%	1.8	1.8	79%	0.5	Non-Ag Irr	11%	Potable	49%

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
53	**02040105200**	Lockatong Creek / Wickecheoke Creek	2017	0.7	0.5	76%	0.2	2.2	315%	0.0	Ag/Irr	43%	Ag/Irr	100%
62	**02040105210**	Alexauken Ck / Moore Ck / Jacobs Ck	2014	0.7	-0.1	Net Gain	0.9	1.4	185%	0.0	Non-Ag Irr	7%	Potable	100%
68	**02040105230**	Assunpink Creek (above Shipetaukin Ck)	2019	2.5	1.3	51%	1.2	4.1	162%	0.0	Con Aq Leak	23%	Potable	90%
69	**02040105240**	Assunpink Creek (below Shipetaukin Ck)	2016	2.2	-3.1	Net Gain	5.3	-1.0	Net Gain	3.2	Con Aq Leak	22%	Potable	26%

***The Highlands Council has responsibility for the calculation of water availability in those watersheds located in the Highlands Region. The Highlands Council utilizes HUC14s to analyze water availability and imposes low flow margin thresholds based on the Regional Master Plan Land Use Capability Zones of each HUC14. These thresholds and other specifics regarding the Highlands Council's processes can be found in the Highlands Regional Master Plan and the associated Technical Report "Water Resources Volume II: Water Use and Availability".**

Table 11C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
50	**02040105170**	Hakihokake/ Harihokake/ Nishisakawick Ck	0.2	0.0	1.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0	1.2	0.4	0.0	1.6	0.1
53	**02040105200**	Lockatong Creek / Wickecheoke Creek	0.2	0.0	0.7	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.1	90.3
62	**02040105210**	Alexauken Ck / Moore Ck / Jacobs Ck	0.2	0.3	1.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	1.2	0.3	0.0	1.5	27.4

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
68	02040105230	Assunpink Creek (above Shipetaukin Ck)	0.4	0.0	0.5	0.0	0.0	0.0	0.2	0.0	0.3	0.0	0.0	0.8	0.5	0.6	1.9	0.0
69	02040105240	Assunpink Creek (below Shipetaukin Ck)	3.6	0.0	0.3	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	3.7	0.0	0.5	4.2	0.0

Table 11D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
50	02040105170	Hakihokake/ Harihokake/ Nishisakawick Ck	0.0	0.3	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.4	1.1
53	02040105200	Lockatong Creek / Wickecheoke Creek	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.6
62	02040105210	Alexauken Ck / Moore Ck / Jacobs Ck	0.0	0.8	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	1.6
68	02040105230	Assunpink Creek (above Shipetaukin Ck)	0.0	0.1	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.6
69	02040105240	Assunpink Creek (below Shipetaukin Ck)	0.0	7.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	7.1	7.3

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.

3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.
4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.

WATERSHED MANAGEMENT AREA 12

MONMOUTH

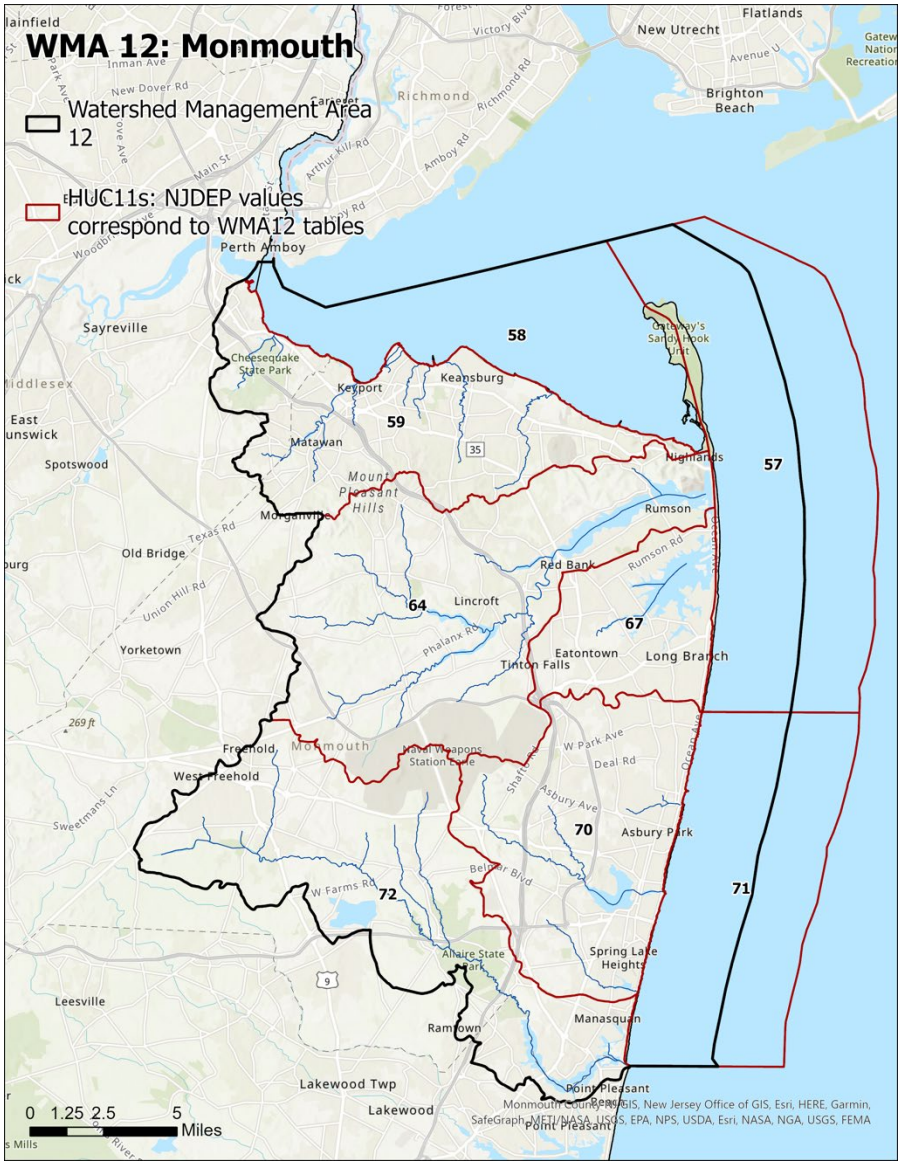

Table 12A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
59	**02030104060**	Raritan / Sandy Hook Bay tributaries	58.6	58.5	27.7	10.7	25%	17.0						0	Yes
64	**02030104070**	Navesink River / Lower Shrewsbury River	94.7	94.6	42.8	18.4	25%	24.5		Yes				0	
67	**02030104080**	Shrewsbury River (above Navesink River)	29.2	29.4	15.6	7.0	25%	8.7		Yes				0	
70	**02030104090**	Whale Pond Bk / Shark R / Wreck Pond Bk	60.7	60.7	29.6	16.1	25%	13.5		Yes				0	
72	**02030104100**	Manasquan River	82.4	82.5	38.4	18.2	25%	20.2		Yes				0	
58	**02030104910**	Raritan Bay / Sandy Hook Bay	50.5	50.5	Not Calc.	Not Calc.	25%								Yes
57	**02030104920**	Atlantic Coast (Sandy Hook to Whale Pond)	93.4	93.4	Not Calc.	Not Calc.	25%								Yes
71	**02030104930**	Atlantic Coast (Whale Pond to Manasquan)	64.7	64.7	Not Calc.	Not Calc.	25%								Yes

Table 12B. Summary of HUC11 Remaining Available Water and Full Allocation

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
59	**02030104060**	Raritan / Sandy Hook Bay tributaries	2020	4.2	0.4	10%	3.8	1.5	36%	2.7	Con Aq Leak	9%	Potable	28%
64	**02030104070**	Navesink River / Lower Shrewsbury River	2016	6.1	1.6	26%	4.5	2.1	34%	4.0	Con Aq Leak	20%	Potable	23%
67	**02030104080**	Shrewsbury River (above Navesink River)	2016	2.2	0.5	21%	1.7	0.3	15%	1.8	Con Aq Leak	13%	Potable	57%
70	**02030104090**	Whale Pond Bk / Shark R / Wreck Pond Bk	2015	3.4	0.6	17%	2.8	0.7	21%	2.7	Non-Ag Irr	14%	Non-Ag Irr	17%
72	**02030104100**	Manasquan River	2020	5.1	2.0	40%	3.0	2.5	49%	2.6	Con Aq Leak	15%	Potable	40%
58	**02030104910**	Raritan Bay / Sandy Hook Bay												
57	**02030104920**	Atlantic Coast (Sandy Hook to Whale Pond)												
71	**02030104930**	Atlantic Coast (Whale Pond to Manasquan)												

Table 12C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
59	02030104060	Raritan / Sandy Hook Bay tributaries	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.5	0.0
64	02030104070	Navesink River / Lower Shrewsbury River	0.0	0.0	1.4	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	1.4	0.2	1.2	2.9	25.6
67	02030104080	Shrewsbury River (above Navesink River)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.2	0.3	0.5	0.0
70	02030104090	Whale Pond Bk / Shark R / Wreck Pond Bk	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.4	0.3	0.1	0.9	1.3
72	02030104100	Manasquan River	0.6	0.0	1.1	0.0	0.0	0.1	0.2	0.4	0.2	0.0	0.0	2.0	0.4	0.8	3.2	23.5
58	02030104910	Raritan Bay / Sandy Hook Bay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57	02030104920	Atlantic Coast (Sandy Hook to Whale Pond)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
71	02030104930	Atlantic Coast (Whale Pond to Manasquan)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 12D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
59	02030104060	Raritan / Sandy Hook Bay tributaries	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
64	02030104070	Navesink River / Lower Shrewsbury River	0.0	0.1	0.0	1.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.2	0.1	1.3
67	02030104080	Shrewsbury River (above Navesink River)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
70	02030104090	Whale Pond Bk / Shark R /	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
		Wreck Pond Bk															
72	**02030104100**	Manasquan River	0.0	0.0	0.0	0.8	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.1	0.1	1.1
58	**02030104910**	Raritan Bay / Sandy Hook Bay	0.0	0.0	80.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57	**02030104920**	Atlantic Coast (Sandy Hook to WhalePond)	0.0	0.0	27.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
71	**02030104930**	Atlantic Coast (Whale Pond to Manasquan)	0.0	0.0	18.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.
3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.
4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.

WATERSHED MANAGEMENT AREA 13

BARNEGAT BAY

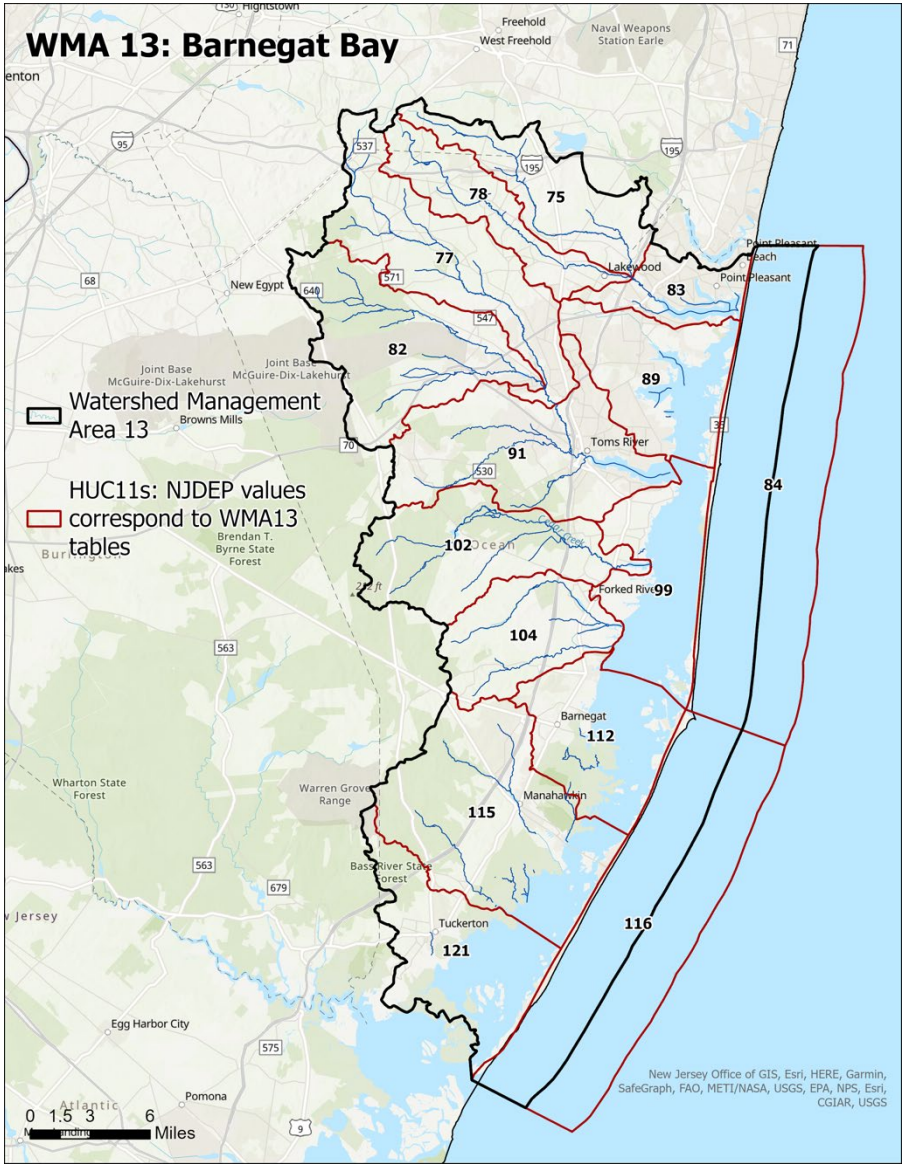

Table 13A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
75	**02040301020**	Metedeconk River NB	38.3	38.2	19.3	9.1	25%	10.2		Yes				0	
78	**02040301030**	Metedeconk River SB	30.8	30.8	18.3	9.3	25%	9.0		Yes				0	
83	**02040301040**	Metedeconk River	20.6	89.0	11.9	6.6	25%	5.3		Yes				8	
89	**02040301050**	Kettle Creek / Barnegat Bay North	46.7	31.3	27.0	15.0	25%	12.1				Yes		7	
77	**02040301060**	Toms River (above Oak Ridge Parkway)	60.3	123.3	40.4	29.9	25%	10.5						8	
82	**02040301070**	Union/Ridgeway Branch (Toms River)	63.1	63.1	33.3	13.1	25%	20.3						0	
91	**02040301080**	Toms River (below Oak Ridge Parkway)	68.4	191.3	77.4	53.6	25%	23.8				Yes		8	
102	**02040301090**	Cedar Creek	55.0	67.8	50.2	23.3	25%	26.9						0	
99	**02040301100**	Barnegat Bay Central & Tribs	45.8	468.0	Not Calc.	Not Calc.	25%	22.4				Yes		0	
104	**02040301110**	Forked River / Oyster Creek	38.9	38.9	40.8	25.1	25%	15.7						0	
112	**02040301120**	Waretown Ck / Barnegat Bay South	47.0	24.9	62.1	39.7	25%	22.4						0	
115	**02040301130**	Manahawkin/ Upper Little Egg Harbor tribs	87.9	71.6	71.9	46.3	25%	25.6						0	
121	**02040301140**	Lower Little Egg Harbor Bay tribs	53.8	35.2	18.0	7.4	25%	10.7						0	

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
84	**02040301910**	Atlantic Coast (Manasquan to Barnegat)	139.0	139.0	Not Calc.	Not Calc.	25%								Yes
116	**02040301920**	Atlantic Coast (Barnegat to Little Egg)	121.6	121.6	Not Calc.	Not Calc.	25%								Yes

Table 13B. Summary of HUC11 Remaining Available Water and Full Allocation

					Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
75	**02040301020**	Metedeconk River NB	2020	2.5	0.5	19%	2.1	1.3	50%	1.3	Con Aq Leak	11%	Potable	38%
78	**02040301030**	Metedeconk River SB	2020	2.2	1.2	54%	1.0	1.7	77%	0.5	Potable	27%	Potable	35%
83	**02040301040**	Metedeconk River	2013	1.3	3.0	224%	0.0	4.4	329%	0.0	Potable	100%	Non-Ag Irr	100%
89	**02040301050**	Kettle Creek / Barnegat Bay North	2016	3.0	3.9	129%	0.0	4.6	154%	0.0	Potable	89%	Potable	81%
77	**02040301060**	Toms River (above Oak Ridge Parkway)	2016	2.6	4.5	172%	0.0	7.6	290%	0.0	Non-Ag Irr	62%	Potable	100%
82	**02040301070**	Union/Ridgeway Branch (Toms River)	2016	5.1	1.9	38%	3.1	2.4	47%	2.7	Potable	17%	Potable	36%
91	**02040301080**	Toms River (below Oak Ridge Parkway)	2014	5.9	8.3	140%	0.0	8.9	150%	0.0	Potable	100%	Potable	100%
102	**02040301090**	Cedar Creek	2013	6.7	2.1	31%	4.7	3.6	54%	3.1	Con Aq Leak	13%	Potable	38%
99	**02040301100**	Barnegat Bay Central & Tribs												

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
104	**02040301110**	Forked River / Oyster Creek	2013	3.9	0.7	19%	3.2	1.5	39%	2.4	Con Aq Leak	16%	Potable	23%
112	**02040301120**	Waretown Ck / Barnegat Bay South	2015	5.6	1.2	21%	4.4	1.7	31%	3.9	Potable	10%	Potable	19%
115	**02040301130**	Manahawkin/ Upper Little Egg Harbor tribs	2016	6.4	2.0	31%	4.4	4.5	71%	1.9	Con Aq Leak	17%	Potable	30%
121	**02040301140**	Lower Little Egg Harbor Bay tribs	2017	2.7	0.7	28%	1.9	1.4	52%	1.3	Non-Ag Irr	15%	Potable	41%
84	**02040301910**	Atlantic Coast (Manasquan to Barnegat)												
116	**02040301920**	Atlantic Coast (Barnegat to Little Egg)												

Table 13C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
75	**02040301020**	Metedeconk River NB	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.0	0.0	0.3	1.3	0.0
78	**02040301030**	Metedeconk River SB	0.6	0.0	0.7	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.0	1.2	0.2	0.3	1.8	0.0
83	**02040301040**	Metedeconk River	2.1	0.0	0.1	0.1	0.0	0.0	0.0	1.3	0.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
89	**02040301050**	Kettle Creek / Barnegat Bay North	2.9	0.0	0.4	0.6	0.0	0.2	0.0	1.3	0.0	0.0	0.0	4.9	0.0	0.0	4.9	0.0
77	**02040301060**	Toms River (above Oak	1.0	0.0	2.7	0.5	2.3	0.1	0.0	0.9	1.0	0.0	0.0	4.7	3.3	1.4	9.4	0.0

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
		Ridge Parkway)																
82	**02040301070**	Union/Ridgeway Branch (Toms River)	0.9	0.0	0.3	0.2	0.0	0.0	0.0	0.7	0.0	0.0	0.0	1.9	0.0	0.5	2.4	0.0
91	**02040301080**	Toms River (below Oak Ridge Parkway)	8.7	0.0	0.7	1.6	0.0	0.0	0.0	0.4	0.0	0.0	0.0	10.3	0.0	0.0	10.3	0.0
102	**02040301090**	Cedar Creek	0.7	0.0	0.4	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	1.0	4.8	0.8	6.7	0.0
99	**02040301100**	Barnegat Bay Central & Tribs	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.2	1.0	0.0
104	**02040301110**	Forked River / Oyster Creek	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.6	1.3	0.0
112	**02040301120**	Waretown Ck / Barnegat Bay South	0.6	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.8	0.2	0.4	1.4	0.0
115	**02040301130**	Manahawkin/Upper Little Egg Harbor tribs	0.2	0.0	1.3	0.0	3.3	0.0	0.0	0.1	0.1	0.0	0.0	1.4	3.4	1.1	5.9	0.0
121	**02040301140**	Lower Little Egg Harbor Bay tribs	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.6	0.2	0.3	1.1	0.0
84	**02040301910**	Atlantic Coast (Manasquan to Barnegat)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0
116	**02040301920**	Atlantic Coast (Barnegat to Little Egg)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 13D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
75	**02040301020**	Metedeconk River NB	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.8
78	**02040301030**	Metedeconk River SB	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.6
83	**02040301040**	Metedeconk River	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.2

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
89	**02040301050**	Kettle Creek / Barnegat Bay North	0.0	0.0	0.0	0.3	0.6	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.0	0.0	1.0
77	**02040301060**	Toms River (above Oak Ridge Parkway)	0.0	0.0	0.0	2.0	0.5	2.2	0.0	0.0	0.1	0.1	0.0	0.0	2.6	2.3	4.9
82	**02040301070**	Union/Ridgeway Branch (Toms River)	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.5	0.0	0.5
91	**02040301080**	Toms River (below Oak Ridge Parkway)	0.0	0.0	0.0	0.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	2.0
102	**02040301090**	Cedar Creek	0.0	0.0	0.0	0.3	0.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.3	4.4	4.7
99	**02040301100**	Barnegat Bay Central & Tribs	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7
104	**02040301110**	Forked River / Oyster Creek	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.6
112	**02040301120**	Waretown Ck / Barnegat Bay South	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
115	**02040301130**	Manahawkin/Upper Little Egg Harbor tribs	0.0	0.0	0.0	0.9	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.0	3.9
121	**02040301140**	Lower Little Egg Harbor Bay tribs	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
84	**02040301910**	Atlantic Coast (Manasquan to Barnegat)	0.0	0.0	40.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116	**02040301920**	Atlantic Coast (Barnegat to Little Egg)	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.
3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.

4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.

WATERSHED MANAGEMENT AREA 14

MULLICA

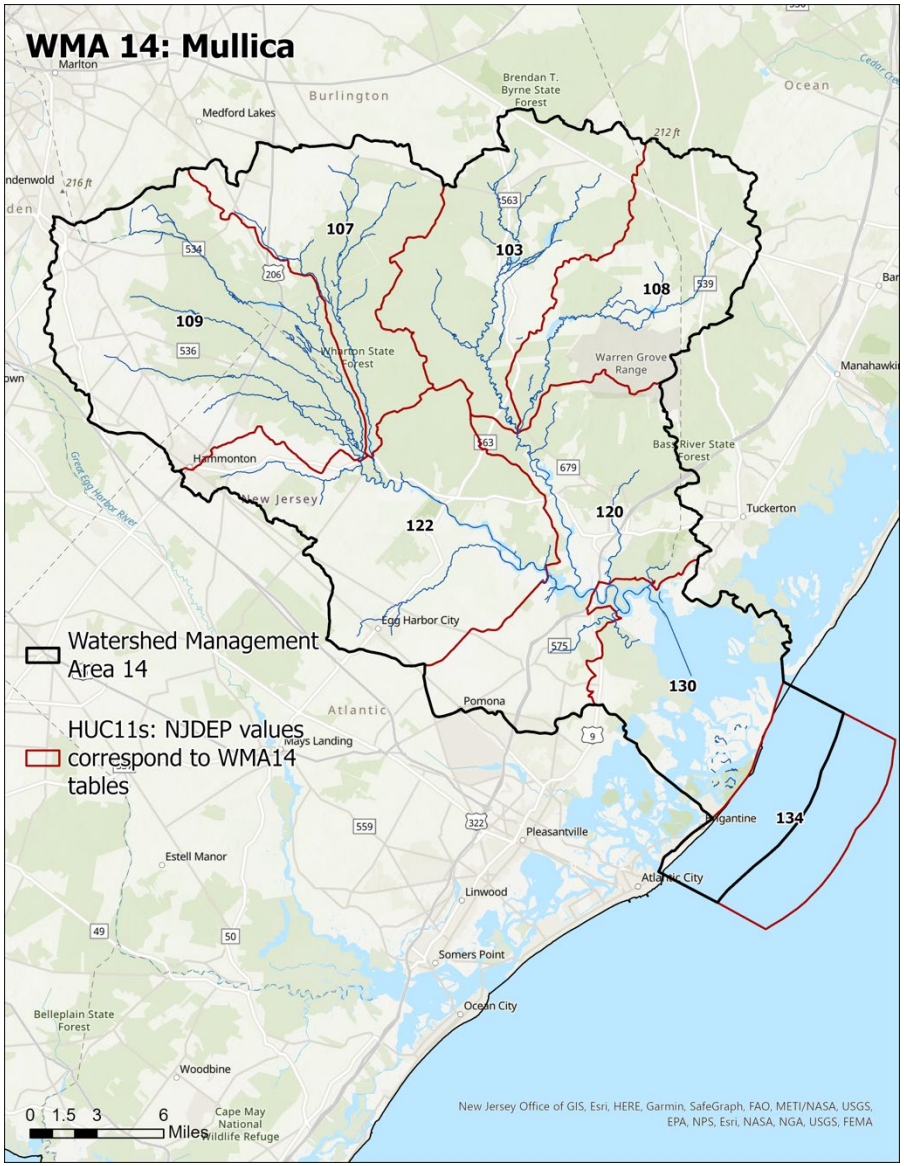

Table 14A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
107	**02040301150**	Basto River	67.9	67.9	43.7	26.0	25%	17.7						0	
109	**02040301160**	Mullica River (above Basto River)	127.3	127.3	48.4	19.4	25%	28.9						2	
122	**02040301170**	Mullica River (Turtle Ck to Basto River)	110.0	305.0	53.7	22.9	25%	30.8				Yes		0	
108	**02040301180**	Oswego River	72.6	72.5	30.4	13.8	25%	16.7						0	
103	**02040301190**	West Branch Wading River	87.1	87.0	38.6	17.2	25%	21.4						0	
120	**02040301200**	Mullica River (GSP bridge to Turtle Ck)	95.7	560.2	56.4	29.6	25%	26.8				Yes		0	
130	**02040301210**	Great Bay / Mullica R (below GSP bridge)	64.6	581.9	19.5	3.9	25%	15.6			Yes	Yes		0	
134	**02040302910**	Atlantic Coast (Little Egg to Absecon)	59.1	59.1	Not Calc.	Not Calc.	25%								

Table 14B. Summary of HUC11 Remaining Available Water and Full Allocation

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
107	**02040301150**	Basto River	2013	4.4	2.5	57%	1.9	7.7	173%	0.0	Ag/Irr	49%	Ag/Irr	100%
109	**02040301160**	Mullica River	2013	7.2	7.7	106%	0.0	28.3	391%	0.0	Ag/Irr	70%	Ag/Irr	100%

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
		(above Basto River)												
122	**02040301170**	Mullica River (Turtle Ck to Basto River)	2018	7.7	6.3	82%	1.4	19.9	258%	0.0	Ag/Irr	50%	Ag/Irr	100%
108	**02040301180**	Oswego River	2017	4.2	1.0	24%	3.2	8.0	192%	0.0	Ag/Irr	9%	Potable	100%
103	**02040301190**	West Branch Wading River	2013	5.3	0.6	11%	4.8	2.1	40%	3.2	Con Aq Leak	8%	Ag/Irr	29%
120	**02040301200**	Mullica River (GSP bridge to Turtle Ck)	2019	6.7	3.5	52%	3.2	5.8	86%	1.0	Potable	29%	Ag/Irr	37%
130	**02040301210**	Great Bay / Mullica R (below GSP bridge)	2017	3.9	0.6	15%	3.3	0.2	5%	3.7	Potable	15%	Potable	23%
134	**02040302910**	Atlantic Coast (Little Egg to Absecon)												

Table 14C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
107	**02040301150**	Basto River	0.0	0.0	1.2	0.0	0.0	2.3	0.7	0.0	0.0	0.0	0.0	3.2	0.7	0.2	4.1	0.0
109	**02040301160**	Mullica River (above Basto River)	1.4	0.0	2.2	0.1	0.0	6.0	0.3	0.1	0.0	0.0	0.0	8.8	0.4	0.9	10.0	0.0
122	**02040301170**	Mullica River (Turtle Ck to	0.6	0.0	1.2	0.0	0.0	4.8	0.0	0.1	0.0	0.0	0.0	6.1	0.0	1.6	7.7	0.0

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
		Basto River)																
108	02040301180	Oswego River	0.0	0.0	0.1	0.0	7.2	0.5	4.1	0.0	0.0	0.0	0.0	0.5	11.4	0.2	12.1	0.0
103	02040301190	West Branch Wading River	0.0	0.0	0.1	0.0	0.0	2.4	2.5	0.0	0.0	0.0	0.0	2.3	2.5	0.4	5.2	0.0
120	02040301200	Mullica River (GSP bridge to Turtle Ck)	2.1	0.0	0.4	0.3	0.0	0.7	0.1	0.1	0.0	0.0	0.0	3.2	0.1	0.9	4.2	0.0
130	02040301210	Great Bay / Mullica R (below GSP bridge)	0.6	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.7	0.0
134	02040302910	Atlantic Coast (Little Egg to Absecon)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 14D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
107	02040301150	Basto River	0.0	0.0	0.0	0.9	0.0	0.0	0.4	0.2	0.0	0.0	0.0	0.0	1.3	0.2	1.6
109	02040301160	Mullica River (above Basto River)	0.0	0.0	0.0	1.6	0.1	0.0	0.6	0.1	0.0	0.0	0.0	0.0	2.3	0.1	2.4
122	02040301170	Mullica River (Turtle Ck to Basto River)	0.0	0.0	0.0	0.9	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	1.4	0.0	1.4
108	02040301180	Oswego River	0.0	0.0	0.0	0.0	0.0	6.9	0.1	4.1	0.0	0.0	0.0	0.0	0.1	11.0	11.1
103	02040301190	West Branch Wading River	0.0	0.0	0.0	0.1	0.0	0.0	2.1	2.5	0.0	0.0	0.0	0.0	2.2	2.5	4.6
120	02040301200	Mullica River (GSP bridge to Turtle Ck)	0.0	0.0	0.0	0.3	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7
130	02040301210	Great Bay / Mullica R (below GSP bridge)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
134	**02040302910**	Atlantic Coast (Little Egg to Absecon)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.
3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.
4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.

WATERSHED MANAGEMENT AREA 15

GREAT EGG HARBOR

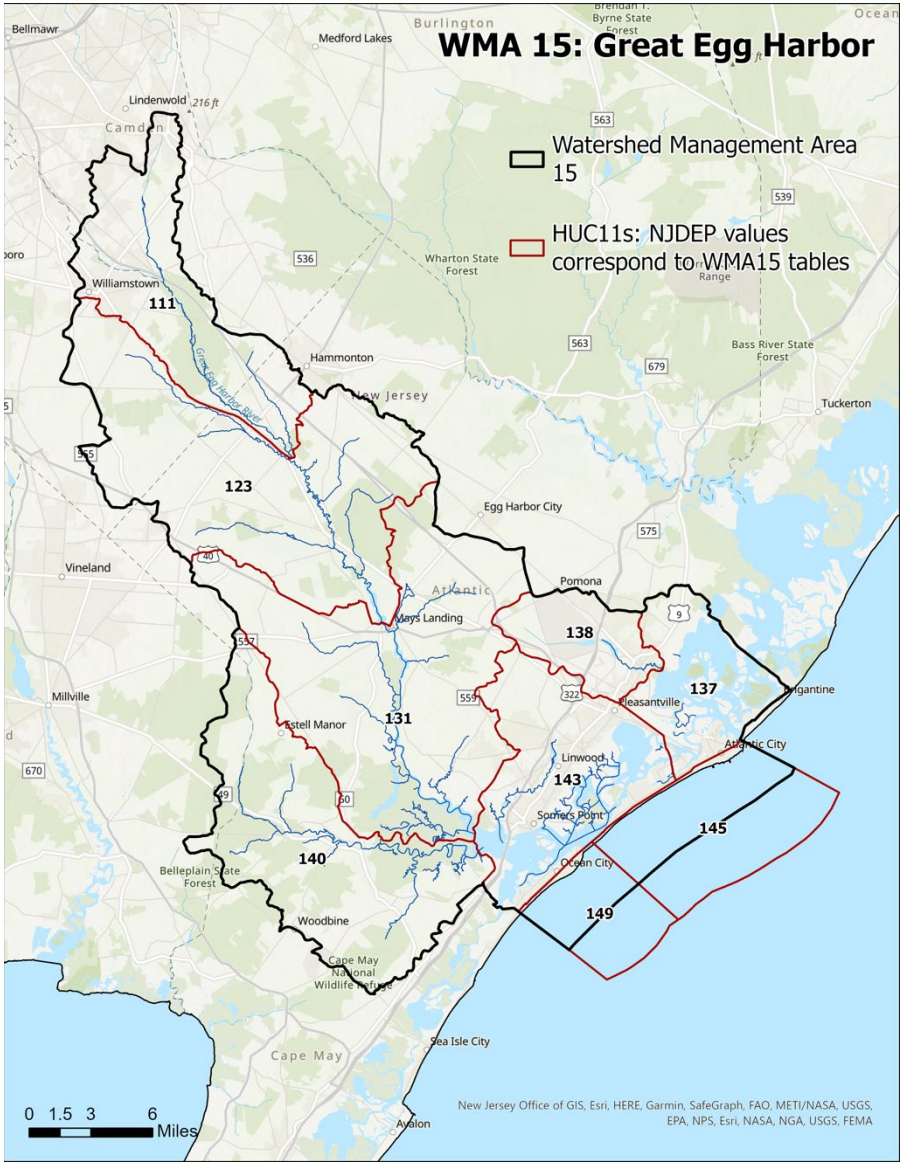

Table 15A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
137	**02040302010**	Reeds Bay / Absecon Bay & tribs	39.3	14.8	12.7	3.4	25%	9.4			Yes	Yes	Yes	0	
138	**02040302020**	Absecon Creek	26.4	26.4	11.5	5.8	25%	5.7					Yes	8	
111	**02040302030**	Great Egg Harbor R (above HospitalityBr)	71.1	71.0	35.5	17.5	25%	18.0					Yes	5	
123	**02040302040**	Great Egg Harbor R (Lk Lenape to HospBr)	133.5	204.4	59.2	13.7	25%	45.5			Yes	Yes	Yes	0	
131	**02040302050**	Great Egg Harbor R (below Lake Lenape)	142.2	346.5	52.6	21.1	25%	31.5				Yes	Yes	0	
143	**02040302060**	Patcong Creek/ Great Egg Harbor Bay	71.0	42.7	30.0	15.8	25%	14.2				Yes	Yes	8	
140	**02040302070**	Tuckahoe River	102.4	102.1	36.6	15.5	25%	21.1					Yes	0	
145	**02040302920**	Atlantic Coast (Absecon to Great Egg)	54.0	54.0	Not Calc.	Not Calc.	25%								Yes
149	**02040302930**	Atlantic Coast (Great Egg to 34th St)	26.9	27.0	Not Calc.	Not Calc.	25%								

Table 15B. Summary of HUC11 Remaining Available Water and Full Allocation

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
137	**02040302010**	Reeds Bay / Absecon Bay & tribs	2013	2.3	0.6	24%	1.8	1.0	43%	1.3	Non-Ag Irr	20%	Non-Ag Irr	32%
138	**02040302020**	Absecon Creek	2013	1.4	14.2	1,000%	0.0	29.2	2,054%	0.0	Potable	100%	Potable	100%
111	**02040302030**	Great Egg Harbor R (above HospitalityBr)	2018	4.5	5.9	131%	0.0	19.7	438%	0.0	Potable	82%	Potable	100%
123	**02040302040**	Great Egg Harbor R (Lk Lenape to HospBr)	2016	11.4	10.0	88%	1.3	24.7	217%	0.0	Ag/Irr	66%	Ag/Irr	100%
131	**02040302050**	Great Egg Harbor R (below Lake Lenape)	2017	7.9	4.4	55%	3.5	9.9	125%	0.0	Potable	22%	Potable	65%
143	**02040302060**	Patcong Creek/ Great Egg Harbor Bay	2013	3.6	7.2	202%	0.0	11.0	310%	0.0	Potable	100%	Potable	100%
140	**02040302070**	Tuckahoe River	2018	5.3	3.1	58%	2.2	5.5	105%	0.0	Con Aq Leak	30%	Com/Ind/ Min	26%
145	**02040302920**	Atlantic Coast (Absecon to Great Egg)												
149	**02040302930**	Atlantic Coast (Great Egg to 34th St)												

Table 15C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
137	**02040302010**	Reeds Bay / Absecon Bay & tribs	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.7	0.0	0.0	0.8	0.0
138	**02040302020**	Absecon Creek	10.7	4.3	0.8	1.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	11.4	4.3	0.1	15.7	0.0
111	**02040302030**	Great Egg Harbor R (above HospitalityBr)	3.9	0.0	1.4	0.0	1.6	2.5	0.1	0.0	0.0	0.0	0.0	7.0	1.7	0.0	8.7	0.0
123	**02040302040**	Great Egg Harbor R (Lk Lenape to HospBr)	0.9	0.0	1.6	0.0	3.4	9.3	0.0	0.2	0.0	0.0	0.0	10.9	3.4	1.4	15.7	0.0
131	**02040302050**	Great Egg Harbor R (below Lake Lenape)	1.6	0.0	1.9	0.3	0.0	0.9	0.0	0.6	0.5	0.0	0.0	4.7	0.6	0.9	6.2	0.0
143	**02040302060**	Patcong Creek/Great Egg Harbor Bay	7.4	0.0	1.0	0.1	0.0	0.1	0.1	0.5	0.1	0.1	0.0	8.2	0.1	0.1	8.5	0.0
140	**02040302070**	Tuckahoe River	0.4	0.0	0.5	0.1	7.0	0.9	0.0	0.0	0.0	0.0	0.0	1.7	7.0	1.6	10.2	0.0
145	**02040302920**	Atlantic Coast (Absecon to Great Egg)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
149	**02040302930**	Atlantic Coast (Great Egg to 34th St)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 15D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
137	**02040302010**	Reeds Bay / Absecon Bay & tribs	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.2
138	**02040302020**	Absecon Creek	0.0	0.0	0.0	0.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	1.5
111	**02040302030**	Great Egg Harbor R (above HospitalityBr)	0.0	0.0	0.0	1.0	0.0	1.5	0.3	0.0	0.0	0.0	0.0	0.0	1.3	1.5	2.8
123	**02040302040**	Great Egg	0.0	0.3	0.0	1.2	0.0	3.2	0.9	0.0	0.0	0.0	0.0	0.0	2.2	3.5	5.7

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
		Harbor R (Lk Lenape to HospBr)															
131	**02040302050**	Great Egg Harbor R (below Lake Lenape)	0.0	0.0	0.0	1.4	0.2	0.0	0.1	0.0	0.1	0.1	0.0	0.0	1.8	0.1	1.9
143	**02040302060**	Patcong Creek/ Great Egg Harbor Bay	0.0	0.0	0.0	0.7	0.5	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.3	0.0	1.3
140	**02040302070**	Tuckahoe River	0.0	0.0	0.0	0.4	0.1	6.6	0.1	0.0	0.0	0.0	0.0	0.0	0.6	6.6	7.2
145	**02040302920**	Atlantic Coast (Absecon to Great Egg)	0.0	0.0	27.5	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4
149	**02040302930**	Atlantic Coast (Great Egg to 34th St)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.
3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.
4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.

WATERSHED MANAGEMENT AREA 16

CAPE MAY

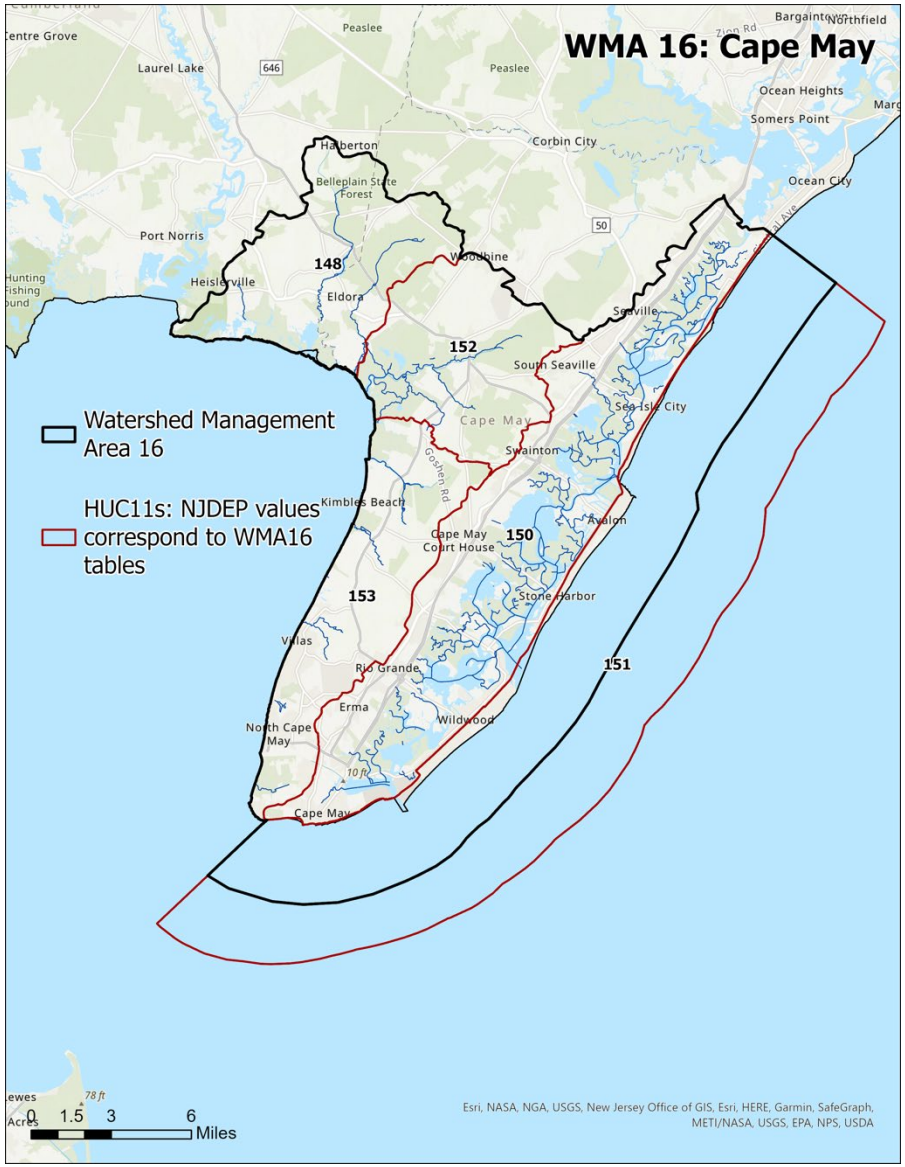

Table 16A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
148	**02040206210**	West Creek / East Creek / Riggins Ditch	45.3	45.3	6.7	1.2	25%	5.5			Yes			0	
152	**02040206220**	Dennis Creek	41.2	41.2	5.3	0.7	25%	4.5			Yes			0	
153	**02040206230**	Cape May Tribs West	45.2	45.1	5.5	1.5	25%	3.9			Yes			0	Yes
150	**02040302080**	Cape May Bays & Tribs East	103.2	69.1	17.6	4.6	25%	13.0			Yes			0	Yes
151	**02040302940**	Atlantic Coast (34th St to Cape May Pt)	191.0	191.0	Not Calc.	Not Calc.	25%								

Table 16B. Summary of HUC11 Remaining Available Water and Full Allocation

					Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
148	**02040206210**	West Creek / East Creek / Riggins Ditch	2013	1.4	1.0	69%	0.4	2.7	193%	0.0	Ag/Irr	73%	Ag/Irr	100%
152	**02040206220**	Dennis Creek	2016	1.1	0.4	37%	0.7	3.7	329%	0.0	Ag/Irr	27%	Ag/Irr	100%
153	**02040206230**	Cape May Tribs West	2016	1.0	0.9	91%	0.1	6.2	632%	0.0	Potable	82%	Potable	100%
150	**02040302080**	Cape May Bays & Tribs East	2016	3.2	-0.6	Net Gain	3.8	2.4	75%	0.8	Non-Ag Irr	31%	Potable	48%
151	**02040302940**	Atlantic Coast												

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
		(34th St to Cape May Pt)												

Table 16C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
148	**02040206210**	West Creek / East Creek / Riggins Ditch	0.0	0.0	0.2	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.5	1.8	0.0
152	**02040206220**	Dennis Creek	0.0	0.0	0.3	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.1	0.6	0.0
153	**02040206230**	Cape May Tribs West	1.9	0.6	1.8	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.7	0.0	4.2	0.0
150	**02040302080**	Cape May Bays & Tribs East	1.3	0.1	2.4	0.3	0.4	0.2	0.0	0.9	0.3	0.0	0.0	4.6	0.8	0.1	5.5	0.0
151	**02040302940**	Atlantic Coast (34th St to Cape May Pt)	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.6	0.0

Table 16D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
148	**02040206210**	West Creek / East Creek / Riggins Ditch	0.0	0.6	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.6	0.9
152	**02040206220**	Dennis Creek	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2
153	**02040206230**	Cape May	0.0	1.8	1.3	1.4	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.9	3.3

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
		Tribs West															
150	**02040302080**	Cape May Bays & Tribs East	0.0	3.4	14.2	1.8	0.3	0.3	0.1	0.0	0.1	0.0	0.0	0.0	2.3	3.8	6.1
151	**02040302940**	Atlantic Coast (34th St to Cape May Pt)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.
3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.
4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.

WATERSHED MANAGEMENT AREA 17

MAURICE, SALEM, AND COHANSEY

Table 17A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
141	**02040204910**	Delaware Bay (Cape May Pt to Fishing Ck)	348.6	348.6	Not Calc.	Not Calc.	25%								
114	**02040206020**	Pennsville / Penns Grove tribs	13.7	22.7	3.0	1.3	25%	1.7					Yes	0	Yes
117	**02040206030**	Salem R (above 39d40m14s dam)/ Salem Canal	58.3	58.3	12.9	5.4	25%	7.5					Yes	7	
124	**02040206040**	Salem River (below 39d40m14s dam)	58.9	58.6	13.0	3.1	25%	9.8			Yes		Yes	3	Yes
127	**02040206060**	Alloway Creek / Hope Creek	85.8	77.5	22.8	4.1	25%	18.7			Yes		Yes	0	Yes
133	**02040206070**	Stow Creek	55.2	55.0	24.6	8.9	25%	15.7					Yes	0	Yes
129	**02040206080**	Cohansey River (above Sunset Lake)	37.4	37.4	15.9	8.8	25%	7.1					Yes	8	
139	**02040206090**	Cohansey River (below Cornwell Run)	69.7	107.0	33.3	17.2	25%	16.1				Yes	Yes	8	
144	**02040206100**	Back / Cedar / Nantuxent Creeks	51.0	51.0	10.7	3.9	25%	6.8					Yes	8	
147	**02040206110**	Dividing Creek	60.1	60.6	7.6	1.3	25%	6.3			Yes		Yes	7	
119	**02040206120**	Still Run / Little Ease Run	46.1	46.1	14.9	5.7	25%	9.2					Yes	4	
118	**02040206130**	Scotland Run	29.8	29.8	12.9	5.5	25%	7.3					Yes	8	
128	**02040206140**	Maurice River (above Sherman Ave Bridge)	56.8	190.5	42.6	15.5	25%	27.1				Yes	Yes	7	

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
126	**02040206150**	Muddy Run	57.9	57.8	20.8	10.1	25%	10.7					Yes	8	
135	**02040206160**	Maurice River (Union Lk to Sherman Ave)	25.0	215.5	10.8	5.8	25%	5.0				Yes	Yes	8	
142	**02040206170**	Maurice River (Menantico Ck to Union Lk)	44.6	260.1	11.4	4.7	25%	6.7				Yes	Yes	8	Yes
132	**02040206180**	Menantico Creek	39.2	39.2	22.9	7.8	25%	15.1					Yes	8	
136	**02040206190**	Manamuskin River	36.2	36.2	14.1	6.8	25%	7.4					Yes	0	
146	**02040206200**	Maurice River (below Menantico Creek)	48.9	384.4	20.2	9.1	25%	11.2				Yes	Yes	0	

Table 17B. Summary of HUC11 Remaining Available Water and Full Allocation

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
141	**02040204910**	Delaware Bay (Cape May Pt to Fishing Ck)												
114	**02040206020**	Pennsville / Penns Grove tribs	2014	0.4	-0.7	Net Gain	1.2	-3.6	Net Gain	4.0	Con Aq Leak	100%	Potable	100%
117	**02040206030**	Salem R (above 39d40m14s dam)/ Salem Canal	2017	1.9	6.1	328%	0.0	13.2	707%	0.0	Ag/Irr	100%	Ag/Irr	100%

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
124	**02040206040**	Salem River (below 39d40m14s dam)	2018	2.5	2.7	110%	0.0	5.4	218%	0.0	Ag/Irr	70%	Ag/Irr	100%
127	**02040206060**	Alloway Creek / Hope Creek	2013	4.7	0.9	20%	3.7	7.4	158%	0.0	Ag/Irr	9%	Potable	100%
133	**02040206070**	Stow Creek	2017	3.9	1.5	38%	2.5	5.7	145%	0.0	Ag/Irr	33%	Ag/Irr	100%
129	**02040206080**	Cohansey River (above Sunset Lake)	2016	1.8	10.0	562%	0.0	46.7	2,631%	0.0	Ag/Irr	100%	Ag/Irr	100%
139	**02040206090**	Cohansey River (below Cornwell Run)	2016	4.0	7.2	179%	0.0	33.0	821%	0.0	Ag/Irr	100%	Ag/Irr	100%
144	**02040206100**	Back / Cedar / Nantuxent Creeks	2016	1.7	4.4	259%	0.0	19.1	1,116%	0.0	Ag/Irr	100%	Ag/Irr	100%
147	**02040206110**	Dividing Creek	2015	1.6	2.6	166%	0.0	3.8	242%	0.0	Com/Ind/ Min	100%	Com/Ind/ Min	100%
119	**02040206120**	Still Run / Little Ease Run	2020	2.3	3.2	138%	0.0	8.9	388%	0.0	Ag/Irr	84%	Ag/Irr	100%
118	**02040206130**	Scotland Run	2013	1.8	2.5	136%	0.0	7.6	414%	0.0	Potable	100%	Potable	100%
128	**02040206140**	Maurice River (above Sherman Ave Bridge)	2016	6.8	10.5	155%	0.0	25.8	381%	0.0	Potable	100%	Potable	100%
126	**02040206150**	Muddy Run	2017	2.7	10.5	393%	0.0	27.0	1,007%	0.0	Ag/Irr	100%	Ag/Irr	100%
135	**02040206160**	Maurice River (Union Lk to Sherman Ave)	2016	1.2	3.7	299%	0.0	10.9	878%	0.0	Ag/Irr	100%	Ag/Irr	100%

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
142	**02040206170**	Maurice River (Menantico Ck to Union Lk)	2020	1.7	4.8	285%	0.0	9.9	590%	0.0	Potable	100%	Potable	100%
132	**02040206180**	Menantico Creek	2016	3.8	8.8	233%	0.0	27.1	719%	0.0	Ag/Irr	100%	Ag/Irr	100%
136	**02040206190**	Manamuskin River	2015	1.8	1.7	95%	0.1	5.5	298%	0.0	Ag/Irr	80%	Ag/Irr	100%
146	**02040206200**	Maurice River (below Menantico Creek)	2020	2.8	1.6	57%	1.2	4.3	155%	0.0	Con Aq Leak	39%	Potable	78%

Table 17C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
141	**02040204910**	Delaware Bay (Cape May Pt to Fishing Ck)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114	**02040206020**	Pennsville / Penns Grove tribs	0.9	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	2.2	0.0	1.0	3.2	0.0
117	**02040206030**	Salem R (above 39d40m14s dam)/ Salem Canal	0.3	0.0	0.6	0.0	8.8	0.5	4.5	0.0	0.0	0.0	0.0	1.3	13.3	0.9	15.6	0.0
124	**02040206040**	Salem River (below 39d40m14s dam)	0.0	0.0	0.4	0.0	0.0	0.2	1.8	0.0	0.0	0.0	0.0	0.5	1.8	0.9	3.2	0.0
127	**02040206060**	Alloway Creek / Hope Creek	0.0	0.3	0.9	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	1.2	0.3	0.1	1.7	0.0
133	**02040206070**	Stow Creek	0.0	0.0	0.2	0.0	1.0	0.6	0.9	0.0	0.0	0.0	0.0	0.7	1.9	0.0	2.6	0.0
129	**02040206080**	Cohansey River	0.6	0.0	0.8	4.8	0.0	10.1	1.3	0.0	0.0	0.0	0.0	14.6	1.3	0.0	16.0	0.0

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
		(above Sunset Lake)																
139	02040206090	Cohansey River (below Cornwell Run)	2.9	0.0	1.3	0.0	1.5	7.1	1.3	0.1	0.0	0.0	0.0	10.2	2.7	0.0	13.0	0.0
144	02040206100	Back / Cedar / Nantuxent Creeks	0.0	0.0	0.4	0.0	0.0	5.2	0.1	0.0	0.0	0.0	0.0	5.0	0.1	0.1	5.3	0.0
147	02040206110	Dividing Creek	0.0	0.0	0.2	0.2	43.9	0.0	0.0	0.0	0.0	0.0	0.0	0.4	43.9	0.0	44.3	0.0
119	02040206120	Still Run / Little Ease Run	0.9	0.1	0.9	0.0	0.0	2.2	0.2	0.0	0.0	0.0	0.0	3.6	0.4	0.2	4.1	0.0
118	02040206130	Scotland Run	2.3	0.0	1.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	3.3	0.0
128	02040206140	Maurice River (above Sherman Ave Bridge)	8.5	0.0	1.2	1.3	0.0	3.3	0.0	0.0	0.0	0.0	0.0	13.0	0.0	0.0	13.0	0.0
126	02040206150	Muddy Run	0.1	0.2	0.7	0.1	0.0	10.6	0.6	0.3	0.2	0.0	0.0	10.6	1.0	0.7	12.3	0.0
135	02040206160	Maurice River (Union Lk to Sherman Ave)	0.6	0.0	0.4	0.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.9	4.3	0.0
142	02040206170	Maurice River (Menantico Ck to Union Lk)	3.2	0.0	0.4	0.2	0.0	2.2	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	5.5	0.0
132	02040206180	Menantico Creek	1.7	0.0	0.6	0.7	4.6	7.2	0.3	0.1	0.0	0.0	0.0	9.3	4.9	0.5	14.8	0.0
136	02040206190	Manamuskin River	0.2	0.0	0.3	0.1	0.0	1.9	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.1	2.3	0.0
146	02040206200	Maurice River (below Menantico Creek)	0.0	0.0	0.4	1.0	8.8	0.0	0.0	0.0	0.0	0.0	0.0	1.2	8.8	1.1	11.1	0.0

Table 17D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
141	02040204910	Delaware Bay (Cape May Pt to Fishing Ck)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114	02040206020	Pennsville / Penns Grove tribs	0.0	1.1	1.1	0.1	1.4	0.0	0.0	0.0	0.0	0.0	1.4	0.0	2.9	1.1	4.0

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
117	**02040206030**	Salem R (above 39d40m14s dam)/ Salem Canal	0.0	0.4	0.0	0.5	0.0	8.0	0.1	0.4	0.0	0.0	0.0	0.0	0.6	8.9	9.4
124	**02040206040**	Salem River (below 39d40m14s dam)	0.0	0.0	0.6	0.3	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.3	0.2	0.5
127	**02040206060**	Alloway Creek / Hope Creek	0.0	0.0	0.0	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7
133	**02040206070**	Stow Creek	0.0	0.0	0.0	0.1	0.0	0.9	0.1	0.1	0.0	0.0	0.0	0.0	0.2	1.0	1.1
129	**02040206080**	Cohansey River (above Sunset Lake)	0.0	0.0	0.0	0.6	4.3	0.0	1.0	0.1	0.0	0.0	0.0	0.0	5.9	0.1	6.0
139	**02040206090**	Cohansey River (below Cornwell Run)	0.0	2.7	0.0	0.9	0.0	1.3	0.7	0.1	0.0	0.0	0.0	0.0	1.7	4.1	5.8
144	**02040206100**	Back / Cedar / Nantuxent Creeks	0.0	0.0	0.0	0.3	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.8
147	**02040206110**	Dividing Creek	0.0	0.0	0.0	0.2	0.2	41.3	0.0	0.0	0.0	0.0	0.0	0.0	0.4	41.3	41.7
119	**02040206120**	Still Run / Little Ease Run	0.0	0.0	0.0	0.7	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.9
118	**02040206130**	Scotland Run	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.8
128	**02040206140**	Maurice River (above Sherman Ave Bridge)	0.0	0.0	0.0	0.9	1.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0	2.4	0.0	2.4
126	**02040206150**	Muddy Run	0.0	0.0	0.0	0.5	0.1	0.0	1.1	0.1	0.0	0.0	0.0	0.0	1.7	0.1	1.8
135	**02040206160**	Maurice River (Union Lk to Sherman Ave)	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.6
142	**02040206170**	Maurice River (Menantico Ck to Union Lk)	0.0	0.0	2.2	0.3	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7
132	**02040206180**	Menantico Creek	0.0	0.0	0.0	0.4	0.6	4.1	0.7	0.0	0.0	0.0	0.0	0.0	1.8	4.2	6.0
136	**02040206190**	Manamuskin River	0.0	0.0	0.0	0.2	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5
146	**02040206200**	Maurice River (below Menantico Creek)	0.0	0.0	0.0	0.3	0.9	8.3	0.0	0.0	0.0	0.0	0.0	0.0	1.2	8.3	9.5

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.
3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.
4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.

WATERSHED MANAGEMENT AREA 18

LOWER DELAWARE

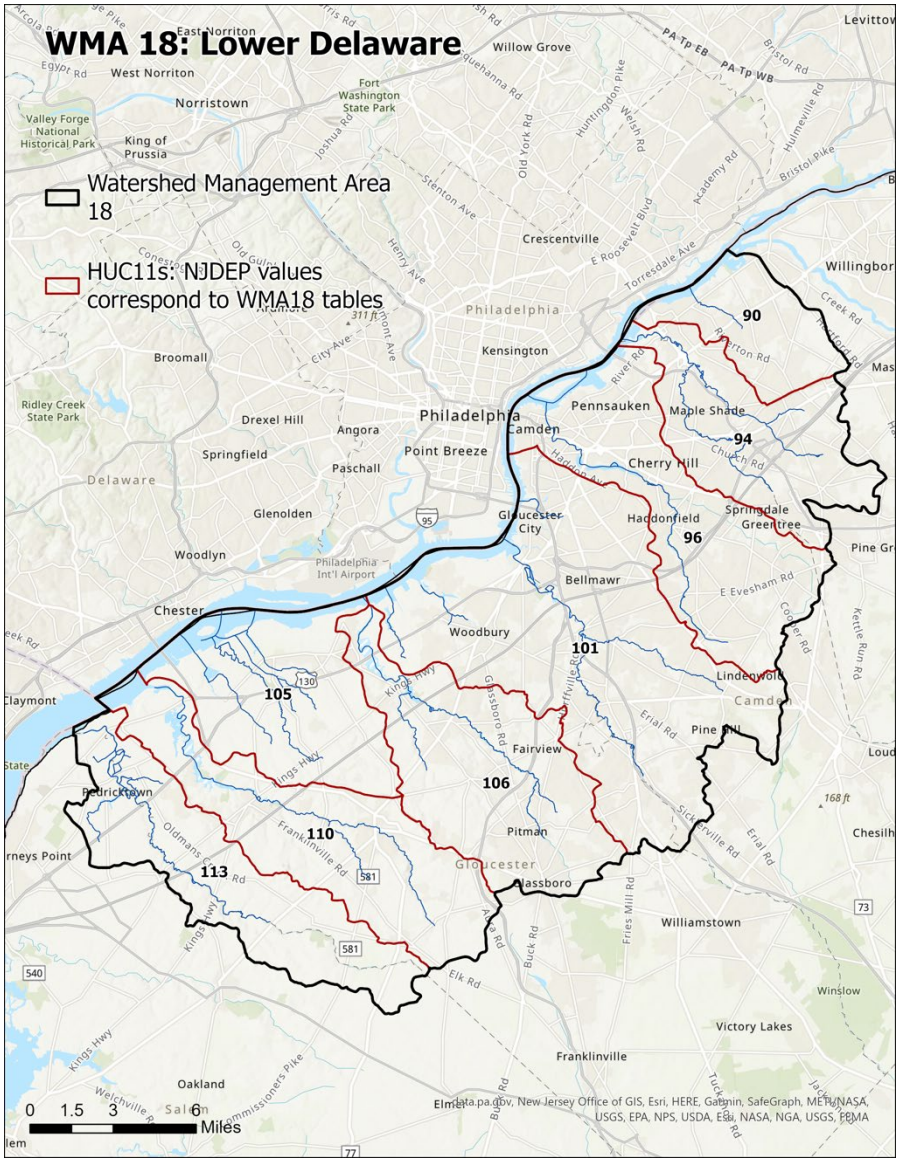

Table 18A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
90	**02040202090**	Pompeston Creek / Swede Run	19.8	18.5	4.0	1.4	25%	2.5						0	
94	**02040202100**	Pennsauken Creek	36.4	36.2	9.8	4.4	25%	5.4						0	
96	**02040202110**	Cooper River	51.3	48.5	18.2	8.9	25%	9.3						8	
101	**02040202120**	Woodbury / Big Timber / Newton Creeks	98.9	95.7	71.3	43.3	25%	28.0						0	
106	**02040202130**	Mantua Creek	50.2	50.1	26.2	11.5	25%	14.7						0	
105	**02040202140**	Cedar Swamp / Repaupo Ck / Clonmell Ck	41.0	35.8	20.0	6.7	25%	13.3						0	
110	**02040202150**	Raccoon Creek / Birch Creek	49.7	48.4	21.4	9.9	25%	11.5						0	
113	**02040202160**	Oldmans Creek	44.0	43.9	16.1	6.7	25%	9.4						8	

Table 18B. Summary of HUC11 Remaining Available Water and Full Allocation

					Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
90	**02040202090**	Pompeston Creek / Swede Run	2017	0.6	-0.3	Net Gain	1.0	0.4	62%	0.2	Con Aq Leak	100%	Potable	100%
94	**02040202100**	Pennsauken Creek	2014	1.4	-0.4	Net Gain	1.8	-0.3	Net Gain	1.7	Con Aq Leak	100%	Potable	87%
96	**02040202110**	Cooper River	2020	2.3	8.0	346%	0.0	10.4	447%	0.0	Potable	100%	Potable	100%

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
101	**02040202120**	Woodbury / Big Timber / Newton Creeks	2016	7.0	-57.2	Net Gain	64.2	-58.8	Net Gain	65.8	Con Aq Leak	57%	Potable	52%
106	**02040202130**	Mantua Creek	2018	3.7	2.9	80%	0.7	5.4	146%	0.0	Con Aq Leak	50%	Potable	100%
105	**02040202140**	Cedar Swamp / Repaupo Ck / Clonmell Ck	2014	3.3	1.0	31%	2.3	6.2	188%	0.0	Con Aq Leak	38%	Ag/Irr	100%
110	**02040202150**	Raccoon Creek / Birch Creek	2017	2.9	2.1	73%	0.8	9.2	318%	0.0	Ag/Irr	55%	Ag/Irr	100%
113	**02040202160**	Oldmans Creek	2013	2.4	3.9	164%	0.0	12.8	543%	0.0	Ag/Irr	100%	Ag/Irr	100%

Table 18C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
90	**02040202090**	Pompeston Creek / Swede Run	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	1.2	1.4	0.0
94	**02040202100**	Pennsauken Creek	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	4.1	4.2	0.0
96	**02040202110**	Cooper River	4.5	0.0	0.2	0.1	0.9	0.0	0.0	0.2	0.1	0.0	0.0	4.4	1.1	3.7	9.2	0.0
101	**02040202120**	Woodbury / Big Timber / Newton Creeks	2.2	0.0	0.4	0.1	0.0	0.1	0.0	0.1	0.8	0.0	0.0	2.7	0.8	4.0	7.6	0.0
106	**02040202130**	Mantua Creek	0.5	0.0	0.5	0.1	0.2	0.2	0.4	0.0	0.1	0.0	0.0	1.2	0.7	1.9	3.8	0.0
105	**02040202140**	Cedar Swamp / Repaupo Ck / Clonmell Ck	0.8	0.1	0.2	0.4	0.4	0.3	0.3	0.0	0.0	0.0	0.0	1.6	0.8	1.3	3.7	0.0
110	**02040202150**	Raccoon Creek / Birch Creek	1.0	0.0	1.3	0.0	0.0	0.4	1.4	0.0	0.0	0.0	0.0	2.4	1.4	1.4	5.2	0.0

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
113	02040202160	Oldmans Creek	0.0	0.0	0.5	0.0	0.0	1.8	1.8	0.0	0.0	0.0	0.0	2.1	1.8	0.9	4.8	0.0

Table 18D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
90	02040202090	Pompeston Creek / Swede Run	0.0	1.6	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.6	1.7
94	02040202100	Pennsauken Creek	0.0	4.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	4.5	4.7
96	02040202110	Cooper River	0.0	0.0	0.0	0.1	0.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.9	1.1
101	02040202120	Woodbury / Big Timber/ Newton Creeks	0.0	63.4	0.0	0.3	0.9	0.0	0.0	0.0	0.0	0.1	0.0	0.0	1.3	63.5	64.8
106	02040202130	Mantua Creek	0.0	0.0	0.0	0.4	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.6	0.2	0.9
105	02040202140	Cedar Swamp / Repaupo Ck / Clonmell Ck	0.0	0.4	0.0	0.2	1.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.8	2.6
110	02040202150	Raccoon Creek / Birch Creek	0.0	1.7	0.0	0.9	0.2	0.0	0.1	0.1	0.0	0.0	0.0	0.0	1.2	1.9	3.1
113	02040202160	Oldmans Creek	0.0	0.0	0.0	0.4	0.1	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.8	0.2	1.0

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.
3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.
4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.

WATERSHED MANAGEMENT AREA 19

RANCOCAS

Table 19A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
93	**02040202020**	Rancocas Creek NB (above New Lisbon dam)	32.1	32.1	17.7	7.0	25%	10.6						0	
97	**02040202030**	Greenwood Branch (NB Rancocas Creek)	78.2	78.1	31.3	13.7	25%	17.6						0	
92	**02040202040**	Rancocas Creek NB (below New Lisbon dam)	37.7	147.9	17.7	7.4	25%	10.4						0	
98	**02040202050**	Rancocas Creek SB (above Bobbys Run)	68.6	144.6	20.5	6.1	25%	14.4			Yes			0	
100	**02040202060**	Rancocas Creek SB SW Branch	76.0	76.0	26.8	12.9	25%	13.9						0	
95	**02040202070**	Rancocas Creek SB (below Bobbys Run)	22.6	167.1	4.7	1.7	25%	3.0						0	
88	**02040202080**	Rancocas Creek	35.6	349.7	6.9	2.7	25%	4.2						0	

Table 19B. Summary of HUC11 Remaining Available Water and Full Allocation

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
93	**02040202020**	Rancocas Creek NB (above New Lisbon dam)	2014	2.7	1.2	46%	1.4	4.1	153%	0.0	Potable	35%	Potable	100%

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
97	**02040202030**	Greenwood Branch (NB Rancocas Creek)	2020	4.4	0.7	16%	3.7	9.7	219%	0.0	Com/Ind/ Min	11%	Potable	100%
92	**02040202040**	Rancocas Creek NB (below New Lisbon dam)	2017	2.6	-2.5	Net Gain	5.1	-0.7	Net Gain	3.2	Con Aq Leak	36%	Ag/Irr	89%
98	**02040202050**	Rancocas Creek SB (above Bobbys Run)	2014	3.6	3.2	88%	0.4	9.2	254%	0.0	Ag/Irr	79%	Ag/Irr	100%
100	**02040202060**	Rancocas Creek SB SW Branch	2016	3.5	0.9	26%	2.6	1.8	51%	1.7	Con Aq Leak	61%	Non-Ag Irr	15%
95	**02040202070**	Rancocas Creek SB (below Bobbys Run)	2015	0.7	0.6	81%	0.1	0.9	126%	0.0	Con Aq Leak	76%	Potable	100%
88	**02040202080**	Rancocas Creek	2016	1.1	-7.2	Net Gain	8.2	-7.3	Net Gain	8.3	Con Aq Leak	100%	Potable	53%

Table 19C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
93	**02040202020**	Rancocas Creek NB (above New Lisbon dam)	0.0	0.9	0.2	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.2	2.2	0.3	2.6	0.0

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
97	02040202030	Greenwood Branch (NB Rancocas Creek)	0.1	0.0	0.6	0.0	5.5	0.0	1.3	0.0	0.0	0.0	0.0	0.7	6.9	0.0	7.5	0.0
92	02040202040	Rancocas Creek NB (below New Lisbon dam)	0.0	0.0	0.4	0.0	0.0	0.1	0.9	0.0	0.0	0.0	0.0	0.4	0.9	0.9	2.3	0.0
98	02040202050	Rancocas Creek SB (above Bobbys Run)	0.1	0.0	0.5	0.0	0.1	0.7	3.4	0.0	0.0	0.0	0.0	1.1	3.5	0.4	5.0	0.0
100	02040202060	Rancocas Creek SB SW Branch	0.0	0.1	1.9	0.0	0.0	0.8	0.5	0.0	0.4	0.0	0.0	2.5	0.9	2.1	5.6	0.0
95	02040202070	Rancocas Creek SB (below Bobbys Run)	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.6	0.7	0.0
88	02040202080	Rancocas Creek	0.0	0.0	0.2	0.1	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.5	0.2	1.3	2.0	0.0

Table 19D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
93	02040202020	Rancocas Creek NB (above New Lisbon dam)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.1	1.3	1.4
97	02040202030	Greenwood Branch (NB Rancocas Creek)	0.0	0.0	0.0	0.4	0.0	5.1	0.0	1.3	0.0	0.0	0.0	0.0	0.4	6.4	6.8
92	02040202040	Rancocas Creek NB (below New Lisbon dam)	0.0	4.3	0.0	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.3	4.4	4.8
98	02040202050	Rancocas Creek SB (above Bobbys Run)	0.1	0.3	0.0	0.3	0.0	0.1	0.2	1.0	0.0	0.0	0.0	0.0	0.6	1.3	1.9
100	02040202060	Rancocas Creek SB SW Branch	0.0	3.0	0.0	1.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.6	3.1	4.7

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
95	**02040202070**	Rancocas Creek SB (below Bobbys Run)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
88	**02040202080**	Rancocas Creek	0.0	8.8	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	8.8	9.2

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.
3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.
4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.

WATERSHED MANAGEMENT AREA 20

ASSISCUNK, CROSSWICKS, AND DOCTORS

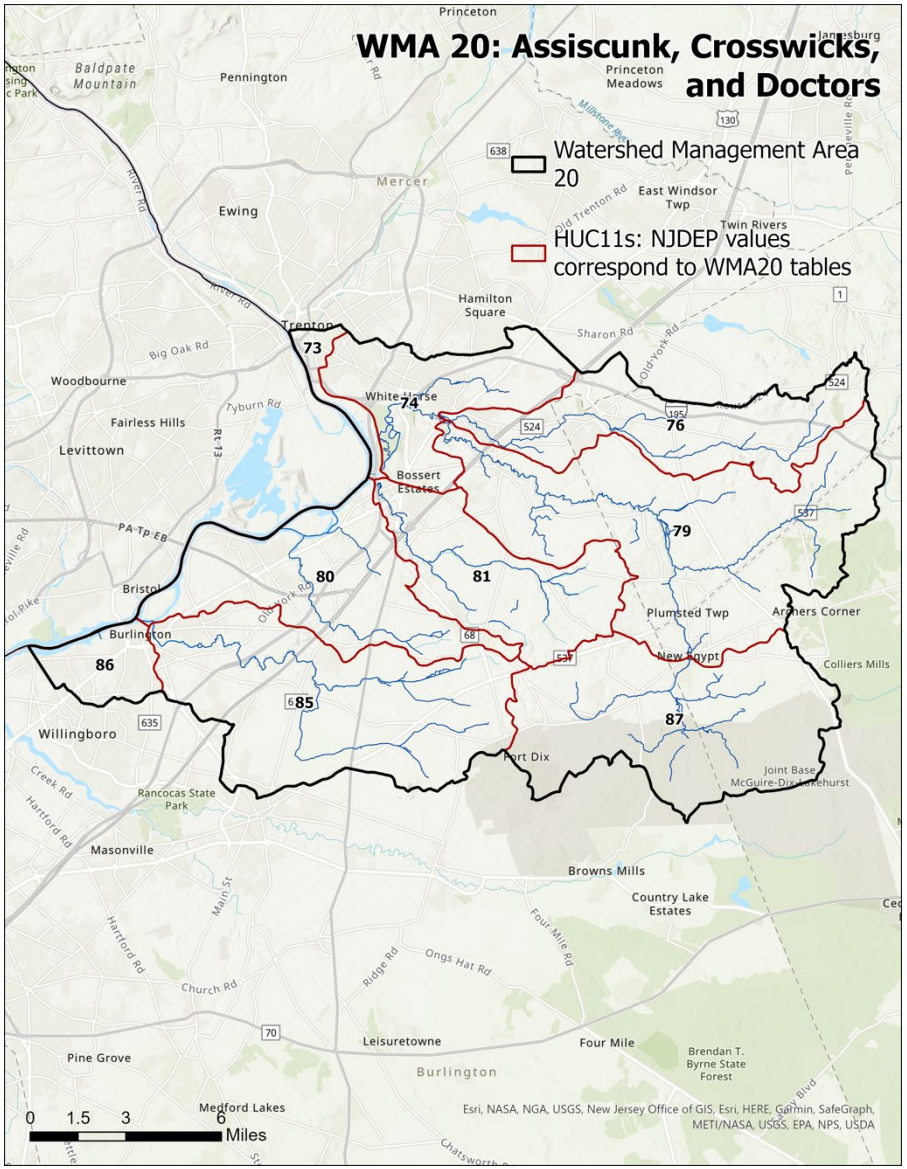

Table 20A. Summary of HUC11 Area, Low Flow Margin, and Water Availability Considerations

DEP Value	HUC11	HUC11 Name	HUC11 Area (mi^2)	Watershed Area (mi^2)	September Median Flow (mgd)	7Q10 (mgd)	LFM Percentage	LFM (mgd)	NJ Highlands[2]	Major SW Potable Supply[3]	Potentially 7Q10 Limited [4]	Lim. Avail. HUC Upstream	In a Stressed WMA	Number of Stressed 3-Yr Periods	Has Saline Discharge
73	**02040201030**	Duck Creek and UDRV to Assunpink Ck	3.3	2.7	0.3	0.1	25%	0.2						0	
87	**02040201040**	Crosswicks Ck (above New Egypt)	41.2	41.2	17.8	8.1	25%	9.7						0	
79	**02040201050**	Crosswicks Ck (Doctors Ck to New Egypt)	57.0	98.2	21.1	9.2	25%	11.9						0	
76	**02040201060**	Doctors Creek	25.9	25.9	7.4	2.2	25%	5.1			Yes			0	
74	**02040201070**	Crosswicks Ck (below Doctors Creek)	20.1	144.2	3.6	1.2	25%	2.4						0	
81	**02040201080**	Blacks Creek	23.4	23.4	5.8	2.0	25%	3.8						0	
80	**02040201090**	Crafts Creek	28.9	25.9	2.6	0.6	25%	2.1			Yes			0	
85	**02040201100**	Assiscunk Creek	45.9	45.9	5.1	1.5	25%	3.6			Yes			0	
86	**02040201110**	Burlington/ Edgewater Park Delaware tribs	7.2	6.6	1.4	0.5	25%	0.8						0	

Table 20B. Summary of HUC11 Remaining Available Water and Full Allocation

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
73	**02040201030**	Duck Creek and UDRV to	2017	0.1	-9.7	Net Gain	9.8	0.0	1%	0.1	Minimal Loss	0%	Potable	N/A

DEP Value	HUC11	HUC11 Name	Peak Year With.[5]	Available Water (mgd)	Current			Full Allocation (F.A.)			Largest Dep-Con Loss			
					Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Net Dep-Con (mgd)	% Available Used	Remaining Available Water (mgd)	Largest Loss Current Use	Largest Loss % Available Water (Current)	Largest Loss F.A. Use	Largest Loss % Available Water (F.A.)
		Assunpink Ck												
87	**02040201040**	Crosswicks Ck (above New Egypt)	2017	2.4	1.2	52%	1.2	1.6	65%	0.9	Con Aq Leak	35%	Potable	20%
79	**02040201050**	Crosswicks Ck (Doctors Ck to New Egypt)	2016	3.0	1.9	63%	1.1	10.0	336%	0.0	Ag/Irr	41%	Ag/Irr	100%
76	**02040201060**	Doctors Creek	2020	1.3	0.6	44%	0.7	3.8	293%	0.0	Con Aq Leak	33%	Ag/Irr	100%
74	**02040201070**	Crosswicks Ck (below Doctors Creek)	2018	0.6	-4.7	Net Gain	5.3	-3.3	Net Gain	3.9	Con Aq Leak	63%	Potable	72%
81	**02040201080**	Blacks Creek	2017	0.9	0.0	5%	0.9	4.3	458%	0.0	Ag/Irr	90%	Ag/Irr	100%
80	**02040201090**	Crafts Creek	2020	0.5	-0.2	Net Gain	0.7	-0.5	Net Gain	1.0	Con Aq Leak	96%	Potable	37%
85	**02040201100**	Assiscunk Creek	2016	0.9	0.9	98%	0.0	1.7	194%	0.0	Con Aq Leak	58%	Ag/Irr	100%
86	**02040201110**	Burlington/ Edgewater Park Delaware tribs	2020	0.2	-2.3	Net Gain	2.5	-2.9	Net Gain	3.1	Con Aq Leak	26%	Potable	100%

Table 20C. Summary of HUC11 Withdrawals in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
73	**02040201030**	Duck Creek and UDRV to Assunpink Ck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DEP Value	HUC11	HUC11 Name	Public Supply		Domestic	Com/Ind/ Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined				RSW Withdrawals
			UnGW	Non-RSW SW	UnGW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	SFD Adj UnGW	SW	Leakage	Total	
87	02040201040	Crosswicks Ck (above New Egypt)	0.0	0.0	0.4	0.0	0.3	0.0	0.5	0.0	0.0	0.0	0.0	0.4	0.7	0.8	2.0	0.0
79	02040201050	Crosswicks Ck (Doctors Ck to New Egypt)	0.0	0.0	1.1	0.0	0.0	0.5	1.0	0.0	0.2	0.0	0.0	1.4	1.1	1.0	3.6	0.0
76	02040201060	Doctors Creek	0.0	0.0	0.2	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.2	0.3	0.4	0.9	0.0
74	02040201070	Crosswicks Ck (below Doctors Creek)	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.4	2.1	0.0
81	02040201080	Blacks Creek	0.0	0.0	0.7	0.0	0.0	0.1	0.9	0.0	0.0	0.0	0.0	0.7	1.0	0.2	1.9	0.0
80	02040201090	Crafts Creek	0.8	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.5	1.7	0.0
85	02040201100	Assiscunk Creek	0.0	0.0	0.4	0.0	0.0	0.2	0.2	0.0	0.1	0.0	0.0	0.6	0.3	0.5	1.4	0.0
86	02040201110	Burlington/ Edgewater Park Delaware tribs	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.1	1.0	0.0

Table 20D. Summary of HUC11 Discharges in Millions of Gallons per Day (mgd)

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
73	02040201030	Duck Creek and UDRV to Assunpink Ck	0.0	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	9.7
87	02040201040	Crosswicks Ck (above New Egypt)	0.0	0.1	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.8
79	02040201050	Crosswicks Ck (Doctors Ck to New Egypt)	0.0	0.7	0.0	0.8	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.9	0.8	1.7
76	02040201060	Doctors Creek	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4
74	02040201070	Crosswicks Ck (below Doctors Creek)	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	6.9
81	02040201080	Blacks Creek	0.0	1.1	0.0	0.5	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.6	1.2	1.8
80	02040201090	Crafts Creek	0.0	1.3	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.3	1.9
85	02040201100	Assiscunk Creek	0.0	0.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.5

DEP Value	HUC11	HUC11 Name	Sanitary Sewer			Domestic Septic	Com/Ind/Min		Ag/Irr		Non-Ag Irr		Power Gen		Combined		
			UnGW	SW Fresh	SW Saline		UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	UnGW	SW	Total
86	**02040201110**	Burlington/Edgewater Park Delaware tribs	0.0	3.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	3.2	3.3

Notes (applicability may vary by WMA)

1. There are some watersheds upstream of WMA where depletive and consumptive uses are occurring, but this analysis does not account for out of state water use.
2. New or increased diversions within HUC11s located completely or partially within the Highlands will be addressed on a case-by-case basis in cooperation with the Highlands Council.
3. New or increased diversions upstream of potable supply reservoirs or intakes must quantify and offset any reduction to the system's safe yield.
4. The HUC11 LFM method available water exceeds 50% of the 7Q10. Additional availability analysis required.
5. Peak Year With. represents the final year of the 3-year period with the highest average withdrawals.