

Figure 54: Cumulative frequency distribution for daily average DO concentration under the actual flow regime at the basin outlet

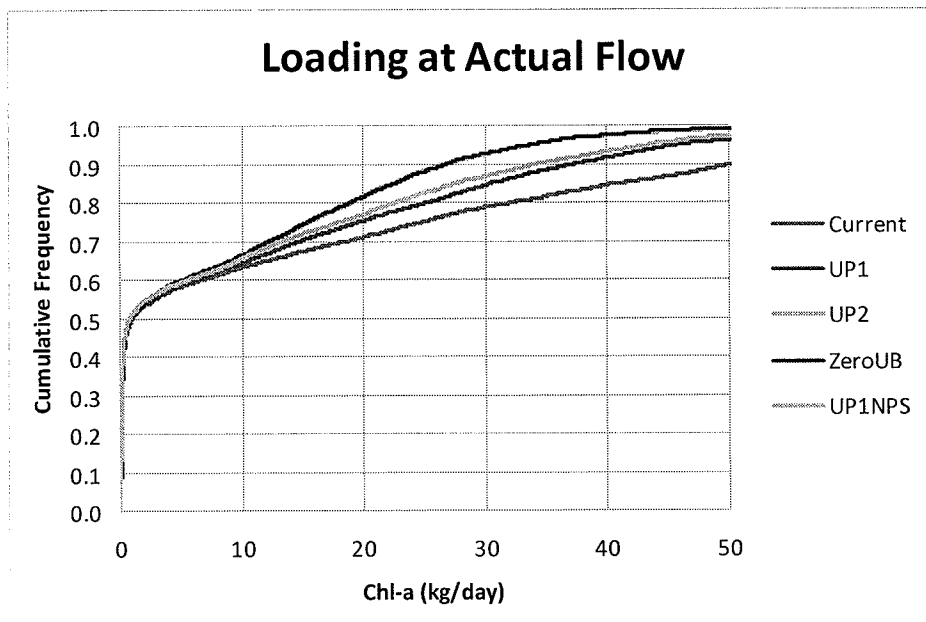


Figure 55: Cumulative frequency distribution for daily Chl-a load under the actual flow regime at the basin outlet

**Appendix F: Cumulative Distribution Frequency Figures for Design
Flow Regime**

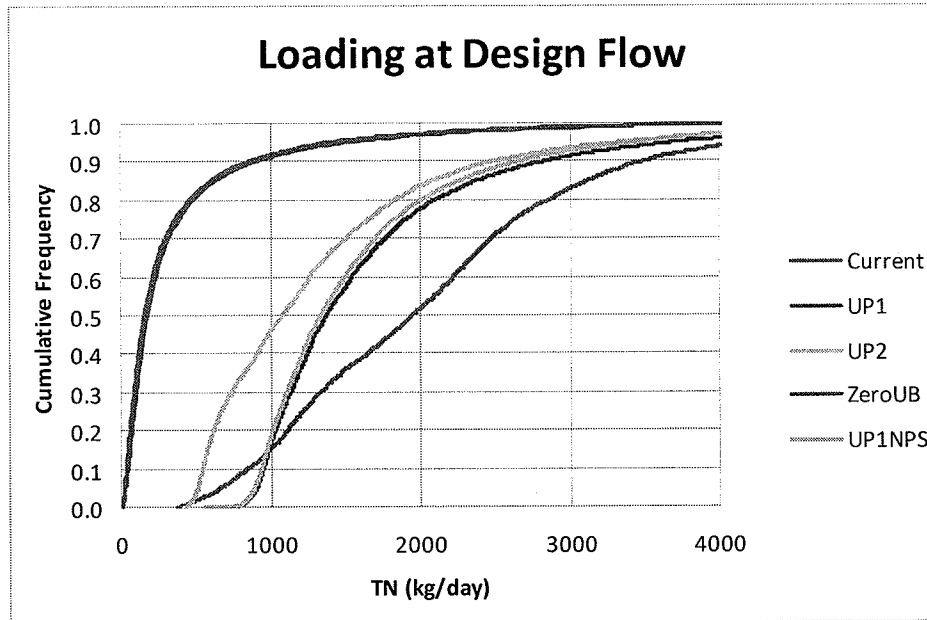


Figure 56: Cumulative frequency distribution for daily TN load under the design flow regime at Millbury

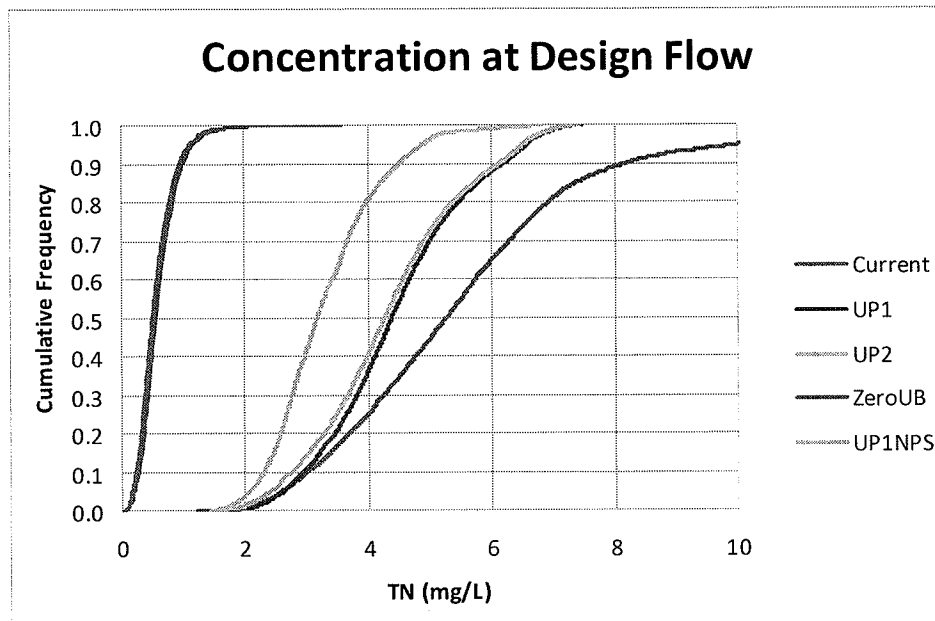


Figure 57: Cumulative frequency distribution for daily average TN concentration under the design flow regime at Millbury

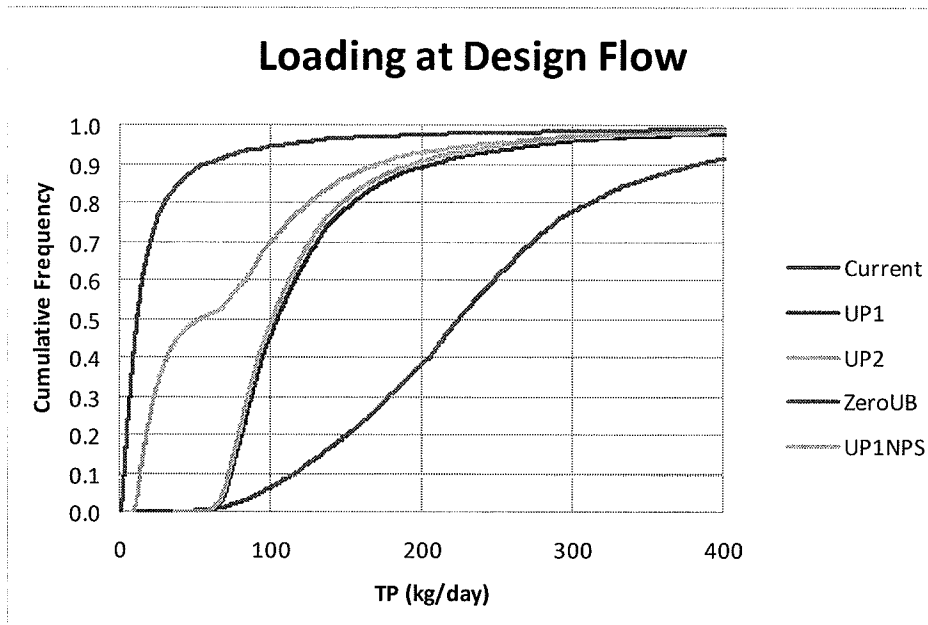


Figure 58: Cumulative frequency distribution for daily TP load under the design flow regime at Millbury

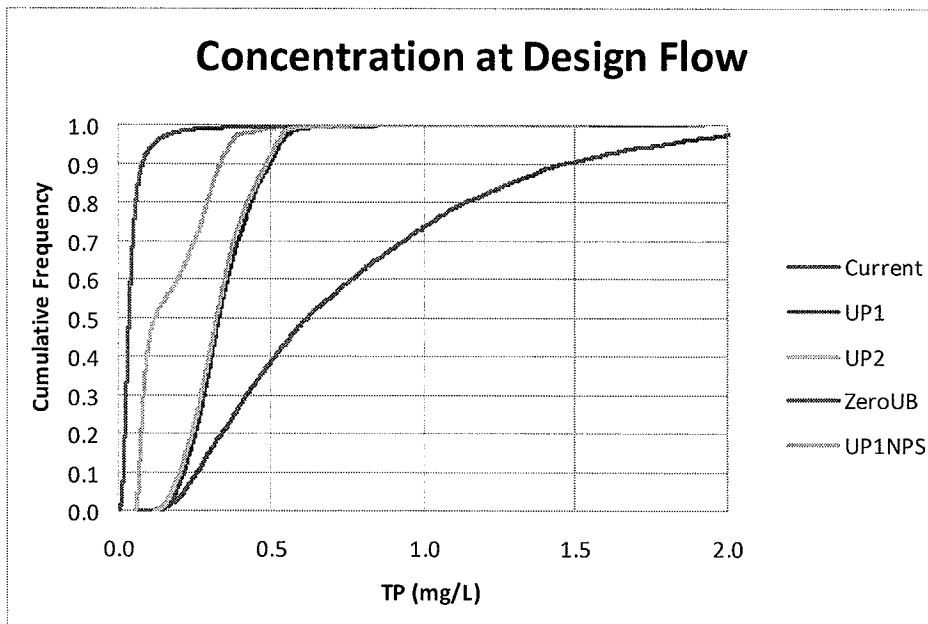


Figure 59: Cumulative frequency distribution for daily average TP concentration under the design flow regime at Millbury

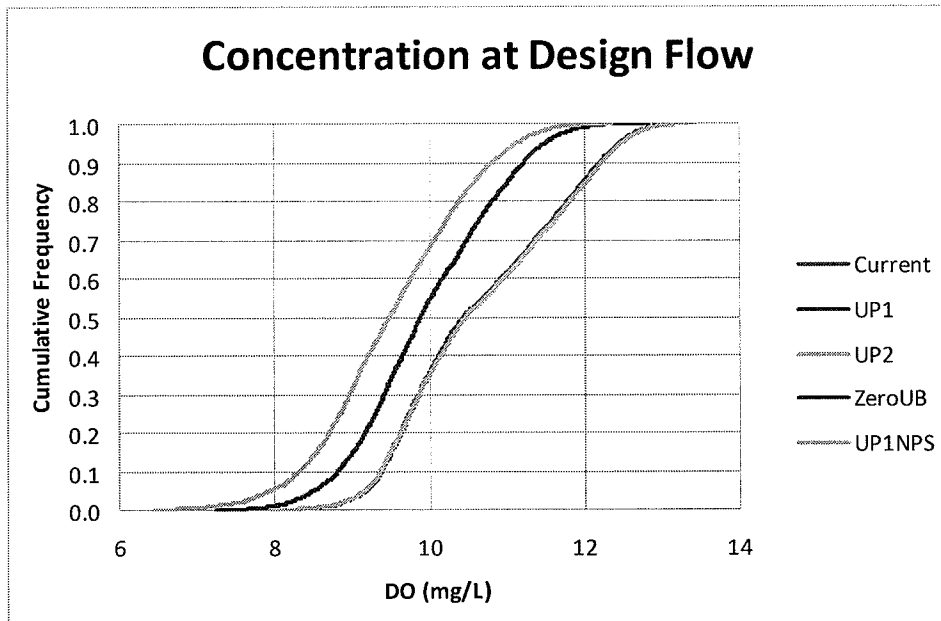


Figure 60: Cumulative frequency distribution for daily average DO concentration under the design flow regime at Millbury

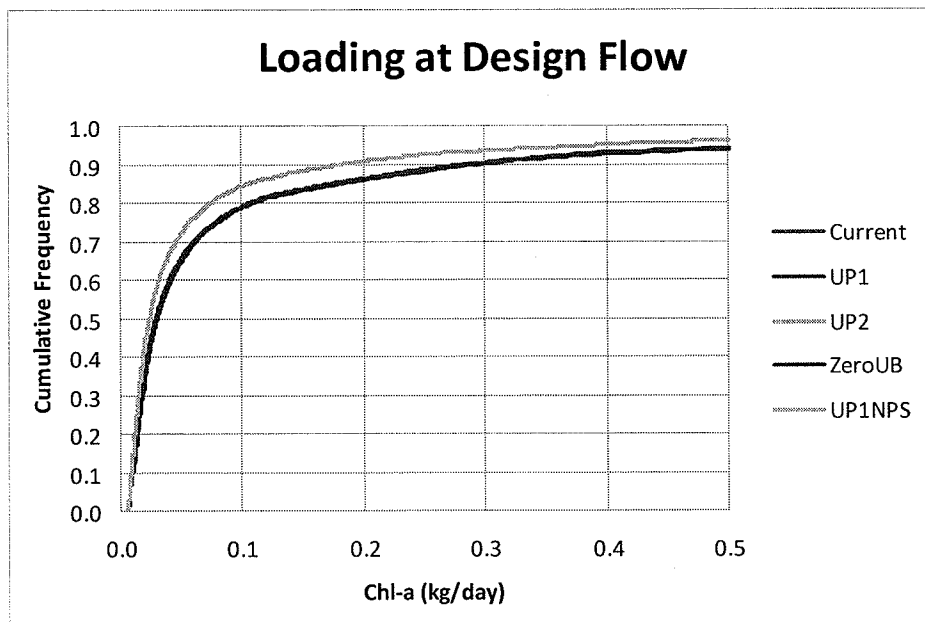


Figure 61: Cumulative frequency distribution for daily Chl-a load under the design flow regime at Millbury

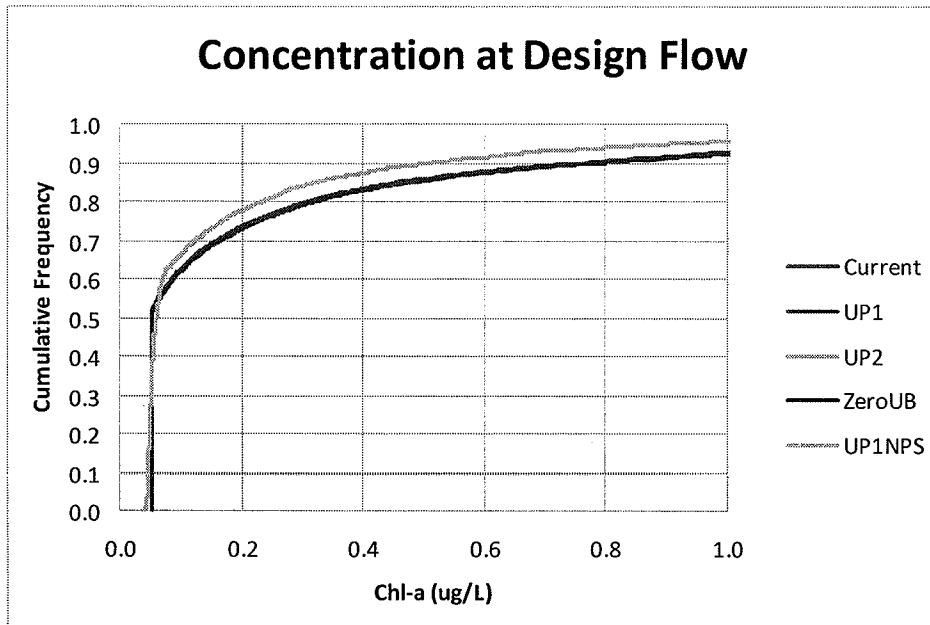


Figure 62: Cumulative frequency distribution for daily average Chl-a concentration under the design flow regime at Millbury

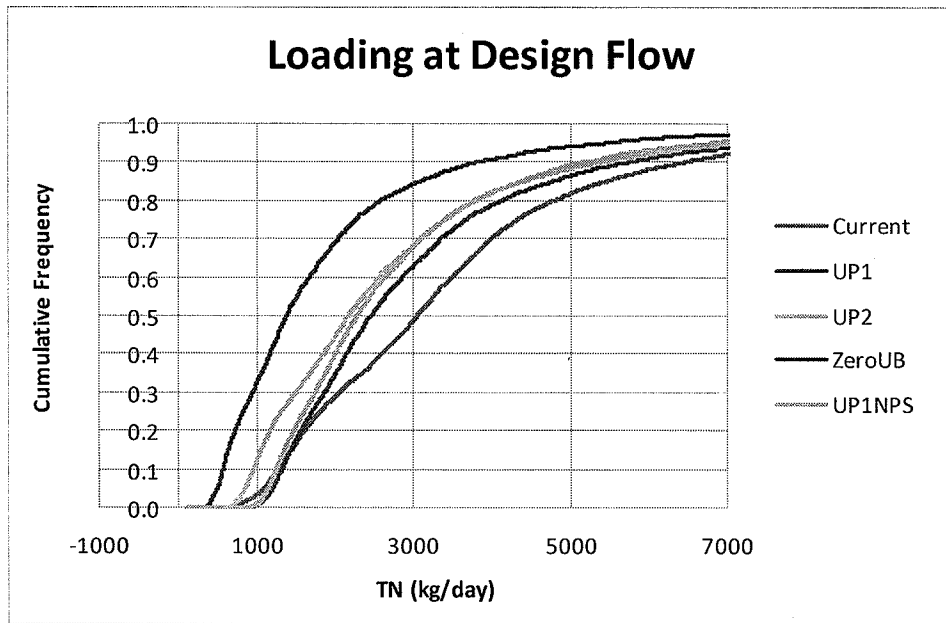


Figure 63: Cumulative frequency distribution for daily TN load under the design flow regime at the MA/RI border

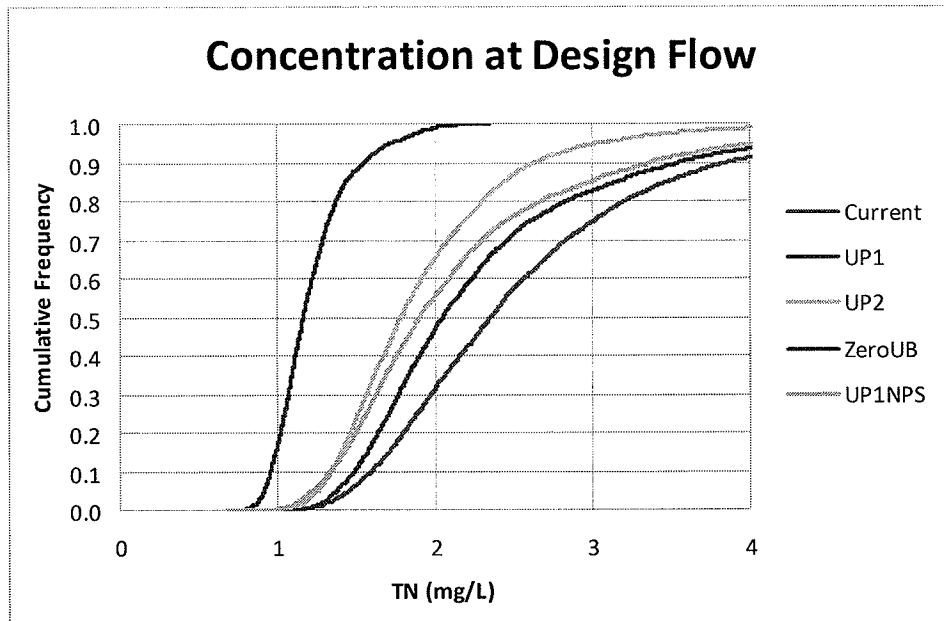


Figure 64: Cumulative frequency distribution for daily average TN concentration under the design flow regime at the MA/RI border

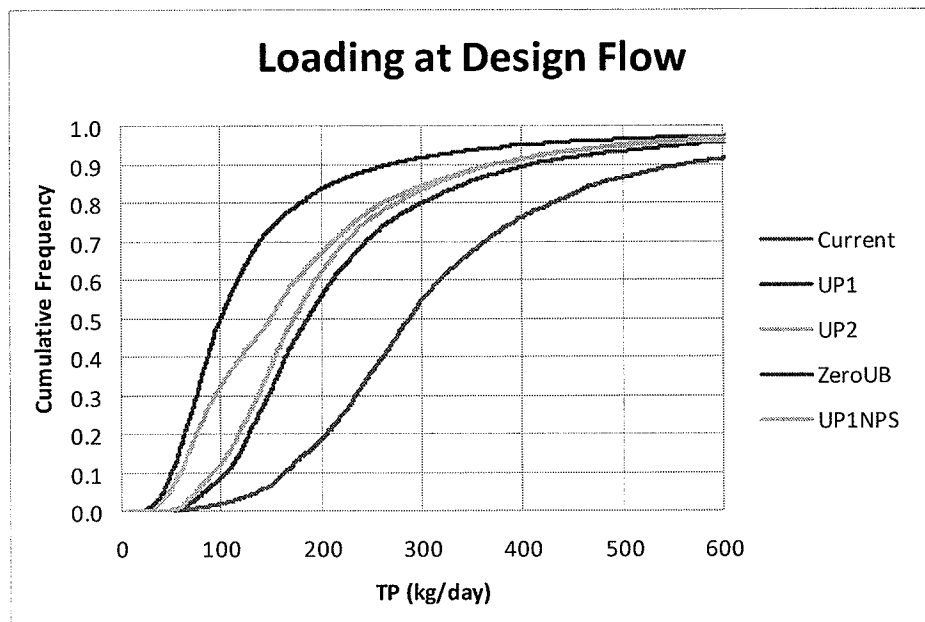


Figure 65: Cumulative frequency distribution for daily TP load under the design flow regime at the MA/RI border

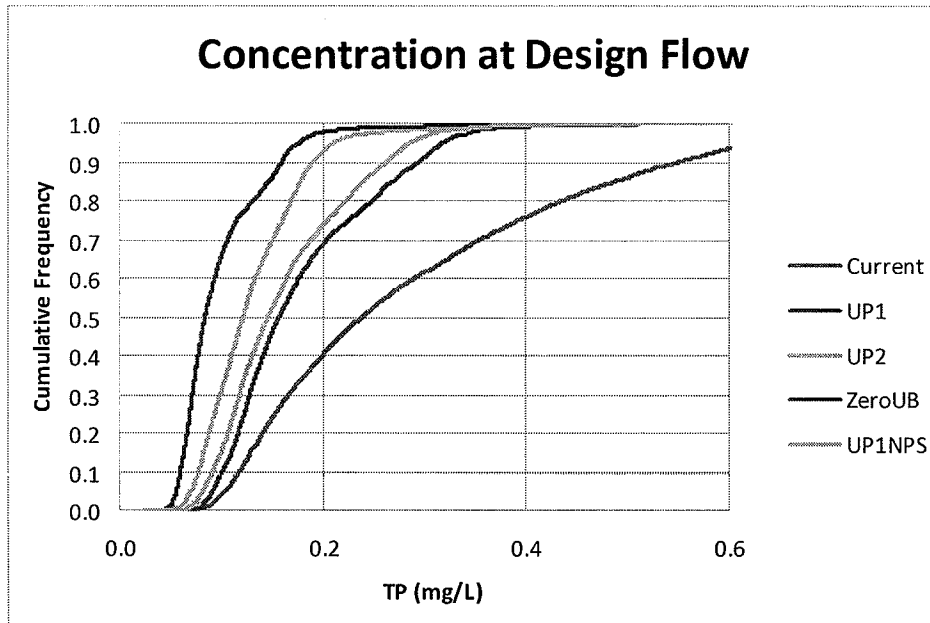


Figure 66: Cumulative frequency distribution for daily average TP concentration under the design flow regime at the MA/RI border

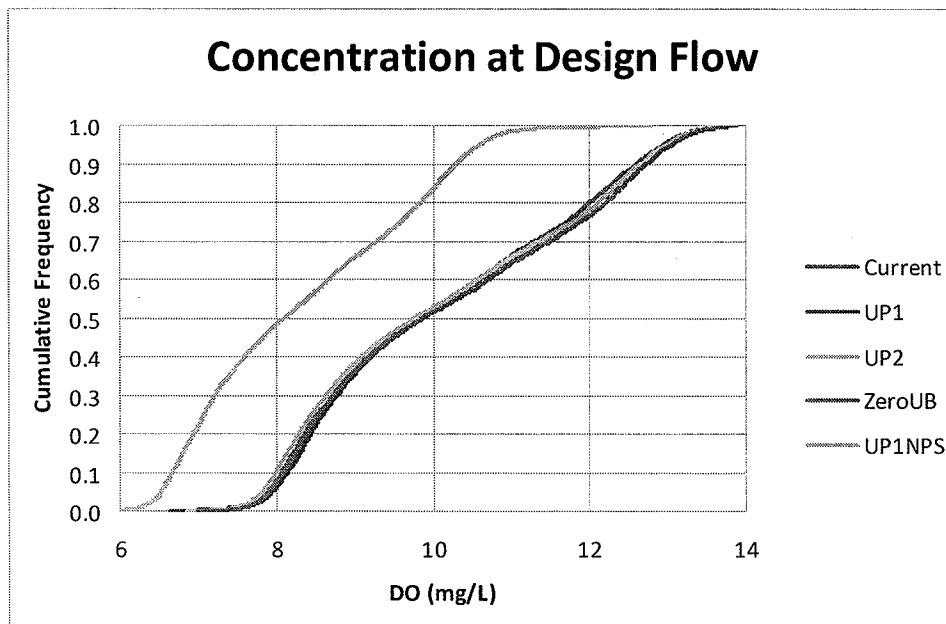


Figure 67: Cumulative frequency distribution for daily average DO concentration under the design flow regime at the MA/RI border

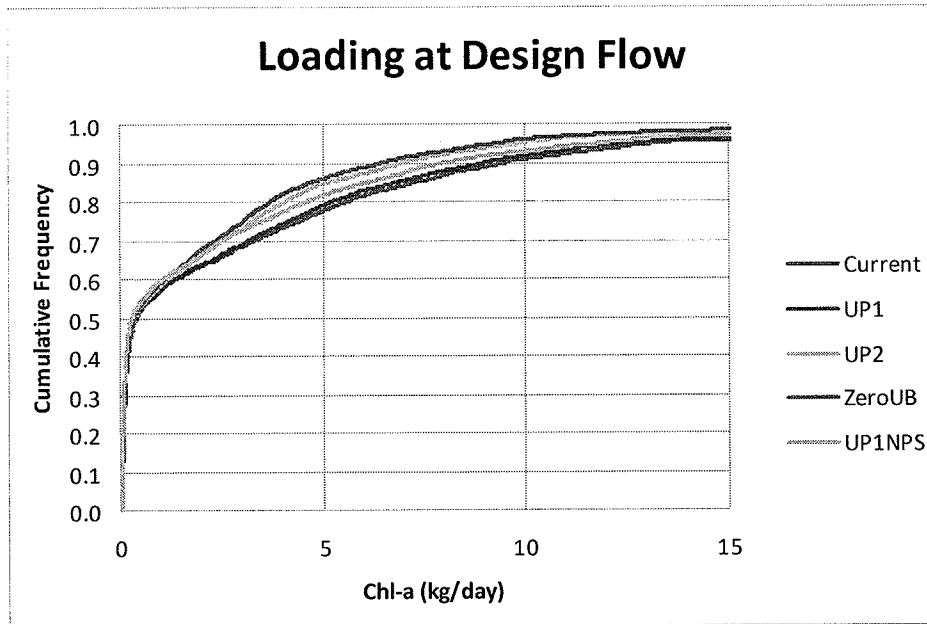


Figure 68: Cumulative frequency distribution for daily Chl-a load under the design flow regime at the MA/RI border

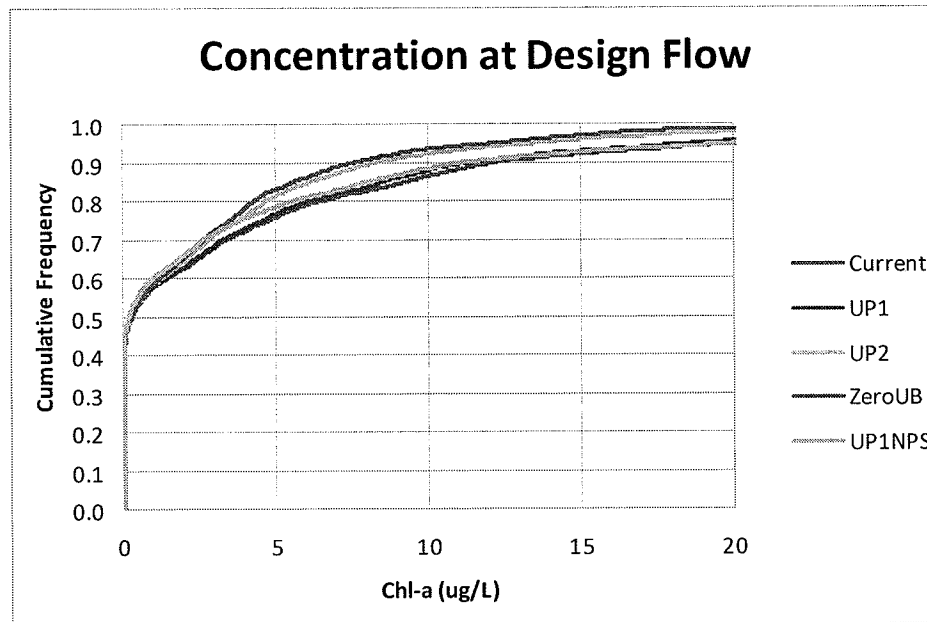


Figure 69: Cumulative frequency distribution for daily average Chl-a concentration under the design flow regime at the MA/RI border

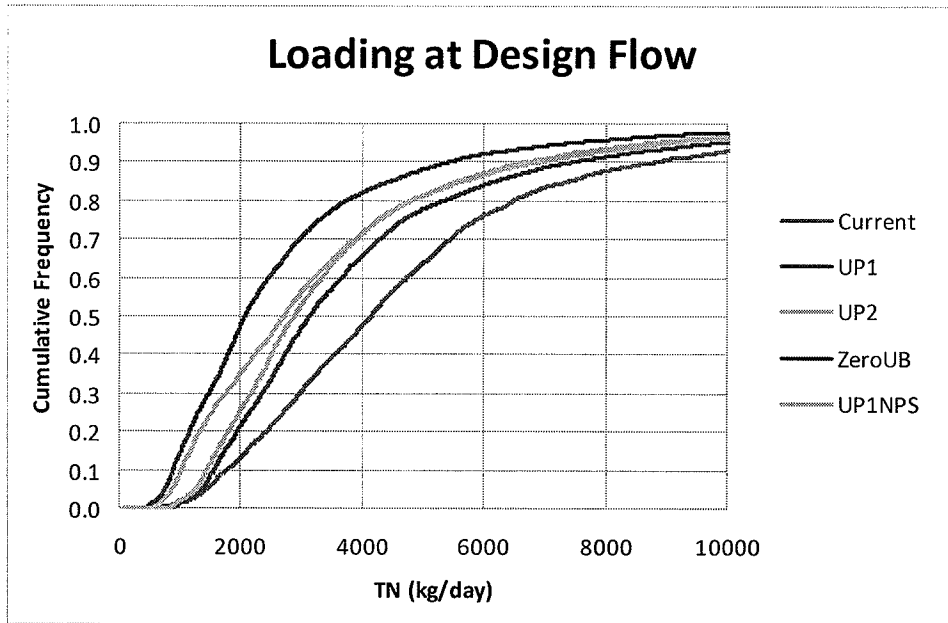


Figure 70: Cumulative frequency distribution for daily TN load under the design flow regime at the basin outlet

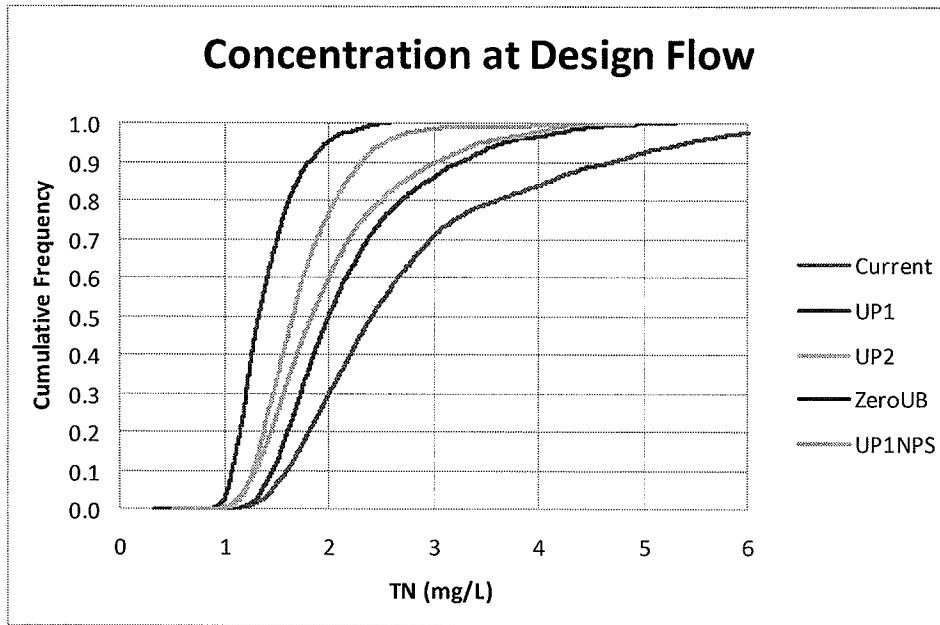


Figure 71: Cumulative frequency distribution for daily average TN concentration under the design flow regime at the basin outlet

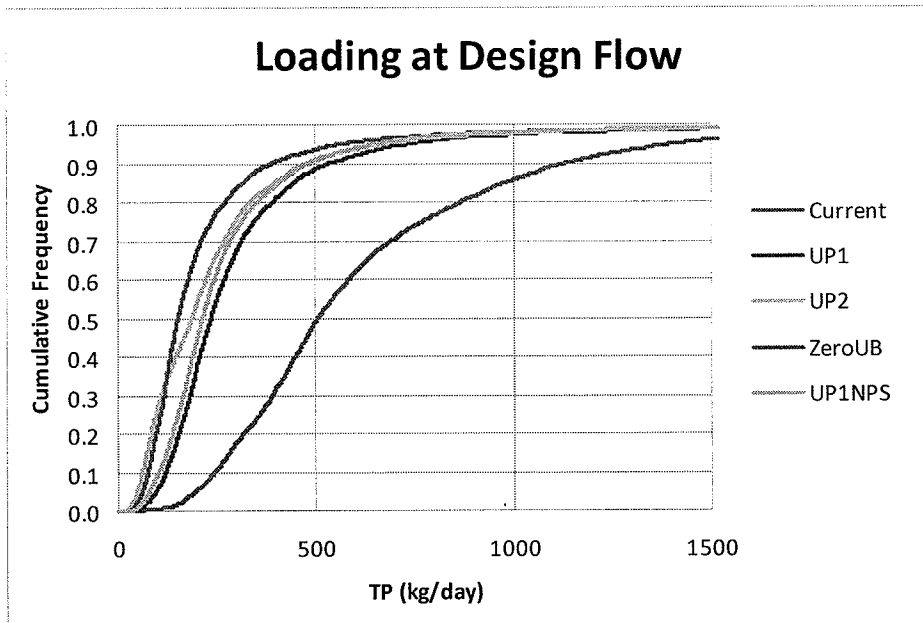


Figure 72: Cumulative frequency distribution for daily TP load under the design flow regime at the basin outlet

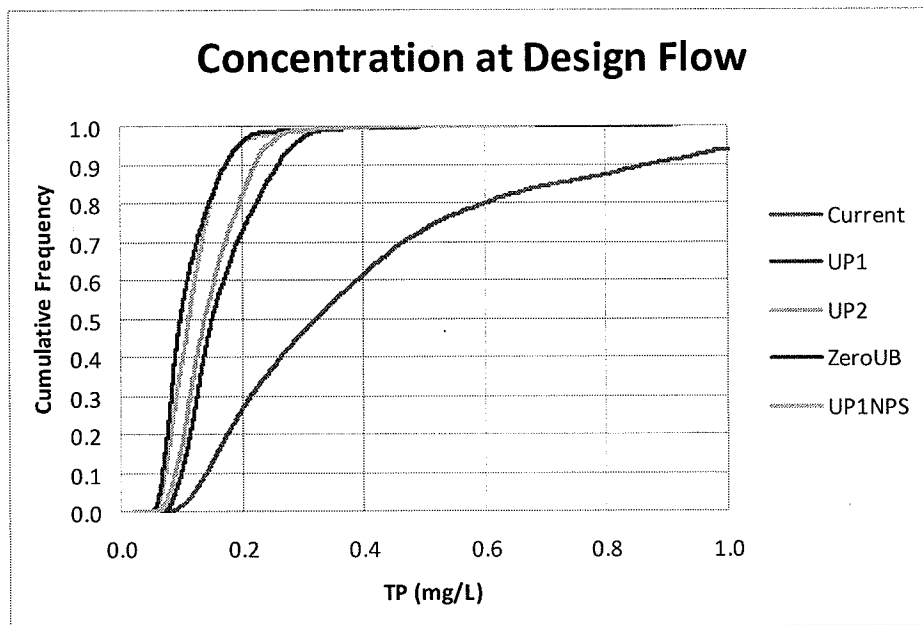


Figure 73: Cumulative frequency distribution for daily average TP concentration under the design flow regime at the basin outlet

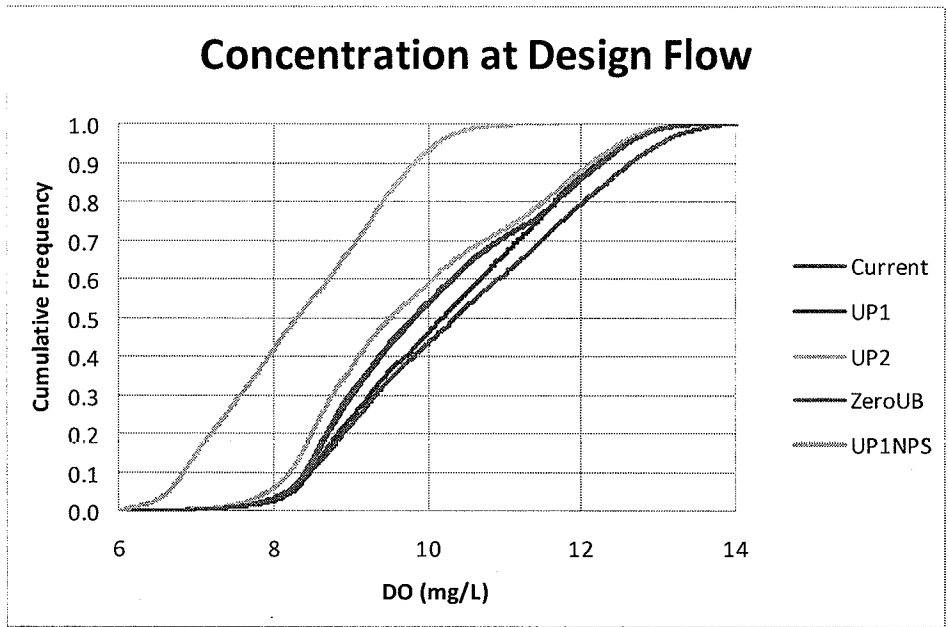


Figure 74: Cumulative frequency distribution for daily average DO concentration under the design flow regime at the basin outlet

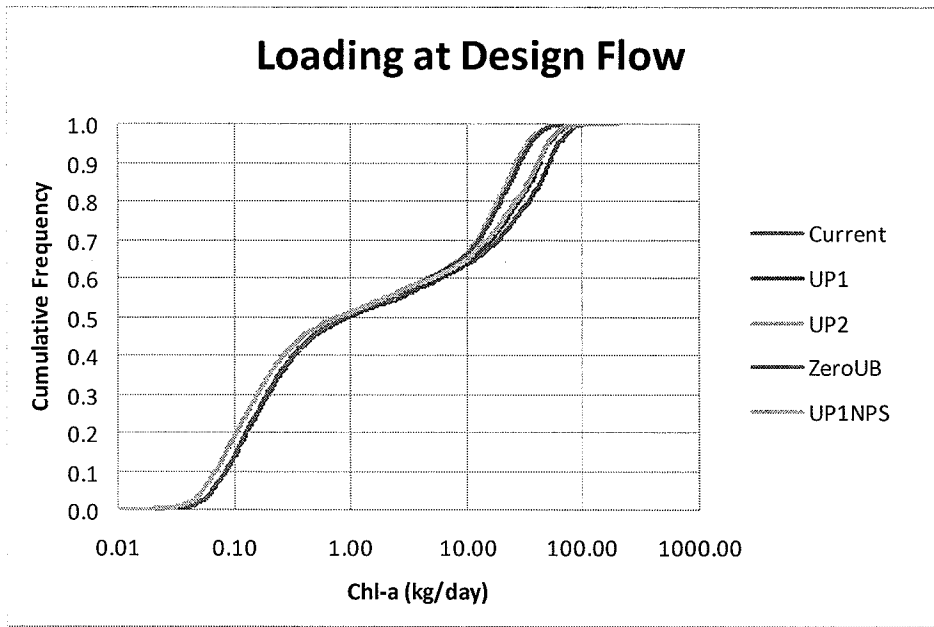


Figure 75: Cumulative frequency distribution for daily Chl-a load under the design flow regime at the basin outlet

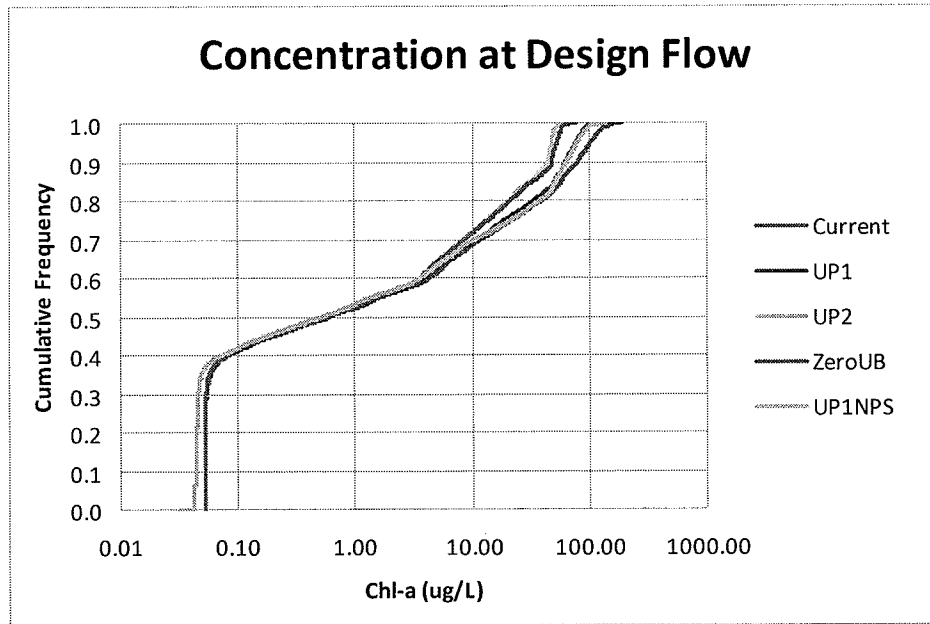


Figure 76: Cumulative frequency distribution for daily average Chl-a concentration under the design flow regime at the basin outlet

Appendix G: Blackstone River HSPF Water Quality Model Schematic

Blackstone River HSPF Model Schematic

Observation Data (◆)		200	202	204	206	208	210	212	214	216	218	220	222	224	226				
Reach																			
River Mile		0.0	0.4	0.8	1.1	1.4	1.8	2.0	2.5	3.1	3.7	4.1	4.5	4.9	5.9				
Distance (miles)			0.4		0.4		0.3		0.3		0.4		0.4		0.4		1.0		0.4
Features		D		D		↑		D				D							
Tributary		SALTERS		PANTEX		Abbott Run		SAYLES				PRATT							
WWTF		MILL																	
DAM	D																		
USGS Gage																			

Observation Data (◆)		228	230	232	234	236	238	240	242	244	246	248	250	252	254						
Reach																					
River Mile		6.3	6.8	7.5	8.1	8.3	8.9	9.3	10.0	10.5	11.1	11.5	12.1	12.5	13.1						
Distance (miles)			0.5		0.7		0.6		0.2		0.6		0.4		0.6		0.4		0.6		0.3
Features			D			D		D		↑				↑							
Tributary			ASHTON			ALBION		MANVILLE	Crookfall Brook					Woonsocket WWTF							
WWTF																					
DAM	D																				
USGS Gage								01112900													01112500

Observation Data (◆)		256	258	260	262	264	266	268	270	272	274	276	278	280	282						
Reach																					
River Mile		13.4	13.7	14.0	14.3	14.8	15.1	15.5	15.7	15.9	16.2	16.5	17.1	17.4	17.6						
Distance (miles)			0.3		0.3		0.3		0.5		0.3		0.4		0.3		0.2		0.3		
Features				↑↑		D						D									
Tributary				Peters River	WOONSOCKET							SARANAC									
WWTF				Mill River	FALLS																
DAM	D																				
USGS Gage																					

Observation Data (◆)		284	286	288	290	292	294	296	298	300	302	304	306	308	310															
Reach																														
River Mile		17.9	18.0	18.8	19.1	19.5	19.9	20.5	21.0	21.6	21.9	22.5	22.9	23.2	23.4															
Distance (miles)			0.1		0.8		0.3		0.4		0.4		0.6		0.5		0.6		0.6		0.3		0.4		0.3		0.2		0.5	
Features		D									↑			↑																
Tributary		Branch River									Uxbridge	Emerson																		
WWTF		ROLLING									WWTF	Brook																		
DAM	D																													
USGS Gage					01111230																									

Blackstone River HSPF Model Schematic

Observation Data (◆)																												
Reach	312		314		316		318		320		322		324		326		328		330		332		334		336		338	
River Mile	23.9		24.7		25.5		25.8		26.0		26.2		27.0		27.8		28.1		28.8		29.3		29.9		30.4		31.0	
Distance (miles)		0.8		0.8		0.3		0.2		0.2		0.8		0.8		0.3		0.7		0.5		0.6		0.5		0.6		0.4
Features																												
Tributary		West River				Mumford River																						
WWTF																												
DAM	D																											
USGS Gage																												

Observation Data (◆)																												
Reach	340		342		344		346		348		350		352		354		356		358		360		362		364		366	
River Mile	31.4		32.0		32.4		33.1		33.4		33.6		34.3		34.9		35.4		35.7		36.3		36.6		37.2		37.6	
Distance (miles)		0.6		0.4		0.7		0.3		0.2		0.7		0.6		0.5		0.3		0.6		0.3		0.6		0.4		1.2
Features																												
Tributary																												
WWTF																												
DAM	D																											
USGS Gage																												

Observation Data (◆)																												
Reach	368		370		372		374		376		378		380		382		384		386		388		390		392		394	
River Mile	38.8		39.0		39.4		39.7		39.8		40.0		40.4		41.1		41.2		41.7		42.2		42.4		42.7		42.9	
Distance (miles)		0.2		0.4		0.3		0.1		0.2		0.4		0.7		0.1		0.5		0.5		0.2		0.3		0.2		0.5
Features																												
Tributary		SAUNDERSVILLE																										
WWTF		MILL																										
DAM	D																											
USGS Gage																												

Observation Data (◆)																												
Reach	396		398		400		402		404		406		408		410		412		414		416		418					
River Mile	43.4		43.9		44.0		44.6		44.7		44.8		44.9		45.3		45.5		45.9		46.2		46.6					
Distance (miles)		0.5		0.1		0.6		0.1		0.1		0.1		0.4		0.2		0.4		0.3		0.4						
Features																												
Tributary																												
WWTF																												
DAM	D																											
USGS Gage																												