TABLE 1–a

LBS PER DAY OF BOD_5

(river mile 40.0 to 32.4)

Flow at Rapide Croche Dam (cfs) (Previous four day average)

Flow (cfs) / Temp ° F	750 Or Less	751 To 1000	1001 To 1250	1251 To 1500	1501 To 1750	1751 To 2000	2001 To 2250	2251 To 2500	2501 To 2750	2751 To 3000	3001 To 3500	3501 To 4000	4001 To 5000	5001 To 8000	8001 Or More
(Previous Day Average)	**MAY – JUNE**														
86.0 OR GREATER	12100	12790	13780	14640	15460	16290	17250	18340	19700	21250	23530	24970	27220	39570	47520
82.0 TO 85.0	12980	13810	14920	15920	16940	18080	19400	20920	22640	23200	24350	25530	30150	43000	52580
78.0 TO 81.0	14380	15350	16600	17840	19260	20910	22210	22590	23340	24250	25050	27250	35380	49270	52870
74.0 TO 77.0	15770	16830	18250	19870	21830	22170	22610	23800	24280	24870	26030	31430	39800	52870	52870
70.0 TO 73.0	17130	18270	20050	21940	22020	22460	23710	24180	24880	25730	28790	36160	44190	52870	52870
66.0 TO 69.0	18520	19840	22010	21940	22280	23580	24130	24850	25870	28070	33110	41340	49570	52870	52870
62.0 TO 65.0	20210	22030	21840	22060	23430	24070	24960	26120	29330	33050	40410	46740	52870	52870	52870
58.0 TO 61.0	22310	21780	21820	23270	24050	25240	27350	31390	35860	41830	46940	52870	52870	52870	52870
54.0 TO 57.0	21600	21510	23070	24130	25780	29890	34900	42040	46150	50410	52870	52870	52870	52870	52870
50.0 TO 53.0	21270	22060	24240	26960	33290	39800	47480	52690	52870	52870	52870	52870	52870	52870	52870
46.0 TO 49.0	22110	24290	29350	37710	48610	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870
42.0 TO 45.0	25220	31510	42930	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870
41.0 OR LESS	36890	48250	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870
(Previous Day Average)	**JULY**														
86.0 OR GREATER	11900	11900	11900	11900	11900	11900	13510	15550	18070	20820	22430	22640	23590	27000	34740
82.0 TO 85.0	11900	11900	11900	11900	12340	14340	16600	19080	22050	22520	22690	23460	24500	31450	40630
78.0 TO 81.0	11900	11900	11900	13650	15960	18560	21470	22820	23080	23130	23730	24600	26210	39430	50540
74.0 TO 77.0	11900	12300	14350	16860	19820	21720	23050	23390	23460	24040	24760	26040	31350	48000	52870
70.0 TO 73.0	12960	14490	17200	20430	21670	22050	23350	23850	24480	25060	26080	30170	37300	52870	52870
66.0 TO 69.0	14950	16960	20410	21690	22000	23340	23890	24620	25610	26410	30100	35570	44020	52870	52870
62.0 TO 65.0	17400	20100	21670	21850	23290	23950	24880	26090	28540	31400	35760	42330	52260	52870	52870
61 OR LESS	20740	21680	21670	23210	24050	25320	27800	31120	34570	38040	43500	51580	52870	52870	52870
(Previous Day Average)	**AUGUST**														
86.0 OR GREATER	11900	11900	11900	11900	11900	11900	11900	11980	13820	15930	19320	22650	23370	25770	30630
82.0 TO 85.0	11900	11900	11900	11900	11900	11900	13450	15250	17540	20120	22710	23280	24200	28680	36100
78.0 TO 81.0	11900	11900	11900	12080	13760	15700	17940	20400	21700	22740	23540	24310	25630	35700	45680
74.0 TO 77.0	11900	11900	13120	15010	17290	19880	21340	21810	22940	23360	24430	25500	28990	43650	52870
70.0 TO 73.0	12450	13640	15730	18270	21100	21360	22650	23000	23540	24290	25500	27920	34160	52250	52870
66.0 TO 69.0	14350	15930	18680	21190	21360	22670	23110	23710	24620	25690	27870	32850	40540	52870	52870
62.0 TO 65.0	16620	18820	21230	21280	22640	23180	23970	25030	26430	29140	33120	39170	48590	52870	52870
61.0 OR LESS	19730	21310	21150	22550	23250	24360	25840	29010	32170	35400	40430	48140	52870	52870	52870
(Previous Day Average)	**SEPTEMBER**														
86.0 OR GREATER	11900	11900	11900	11900	11900	11900	11900	11900	11900	12700	15400	19440	23550	25820	30900
82.0 TO 85.0	11900	11900	11900	11900	11900	11900	11900	12890	14660	16730	20220	22880	24220	28550	36130
78.0 TO 81.0	11900	11900	11900	11900	12510	13890	15600	17610	20220	22030	22610	23940	25430	35030	45680
74.0 TO 77.0	11900	11900	12590	13870	15590	17690	20200	21880	22160	22570	23480	25160	27910	42840	52870
70.0 TO 73.0	12590	13290	14730	16690	19200	20710	21880	22150	22680	23400	24760	26450	32620	51470	52870
66.0 TO 69.0	14100	15180	17320	20120	20730	21900	22260	22810	23680	24740	26320	31140	38800	52870	52870
62.0 TO 65.0	15980	17700	20760	20670	21860	22300	23030	24020	25410	27180	31160	37270	47030	52870	52870
58.0 TO 61.0	18670	20870	20550	21750	22320	23340	24740	26600	30050	33250	38290	46210	52870	52870	52870
54.0 TO 57.0	20760	20370	21550	22370	23820	25880	30150	33950	38050	42320	49160	52870	52870	52870	52870
50.0 TO 53.0	20120	21280	22400	24580	28870	34630	39610	44880	50650	52870	52870	52870	52870	52870	52870

TABLE 1–a (Continued)

Flow (cfs) / Temp °F	750 Or Less	751 To 1000	1001 To 1250	1251 To 1500	1501 To 1750	1751 To 2000	2001 To 2250	2251 To 2500	2501 To 2750	2751 To 3000	3001 To 3500	3501 To 4000	4001 To 5000	5001 To 8000	8001 Or More
46.0 TO 49.0	21130	22330	25570	33280	40820	47690	52870	52870	52870	52870	52870	52870	52870	52870	52870
42.0 TO 45.0	22950	26610	38240	49250	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870
41.0 OR LESS	31510	43060	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870
(Previous Day Average)	**OCTOBER**														
66.0 OR GREATER	12890	13610	15330	17810	20920	21000	21280	21780	22650	23730	25830	30120	38610	52870	52870
62.0 TO 65.0	14390	15790	18640	20930	20970	21300	21980	22910	24320	25990	29770	36340	46710	52870	52870
58.0 TO 61.0	16720	19200	20850	20840	21260	22190	23530	25280	28320	31640	36940	45280	52870	52870	52870
54.0 TO 57.0	20190	19610	20580	21210	22530	24490	27630	32020	36260	40660	47790	52870	52870	52870	52870
50.0 TO 53.0	19270	20220	21090	23080	26050	32320	37430	42800	48740	52870	52870	52870	52870	52870	52870
46.0 TO 49.0	19900	20830	23770	29750	38090	45100	52650	52870	52870	52870	52870	52870	52870	52870	52870
42.0 TO 45.0	21110	24340	34110	45940	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870
41.0 OR LESS	26620	38050	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870	52870

TABLE 1–b

LBS PER DAY OF BOD_5

(river mile 32.4 to 19.2)

Flow at Rapide Croche Dam (cfs) (Previous four day average)

Flow (cfs) / Temp °F	750 Or Less	751 To 1000	1001 To 1250	1251 To 1500	1501 To 1750	1751 To 2000	2001 To 2250	2251 To 2500	2501 To 2750	2751 To 3000	3001 To 3500	3501 To 4000	4001 To 5000	5001 To 8000	8001 Or More
(Previous Day Average)	**MAY – JUNE**														
86.0 OR GREATER	19530	20420	22080	24040	26140	28260	30320	32250	34310	36350	39600	44250	51010	63910	73520
82.0 TO 85.0	19420	20430	22210	24390	26660	28890	31030	33000	35220	38020	41600	46650	53800	68020	79650
78.0 TO 81.0	19150	20410	22530	25040	27560	29970	32480	35440	38760	41280	44870	51070	59210	75180	91320
74.0 TO 77.0	18870	20380	22960	25780	28460	31830	35330	38750	41510	44240	48790	55300	63740	84040	100580
70.0 TO 73.0	18660	20460	23470	26610	30480	34470	38310	41220	44390	47680	52700	60590	68590	95110	100580
66.0 TO 69.0	18680	20900	24270	28610	33110	37570	40930	44350	48270	51980	57640	65690	75390	100580	100580
62.0 TO 65.0	19050	21620	26390	31540	36770	40720	44820	49180	53430	57720	64970	72530	85540	100580	100580
58.0 TO 61.0	19930	23850	29850	36110	40930	46030	51270	55990	61520	67050	73540	84150	100580	100580	100580
54.0 TO 57.0	22540	27670	35440	41500	48070	54250	60610	67770	73110	79020	88690	100580	100580	100580	100580
50.0 TO 53.0	27120	34180	42260	50880	58700	67790	75380	83010	91490	100580	100580	100580	100580	100580	100580
46.0 TO 49.0	35180	42700	53730	65030	77230	87490	98940	100580	100580	100580	100580	100580	100580	100580	100580
42.0 TO 45.0	46260	56540	72970	90120	100580	100580	100580	100580	100580	100580	100580	100580	100580	100580	100580
41.0 OR LESS	63960	81400	100580	100580	100580	100580	100580	100580	100580	100580	100580	100580	100580	100580	100580
(Previous Day Average)	**JULY**														
86.0 OR GREATER	19410	20220	22000	23990	25710	26170	26980	28180	29240	29780	31330	34160	38470	50880	59440
82.0 TO 85.0	19570	20540	22190	24300	26280	27480	28340	29090	29860	31520	33910	36900	42800	55660	66240
78.0 TO 81.0	19430	20700	22610	24790	26830	28610	30110	31750	33760	35510	38010	43030	49440	64460	79010
74.0 TO 77.0	19460	20690	22950	25250	27350	29900	33050	35410	37540	39570	43590	48790	55230	74500	93610
70.0 TO 73.0	19270	20860	23210	25670	28940	32850	36710	39140	41770	44770	48930	54010	61490	86460	100580
66.0 TO 69.0	19230	21110	23690	27390	31930	36490	39940	43480	46990	50190	53910	59720	69370	100580	100580
62.0 TO 65.0	19500	21570	25470	30620	36130	40270	44530	49080	52330	55260	60080	67690	80270	100580	100580
61.0 OR LESS	20140	23290	29180	35830	40920	46310	51590	55020	58840	62930	69640	80040	97410	100580	100580

TABLE 1–b (Continued)

Flow (cfs) / Temp ° F	750 Or Less	751 To 1000	1001 To 1250	1251 To 1500	1501 To 1750	1751 To 2000	2001 To 2250	2251 To 2500	2501 To 2750	2751 To 3000	3001 To 3500	3501 To 4000	4001 To 5000	5001 To 8000	8001 Or More
(Previous Day Average)							**AUGUST**								
86.0 OR GREATER	17100	17820	19550	21660	23750	25630	27250	28660	29950	31130	32730	34200	37550	47950	54910
82.0 TO 85.0	17100	17980	19830	22050	24160	26080	27770	29210	30630	31780	34020	36110	41620	52690	61150
78.0 TO 81.0	17100	18250	20290	22640	24880	26880	28660	30250	32660	35080	37160	41870	47280	60390	73230
74.0 TO 77.0	17100	18430	20740	23240	25590	27710	30360	33520	36040	38390	42230	46740	52860	69620	86960
70.0 TO 73.0	17100	18620	21190	23820	26350	30100	33650	36450	39290	42320	46710	51760	58250	81040	100580
66.0 TO 69.0	17110	19080	21860	24970	29300	33490	36810	40050	43740	47670	51710	56920	65590	94940	100580
62.0 TO 65.0	17560	19750	23220	28190	33180	37130	41120	45370	50290	52990	57310	64230	76010	100580	100580
61.0 OR LESS	18330	21220	26890	32890	37770	42880	48300	52880	56320	60040	66160	75970	92360	100580	100580
(Previous Day Average)							**SEPTEMBER**								
86 OR GREATER	17100	17100	17100	18950	21280	23430	25440	27290	29040	30650	32770	34940	38300	48160	55220
82 TO 85	17100	17100	17100	19430	21810	24010	25990	27810	29670	31340	32690	36020	41730	52560	61180
78 TO 81	17100	17100	17620	20220	22700	25020	27140	29050	30780	32160	35280	40840	46540	59660	73230
74 TO 77	17100	17100	18250	20960	23540	25940	28140	30320	32850	35340	39370	45460	51770	68700	86890
70 TO 73	17100	17100	18850	21690	24340	27510	30270	33010	36010	39020	44360	50300	56670	80100	100580
66 TO 69	17100	17100	19690	22660	26690	30070	33330	36690	40350	44350	49880	55150	63700	94080	100580
62 TO 65	17100	17520	20730	25590	29710	33590	37660	41850	46850	51040	55250	62160	74200	100580	100580
58 TO 61	17100	18710	24240	29320	34110	39220	44600	50480	54100	57710	63740	73690	90340	100580	100580
54 TO 57	17710	22400	28760	34820	41390	48550	54250	58710	63740	69330	78450	92890	100580	100580	100580
50 TO 53	22010	27710	35520	44320	53280	59620	66000	73280	81330	90010	100580	100580	100580	100580	100580
46 TO 49	28330	35720	47640	59240	67770	77480	88370	100450	100580	100580	100580	100580	100580	100580	100580
42 TO 45	38730	50510	66520	79740	94890	100580	100580	100580	100580	100580	100580	100580	100580	100580	100580
41 OR LESS	56940	73990	96270	100580	100580	100580	100580	100580	100580	100580	100580	100580	100580	100580	100580
(Previous Day Average)							**OCTOBER**								
66 OR GREATER	17100	17100	17350	20360	23070	26070	29340	32820	36620	40820	48090	54100	63500	96160	100580
62 TO 65	17100	17100	18280	22130	25690	29540	33740	37970	43200	48860	53790	61140	73830	100580	100580
58 TO 61	17100	17100	20910	25210	29930	35110	40550	46650	52270	55950	62210	72590	90220	100580	100580
54 TO 57	17100	18930	24460	30400	37000	44160	51740	56540	61660	67340	76760	91840	100580	100580	100580
50 TO 53	18180	23110	30750	39480	49160	56990	63400	70680	78880	87730	100580	100580	100580	100580	100580
46 TO 49	23260	30400	42140	54620	64450	74170	85110	97250	100580	100580	100580	100580	100580	100580	100580
42 TO 45	32620	44150	60850	75480	90500	100580	100580	100580	100580	100580	100580	100580	100580	100580	100580
41 OR LESS	50540	66850	90710	100580	100580	100580	100580	100580	100580	100580	100580	100580	100580	100580	100580

TABLE 1–c

LBS PER DAY OF BOD_5

(river mile 73.0 to 0.0)

Flow at Rapide Croche Dam (cfs) (Previous four day average)

Flow (cfs) / Temp °F	750 Or Less	751 To 1000	1001 To 1250	1251 To 1500	1501 To 1750	1751 To 2000	2001 To 2250	2251 To 2500	2501 To 2750	2751 To 3000	3001 To 3500	3501 To 4000	4001 To 5000	5001 To 8000	8001 Or More
(Previous Day Average)	**MAY – JUNE**														
				A											
86 OR GREATER	30750	30750	30750	30750	30750	30750	30750	30750	40850	53610	76790	115120	146430	146430	146430
82 TO 85	30750	30750	30750	30750	30750	30750	30750	34900	45170	57470	79680	116190	146430	146430	146430
78 TO 81	30750	30750	30750	30750	30750	30750	34270	42680	52900	64900	86230	120710	146430	146430	146430
74 TO 77	30750	30750	30750	30750	30750	35050	42600	51730	62450	74710	95970	129530	146430	146430	146430
70 TO 73	30750	30750	30750	30750	35840	43520	52590	63000	74760	87820	109830	143550	146430	146430	146430
66 TO 69	30750	30750	30750	35230	44060	54050	65170	77420	90750	105170	128740	146430	146430	146430	146430
62 TO 65	30750	30750	31830	42800	54720	67560	81290	95910	111380	127680	146430	146430	146430	146430	146430
58 TO 61	30750	30750	38350	53200	68750	84980	101880	119410	137560	146430	146430	146430	146430	146430	146430
54 TO 57	30750	30750	48080	67350	87080	107260	127860	146430	146430	146430	146430	146430	146430	146430	146430
50 TO 53	30750	37970	61960	86190	110650	135320	146430	146430	146430	146430	146430	146430	146430	146430	146430
46 TO 49	30750	51180	80920	110660	140400	146430	146430	146430	146430	146430	146430	146430	146430	146430	146430
42 TO 45	44490	69850	105880	141690	146430	146430	146430	146430	146430	146430	146430	146430	146430	146430	146430
41 OR LESS	64630	94910	137800	146430	146430	146430	146430	146430	146430	146430	146430	146430	146430	146430	146430
(Previous Day Average)	**JULY – AUGUST**														
				A											
86 OR GREATER	57130	52880	48150	44920	43130	42730	43650	45830	49200	53720	62490	77590	106550	146430	146430
82 TO 85	54020	50450	46650	44340	43460	43940	45710	48730	52930	58250	68180	84760	115790	146430	146430
78 TO 81	49840	47400	45190	44430	45060	47030	50270	54710	60300	66970	78890	97990	132570	146430	146430
74 TO 77	46630	45390	44860	45750	48010	51560	56350	62310	69390	77530	91570	113400	146430	146430	146430
70 TO 73	44390	44410	45670	48310	52280	57520	63960	71550	80220	89910	106220	130970	146430	146430	146430
62 TO 65	42830	45590	50700	57140	64840	73740	83780	94910	107050	120140	141440	146430	146430	146430	146430
61 OR LESS	43510	47740	54930	63410	73120	84000	95990	109030	123050	138000	146430	146430	146430	146430	146430
(Previous Day Average)	**SEPTEMBER – OCTOBER**														
86 OR GREATER	30750	30750	30750	30750	36420	46400	57180	68680	80820	93520	113440	141190	146430	146430	146430
82 TO 85	30750	30750	30750	31260	38930	47480	56840	66910	77630	88890	106660	131540	146430	146430	146430
78 TO 81	30750	30750	30750	35830	41960	48970	56770	65290	74440	84150	99570	121310	146430	146430	146430
74 TO 77	30750	31200	34690	39210	44690	51050	58190	66050	74550	83590	98000	118380	146430	146430	146430
70 TO 73	31980	33930	37670	42440	48170	54760	62150	70240	78960	88230	102980	123800	146430	146430	146430
66 TO 69	32990	35750	40640	46550	53410	61140	69660	78880	88730	99120	115550	138590	146430	146430	146430
62 TO 65	33500	37700	44620	52570	61470	71230	81770	93020	104890	117300	136740	146430	146430	146430	146430
58 TO 61	34550	40800	50660	61540	73370	86050	99520	113680	128470	143790	146430	146430	146430	146430	146430
54 TO 57	37170	46100	59790	74500	90140	106650	123930	141910	146430	146430	146430	146430	146430	146430	146430
50 TO 53	42390	54630	73040	92470	112840	134060	146430	146430	146430	146430	146430	146430	146430	146430	146430
46 TO 49	51250	67430	91460	116500	142480	146430	146430	146430	146430	146430	146430	146430	146430	146430	146430
42 TO 45	64790	85520	116070	146430	146430	146430	146430	146430	146430	146430	146430	146430	146430	146430	146430
41 OR LESS	84030	109960	146430	146430	146430	146430	146430	146430	146430	146430	146430	146430	146430	146430	146430

TABLE 1–m

LBS PER DAY OF BOD_5

(river mile 205.3 to 171.9)

Previous Day Average Flow at Biron Dam (cfs)

FLOW (cfs) / Temp ° F	0 To 999	1000 To 1199	1200 To 1499	1500 To 1999	2000 To 2499	2500 To 2999	3000 To 3999	4000 To 4999	5000 To 5999	6000 Or More
Previous Day Average					**MAY – JUNE**					
82 OR GREATER	14090	19450	24280	32740	43710	56020	57890	109930	126010	126010
78 TO 81	14270	20150	25460	34860	47570	61490	63040	124130	126010	126010
74 TO 77	14430	20840	26730	37330	51730	67770	69550	126010	126010	126010
70 TO 73	15060	22070	28570	40280	56940	76260	78310	126010	126010	126010
66 TO 69	17220	25400	33030	46930	67170	90740	92900	126010	126010	126010
62 TO 65	20420	30380	39740	57380	83000	113150	116070	126010	126010	126010
58 TO 61	25230	37960	50230	73270	107730	126010	126010	126010	126010	126010
54 TO 57	32780	50170	67460	98190	126010	126010	126010	126010	126010	126010
50 TO 53	44980	70700	96520	126010	126010	126010	126010	126010	126010	126010
46 TO 49	65950	105300	126010	126010	126010	126010	126010	126010	126010	126010
42 TO 45	104080	126010	126010	126010	126010	126010	126010	126010	126010	126010
41 OR LESS	126010	126010	126010	126010	126010	126010	126010	126010	126010	126010
Previous Day Average					**JULY–AUGUST**					
82 OR GREATER	10220	12730	15260	20280	27850	36910	37990	77790	106430	121800
78 TO 81	10220	13400	16750	23250	32790	44090	45460	95180	126010	126010
74 TO 77	10220	14460	18710	26700	38440	52210	53520	116110	126010	126010
70 TO 73	10770	15940	20990	30630	44740	61400	63240	126010	126010	126010
66 TO 69	13080	19510	25890	37870	55600	76530	78600	126010	126010	126010
62 TO 65	16210	24690	32910	48560	71670	99270	102140	126010	126010	126010
61 OR LESS	20900	32370	43510	64910	90410	126010	126010	126010	126010	126010
Previous Day Average					**SEPTEMBER – OCTOBER**					
82 OR GREATER	10220	10220	10220	11890	17810	24650	25520	54880	76010	87260
78 TO 81	10220	10220	10220	14100	21750	30380	31340	69790	97910	113060
74 TO 77	10220	10220	10880	17140	26390	37320	38460	89310	122210	126010
70 TO 73	10220	10220	13270	20940	32350	45880	47080	110380	126010	126010
66 TO 69	10220	12590	17740	27700	42400	59880	61710	126010	126010	126010
62 TO 65	10220	17080	24020	37280	57030	80460	82480	126010	126010	126010
58 TO 61	14260	23670	33250	51710	79170	111910	115150	126010	126010	126010
54 TO 57	20210	34030	47890	74560	114650	126010	126010	126010	126010	126010
50 TO 53	30240	51240	72530	113710	126010	126010	126010	126010	126010	126010
46 TO 49	47330	80810	114710	126010	126010	126010	126010	126010	126010	126010
42 TO 45	78580	126010	126010	126010	126010	126010	126010	126010	126010	126010
41 OR LESS	126010	126010	126010	126010	126010	126010	126010	126010	126010	126010

TABLE 2–m

LBS PER DAY OF BOD5

(river mile 271.2 to 258.5)

Previous Day Average Flow at Rothschild Dam (cfs)

FLOW (cfs) TEMP °F	0 To 980	981 To 1220	1221 To 1470	1471 To 1730	1731 To 1990	1991 To 2260	2261 To 2540	2541 To 2830	2831 To 3130	3131 To 3430	3431 To 3780	3781 To 4230	4231 To 4730	4731 To 5250	5251 To 5780	5781 To 6340	6341 To 6910	6911 Or More
Previous Day Average									**MAY – JUNE**									
	A		B								C							
78+	4773	6406	5804	4945	5338	6185	5632	5264	4957	5031	4994	5411	6246	7376	9033	11145	13085	14769
74 TO 77	5964	6492	5350	5215	4576	5841	5509	5202	5190	5325	5780	6627	8137	10114	12852	14290	16476	18907
70 TO 73	5644	5853	5436	5620	6381	5927	5706	5755	6013	6516	7277	8628	10801	13085	15174	17618	20356	22897
66 TO 69	5252	6578	6516	7118	6639	6344	6565	6737	7302	8247	9438	11477	13566	16009	18723	21731	25056	25056
62 TO 65	7277	6700	7449	6958	6725	6799	7253	8076	9266	10814	13011	14524	17347	20503	24039	25056	25056	25056
58 TO 61	6897	7842	7241	7056	7290	7916	9082	10752	13085	14413	16500	19361	23180	25056	25056	25056	25056	25056
54 TO 57	8235	7548	7363	7793	8849	10580	13085	14855	17298	20000	22959	25056	25056	25056	25056	25056	25056	25056
50 TO 53	7855	7707	8432	10151	13085	15150	18109	21411	25021	25056	25056	25056	25056	25056	25056	25056	25056	25056
46 TO 49	8063	9254	12140	14978	18600	22713	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056
42 TO 45	10187	13750	18182	23339	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056
41 OR less	15874	22234	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056
Previous Day Average									**JULY – AUGUST**									
	A		B								C							
78 OR more	5657	7241	6295	5448	5865	6737	6197	5902	5657	5681	5865	6258	7167	8407	10003	12275	13603	15408
74 TO 77	6774	6909	5890	6258	6934	6381	6025	5865	5902	6136	6590	7572	9045	11170	13085	14929	17077	19472
70 TO 73	6086	6283	5976	6774	6835	6418	6283	6369	6688	7253	8051	9451	11783	13566	15751	18170	20871	23843
66 TO 69	5743	6885	6897	7449	7032	6897	7044	7339	7990	8923	10151	12324	14118	16537	19238	22197	25056	25056
62 TO 65	7363	7020	7756	7327	7179	7302	7793	8689	9893	11587	13085	15051	17875	20994	24481	25056	25056	25056
58 TO 61	7130	8088	7609	7449	7744	8493	9696	11489	13085	14953	17028	19864	23671	25056	25056	25056	25056	25056
54 TO 57	8456	7842	7793	8284	9414	11280	13173	15408	17839	20540	23486	25056	25056	25056	25056	25056	25056	25056
50 TO 53	8149	8100	8960	10838	13085	15714	18698	22001	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056
46 TO 49	8456	9831	12950	15579	19226	23351	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056
42 TO 45	10764	13824	18882	24076	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056
41 OR less	16599	23044	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056

TABLE 2–m (Continued)

FLOW (cfs) / TEMP °F	0 To 980	981 To 1220	1221 To 1470	1471 To 1730	1731 To 1990	1991 To 2260	2261 To 2540	2541 To 2830	2831 To 3130	3131 To 3430	3431 To 3780	3781 To 4230	4231 To 4730	4731 To 5250	5251 To 5780	5781 To 6340	6341 To 6910	6911 Or More
Previous Day Average	A		B			**SEPTEMBER**					C							
78 OR more	4576	5362	4883	4576	4576	4932	4576	4576	4576	4576	4576	4576	4576	5767	7339	9365	12326	13738
74 TO 77	4969	5755	4576	4576	5338	4576	4576	4576	4576	4576	4576	5031	6651	8640	11182	13308	15555	18035
70 TO 73	4908	5178	5583	5608	5485	4883	4576	4576	4797	5288	6025	7314	9451	12706	14278	16807	19607	22688
66 TO 69	4736	5902	5743	6283	5694	5509	5620	5780	6234	7118	8333	10335	13085	15199	18023	21092	24481	25056
62 TO 65	6467	6430	6725	6148	5865	6013	6393	7106	8260	9782	11833	13775	16660	19864	23450	25056	25056	25056
58 TO 61	6369	7142	6504	6283	6418	7081	8149	9770	12029	13676	15788	18686	22578	25056	25056	25056	25056	25056
54 TO 57	7634	6811	6541	6934	7928	9623	12485	14106	16562	19300	22283	25056	25056	25056	25056	25056	25056	25056
50 TO 53	7142	6872	7523	9156	11906	14327	17323	20650	24297	25056	25056	25056	25056	25056	25056	25056	25056	25056
46 TO 49	7118	8223	10838	14057	17704	21841	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056
42 TO 45	8947	13085	17139	22320	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056
41 OR less	14560	20957	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056
Previous Day Average	A		B			**OCTOBER**					C							
78 OR more	4576	4638	4576	4687	4576	4699	4576	4576	4576	4576	4576	4576	4576	4871	6418	8358	11110	13085
74 TO 77	4576	5583	4576	4576	4994	4576	4576	4576	4576	4576	4576	4576	5878	7719	10114	13394	14843	17311
70 TO 73	4576	4896	5288	5841	5080	4576	4576	4576	4576	4699	5460	6602	8677	13001	13701	16181	18956	22013
66 TO 69	4576	5730	5485	6050	5448	5117	5252	5313	5792	6578	7707	9610	12729	14708	17458	20503	23879	25056
62 TO 65	6160	7363	6479	5915	5583	5583	5890	6664	7744	9230	11157	13308	16157	19337	22909	25056	25056	25056
58 TO 61	8051	6934	6295	5988	6074	6627	7695	9254	11391	13234	15322	18195	22062	25056	25056	25056	25056	25056
54 TO 57	7449	6614	6283	6590	7535	9156	11884	13676	16120	18833	21792	25056	25056	25056	25056	25056	25056	25056
50 TO 53	6909	6565	7155	8702	11317	13897	16869	20184	23793	25056	25056	25056	25056	25056	25056	25056	25056	25056
46 TO 49	6823	7805	10335	13615	17249	21350	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056
42 TO 45	8505	12717	16648	21792	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056
41 OR less	14057	20405	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056	25056

TABLE 3–m

LBS PER DAY OF BOD_5

(river mile 258.4 to 258.2)

Previous Day Average Flow at Rothschild Dam (cfs)

FLOW (cfs) / TEMP °F	0 To 980	981 To 1220	1221 To 1470	1471 To 1730	1731 To 1990	1991 To 2260	2261 To 2540	2541 To 2830	2831 To 3130	3131 To 3430	3431 To 3780	3781 To 4230	4231 To 4730	4731 To 5250	5251 To 5780	5781 To 6340	6341 To 6910	6911 Or More
Previous Day Average									**MAY – JUNE**									
	A			B							C							
78 OR more	1268	1231	1275	1370	1438	1483	1561	1659	1785	1918	2084	2299	2584	2907	3251	3376	4145	4366
74 TO 77	1173	1187	1292	1408	1554	1547	1666	1819	1989	2186	2394	2676	3043	3376	3376	4233	4838	5512
70 TO 73	1115	1173	1302	1421	1493	1632	1802	1999	2054	2469	2730	3081	3376	2900	4478	5155	5913	6617
66 TO 69	1132	1211	1360	1476	1629	1826	2050	2305	2588	2887	3210	3376	4033	4709	5461	6294	7215	7300
62 TO 65	1156	1343	1476	1653	1877	2142	2441	2771	3121	3376	3376	4298	5080	5954	6933	7300	7300	7300
58 TO 61	1302	1479	1690	1959	2278	2645	3043	3376	3376	4267	4845	5637	6695	7300	7300	7300	7300	7300
54 TO 57	1483	1731	2071	2472	2924	3376	3376	4390	5066	5814	6634	7300	7300	7300	7300	7300	7300	7300
50 TO 53	1768	2190	2707	3288	3376	4471	5291	6205	7205	7300	7300	7300	7300	7300	7300	7300	7300	7300
46 TO 49	2305	2975	3376	4424	5427	6566	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300
42 TO 45	3240	4084	5311	6739	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300
41 OR less	4672	6433	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300
Previous Day Average									**JULY – AUGUST**									
	A			B							C							
78 OR more	1374	1364	1442	1554	1629	1663	1748	1850	1979	2118	2275	2492	2775	3087	3376	3376	4043	4543
74 TO 77	1285	1333	1452	1554	1619	1717	1846	1999	2169	2363	2574	2846	3213	3376	4145	4410	5005	5568
70 TO 73	1234	1316	1459	1554	1653	1799	1972	2173	2390	635	2897	3244	3376	4033	4638	5308	6056	6878
66 TO 69	1245	1347	1506	1622	1782	1976	2207	2462	2737	3040	3359	3376	4186	4855	5603	6423	7300	7300
62 TO 65	1268	1476	1608	1792	2020	2285	2588	2914	3264	3376	4145	4444	5226	6090	7055	7300	7300	7300
58 TO 61	1421	1605	1819	2098	2421	2785	3186	3376	3805	4417	4991	5777	6831	7300	7300	7300	7300	7300
54 TO 57	1598	1860	2203	2611	3067	3376	3924	4543	5216	5964	6780	7300	7300	7300	7300	7300	7300	7300
50 TO 53	1891	2326	2846	3376	3801	4628	5454	6368	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300
46 TO 49	2441	3121	3376	4590	5600	6742	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300
42 TO 45	3376	4104	5505	6943	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300
41 OR less	4872	6657	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300

TABLE 3–m (Continued)

FLOW (cfs) / TEMP ° F	0 To 980	981 To 1220	1221 To 1470	1471 To 1730	1731 To 1990	1991 To 2260	2261 To 2540	2541 To 2830	2831 To 3130	3131 To 3430	3431 To 3780	3781 To 4230	4231 To 4730	4731 To 5250	5251 To 5780	5781 To 6340	6341 To 6910	6911 Or More
Previous Day Average							**SEPTEMBER**											
	A			B			C											
78 OR more	1030	1030	1030	1030	1030	1030	1136	1248	1394	1547	1714	1952	2265	2598	2962	3346	3376	4080
74 TO 77	1030	1030	1030	1030	1030	1156	1302	1466	1656	1857	2088	2390	2761	3176	3376	3961	4583	5270
70 TO 73	1030	1030	1030	1030	1129	1296	1486	1697	1931	2186	2458	2826	3298	3376	4230	4930	5705	6559
66 TO 69	1030	1030	1044	1146	1326	1534	1775	2040	2336	2649	2979	3376	3376	4498	5267	6117	7055	7300
62 TO 65	1030	1030	1163	1367	1608	1884	2197	2540	2900	3288	3376	4090	4889	5777	6770	7300	7300	7300
58 TO 61	1030	1170	1411	1700	2040	2414	2826	3264	3376	4063	4648	5450	6528	7300	7300	7300	7300	7300
54 TO 57	1156	1449	1812	2231	2700	3206	3376	4182	4862	5620	6447	7300	7300	7300	7300	7300	7300	7300
50 TO 53	1462	1918	2455	3053	3376	4243	5073	5994	7004	7300	7300	7300	7300	7300	7300	7300	7300	7300
46 TO 49	2003	2700	3376	4169	5178	6324	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300
42 TO 45	2928	3376	5022	6457	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300
41 OR less	4308	6079	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300
Previous Day Average							**OCTOBER**											
	A			B			C											
78 OR more	1030	1030	1030	1030	1030	1030	1030	1102	1231	1394	1557	1789	2095	2435	2788	3172	3376	3625
74 TO 77	1030	1030	1030	1030	1030	1030	1166	1330	1506	1707	1942	2231	2611	3026	3376	3376	4386	5070
70 TO 73	1030	1030	1030	1030	1030	1163	1357	1568	1802	2050	2319	2690	3159	3376	4070	4757	5525	6372
66 TO 69	1030	1030	1030	1030	1207	1418	1653	1921	2210	2523	2856	3288	3376	4349	5110	5954	6889	7300
62 TO 65	1030	1030	1054	1258	1500	1778	2091	2428	2788	3172	3376	3961	4750	5631	6620	7300	7300	7300
58 TO 61	1030	1068	1309	1602	1935	2312	2720	3155	3376	3941	4519	5314	6385	7300	7300	7300	7300	7300
54 TO 57	1058	1350	1710	2129	2594	3101	3376	4063	4740	5491	6311	7300	7300	7300	7300	7300	7300	7300
50 TO 53	1367	1819	2353	2951	3376	4124	4947	5865	6865	7300	7300	7300	7300	7300	7300	7300	7300	7300
46 TO 49	1901	2598	3373	4046	5053	6188	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300
42 TO 45	2812	3376	4886	6311	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300
41 OR less	4169	5926	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300

TABLE 4–m

LBS PER DAY OF BOD5

(river mile 258.19 to 249.0)

Previous Day Average Flow at Rothschild Dam (cfs)

FLOW (cfs) TEMP °F	0 To 980	981 To 1220	1221 To 1470	1471 To 1730	1731 To 1990	1991 To 2260	2261 To 2540	2541 To 2830	2831 To 3130	3131 To 3430	3431 To 3780	3781 To 4230	4231 To 4730	4731 To 5250	5251 To 5780	5781 To 6340	6341 To 6910	6911 Or More
Previous Day Average	A			B					C									
	MAY – JUNE																	
78 OR more	4044	3872	4075	4515	4828	5032	5393	5848	6428	7039	7808	8796	10113	11603	13187	14959	17311	19462
74 TO 77	3605	3668	4154	4687	5361	5330	5879	6585	7369	8278	9235	10536	12230	14081	16245	18851	21642	24747
70 TO 73	3338	3605	4201	4750	5079	5722	6506	7416	7667	9580	10787	12403	14551	17311	19980	23101	26598	29844
66 TO 69	3417	3778	4468	5001	5706	6616	7651	8827	10129	11509	12999	15037	17926	21046	24512	28354	31864	31864
62 TO 65	3527	4389	5001	5816	6851	8074	9454	10976	12591	14363	16386	19149	22756	26786	31302	31864	31864	31864
58 TO 61	4201	5016	5989	7228	8702	10395	12230	14237	16558	19008	21674	25328	30205	31864	31864	31864	31864	31864
54 TO 57	5032	6177	7745	9596	11681	13987	16778	19572	22693	26143	29922	31864	31864	31864	31864	31864	31864	31864
50 TO 53	6349	8294	10678	13359	16511	19949	23728	27946	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864
46 TO 49	8827	11916	15555	19729	24355	29609	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864
42 TO 45	13140	18161	23822	30408	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864
41 OR less	20874	28997	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864
Previous Day Average	A			B					C									
	JULY – AUGUST																	
78 OR more	4530	4483	4844	5361	5706	5863	6255	6726	7322	7695	8686	9690	10991	12434	14018	15806	17973	20278
74 TO 77	4123	4342	4891	5361	5659	6114	6710	7416	8200	9094	10066	11321	13014	14896	17311	19666	22411	25469
70 TO 73	3887	4264	4922	5361	5816	6491	7290	8216	9219	10348	11556	13155	15335	17926	20717	23806	27256	31051
66 TO 69	3934	4405	5142	5675	6412	7306	8372	9549	10819	12214	13689	15774	18631	21721	25171	28950	31864	31864
62 TO 65	4044	5001	5612	6459	7510	8733	10129	11634	13249	15069	17311	19823	23430	27413	31864	31864	31864	31864
58 TO 61	4750	5597	6585	7871	9360	11038	12889	14927	17311	19698	22348	25970	30832	31864	31864	31864	31864	31864
54 TO 57	5565	6773	8357	10239	12340	14677	17424	20278	23383	26833	30597	31864	31864	31864	31864	31864	31864	31864
50 TO 53	6914	8921	11321	14018	17311	20670	24481	28699	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864
46 TO 49	9454	12591	16355	20497	25155	30424	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864
42 TO 45	13877	18255	24716	31349	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864
41 OR less	21799	30032	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864

TABLE 4–m (Continued)

FLOW (cfs) / TEMP ° F	0 To 980	981 To 1220	1221 To 1470	1471 To 1730	1731 To 1990	1991 To 2260	2261 To 2540	2541 To 2830	2831 To 3130	3131 To 3430	3431 To 3780	3781 To 4230	4231 To 4730	4731 To 5250	5251 To 5780	5781 To 6340	6341 To 6910	6911 Or More
Previous Day Average								**SEPTEMBER**										
	A			B							C							
78 OR more	2946	2946	2946	2946	2946	2946	3433	3950	4624	5330	6098	7196	8639	10176	11854	13626	15633	18145
74 TO 77	2946	2946	2946	2946	2946	3527	4201	4954	5832	6757	7823	9219	10929	12842	14990	17596	20466	23634
70 TO 73	2946	2946	2946	2946	3401	4170	5048	6060	7102	8278	9533	11226	13406	15868	18835	22066	25641	29577
66 TO 69	2946	2946	3009	3480	4311	5267	6381	7604	8968	10411	11932	13939	17013	20074	23618	27539	31864	31864
62 TO 65	2946	2946	3558	4499	5612	6883	8325	9909	11571	13359	15351	18192	21877	25970	30550	31864	31864	31864
58 TO 61	2946	3589	4703	6036	7604	9329	11226	13249	15508	18067	20764	24465	29436	31864	31864	31864	31864	31864
54 TO 57	3527	4875	6553	8482	10646	12983	15633	18616	21752	25249	29060	31864	31864	31864	31864	31864	31864	31864
50 TO 53	4938	7039	9517	12277	15351	17766	22724	26974	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864
46 TO 49	7431	10646	14269	17421	23210	28495	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864
42 TO 45	11697	16841	22489	29107	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864
41 OR less	19167	27366	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864
Previous Day Average								**OCTOBER**										
	A			B							C							
78 OR more	2946	2946	2946	2946	2946	2946	2946	3276	3872	4624	5377	6443	7855	9423	11054	12826	14755	17311
74 TO 77	2946	2946	2946	2946	2946	2946	3574	4326	5142	6067	7149	8482	10239	12152	14222	16794	19557	22709
70 TO 73	2946	2946	2946	2946	2946	3558	4452	5424	6506	7651	8890	10599	12763	15147	18098	21266	24810	28715
66 TO 69	2946	2946	2946	2946	3762	4734	5816	7055	8388	9831	11368	13359	16135	19384	22897	26786	31098	31864
62 TO 65	2946	2946	3056	3997	5111	6396	7839	9392	11054	12826	14755	17596	21235	25296	29860	31864	31864	31864
58 TO 61	2946	3119	4232	5581	7118	8859	10740	12748	14943	17502	20168	23838	28778	31864	31864	31864	31864	31864
54 TO 57	3072	4421	6083	8012	10160	12497	14645	18067	21187	24653	28433	31864	31864	31864	31864	31864	31864	31864
50 TO 53	4499	6585	9047	11807	14818	18349	22144	26378	30989	31864	31864	31864	31864	31864	31864	31864	31864	31864
46 TO 49	6961	10176	13751	17988	22630	27868	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864
42 TO 45	11164	16119	21862	28433	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864
41 OR less	18553	26660	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864	31864

TABLE 5–m

LBS PER DAY OF BOD5

(river mile 248.9 to 240.0)

Previous Day Average Flow at Rothschild Dam (cfs)

FLOW (cfs) / TEMP °F	0 To 980	981 To 1220	1221 To 1470	1471 To 1730	1731 To 1990	1991 To 2260	2261 To 2540	2541 To 2830	2831 To 3130	3131 To 3430	3431 To 3780	3781 To 4230	4231 To 4730	4731 To 5250	5251 To 5780	5781 To 6340	6341 To 6910	6911 Or More
Previous Day Average									**MAY – JUNE**									
	A			B							C							
78 OR more	8923	7699	6023	4313	3049	2454	2609	2805	3055	3319	3650	4076	4644	5286	5969	6537	6573	8186
74 TO 77	8166	6476	4630	2954	2007	2582	2819	3123	3461	3853	4265	4826	5556	6354	6537	7922	9126	10464
70 TO 73	7077	5360	3576	2521	2474	2751	3089	3481	3589	4414	4935	5631	6557	7260	8409	9754	11262	12661
66 TO 69	5928	4299	2880	2440	2744	3136	3583	4090	4651	5246	5888	6537	7524	8869	10363	12019	13851	14020
62 TO 65	4894	2907	2440	2792	3238	3765	4360	5016	5712	6476	6537	8051	9606	11343	13290	14020	14020	14020
58 TO 61	3474	2447	2866	3400	4035	4766	5556	6422	6537	7990	9139	10714	12817	14020	14020	14020	14020	14020
54 TO 57	2454	2947	3623	4421	5320	6314	6537	8233	9579	11066	12695	14020	14020	14020	14020	14020	14020	14020
50 TO 53	3021	3860	4887	6043	6537	8396	10025	11843	13831	14020	14020	14020	14020	14020	14020	14020	14020	14020
46 TO 49	4090	5421	6537	8301	10295	12560	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020
42 TO 45	5949	7625	10065	12905	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020
41 OR less	8795	12296	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020
Previous Day Average									**JULY – AUGUST**									
	A			B							C							
78 OR more	4840	7253	5867	4225	3076	2812	2981	3184	3441	3718	4029	4461	5022	5644	6327	6537	7544	8538
74 TO 77	7530	6381	4678	3231	2724	2920	3177	3481	3819	4204	4624	5164	5894	6537	7747	8274	9457	10775
70 TO 73	6990	5415	3643	3028	2792	3082	3427	3826	4259	4745	5266	5955	6537	7524	8727	10059	11546	13182
66 TO 69	6057	4434	3015	2731	3049	3434	3894	4401	4948	5550	6185	6537	7828	9160	10647	12276	14020	14020
62 TO 65	5059	3015	2704	3069	3522	4049	4651	5300	5996	6537	7747	8342	9896	11613	13533	14020	14020	14020
58 TO 61	3596	2697	3123	3677	4319	5043	5840	6537	7071	8288	9430	10992	13087	14020	14020	14020	14020	14020
54 TO 57	2683	3204	3887	4698	5604	6537	7307	8538	9876	11363	12986	14020	14020	14020	14020	14020	14020	14020
50 TO 53	3265	4130	5164	6327	7064	8707	10349	12168	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020
46 TO 49	4360	5712	6537	8632	10640	12911	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020
42 TO 45	6266	7666	10451	13310	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020
41 OR less	9193	12742	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020

TABLE 5–m (Continued)

FLOW (cfs) / TEMP ° F	0 To 980	981 To 1220	1221 To 1470	1471 To 1730	1731 To 1990	1991 To 2260	2261 To 2540	2541 To 2830	2831 To 3130	3131 To 3430	3431 To 3780	3781 To 4230	4231 To 4730	4731 To 5250	5251 To 5780	5781 To 6340	6341 To 6910	6911 Or More
Previous Day Average								**SEPTEMBER**										
	A			B						C								
78 OR more	4238	3731	3035	2001	1555	1555	1764	1987	2278	2582	2913	3387	4008	4671	5394	6158	6537	7618
74 TO 77	3866	3312	2264	1541	4279	1805	2095	2420	2798	3197	3657	4259	4995	5820	6537	7382	8619	9984
70 TO 73	3549	2778	1798	1521	1751	2082	2460	2880	3346	3853	4394	5124	6063	6537	7916	9308	10850	12546
66 TO 69	3021	2149	1521	1784	2143	2555	3035	3562	4150	4772	5428	6293	6537	8450	9978	11668	13533	14020
62 TO 65	2596	1521	1818	2224	2704	3251	3873	4556	5273	6043	6537	7639	9227	10992	12965	14020	14020	14020
58 TO 61	1582	1832	2312	2886	3562	4306	5124	5996	6537	7584	8747	10343	12485	14020	14020	14020	14020	14020
54 TO 57	1805	2386	3109	3941	4874	5881	6537	7821	9173	10681	12323	14020	14020	14020	14020	14020	14020	14020
50 TO 53	2413	3319	4387	5577	6537	7943	9592	11424	13432	14020	14020	14020	14020	14020	14020	14020	14020	14020
46 TO 49	3488	4874	6435	7794	9802	12080	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020
42 TO 45	5327	6537	9491	12344	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020
41 OR less	8071	11593	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020
Previous Day Average								**OCTOBER**										
	A			B						C								
78 OR more	2994	2812	2339	1697	1521	1521	1521	1697	1953	2278	2602	3062	3670	4346	5049	5813	6537	6652
74 TO 77	2886	2650	1717	1521	1521	1521	1825	2149	2501	2900	3366	3941	4698	5523	6415	6537	8227	9585
70 TO 73	2758	2197	1521	1521	1521	1818	2204	2623	3089	3583	4117	4853	5786	6537	7598	8964	10491	12175
66 TO 69	2379	1663	1521	1548	1906	2325	2792	3326	3900	4522	5185	6043	6537	8152	9667	11343	13202	14020
62 TO 65	2035	1521	1602	2007	2487	3042	3664	4333	5049	5813	6537	7382	8950	10701	12668	14020	14020	14020
58 TO 61	1521	1629	2109	2690	3353	4103	4914	5780	6537	7341	8490	10072	12202	14020	14020	14020	14020	14020
54 TO 57	1609	2190	2907	3738	4664	5671	6537	7584	8930	10424	12053	14020	14020	14020	14020	14020	14020	14020
50 TO 53	2224	3123	4184	5374	6537	7706	9342	11167	13155	14020	14020	14020	14020	14020	14020	14020	14020	14020
46 TO 49	3285	4671	6212	7551	9552	11809	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020
42 TO 45	5097	6537	9220	12053	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020
41 OR less	7794	11289	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020	14020

TABLE 6–m
LBS PER DAY OF BOD_5
(river mile 341.4 to 313.2)
Flow at Whirlpool Rapids (cfs)

Flow cfs / Temp °F	390 or less	391–520	521–650	651–780	781–910	911–1040	1041–1300	1301–1560	1561–1820	1821–2080	2081–2340	2341–2600	2601 or more
MAY													
								B					
78+	957.	957.	1304.	2078.	2944.	3929.	5606.	6017.	5734.	6044.	6937.	8223.	9116.
74–77	957.	957.	1796.	2780.	3893.	5160.	6864.	6491.	6819.	7822.	9116.	9116.	9116.
70–73	957.	1231.	2325.	3573.	4986.	6573.	7138.	7366.	8432.	9116.	9116.	9116.	9116.
66–69	957.	1896.	3218.	4749.	6500.	7721.	7831.	8897.	9116.	9116.	9116.	9116.	9116.
62–65	1285.	2689.	4348.	6299.	8095.	8223.	9043.	9116.	9116.	9116.	9116.	9116.	9116.
58–61	1960.	3756.	5953.	8387.	8651.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.
54–57	2881.	5369.	8432.	9052.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.
50–53	4303.	7931.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.
46–49	6691.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.
45 or Less	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.
JUNE													
								B					
78+	957.	1185.	1759.	2407.	3145.	3984.	5378.	6655.	6436.	6755.	7621.	8806.	9116.
74–77	957.	1413.	2151.	3017.	3984.	5087.	6910.	7047.	7375.	8350.	9116.	9116.	9116.
70–73	957.	1650.	2607.	3710.	4968.	6381.	7530.	7794.	8824.	9116.	9116.	9116.	9116.
66–69	1185.	2215.	3409.	4795.	6372.	7986.	8186.	9116.	9116.	9116.	9116.	9116.	9116.
62–65	1650.	2935.	4458.	6244.	8277.	8514.	9116.	9116.	9116.	9116.	9116.	9116.	9116.
58–61	2270.	3938.	5971.	8378.	8915.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.
57 or Less	3154.	5479.	8332.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.
JULY – AUGUST													
									B				
78+	957.	957.	1158.	1550.	1996.	2480.	3300.	4558.	5160.	5032.	5324.	5962.	6828.
74–77	957.	957.	1486.	2051.	2689.	3400.	4576.	6053.	5916.	6336.	7165.	8323.	9116.
70–73	957.	1149.	1841.	2625.	3482.	4458.	6053.	6627.	7101.	8122.	9116.	9116.	9116.
66–69	957.	1677.	2571.	3583.	4731.	6007.	7411.	7940.	9116.	9116.	9116.	9116.	9116.
62–65	1276.	2315.	3491.	4850.	6372.	7949.	8423.	9116.	9116.	9116.	9116.	9116.	9116.
58–61	1860.	3218.	4831.	6700.	8423.	8925.	9116.	9116.	9116.	9116.	9116.	9116.	9116.
57 or Less	2671.	4576.	6883.	8852.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.

TABLE 6–m (Continued)

Flow cfs / Temp °F	390 or less	391–520	521–650	651–780	781–910	911–1040	1041–1300	1301–1560	1561–1820	1821–2080	2081–2340	2341–2600	2601 or more
SEPTEMBER													
									B				
78+	957.	957.	957.	1459.	2142.	2908.	4011.	5160.	4877.	4895.	5561.	6591.	7949.
74–77	957.	957.	1285.	2088.	2981.	3984.	5679.	5752.	5834.	6591.	7858.	9116.	9116.
70–73	957.	957.	1769.	2789.	3947.	5233.	6646.	6582.	7393.	8843.	9116.	9116.	9116.
66–69	957.	1468.	2598.	3883.	5333.	6965.	7293.	8077.	9116.	9116.	9116.	9116.	9116.
62–65	966.	2206.	3628.	5278.	7156.	7803.	8414.	9116.	9116.	9116.	9116.	9116.	9116.
58–61	1623.	3200.	5096.	7320.	8277.	8852.	9116.	9116.	9116.	9116.	9116.	9116.	9116.
57 or Less	2489.	4667.	7320.	8697.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.
OCTOBER													
									B				
78+	957.	957.	957.	957.	957.	957.	2097.	3610.	4421.	4412.	4950.	6007.	7329.
74–77	957.	957.	957.	1531.	2480.	3254.	4339.	5451.	5451.	6117.	7366.	8979.	9116.
70–73	957.	957.	1531.	2598.	3774.	5096.	6436.	6317.	7056.	8469.	9116.	9116.	9116.
66–69	957.	1249.	2407.	3710.	5196.	6864.	7074.	7794.	9116.	9116.	9116.	9116.	9116.
62–65	957.	2024.	3455.	5141.	7047.	7648.	8186.	9116.	9116.	9116.	9116.	9116.	9116.
58–61	1431.	3027.	4941.	7202.	8141.	8660.	9116.	9116.	9116.	9116.	9116.	9116.	9116.
54–57	2315.	4494.	7183.	8560.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9114.	9116.
50–53	3628.	6837.	8952.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.
46–49	5816.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.
45 or Less	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.	9116.

TABLE 7–m
LBS PER DAY OF BOD_5
(river mile 313.1 to 305.9)
Flow at Tomahawk Dam (cfs)

Flow cfs / Temp °F	584 or less	585–778	779–972	973–1166	1167–1360	1361–1554	1555–1942	1943–2330	2331–2718	2719–3106	3107–3494	3495–3882	3883–4270	4271–4658	4659–5046	5047–5434	5435–5822	5823–6210	6211 or more
MAY																			
								← B →											
78+	2400	2400	2599	2712	2868	3039	3280	4374	6433	8733	10962	13064	14967	16472	18152	18152	18152	18152	18152
74–77	2400	2982	3323	3649	4004	4374	4927	7100	9642	12169	14512	16614	18152	18152	18152	18152	18152	18152	18152
70–73	2883	3664	4189	4729	5382	5921	7356	10139	13021	15677	18020	18152	18152	18152	18152	18152	18152	18152	18152
66–69	3834	4572	5382	6262	7143	8094	10423	13760	16884	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
62–65	4658	5652	6816	8051	9244	11076	14030	17778	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
58–61	5581	7057	8733	10267	12539	14910	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
54–57	6844	9017	11161	13959	16912	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
50–53	8761	11758	15279	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
46–49	11687	16231	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
42–45	16273	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
41 or Less	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
JUNE																			
								← B →											
78+	2400	2400	3010	3763	4303	4757	5481	6376	8122	10011	11985	13817	15407	16827	18152	18152	18152	18152	18152
74–77	2400	2897	4004	4743	5382	5907	6773	8563	10749	12993	15009	16756	18152	18152	18152	18152	18152	18152	18152
70–73	2400	3919	4970	5822	6603	7228	8591	11119	13689	16046	18091	18152	18152	18152	18152	18152	18152	18152	18152
66–69	3635	5140	6291	7341	8307	9173	11445	14484	17310	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
62–65	4871	6376	7796	9102	10281	12056	14839	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
58–61	6063	7895	9699	11303	13476	15776	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
57 or Less	7498	9983	12255	14924	17750	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
JULY – AUGUST																			
									← B →										
78+	2400	2400	2400	2400	2868	3252	3735	4217	5155	6873	8605	10238	11658	12894	14101	15137	16103	16784	17551
74–77	2400	2400	2797	3436	3990	4459	5084	5836	7810	9784	11644	13305	14740	15932	17182	18152	18152	18152	18152
70–73	2400	2911	3791	4544	5254	5836	6617	8406	10693	12808	14697	16344	17778	18152	18152	18152	18152	18152	18152
66–69	2883	4132	5169	6134	7043	7853	9131	11814	14370	16571	18152	18152	18152	18152	18152	18152	18152	18152	18152
62–65	4061	5410	6702	7938	9102	10096	12510	15606	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
58–61	5240	6930	8634	10210	11672	13703	16586	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
57 or Less	6646	8960	11161	13234	15805	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152

TABLE 7–m (Continued)

Flow cfs / Temp °F	584 or less	585–778	779–972	973–1166	1167–1360	1361–1554	1555–1942	1943–2330	2331–2718	2719–3106	3107–3494	3495–3882	3883–4270	4271–4658	4659–5046	5047–5434	5435–5822	5823–6210	6211 or more
SEPTEMBER																			
									B										
78+	2400	2400	2400	2400	2400	2400	2400	2400	4274	6646	8875	11019	12908	14512	16103	17452	18152	18152	18152
74–77	2400	2400	2400	2400	2400	2670	3280	5155	7696	10196	12539	14626	16458	18152	18152	18152	18152	18152	18152
70–73	2400	2400	2428	3152	3891	4544	5609	8364	11204	13817	16131	18148	18152	18152	18152	18152	18152	18152	18152
66–69	2400	2925	3891	4899	5879	6688	8818	12098	15180	17835	18152	18152	18152	18152	18152	18152	18152	18152	18152
62–65	3081	4232	5552	6873	8051	9628	12496	16188	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
58–61	4203	5836	7611	9230	11190	13504	16870	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
57 or Less	5623	7938	10181	12681	15577	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
OCTOBER																			
									B										
78+	2400	2400	2400	2400	2400	2400	2400	2400	3238	5581	8009	10252	12226	13973	15634	17068	18152	18152	18152
74–77	2400	2400	2400	2400	2400	2400	2854	4288	6844	9457	11900	14044	15989	17636	18152	18152	18152	18152	18152
70–73	2400	2400	2400	2556	3238	3848	4913	7668	10579	13305	15663	17750	18152	18152	18152	18152	18152	18152	18152
66–69	2400	2457	3380	4345	5282	6063	8193	11516	14683	17395	18152	18152	18152	18152	18152	18152	18152	18152	18152
62–65	2712	3806	5084	6362	7498	9060	11942	15677	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
58–61	3848	5439	7171	8733	10664	12993	16387	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
54–57	5311	7554	9741	12184	15080	17821	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
50–53	7341	10409	13604	17239	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
46–49	10352	14626	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
42–45	14768	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
41 or Less	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152

TABLE 8–m

PUBLICLY OWNED

LBS PER DAY OF BOD5

(river mile 265.0 to 260.0)

FLOW (cfs) / TEMP °F	0 To 980	981 To 1220	1221 To 1470	1471 To 1730	1731 To 1990	1991 To 2260	2261 To 2540	2541 To 2830	2831 To 3130	3131 To 3430	3431 To 3780	3781 To 4230	4231 To 4730	4731 To 5250	5251 To 5780	5781 To 6340	6341 To 6910	6911 Or More
Previous Day Average									**MAY – JUNE**									
	A			B							C							
78 OR more	1314	1275	1321	1422	1494	1541	1624	1729	1862	2002	2179	2406	2709	3051	3415	3822	4103	4597
74 TO 77	1213	1228	1339	1462	1617	1610	1736	1898	2078	2287	2507	2806	3195	3620	4103	4456	5097	5811
70 TO 73	1152	1213	1350	1476	1552	1700	1880	2089	2147	2585	2864	3235	3728	4103	4716	5433	6236	6982
66 TO 69	1170	1253	1412	1534	1696	1905	2143	2413	2712	3029	3372	3840	4244	7961	5757	6640	7616	7706
62 TO 65	1195	1394	1534	1721	1959	2240	2557	2907	3278	3685	4103	4525	5353	6279	7317	7706	7706	7706
58 TO 61	1350	1538	1761	2046	2384	2773	3195	3656	4103	4492	5105	5944	7065	7706	7706	7706	7706	7706
54 TO 57	1541	1804	2165	2590	3069	3599	4103	4622	5339	6131	7000	7706	7706	7706	7706	7706	7706	7706
50 TO 53	1844	2291	2838	3454	4103	4708	5577	6546	7605	7706	7706	7706	7706	7706	7706	7706	7706	7706
46 TO 49	2413	3123	3959	4658	5721	6928	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706
42 TO 45	3404	4298	5598	7112	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706
41 OR less	4921	6787	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706
Previous Day Average									**JULY – AUGUST**									
	A			B							C							
78 OR more	1426	1415	1498	1617	1696	1732	1822	1930	2067	2215	2381	2611	2910	3242	3606	4017	4254	4784
74 TO 77	1332	1383	1509	1617	1685	1790	1927	2089	2269	2474	2698	2986	3375	3808	4103	4643	5274	5977
70 TO 73	1278	1365	1516	1617	1721	1876	2060	2273	2503	2763	3040	3408	3908	4244	4885	5595	6387	7259
66 TO 69	1289	1397	1566	1689	1858	2064	2309	2579	2871	3191	3530	4009	4406	5115	5908	6776	7706	7706
62 TO 65	1314	1534	1675	1869	2111	2392	2712	3058	3429	3847	4103	4679	5508	6423	7447	7706	7706	7706
58 TO 61	1476	1671	1898	2193	2536	2921	3346	3815	4103	4651	5260	6092	7209	7706	7706	7706	7706	7706
54 TO 57	1664	1941	2305	2737	3220	3757	4128	4784	5497	6290	7155	7706	7706	7706	7706	7706	7706	7706
50 TO 53	1974	2435	2986	3606	4103	4874	5750	6719	7605	7706	7706	7706	7706	7706	7706	7706	7706	7706
46 TO 49	2557	3278	4103	4834	5905	7115	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706
42 TO 45	3573	4103	5804	7328	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706
41 OR less	5133	7025	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706

TABLE 8–m (Continued)

FLOW (cfs) / TEMP ° F	0 To 980	981 To 1220	1221 To 1470	1471 To 1730	1731 To 1990	1991 To 2260	2261 To 2540	2541 To 2830	2831 To 3130	3131 To 3430	3431 To 3780	3781 To 4230	4231 To 4730	4731 To 5250	5251 To 5780	5781 To 6340	6341 To 6910	6911 Or More
Previous Day Average								**SEPTEMBER**										
	A			B						C								
78 OR more	1062	1062	1062	1062	1062	1062	1174	1293	1448	1610	1786	2083	2370	2723	3109	3516	3977	4294
74 TO 77	1062	1062	1062	1062	1062	1195	1350	1523	1725	1938	2183	2503	2896	3336	3829	4168	4827	5555
70 TO 73	1062	1062	1062	1062	1167	1343	1545	1768	2017	2287	2575	2964	3465	4031	4452	5195	6016	6921
66 TO 69	1062	1062	1076	1185	1376	1595	1851	2132	2446	2777	3127	3588	4103	4737	5551	6452	7447	7706
62 TO 65	1062	1062	1203	1419	1675	1966	2298	2662	3044	3454	3912	4305	5151	6092	7144	7706	7706	7706
58 TO 61	1062	1062	1466	1772	2132	2528	2964	3429	3948	4276	4896	5746	6888	7706	7706	7706	7706	7706
54 TO 57	1195	1210	1891	2334	2831	3368	3977	4402	5123	5926	6802	7706	7706	7706	7706	7706	7706	7706
50 TO 53	1520	1505	2572	3206	3912	4467	5346	6322	7393	7706	7706	7706	7706	7706	7706	7706	7706	7706
46 TO 49	2093	2002	3663	4388	5458	6672	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706
42 TO 45	3073	4103	5292	6812	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706
41 OR less	4535	6413	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706
Previous Day Average								**OCTOBER**										
	A			B						C								
78 OR more	1062	1062	1062	1062	1062	1062	1062	1138	1275	1448	1621	1866	2190	2550	2925	3332	3775	4103
74 TO 77	1062	1062	1062	1062	1062	1062	1206	1379	1566	1779	2128	2334	2737	3177	3653	4103	4618	5342
70 TO 73	1062	1062	1062	1062	1062	1203	1408	1631	1880	2143	2428	2820	3318	3865	4283	5011	5825	6722
66 TO 69	1062	1062	1062	1062	1249	1473	1721	2006	2312	2644	2997	3454	4092	4579	5386	6279	7270	7706
62 TO 65	1062	1062	1087	1303	1559	1855	2186	2543	2925	3332	3775	4168	5004	5937	6985	7706	7706	7706
58 TO 61	1062	1102	1358	1667	2020	2420	2853	3314	3818	4146	4759	5602	6737	7706	7706	7706	7706	7706
54 TO 57	1091	1401	1783	2226	2719	3256	3750	4276	4993	5789	6658	7706	7706	7706	7706	7706	7706	7706
50 TO 53	1419	1898	2464	3098	3790	4341	5213	6186	7245	7706	7706	7706	7706	7706	7706	7706	7706	7706
46 TO 49	1984	2723	3545	4528	5324	6528	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706
42 TO 45	2950	4089	5148	6658	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706
41 OR less	4388	6250	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706	7706

TABLE 1–p
LBS PER DAY OF BOD_5
(RIVER MILE 9.6 TO 0.0)
Previous Day Average Flow at Peshtigo (cfs)

FLOW (cfs) TEMP ° F	200 Or Less	201 To 260	261 To 300	301 To 340	341 To 400	401 To 530	531 To 610	611 To 800	801 To 1100	1101 Or More
MAY – JUNE										
78+	3151	3151	3367	3151	3351	3493	3685	3832	3881	3607
74–77	3220	3506	3820	3624	3930	4220	4281	4281	4281	4281
70–73	3542	3938	4281	4208	4281	4281	4281	4281	4281	4281
66–69	3946	4281	4281	4281	4281	4281	4281	4281	4281	4281
62–65	4281	4281	4281	4281	4281	4281	4281	4281	4281	4281
32–61	4281	4281	4281	4281	4281	4281	4281	4281	4281	4281
JULY										
78+	3151	3151	3228	3151	3404	3685	4028	4281	4281	4281
74–77	3216	3559	3914	3840	4195	4281	4281	4281	4281	4281
70–73	3689	4142	4281	4281	4281	4281	4281	4281	4281	4281
65–69	4167	4281	4281	4281	4281	4281	4281	4281	4281	4281
62–65	4281	4281	4281	4281	4281	4281	4281	4281	4281	4281
32–61	4281	4281	4281	4281	4281	4281	4281	4281	4281	4281
AUGUST – SEPTEMBER										
78+	3151	3151	3151	3151	3151	3151	3151	3151	3151	3151
74–77	3151	3151	3391	3151	3408	3599	3857	4085	4281	4281
70–73	3244	3599	3979	3791	4159	4281	4281	4281	4281	4281
66–69	3693	4187	4281	4281	4281	4281	4281	4281	4281	4281
62–65	4281	4281	4281	4281	4281	4281	4281	4281	4281	4281
32–61	4281	4281	4281	4281	4281	4281	4281	4281	4281	4281
OCTOBER										
78+	3151	3151	3151	3151	3151	3151	3151	3151	3151	3151
74–77	3151	3151	3151	3151	3151	3306	3563	3799	4126	4281
70–73	3151	3395	3755	3530	3877	4216	4281	4281	4281	4281
66–69	3538	4008	4281	4281	4281	4281	4281	4281	4281	4281
62–65	4179	4281	4281	4281	4281	4281	4281	4281	4281	4281
32–61	4281	4281	4281	4281	4281	4281	4281	4281	4281	4281

TABLE 2–p
LBS PER DAY OF BOD_5
(RIVER MILE 12.0 TO 9.7)
Previous Day Average Flow at Peshtigo (cfs)

FLOW (cfs) TEMP ° F	200 Or Less	201 To 260	261 To 300	301 To 340	341 To 400	401 To 530	531 To 610	611 To 800	801 To 1100	1101 Or More
MAY – JUNE										
78+	1787	1814	1940	1787	1895	1972	2095	2185	2258	2042
74–77	1885	2037	2223	2088	2278	2463	2506	2506	2506	2506
70–73	2057	2293	2506	2458	2506	2506	2506	2506	2506	2506
66–69	2301	2506	2506	2506	2506	2506	2506	2506	2506	2506
62–65	2506	2506	2506	2506	2506	2506	2506	2506	2506	2506
32–61	2506	2506	2506	2506	2506	2506	2506	2506	2506	2506
JULY										
78+	1787	1814	1880	1787	1947	2120	2333	2506	2506	2506
74–77	1895	2067	2275	2220	2451	2506	2506	2506	2506	2506
70–73	2148	2418	2506	2506	2506	2506	2506	2506	2506	2506
65–69	2436	2506	2506	2506	2506	2506	2506	2506	2506	2506
62–65	2506	2506	2506	2506	2506	2506	2506	2506	2506	2506
32–61	2506	2506	2506	2506	2506	2506	2506	2506	2506	2506
AUGUST – SEPTEMBER										
78+	1787	1787	1787	1787	1787	1787	1787	1787	1787	1787
74–77	1787	1787	1947	1787	1940	2035	2208	2363	2506	2506
70–73	1869	2082	2313	2186	2423	2506	2506	2506	2506	2506
66–69	2140	2446	2506	2506	2506	2506	2506	2506	2506	2506
62–65	2506	2506	2506	2506	2506	2506	2506	2506	2506	2506
32–61	2506	2506	2506	2506	2506	2506	2506	2506	2506	2506
OCTOBER										
78+	1787	1787	1787	1787	1787	1787	1787	1787	1787	1787
74–77	1787	1787	1807	1787	1787	1822	1985	2153	2393	2506
70–73	1787	1952	2168	2012	2238	2461	2506	2506	2506	2506
66–69	2047	2333	2506	2506	2506	2506	2506	2506	2506	2506
62–65	2441	2506	2506	2506	2506	2506	2506	2506	2506	2506
32–61	2506	2506	2506	2506	2506	2506	2506	2506	2506	2506

Chapter NR 212

WASTE LOAD ALLOCATED WATER QUALITY RELATED EFFLUENT LIMITATIONS

Note: Corrections made under s. 13.93 (2m) (b) 7., Stats., Register, September, 1997, No. 501.

Subchapter I — General

NR 212.01 Purpose. The purpose of this chapter is to establish the procedures, methodologies, and requirements to be used by the department for determining total maximum pollutant loadings and corresponding water quality related effluent limitations in accordance with ss. 283.13 (5), 283.31 (3) (d) 3., and 283.83 (1) (c), Stats. Such restrictions are established to attain and maintain the designated uses specified in the water quality standards appearing in chs. NR 102, 103, and 104.

History: Cr. Register, September, 1981, No. 309, eff. 10–1–81; correction made under s. 13.92 (4) (b) 7, Stats., Register May 2011 No. 665; **CR 15–085: am. Register August 2016 No. 728, eff. 9–1–16.**

Subchapter II — Effluent Limitations for Biochemical Oxygen Demand Developed Through Wasteload Allocations for Specific Stream Segments

NR 212.02 Applicability. (1) The provisions of this subchapter are applicable to water quality related effluent limitations for biochemical oxygen demand developed through wasteload allocations for the Lower Fox River from milepoints 0–40.0, Upper Wisconsin River from milepoints 171.9–341.4, and Peshtigo River from milepoints 0–12, and established under s. 283.13 (5), Stats.

(2) Nothing in this subchapter shall in any way inhibit, override, preclude, or prevent the department from issuing any permit with toxic effluent limits even if such permit limitations would result in more stringent limitations than provided in this subchapter.

History: Cr. Register, September, 1981, No. 309, eff. 10–1–81; **CR 15–085: r. and recr. (1), am. (2) Register August 2016 No. 728, eff. 9–1–16.**

NR 212.03 Definitions. In addition to the definitions and abbreviations in ss. NR 205.03 and 205.04, the following definitions are applicable to terms used in this subchapter:

(1) "Baseline load" means the reference load used in distributing all or part of the total maximum load among multiple point source dischargers to a water quality limited segment.

(2) "Categorical effluent limitation" means a point source effluent limitation for categories and classes of point sources other than publicly–owned treatment works achieved by application of the best practicable control technology currently available, the best conventional pollutant control technology, or the best available technology economically achievable as required by s. 283.13 (2), Stats.; or means a point source effluent limitation for a publicly–owned treatment works achieved by application of secondary treatment as required by s. 283.13 (4), Stats.

(3) "Conventional pollutant" means those pollutants identified in section 304 (a) (4) of the federal clean water act amendments of 1977. These pollutants are: biochemical oxygen demand (BOD), total suspended solids (TSS), pH, fecal coliform, and oil and grease.

(4) "Cost–effective analysis" means a systematic comparison of alternative means of meeting state water quality standards, effluent limitations or other treatment standards in order to identify the alternative which will minimize the total resources costs over the appropriate planning period. These resources costs include monetary costs and environmental as well as other nonmonetary costs.

(5) "Critical water quality conditions" means those water conditions upon which are based the most stringent water quality effluent limitations.

(5m) "Designated management agency" means any agency designated in an areawide water quality management plan having responsibility for implementing specific plan recommendations.

(6) "Effluent limitation" whenever used without qualification means any restriction including schedules of compliance, established by the department, on quantities, rates and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into waters of this state.

(7) "Flow reregulation" means any practice with respect to the available surface waters in a basin that would alter the stream flows from those which would occur under existing regimes.

(8) "Infiltration" means water other than waste water that enters a sewerage system, including sewer service connections, from the ground through such sources as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow.

(9) "Inflow" means water other than waste water that enters a sewerage system, including sewer service connections, from sources such as roof leaders, cellar drains, yard drains, area drains, foundation drains, drains from springs and swampy areas, manhole covers, cross connections between storm sewers and sanitary sewers, catch basins, cooling towers, storm waters, surface runoff,

street wash waters, or drainage. Inflow does not include, and is distinguished from, infiltration.

(10) "Instream aeration" means techniques which increase the dissolved oxygen content of a receiving water. Those techniques include, but are not limited to, mechanical aeration devices, diffuser systems, and turbine venting.

(11) "Margin of safety" means a portion of the total maximum load which accounts for the uncertainties concerning the relationship between effluent limitations and water quality or provide a greater assurance that the water quality standards will be met. This portion of the total maximum load is not available for allocation to point sources.

(12) "New point source", for the purposes of this subchapter, means a point source which commenced operation after January 1, 1980.

(13) "Nonpoint source" means a source of pollution resulting from a land management activity which contributes to runoff, seepage or percolation; and which is not defined as a point source.

(14) "Nonpoint source allocation" means that portion of the total maximum load distributed or apportioned to nonpoint sources and unavailable for allocation to point sources.

(14e) "Off−machine production" means that quantity of paper or paperboard taken from a paper machine for further processing, conversion or sale exclusive of coating material applied after the paper machine.

(14q) "Projected population change" means an increment of projected population change for a sewer service area pursuant to the appropriate areawide water quality management plan.

(15) "Point source allocation" means that portion of the total maximum load distributed or apportioned to point sources.

(16) "Publicly−owned point source" means any point source which is owned by a municipality.

(17) "Public sector growth" means an increase in waste water discharge from any person except industrial establishments, whose waste water is treated by a publicly−owned point source.

(18) "Reserve capacity" means that portion of the total maximum load reserved for allocation to new or expanding point sources.

(19) "Residential growth" means an increase in population.

(20) "Stream segment" means a portion of a stream including natural and artificial flowages.

(21) "Total maximum load" means the maximum quantity of a pollutant or pollutants that can be discharged into a water quality limited segment over a specified period of time to maintain the applicable water quality standards. The total maximum load is the sum of the point source allocation, the nonpoint source allocation, the reserve capacity and the margin of safety.

(22) "Wasteload allocation" means the allocation resulting from the process of distributing or apportioning the total maximum load to each individual point source discharge.

(23) "Water quality limited segment" means any area or portion of a stream which will not meet the established water quality standard with application of only categorical effluent limitations to all point sources.

(24) "Water quality related effluent limitation" means a point source effluent limitation designed to meet applicable water quality standards and which is more restrictive than the categorical effluent limitations. For the purposes of this subchapter, water quality related effluent limitations refer to those determined as a result of a wasteload allocation.

(25) "Water quality standards" means administrative rules adopted as chs. NR 102, 103 and 104, under authority of s. 281.15, Stats.

(26) "WPDES permit" means a Wisconsin pollutant discharge elimination system permit for the discharge of pollutants issued by the department under ch. 283, Stats.

History: Cr. Register, September, 1981, No. 309, eff. 10−1−81; cr. (5m), (14e) and (14q), Register, May, 1986, No. 365, eff. 6−1−86; **CR 15−085: am. (intro.), (3), (12), (22), (24) Register August 2016 No. 728, eff. 9−1−16.**

NR 212.05 General. (1) Water quality related effluent limitations and total maximum loads shall be established whenever categorical effluent limits required under s. 283.13, Stats., are less stringent than necessary to achieve the designated water quality standard. Water quality related effluent limitations for point sources shall be specified in a WPDES permit.

(2) For the purposes of this chapter compliance with water quality related effluent limitations is recognized as compliance with s. 283.31 (4) (d), Stats.

(3) In no case shall the water quality related effluent limitations be less stringent than applicable categorical effluent limitations.

(4) Analysis of the samples shall be performed in accordance with ch. NR 219. Laboratory test results for 5−day biochemical oxygen demand and nutrients submitted to the department under this chapter shall be performed by a laboratory certified or registered under ch. NR 149.

Note: The requirement in this section to submit data from a certified or registered laboratory is effective on August 28, 1986.

History: Cr. Register, September, 1981, No. 309, eff. 10−1−81; cr. (4), Register, April, 1986, No. 364, eff. 8−28−86.

NR 212.06 Determination of the total maximum load. (1) When required by s. NR 212.05, total maximum loads for stream segments shall be established based upon relevant water quality and quantity considerations including, but not limited to, streamflow, water temperature, pH, dissolved oxygen, suspended solids and hardness or other natural background conditions. The stream conditions to be used for calculating the total maximum load are specified in s. NR 102.03 (3). Variable loadings may be established for a given stream segment to reflect the varying capacity of a stream to assimilate wastes under differing conditions when necessary supporting data is available.

(2) Total maximum loads established in ss. NR 212.40 to 212.70 shall be reviewed at least once every 5 years and if necessary, recalculated by the department prior to permit reissuance, based on factors which shall include but not be limited to changes in stream conditions and advancements in stream modeling techniques, discharge characteristics, readjustment of modeling coefficients, utilization of new data, or baseline load revisions under s. NR 212.065.

History: Cr. Register, September, 1981, No. 309, eff. 10−1−81; am. (2), Register, May, 1986, No. 365, eff. 6−1−86.

NR 212.065 Modification of baseline loads. (1) Baseline loads established in ss. NR 212.40 to 212.70 shall be reviewed at least once every 5 years and if necessary, revised by the department based on factors that shall include, but not be limited to population projections, modifications to categorical effluent limits, production curtailment or expansions, permit expiration and revocation, cessation of discharge or other issues. Any temporary reallocation under s. NR 212.11 (2) shall be considered as part of baseline load revisions at the 5 year update.

(2) In proposing revisions to total maximum daily loads or baseline loads in ss. NR 212.40 to 212.70 due to reallocation, the department staff shall consider increases in allocations only for circumstances when:

(a) A new discharger requires a wasteload allocation due to insufficient reserve capacity being available in the applicable stream segment; or

(b) An existing discharger demonstrates to the satisfaction of the department that additional wasteload allocation is required due to a production expansion or municipal growth. The demonstration shall include an analysis of the discharger's current wastewater treatment facility's capability to adequately treat the increased influent. The demonstration shall also include an analysis that the discharger's wastewater treatment facility is adequately maintained and operated at optimal efficiency; or

(c) An existing discharger demonstrates to the satisfaction of the department that additional wasteload allocation is required due to the inability of its wastewater treatment facility to attain existing wasteload allocations. The demonstration shall include an analysis that the discharger has installed appropriate treatment technology and that the current facility is maintained and operated at optimal efficiency.

(d) A reallocation of total maximum daily loads would result in establishment of a reserve capacity through procedures identified in ss. NR 212.40 through 212.70.

(e) Through use of a toxicity test approved by the department, the discharger applying for an increased total maximum daily load demonstrates that such increase will not result in a failure, as defined by the department, of the toxicity test.

History: Cr. Register, May, 1986, No. 365, eff. 6−1−86.

NR 212.07 Allocation for reserve capacity. The allocation for a reserve capacity for a particular stream segment shall be zero unless otherwise specified in ss. NR 212.40 to 212.70.

History: Cr. Register, September, 1981, No. 309, eff. 10−1−81; am. Register, May, 1985, No. 353, eff. 6−1−85.

NR 212.08 Allocation for margin of safety. The allocation for a margin of safety shall be zero unless otherwise specified in ss. NR 212.40 to 212.70.

History: Cr. Register, September, 1981, No. 309, eff. 10−1−81; am. Register, May, 1985, No. 353, eff. 6−1−85.

NR 212.09 Nonpoint source allocation. The allocation for nonpoint sources shall be zero unless otherwise specified in ss. NR 212.40 to 212.70.

Note: For those stream conditions where the allocation of water quality related effluent limitations is necessary, nonpoint source effects on stream segments will normally be accounted for in the water quality model or other technical analysis used to determine the total maximum load. In unforeseen circumstances requiring the specific allocation of a portion of the total maximum load for contributions from nonpoint sources, s. NR 212.09 can be used. Direct control of contributions from nonpoint sources will be implemented through land management control practices and will not normally be included in a waste load allocation.

History: Cr. Register, September, 1981, No. 309, eff. 10−1−81; am. Register, May, 1985, No. 353, eff. 6−1−85.

NR 212.10 Point source allocations. (1) The water quality related effluent limitations for a point source discharge to a stream segment which is not impacted by any other point source shall be calculated by subtracting any allocations for reserve capacity, margin of safety or nonpoint sources from the total maximum loading.

(2) The procedures for determining water quality related effluent limitations for point source dischargers to a stream segment affected by more than one discharger are found in ss. NR 212.40 to 212.70.

(3) The department may permit point source water quality related effluent limitations to vary according to flow, temperature or other water quality conditions only when all of the following are met:

(a) The limitations shall result in the attainment of water quality standards; and

(b) During the term of the permit the discharger provides sufficient monitoring capability where such capability does not otherwise exist.

(4) Water quality related effluent limits shall be expressed as daily maximum loads. Consistent with techniques established under ss. NR 212.40 through 212.70 effluent limits may be expressed as averages in conjunction with daily maximum limits if the permittee demonstrates that such limits would not increase the probability of water quality standards violations. The flow and temperature measurements of stream conditions for flow and temperature related permits may be based on averages in cases where averages better approximate actual river conditions.

History: Cr. Register, September, 1981, No. 309, eff. 10−1−81; am. (2) and (4), Register, May, 1985, No. 353, eff. 6−1−85.

NR 212.11 Modifications and temporary reallocation of point source allocations. (1) When a discharger to a publicly−owned point source covered by this chapter applies to receive a separate WPDES permit or when a person with a WPDES permit applies to terminate its direct discharge in order to contribute to a publicly−owned point source covered by this chapter, permit modification procedures contained in ss. 283.37 and 283.53 (2), Stats., shall apply. Any reallocation pursuant to such action shall only affect the applicant and the publicly−owned point source to which it discharges.

(2) Procedures for temporary reallocation for individual stream segments are identified in ss. NR 212.40 through 212.70. Notwithstanding procedures identified in ss. NR 212.40 through 212.70, temporary reallocation of wasteload allocations may be allowed under the following conditions:

(a) Reallocations approved by the department shall be for at least one calendar year and shall expire at the end of the affected discharger's WPDES permit term;

(b) Reallocations shall account for differences in waste characteristics and location of discharge as determined by the department and may not adversely affect a downstream segment's wasteload allocation; and

(c) Reallocations may not affect baseline loads in affected stream segments but may result in an adjustment to total maximum daily loads identified in ss. NR 212.40 through 212.70.

(3) Reallocations may not be approved by the department until the discharger applying for a reallocation demonstrates through the use of a toxicity test approved by the department that such reallocation will not result in toxicity in the receiving water.

(4) Prior to department approval of a reallocation, all parties to the transfer shall waive all rights under s. 227.51, Stats., to retain any reallocation beyond the expiration date of the WPDES permit of the dischargers applying to receive a reallocation. The waiver shall be effectuated through incorporation into the WPDES permit of the affected discharger.

History: Cr. Register, September, 1981, No. 309, eff. 10−1−81; r. and recr. Register, August, 1985, No. 356, eff. 9−1−85.

NR 212.115 Transferable wasteload allocation. (1) Transfers of wasteload allocations between point source dischargers may be allowed through the permit issuance or modification process under the following conditions:

(a) The discharger applying to receive a transfer secures a legally binding agreement approved by the department, that the WPDES permit allocations for one or more existing dischargers shall be reduced by an amount sufficient to prevent the total maximum load under ss. NR 212.40 to 212.70 from being exceeded;

(b) The department shall consider the differences in waste characteristics and location of the affected point sources to determine amounts by which the existing point source allocations are reduced; and

(c) Transfer agreements approved by the department shall be for at least one wasteload allocation season and may not extend beyond the term of the seller's discharge permit.

(d) Transfers may not be approved by the department until the discharger applying for an increased wasteload allocation demonstrates through the use of a toxicity test approved by the department that the transfer will not result in a failure, as defined by the department, of the toxicity test.

(2) Prior to department approval of a transfer, the discharger applying for an increased wasteload allocation shall demonstrate to the satisfaction of the department that the increase is needed due to:

(a) New production by a new discharger,

(b) Increased production which cannot be accommodated by the current treatment facility, or

(c) The inability of the current waste treatment facility to meet current wasteload allocations despite optimal operation and maintenance of the treatment facility.

(3) Prior to department approval of a transfer, all parties to the transfer shall waive all rights under s. 227.51, Stats., to retain any transfer beyond the expiration date of the WPDES permit of the dischargers applying to receive a transfer. The waiver shall be incorporated into both the legally binding agreement in sub. (1) (a) and the WPDES permit of all parties to the agreement.

History: Cr. Register, March, 1986, No. 363, eff. 4−1−86.

NR 212.12 Instream aeration. (1) Total maximum loads established under this chapter may be calculated based on the use of instream aeration techniques when WPDES permit applications meet both the following conditions:

(a) A cost−effectiveness analysis is submitted to the department which demonstrates that instream aeration is a satisfactory means of attaining water quality standards; and

(b) A demonstration is made to the satisfaction of the department that applicable water quality standards will be met and no environmental pollution as defined in s. 299.01 (4), Stats., will occur.

(2) Instream aeration may not be used to accommodate new or increased discharges of pollutants either from new point sources or from the expansion of existing point sources, except that instream aeration may be available on a temporary basis to accommodate increased pollution loads due to the growth of a municipality when:

(a) The use of aeration for this purpose is restricted to residential or public sector growth;

(b) Adequate operation and maintenance of the publicly−owned point source exists;

(c) Excessive infiltration and inflow have been removed from the collection systems;

(d) No bypasses occur that are not approved by the department; and

(e) The municipality has taken all reasonable steps to obtain federal and state financing for its point source.

(3) The use of instream aeration under sub. (2) shall be allowed for a period not to exceed 5 years, at which time the publicly−owned point source shall have sufficient treatment capability in place to meet the waste water treatment needs as required by an approved municipal waste water treatment facility plan developed under ch. NR 110.

History: Cr. Register, September, 1981, No. 309, eff. 10−1−81; **CR 15−085: am. (2) (d) Register August 2016 No. 728, eff. 9−1−16.**

NR 212.13 Flow reregulation. (1) Total maximum loads established under this chapter may be calculated based on the use of flow reregulation techniques when WPDES permit applicants meet all of the following conditions:

(a) A cost−effectiveness analysis is submitted to the department which demonstrates that flow reregulation is a satisfactory means of attaining water quality standards.

(b) A technical analysis is presented to the satisfaction of the department which determines the critical water quality conditions for the affected stream segment as a function of the flow reregulation technique.

(c) Legally binding assurances are provided to the satisfaction of the department that the entity responsible for reregulating flows on the affected stream segment will undertake the agreed−upon flow reregulation activities.

(d) The flow reregulation does not interfere with the uses for which the impoundment was authorized.

(2) Flow reregulation may not be used to accommodate new discharges of pollutants either from new point sources or from the expansion of existing point sources.

(3) Flow reregulation may not be accomplished by the construction of new impoundments built for the primary purpose of increasing flows to accommodate pollution loadings.

(4) Flow reregulation may not be accomplished by flow augmentation practices which would increase the overall quantity of surface water in the basin. Prohibited practices include interbasin transfers or groundwater pumping.

History: Cr. Register, September, 1981, No. 309, eff. 10−1−81.

NR 212.40 Determination of lower Fox river water quality related effluent limitations. Effluent limitations for point sources discharging BOD_5 to the lower Fox river shall be calculated according to the procedures contained in this section. These limitations shall apply from May 1 to October 31 annually.

(1) (a) The total maximum daily BOD_5 loads which are available for allocation to point sources discharging to the lower Fox river between milepoints 40.0 and 32.4 are shown in Table 1−a.

(b) The total maximum daily BOD_5 loads which are available for allocation to point sources discharging to the lower Fox river between milepoints 32.4 and 19.2 are shown in Table 1−b.

(c) The total maximum daily BOD_5 loads which are available for allocation to point sources discharging to the lower Fox river between milepoints 7.2 and 0.0 are shown in Table 1−c. For the period June 1 through June 30 of each year, section A of the MAY−JUNE table shall be replaced with section A of the JULY−AUGUST table. The total maximum daily BOD_5 loads shown in Table 1−c have been determined in accord with ss. NR 102.02 and 102.03 to maintain the dissolved oxygen criteria except for natural conditions and the historically altered hydraulic characteristics.

(2) The department shall determine baseline loads for each point source subject to the wasteload allocation in accordance with all of the following:

(a) Publicly−owned point sources between milepoints 40.0 and 19.2. The baseline load expressed in pounds per day for each publicly−owned point source shall be calculated as follows:

Baseline Load = (Q) (8.34) (60)

Where: Q =	The average daily flow for the publicly−owned point source during 1976 and l977 expressed in million gallons per day, computed as: 12.09 million gallons per day for the publicly−owned point source located between milepoints 38.0 and 37.0 on the Menasha channel.
	1.40 million gallons per day for the publicly−owned point source located between milepoints 36.0 and 35.0.
	10.47 million gallons per day for the publicly−owned point source located between milepoints 30.0 and 25.0.
	2.99 million gallons per day for the publicly−owned point source located between milepoints 23.0 and 22.0.
8.34 =	Conversion factor (lbs./gal.).
60 =	Concentration of BOD_5 expressed in milligrams per liter.

(am) Publicly−owned point sources between milepoints 7.2 and 0.0. The baseline load expressed in pounds per day for each publicly−owned point source shall be calculated as follows:

Baseline Load = (Q) (8.34) (60)

Where: Q = The average daily flow for the publicly–owned point source during 1979 expressed in millions of gallons per day, computed as:

3.96 million gallons per day for the publicly–owned point source located between milepoints 7.0 and 6.0.

19.03 million gallons per day for the publicly–owned point source located between milepoints 1.0 and 0.0.

8.34 = Conversion factor (lbs./gal.).

60 = Concentration of BOD_5 expressed in milligrams per liter.

(b) Nonpublicly–owned point sources between milepoints 40.0 and 19.2. The baseline load expressed in pounds per day for each nonpublicly–owned point source shall be calculated as follows:

Baseline Load = (BPT) (Production) (0.85)

Where: BPT = The final best practicable waste treatment effluent limitations for the point source as provided in ch. NR 284 or 220, when applicable, expressed in pounds of BOD5 per ton of production.

Production = The maximum weekly off–machine production during 1973 expressed as tons per day.

0.85 = Adjustment factor to approximate daily average off–machine production.

(c) Nonpublicly–owned point sources between milepoints 7.2 and 0.0. The baseline load expressed in pounds per day for each nonpublicly–owned point source shall be calculated as follows:

Baseline Load = (BPT) (Production)

Where: BPT = The final best practicable waste treatment effluent limitations for the point source as provided in ch. NR 284 or 220, when applicable, expressed in pounds of BOD5 per ton of production.

Production = 1977 average daily off–machine production.

(d) Mini–cluster adjustment. The baseline load for nonpublicly–owned point sources between milepoints 0.8 and 0.5, and 0.4 and 0.0 shall be adjusted by subtracting 10% of the contractual maximum daily BOD_5 discharged to the publicly–owned point source located between milepoint 1.0 and 0.0. The 10% contractual maximum figure for both non–publicly–owned point sources shall be added to the baseline load for the publicly–owned point source located between milepoints 1.0 and 0.0.

(3) (a) Determine the reserve capacity adjustment. The reserve capacity for each publicly–owned point source located between milepoints 40.0 and 19.2 shall be calculated as follows:

Reserve Capacity = (P) (124) (8.34) (60)

Where: P = Projected population change for the area between the years 1977 and 2000 expressed in millions of persons.

124 = Projected per–capita waste water flow expressed in gallons per day.

8.34 = Conversion factor (lbs./gal.).

60 = Concentration of BOD_5 expressed in milligrams per liter.

(b) The reserve capacity for each publicly–owned point source located between milepoints 7.0 and 6.0 shall be calculated as follows:

Reserve Capacity = (P) (110) (8.34) (60)

Where: P = Projected population change for the area between the years 1979 and 2000 expressed in millions of people.

110 = Projected per–capita wastewater flow expressed in gallons per day.

8.34 = Conversion factor (lbs./gal.).

60 = Concentration of BOD_5 expressed in milligrams per liter.

(c) The reserve capacity for each publicly–owned point source located between milepoints 1.0 and 0.0 shall be calculated as follows:

Reserve Capacity = (P) (111) (8.34) (60)

Where: P = Projected population change for the area between the years 1979 and 2000 expressed in millions of people.

111 = Projected per–capita wastewater flow expressed in gallons per day.

8.34 = Conversion factor (lbs./gal.).

60 = Concentration of BOD_5 expressed in milligrams per liter.

(4) Determine the adjustments to the baseline loads.

(a) The adjusted baseline load for each publicly–owned point source shall be equal to the baseline load for the source calculated in sub. (2) (a) or (am) plus the reserve capacity for the same source calculated in sub. (3), plus the mini–cluster adjustment, if any, calculated in sub. (2) (d).

(b) The adjusted baseline load for each nonpublicly–owned point source shall be calculated as follows:

$$\text{Adjusted Baseline Load} = (BL) - \frac{(BL)}{\text{Total BL}} \times (\text{Total Reserve Capacity})$$

Where: BL = The baseline load for the nonpublicly–owned point source as determined using the procedures in sub. (2) (b) and (c)

Total BL = The sum of all the baseline loads for nonpublicly–owned point sources calculated in sub. (2) (b) and (c) within the applicable stream segment defined in sub. (1).

Total Reserve Capacity= The sum of all the reserve capacities for publicly–owned point sources calculated in sub. (3) within the applicable stream segment defined in sub. (1).

(c) The adjusted baseline load for publicly–owned and nonpublicly–owned point sources from milepoints 32.4 through 19.2 shall include an incremental addition as follows:

Milepoint	**BOD_5 Increment (lb/day)**
32.4 – 30.0	591
30.0 – 28.0	1619
28.0 – 26.0	3085
26.0 – 23.0	1710
23.0 – 22.7	565
22.7 – 22.5	2629

(d) The adjusted baseline load for nonpublicly–owned point source located between milepoint 0.8 and 0.5 shall be reduced by 2500 pounds of BOD_5 from the amount calculated in par. (b).

(5) Determine the allocation for each point source. The allocation for each point source shall be calculated as follows:

$$\text{Point Source Allocation} = (\text{Adjusted Baseline Load}) \frac{(T)}{C+D}$$

Where: Adjusted

Baseline Load =	The adjusted baseline load for the point source calculated in sub. (4)
T =	The applicable total maximum daily BOD_5 load available for allocation as shown in sub. (1)
C =	The sum of all the adjusted baseline loads within the applicable stream segment as defined in sub. (1) for publicly–owned point sources calculated in sub. (4) (a).
D =	The sum of all the adjusted baseline loads within the applicable stream segment defined in sub. (1) for nonpublicly–owned point sources calculated in sub. (4) (b).

(6) For purposes of determining compliance with water quality related effluent limits, the following conditions shall be met:

(a) For a point source discharging into the lower Fox river from milepoints 40.0 through 19.2, the sum of the actual daily discharges for any 7–consecutive–day–period may not exceed the sum of the daily point source allocation values calculated under sub. (5) for the same 7–consecutive–day–period; and

(am) For a point source discharging into the lower Fox river from milepoints 7.2 through 0.0, the sum of the actual daily discharges for any 7–consecutive–day–period may not exceed the sum of the daily point source allocation values calculated under sub. (5) for the same 7–consecutive–day–period; and

(b) For any one day period;

1. For a point source discharging into the lower Fox river between milepoints 40.0 through 32.4, the actual discharge may not exceed 138% of the allocation for that day as calculated under sub. (5).

2. For a point source discharging into the lower Fox river between milepoints 32.4 and 19.2, the actual discharge may not exceed 120.0% of the allocation for that day as calculated under sub. (5).

3. For a point source discharging into the lower Fox river between milepoints 7.2 and 0.0, the actual discharge may not exceed 134% of the allocation for that day as calculated under sub. (5).

(7) The flow and temperature conditions used to determine compliance with permit effluent limits shall be the representative measurements of the flow averaged over the previous 4 days and temperature of the previous day.

(8) REALLOCATION OF AVAILABLE WASTELOAD ALLOCATIONS. (a) Wasteload allocations may be reallocated under par. (c) when a wasteload allocated permit expires, is revoked or surrendered for the following purposes:

1. Provide for the wasteload needed due to the reactivation of a facility that had closed and made the wasteload available.

2. Provide the wasteload for new production increases by existing dischargers.

3. Provide the wasteload for production by a new discharger.

4. Provide for existing dischargers to raise their existing allocations in the appropriate stream segment towards categorical effluent limitation levels based upon a demonstration of need that the dischargers' treatment facility is incapable of meeting applicable wasteload allocations.

(b) Reallocations shall include an explicit reserve capacity for future new dischargers or future production increases by existing dischargers.

(c) The following procedures shall be used to reallocate available wasteloads:

1. Upon notification by the department of an available wasteload allocation pursuant to par. (a), the designated management agency shall publish a notice of wasteload availability.

2. A 6 month period shall be provided for persons to declare interest in available wasteload allocations.

3. Within 60 days of the end of the 6 month period the designated management agency shall conduct a public meeting regarding the proposed reallocation.

4. The designated management agency shall recommend a reallocation proposal to the department including an explicit reserve capacity.

5. The department shall notify the designated management agency of acceptance or rejection of the recommendation within 6 months.

History: Cr. Register, September, 1981, No. 309, eff. 10–1–81; cr. (8), Register, August, 1985, No. 356, eff. 9–1–85; am. (2) (a) and (b), (3), (5) and (6) (b) 1. and 2., cr. (4) (c), r. and recr. (8), Register, May, 1986, No. 365, eff. 6–1–86; cr. (1) (c), (2) (am), (c) and (d), (3) (b) and (c), (6) (am) and (b) 3., am. (4) (a) and (b), renum. (3) to be (3) (a), Register, March, 1987, No. 375, eff. 4–1–87; am. (1) (c) and (4) (a), Register, April, 1988, No. 388, eff. 5–1–88; cr. (4) (d), r. and recr. Table 1–C, Register, March, 1996, No. 483, eff. 4–1–96; **CR 15–085: am. (2) (intro.), (b), (c) Register August 2016 No. 728, eff. 9–1–16.**

NR 212.60 Determination of upper Wisconsin river water quality related effluent limitations. Effluent limitations for point sources discharging BOD_5 to the upper Wisconsin river shall be calculated according to the procedures contained in this section. These limitations shall apply from May 1 to October 31 annually.

(1) The department shall determine baseline loads for each point source subject to the wasteload allocation in accordance with all of the following:

(a) The baseline load for each publicly–owned point source located between milepoints 205.3 and 171.9 shall be calculated as follows:

$$\text{Baseline Load} = (Q)\ (8.34)\ (60)\ (C)$$

Where Q =	The average daily flow for the publicly–owned point source during 1978 expressed in millions of gallons per day.
8.34 =	Conversion factor (lbs./gal.).
60 =	Concentration of BOD_5 expressed in milligrams per liter.
C =	Reallocation conversion factor which has a value of 1.0 for the publicly–owned point source located between milepoints 205.3 and 199.4 and a value of 1.18 for the publicly–owned point sources located between milepoints 199.3 and 171.9.

(b) The baseline load for each nonpublicly–owned point source located between milepoints 205.3 and 171.9 shall be calculated as follows:

Baseline Load = (BPT) (Production)

Where BPT = The final best practicable waste treatment effluent limitations for the point source as provided in ch. NR 284, expressed as pounds of BOD5 per ton of production. If ch. NR 284 does not apply, the best practicable waste treatment effluent limitations as determined under ch. NR 220 shall apply.

Production = The annual average off−machine production during 1978 expressed as tons per day.

(c) The baseline load for each publicly−owned point source located between milepoints 235.4 and 271.1 shall be calculated as follows:

Baseline Load = (Q) (8.34) (C)

Where Q = 0.55 million gallons per day for publicly−owned point sources located between milepoints 240.0 and 250.0

4.0 million gallons per day for publicly−owned point sources located between milepoints 250.0 and 260.0.

8.2 million gallons per day for publicly−owned point sources located between milepoints 260.0 and 265.0.

0.1 million gallons per day for publicly−owned point sources located between milepoints 265.0 and 271.1.

8.34 = Conversion factor (lbs./gal.).

C = 45 milligrams per liter concentrations of BOD_5 for publicly−owned point sources located between milepoints 240.0 and 250.0, 250.0 and 260.0, and 265.0 and 271.1

60 milligrams per liter concentration of BOD_5 for publicly−owned point sources located between milepoints 260.0 and 265.0.

(d) The baseline load for each nonpublicly−owned point source with best practicable waste treatment effluent limitations of less than 500 pounds per day located between milepoints 271.1 and 240.0 shall be calculated as follows:

Baseline Load = (BPT) (Production)

Where BPT = The final best practicable waste treatment effluent limitations for the point source as provided in ch. NR 284, or 220, when applicable, expressed as pounds of BOD5 per ton of production.

Production = The maximum weekly off−machine production during 1981 expressed as tons per day.

(e) The baseline load for each nonpublicly−owned point source with best practicable waste treatment effluent limitations of BOD_5 equal to or exceeding 500 pounds per day located between milepoints 271.1 and 240.0 shall be calculated as follows:

Baseline Load = (BPT) (Production)

Where BPT = The final best practicable waste treatment effluent limitations for the point source as provided in ch. NR 284 or 220, when applicable, expressed as pounds of BOD5 per ton of production.

Production = The average weekly off−machine production expressed as tons per day from March to December 1973 for point sources located between milepoints 271.0 and 258.5 and the BPT permit limits for 1978 for point sources located between milepoints 258.4 and 258.2 and the average weekly off−machine production expressed as tons per day during 1974 for point sources located between milepoints 258.19 and 249.0 and the average weekly off−machine production expressed as tons per day during 1973 plus the woodroom allowance for sources located between milepoints 248.9 and 240.0.

(f) The baseline load for each publicly−owned point source located between milepoints 341.4 and 305.9 shall be calculated as follows:

Baseline Load = (Q) (8.34) (30)

Where Q = The design flow for the publicly−owned point source located between milepoints 341.4 and 313.2 and the year 2000 flow projection for those located between milepoints 313.3 and 305.9 expressed in millions of gallons per day.

8.34 = Conversion factor (lbs/gal.).

30 = Concentration of BOD_5 expressed in milligrams per liter.

(g) The baseline load for each nonpublicly−owned point source located between milepoints 341.4 and 305.9 shall be calculated as follows:

Baseline Load = (BPT) (Production)

Where BPT = The final best practicable waste treatment effluent limitations for the point source as provided in ch. NR 284, expressed as pounds of BOD5 per ton of production. If ch. NR 284 does not apply, the best practicable waste treatment effluent limitations as determined under ch. NR 220 shall apply.

Production = The annual average off−machine production during 1978 expressed as tons per day.

(2) Determine the allocation for each point source.

(a) The allocation for each publicly−owned point source located between milepoints 205.3 and 171.9 shall be its baseline load as determined in sub. (1) (a).

(b) The allocation for each nonpublicly−owned point source located between milepoints 205.3 and 171.9 shall be calculated as follows:

$$\text{Point Source Allocation} = BL \frac{(T)}{D}$$

Where BL =	The baseline load for the individual point source calculated under sub. (1) (b)
T =	The total maximum daily BOD_5 load available for allocation as shown in Table 1−m minus the sum of the point source allocations as determined in par. (a)
D =	The sum of the baseline loads for nonpublicly−owned point sources calculated under sub. (1) (b).

For purposes of determining compliance with water quality related effluent limits, the following conditions shall be met:

1. The sum of the actual daily discharges for any 5−consecutive−day−period may not exceed the sum of the daily point source allocation values calculated under the formula for the same 5−consecutive−day−period; and

2. For any one day period, the actual discharge for the point source may not exceed 120.5% of the allocation for that day as calculated under the formula.

(c) 1. The allocation for publicly−owned point source located between milepoint 240.0 and 250.0 shall be its baseline load as determined under sub. (1) (c).

2. The allocation for publicly−owned point sources located between milepoint 250.0 and 260.0 shall be determined as follows:

a. For the period January 1, 1986 through December 31, 1990, the allocation shall be determined as follows:

Point Source Allocation = (Q) (8.34) (45)
Where Q = 3.1 million gallons per day
8.34 = Conversion factor (lbs./gal.)
45 = 45 milligrams per liter concentration of BOD_5

b. For each 5−year period beginning January 1, 1991 through December 31, 2005, the allocation shall be redetermined on the basis of projected flows and the demonstrated treatment capability of the point source. The redetermination shall be made at the time of each 5−year reevaluation under s. NR 212.06 (2). No allocation may exceed the baseline load as determined in sub. (1) (c).

3. The allocation for the publicly−owned point sources located between milepoints 260.0 and 265.0 shall be a reduction in discharge to levels appearing in Table 8−m. For purposes of determining compliance with water quality related effluent limits, the following conditions shall be met:

a. The sum of actual daily discharges for any 5−consecutive−day period may not exceed the sum of the daily point source allocation values calculated for the same 5−consecutive−day period.

b. For any one day period, the actual discharge for the point source may not exceed 108.5% of the allocation for that day calculated for those flow temperature regimes identified as Condition A in Table 8−m or 101.8% of the allocation for that day calculated for those flow/temperature regimes identified as Condition B in Table 8−m or 113.0% of the allocation calculated for those flow/temperature regimes identified as Condition C in Table 8−m.

4. The allocation for publicly−owned point sources located between milepoints 265.0 and 271.1 shall be its baseline load as determined under sub. (1) (c).

(d) The allocation for each nonpublicly−owned point source located between milepoints 271.1 and 240.0 with best practicable waste treatment effluent limits of less than 500 pounds of BOD_5 per day shall be its baseline load as determined under sub. (1) (d).

(e) The allocation for each nonpublicly−owned point source located between milepoints 271.1 and 258.5 with best practicable waste treatment effluent limits equal to or exceeding 500 pounds of BOD_5 per day shall be a reduction in its discharge to levels appearing in Table 2−m. For purposes of determining compliance with water quality related effluent limits, the following conditions shall be met:

1. The sum of the actual daily discharges for any 5−consecutive−day period may not exceed the sum of the daily point source allocation values calculated under Table 2−m for the same 5−consecutive−day period.

2. For any one day period, the actual discharge for the point source may not exceed 101.8% of the allocation for that day calculated for those flow/temperature regimes identified as Condition B in Table 2−m or 113.0% of the allocation calculated for those flow/temperature regimes identified as Condition C in Table 2−m. No percentage adjustment shall be made for conditions identified as Condition A in Table 2−m.

(f) The allocation for each nonpublicly−owned point source located between milepoints 258.4 and 258.2 with best practicable waste treatment effluent limits equal to or exceeding 500 pounds of BOD_5 per day shall be a reduction in its discharge to levels appearing in Table 3−m. For purposes of determining compliance with water quality related effluent limits, the following conditions shall be met:

1. The sum of the actual daily discharges for any 5−consecutive−day period may not exceed the sum of the daily point source allocation values calculated under Table 3−m for the same 5−consecutive−day−period.

2. For any one day period, the actual discharge for the point source may not exceed 108.5% of the allocation for that day calculated for those flow/temperature regimes identified as Condition A in Table 3−m or 101.8% of the allocation calculated for those flow/temperature regimes identified as Condition B in Table 3−m or 113.0% of the allocation calculated for those flow/temperature regimes identified as Condition C in Table 3−m.

(g) The allocation for each nonpublicly−owned point source located between milepoints 258.19 and 249.0 with best practicable waste treatment effluent limits equal to or exceeding 500 pounds of BOD_5 per day shall be a reduction in its discharge to levels appearing in Table 4−m. For purposes of determining compliance with water quality related effluent limits, the following conditions shall be met:

1. The sum of actual daily discharges for any 5−consecutive−day period may not exceed the sum of the daily point source allocation values calculated for the same 5−consecutive−day period.

2. For any one day period, the actual discharge for the point source may not exceed 108.5% of the allocation for that day for those flow/temperature regimes identified as Condition A in Table 4−m or 101.8% of the allocation calculated for those flow/temperature regimes identified as Condition B in Table 4−m or 113.0% of the allocation calculated for those flow/temperature regimes identified as Condition C in Table 4−m.

(h) The allocation for each nonpublicly−owned point source located between milepoints 248.9 and 240.0 with best practicable waste treatment effluent limits equal to or exceeding 500 pounds of BOD_5 per day shall be a reduction in its discharges to levels appearing in Table 5−m. For purposes of determining compliance with water quality related effluent limits, the following conditions shall be met:

1. The sum of the actual daily discharges for any 5−consecutive−day period may not exceed the sum of the daily point source allocation values calculated under Table 5−m for the same 5−consecutive−day period.

2. For any one day period, the actual discharge for the point source may not exceed 113.4% of the allocation for that day calculated for those flow/temperature regimes identified as Condition A in Table 5−m or 110.2% of the allocation for that day calculated for those flow/temperature regimes identified as Condition B in Table 5−m or 113.0% of the allocation for that day calculated for

those flow/temperature regimes identified as Condition C in Table 5−m.

(i) The allocation for each publicly−owned point source located between milepoints 341.4 and 305.9 shall be its baseline load as determined under sub. (1) (f).

(j) The allocation for each nonpublicly−owned point source located between milepoints 341.4 and 313.2 with best practicable waste treatment limits equal to or exceeding 550 pounds of BOD_5 per day shall be a reduction in its discharge to levels appearing in Table 6−m. For purposes of determining compliance with water quality related effluent limits, the following conditions shall be met:

1. The sum of the actual daily discharges for any 5−consecutive−day period may not exceed the sum of the daily point source allocation values calculated under Table 6−m for the same 5−consecutive−day period.

2. For any one day period, the actual discharge for the point source may not exceed 106.5% of the allocation for that day calculated for those flow/temperature regimes identified as Condition B in Table 6−m. No percentage adjustments shall be made for conditions identified as Condition A in Table 6−m.

(k) The allocation for each nonpublicly−owned point source located between milepoints 313.19 and 305.9 with best practicable waste treatment limits equal to or exceeding 550 pounds of BOD_5 per day shall be a reduction in its discharge to levels appearing in Table 7−m. For purposes of determining compliance with water quality related effluent limits, the following conditions shall be met:

1. The sum of the actual daily discharges for any 5−consecutive−day period may not exceed the sum of the daily point source allocation values calculated under Table 7−m for the same 5−consecutive−day period.

2. For any one day period, the actual discharge for the point source may not exceed 106.5% of the allocation for that day calculated for those flow/temperature regimes identified as Condition B in Table 7−m. No percentage adjustments shall be made for conditions identified as Condition A in Table 7−m.

(3) The flow and temperature conditions used to determine compliance with permit effluent limits shall be the representative measurements of the flow and temperature of the previous day.

(4) REALLOCATION OF AVAILABLE WASTELOAD ALLOCATIONS. (a) Wasteload allocations may be reallocated under par. (c) when a previously issued wasteload allocated permit expires, is revoked or is voluntarily surrendered. Such reallocation may be accomplished for the following purposes:

1. Provide for the wasteload needed due to the reactivation of a facility that had previously closed and caused the wasteload to become available.

2. Provide for new production increases by existing dischargers.

3. Provide for production by a new discharger.

4. Provide for existing dischargers to raise their existing allocation in the appropriate stream segment towards categorical effluent limitation levels based upon a demonstration of need that the discharger's treatment facility is incapable of meeting applicable wasteload allocations.

(b) Any reallocation shall include explicit reserve capacity for future new dischargers or future production increase by existing dischargers.

(c) Reallocations shall occur according to the following procedure:

1. Upon notification by the department of the availability of a wasteload pursuant to s. NR 212.60 (4) (a), the designated management agency shall publish a notice of wasteload availability.

2. A 6−month period shall be provided for persons to declare interest in available wasteload allocations.

3. Within 60 days of the end of the 6 month period the designated management agency shall conduct a public meeting regarding the proposed reallocation.

4. The designated management agency shall recommend a reallocation including an explicit reserve capacity to the department within 30 days of the public meeting.

5. The department shall notify the designated management agency of acceptance or rejection of the recommendation within 6 months.

History: Cr. Register, September, 1981, No. 309, eff. 10−1−81; emerg. r. and recr. (1) (c) and (2) (c), eff. 8−5−83; r. and recr. (1) (c) and (2) (c), Register, November, 1983, No. 335, eff. 12−1−83; am. (1) (a) and (f), (2) (b) 2., cr. (4), Register, May, 1986, No. 365, eff. 6−1−86; am. (1) (c) to (e), (2) (c) 1., 2.a. and 3., (d), (e) 2., (f) 2., (g), (h) (intro.) and 2., cr., tables 1−c and 8−m, r. and recr. tables 2−m, 3−m, 4−m and 5−m, Register, March, 1987, No. 375, eff. 4−1−87; am. table 1−c, Register, April, 1988, No. 388, eff. 5−1−88; **CR 15−085: am. (1) (intro.), (b), (d), (e), (g) Register August 2016 No. 728, eff. 9−1−16.**

NR 212.70 Determination of Peshtigo river water quality related effluent limitations. Effluent limitations for point sources discharging BOD_5 to the Peshtigo river shall be calculated according to the procedures contained in this section. These limitations shall apply from May 1 to October 31 annually.

(1) Determine baseline loads for each point source subject to the wasteload allocation.

(a) The baseline load for each publicly−owned point source located between milepoints 9.6 and 0.0 shall be calculated as follows:

Baseline load =	(Q) (8.34) (60) + (BPT) (Production)
Where Q =	The year 2000 flow projection of the domestic contribution of the influent to the treatment plant expressed in millions of gallons per day
8.34 =	Conversion factor
60 =	Concentration of BOD_5 expressed in milligrams per liter
BPT =	The final best practicable waste treatment effluent limitations for the industrial contribution of the influent to the treatment plant as provided in ch. NR 284 expressed as pounds of BOD5 per ton of production. If ch. NR 284 does not apply, the best practicable waste treatment effluent limitations as determined under ch. NR 220 shall apply.
Production =	The annual average off−machine production during January 1 to December 1, 1978 expressed as tons per day

(b) The baseline load for each nonpublicly−owned point source located between milepoints 12.0 and 9.7 shall be calculated as follows:

Baseline load = (BPT) (Production)

Where BPT = The final best practicable waste treatment effluent limitations for the point source which is not discharged to a publicly−owned treatment system as provided in ch. NR 284 expressed as pounds of BOD5 per ton of production. If ch. NR 284 does not apply, the best practicable waste treatment effluent limitations as determined under ch. NR 220 shall apply.

Production = The annual average off−machine production during January 1 to December 1, 1978 expressed as tons per day.

(2) Determine the allocation for each point source.

(a) The allocation for each publicly−owned point source located between milepoints 9.6 and 0.0 shall be a reduction in its discharge to levels appearing in Table 1−p.

(b) The allocation for each nonpublicly−owned point source located between milepoints 12.0 and 9.6 shall be a reduction in its discharge to levels appearing in Table 2−p.

(3) The flow and temperature conditions used to determine compliance with permit effluent limits shall be the representative average measurements of the flow and temperature of the previous day.

History: Cr. Register, May, 1985, No. 353, eff. 6−1−85; **CR 15−085: am. (1) (a), (b) Register August 2016 No. 728, eff. 9−1−16.**

Subchapter III — Development of Total Maximum Daily Loads and Effluent Limitations Developed Through Wasteload Allocations

NR 212.71 Applicability. This subchapter establishes the procedures, methodologies, and requirements to be used for determining total maximum daily loads and water quality−based effluent limitations developed through wasteload allocations for pollutants except as provided in subch. II.

History: CR 15−085: cr. Register August 2016 No. 728, eff. 9−1−16.

NR 212.72 Definitions. In addition to the definitions and abbreviations in ss. NR 205.03 and 205.04 the following definitions are applicable to the terms of this subchapter:

(1) "EPA" means the United States environmental protection agency.

(2) "Impaired water" has the meaning given in s. NR 151.002 (16m).

(3) "Increased discharge" means any increase in the concentration or mass loading of a pollutant of concern that exceeds an effluent limitation that is in effect in a current permit.

(4) "Load allocation" means the nonpoint source allocation as defined in s. NR 212.03 (14).

(5) "Loading capacity" means the greatest amount of loading that a water can receive without violating water quality standards.

(6) "Margin of safety" means a required component of the TMDL that accounts for the uncertainty in the response of the waterbody to loading reductions.

(7) "Natural background load" means loads emanating from natural sources, including but not limited to forested and undeveloped lands and from natural processes such as weathering and dissolution, which would exist in the absence of measurable impacts from human activity or influence.

(8) "New discharge" means a point source that discharges the pollutant of concern that commenced operation after the TMDL was approved by EPA and was not given a wasteload allocation in the TMDL.

(9) "Pollutant of concern" means any pollutant discharged that has an applicable TBEL, a wasteload allocation from a TMDL or watershed analysis, or is identified as needing a WQBEL to meet water quality standards.

(10) "TBEL" means technology−based effluent limitation.

(11) "TMDL" means total maximum daily load and is the sum of the individual wasteload allocations for point sources, load allocations for nonpoint sources, natural background, and a margin of safety. TMDLs can be expressed in terms of mass per time, toxicity, or other appropriate measures that relate to a state water quality standard.

(12) "Wasteload allocation" refers to the point source allocation as defined in s. NR 212.03 (22).

(13) "WQBEL" means water quality−based effluent limitation.

History: CR 15−085: cr. Register August 2016 No. 728, eff. 9−1−16.

NR 212.73 TMDL development requirements for impaired waters. (1) PURPOSE. This section establishes the procedure, methodologies, and requirements to be used for developing TMDLs.

(2) PRIORITIZATION. The department shall create and maintain an impaired waters list of waters that fail to meet water quality standards and, therefore, require the development of TMDLs or alternative remediation plans. The impaired waters list shall include a priority ranking for the development of a TMDL for all listed waters. The priority ranking shall consider the severity of the pollution, the uses to be made of such waters, and whether implementing existing TBELs and WQBELs in permits are sufficient to achieve water quality standards. By April 1 of each even−numbered year, the Department shall submit to the EPA a prioritized ranking of waters on the impaired waters list targeted for TMDL development for a two−year period. Impaired waters addressed by alternative remediation plans may be assigned a low priority for TMDL development on the impaired waters list.

Note: The impaired waters listing and priority setting process is specified in the Wisconsin Consolidated Assessment and Listing Methodology (WisCALM).

Note: Examples of remediation plans include, but are not limited to, lake protection and restoration plans, remedial action plans, environmental accountability projects, area−wide water quality management plans, adaptive management plans, and nine key element watershed plans.

(3) TMDL DEVELOPMENT. (a) The department shall establish TMDLs for impaired waters in accordance with the prioritization in sub. (1). TMDLs shall be established at levels necessary to attain and maintain applicable numeric and narrative water quality standards with seasonal variations and a margin of safety that takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality. TMDLs shall take into account critical conditions for stream flow, loading, and water quality parameters.

(b) TMDLs shall be established to ensure attainment of all designated uses and applicable numeric and narrative water quality standards for the pollutant of concern including applicable numeric and narrative criteria under chs. NR 102 and 105.

(c) TMDLs may be established using a pollutant−by−pollutant or biomonitoring approach. In many cases both techniques may be needed. Site specific information should be used whenever possible.

(d) TMDLs shall include wasteload allocations for point sources and load allocations for nonpoint sources such that the sum of the allocations is not greater than the loading capacity of the water for the pollutants addressed by the TMDL, minus the sum of natural background loads, the reserve capacity and, if specified, an explicit margin of safety. Allocations shall meet the following requirements:

1. Allocations shall be distributed to sources using a baseline loading condition that is defined in the TMDL.

2. If allocations in the TMDL are expressed as a concentration, the TMDL shall also indicate the flows, including effluent flows, assumed in the analyses.

3. If multiple EPA−approved TMDLs are prepared for impaired waters, and the TMDLs include allocations for the same pollutant for one or more of the same sources, then the applicable allocations that are protective of both immediate and downstream segments shall be used for TMDL implementation, including permitting.

4. Pollutant degradation and transport may be considered when developing allocations.

5. Natural background loads may be accounted for in a TMDL through an allocation to a single category or through individual allocations to applicable sources of natural background loads.

6. Nonpoint sources may be accounted for in a TMDL through an allocation to a single category or through individual load allocations to various nonpoint sources.

7. Point source dischargers covered through individual permits shall be assigned individual waste load allocations. Point source dischargers covered through general permits may be accounted for through an allocation to a single category or through individual wasteload allocations.

(e) TMDLs shall include a margin of safety sufficient to account for technical uncertainties in establishing the TMDL and shall describe the manner in which the margin of safety is determined and incorporated into the TMDL. The margin of safety may be provided explicitly by leaving a portion of the loading capacity unallocated, implicitly by using conservative modeling assumptions to establish wasteload allocations and load allocations, or a combination thereof. If a portion of the loading capacity is left unallocated to provide a margin of safety, the amount left unallocated shall be documented. If conservative modeling assumptions are relied on to provide a margin of safety, the specific assumptions providing the margin of safety shall be described.

(f) A portion of the TMDL may be allocated to a reserve capacity to account for new or increased discharges, or other sources not allocated in the TMDL. When such reserve allocations are not included in a TMDL, any increased loadings of the pollutant for which the TMDL was developed that are due to a new or expanded discharge may not be allowed unless the TMDL is revised to include an allocation for the new or expanded discharge or the new or expanded discharge is offset by a reduction of the pollutant in the watershed covered by the TMDL.

(4) MONITORING DATA. Monitoring data shall be collected to support the development of the TMDL and track implementation of a TMDL. Monitoring data shall be used for all of the following:

(a) To demonstrate progress towards achieving water quality standards such as quantifying pollutant reductions made through implementation of the TMDL and evaluating the effectiveness of controls being used to implement the TMDL.

(b) To validate the assumptions and scientific analysis used to establish the TMDL or revise the TMDL, if necessary.

(5) REASONABLE ASSURANCE. A TMDL, implementation plan for a TMDL, or remediation plan shall provide reasonable assurances that water quality standards will be attained within a reasonable timeframe. Determining the reasonable period of time in which water quality standards will be met is a case−specific determination considering a number of factors including, but not limited to: receiving water characteristics including persistence, behavior, and ubiquity of pollutants of concern; the types of remedial activities necessary; and available regulatory and non−regulatory controls.

History: CR 15−085: cr. Register August 2016 No. 728, eff. 9−1−16.

NR 212.74 Developing TMDLs for nearshore and open waters of the Great Lakes. This section describes requirements for deriving TMDLs for waters of the Great Lakes system as defined in s. NR 102.22 (5) and inland lakes within the Great Lakes system with no appreciable flow relative to their volumes. This section applies to TMDLs for all pollutants excluding the following: alkalinity, ammonia, bacteria, biochemical oxygen demand, chlorine, color, dissolved oxygen, dissolved solids, pH, phosphorus, salinity, temperature, total and suspended solids, turbidity, and whole effluent toxicity. In addition to the requirements specified in s. NR 212.73, TMDLs in this section shall also meet all of the following:

(1) TMDLs shall reflect, when appropriate and when sufficient data are available, contributions to the water column from sediments inside and outside of any applicable mixing zones. TMDLs shall be sufficiently stringent so as to prevent accumulation of the pollutant of concern in sediments to levels injurious to designated or existing uses, human health, wildlife, and aquatic life.

(2) TMDLs shall reflect, when appropriate and when sufficient data are available, discharges resulting from wet weather events.

(3) TMDLs shall reflect, when appropriate and when sufficient data are available, background concentrations of pollutants stemming from atmospheric deposition, sediment release or resuspension, or as a result of chemical reactions.

History: CR 15−085: cr. Register August 2016 No. 728, eff. 9−1−16.

NR 212.75 Developing TMDLs for Great Lakes systems tributaries and connecting channels. This section describes conditions for deriving TMDLs for tributaries and connecting channels of the Great Lakes system as defined in s. NR 102.12 (1) that exhibit appreciable flows relative to their volumes. This section applies to TMDLs for all pollutants excluding the following: alkalinity, ammonia, bacteria, biochemical oxygen demand, chlorine, color, dissolved oxygen, dissolved solids, pH, phosphorus, salinity, temperature, total and suspended solids, turbidity, and whole effluent toxicity. In addition to the requirements specified in s. NR 212.73, TMDLs in this section shall also meet all of the following:

(1) TMDLs shall reflect, when appropriate and when sufficient data are available, contributions to the water column from sediments inside and outside of any applicable mixing zones. TMDLs shall be sufficiently stringent so as to prevent accumulation of the pollutant of concern in sediments to levels injurious to designated or existing uses, human health, wildlife, and aquatic life.

(2) TMDLs shall reflect, when appropriate and when sufficient data are available, discharges resulting from wet weather events.

(3) TMDLs shall reflect, when appropriate and when sufficient data are available, background concentrations of pollutants stemming from atmospheric deposition, sediment release or resuspension, or as a result of chemical reactions.

(4) Design flows shall be used unless data exist to demonstrate that an alternative stream design flow is appropriate for stream−specific and pollutant−specific conditions. For purposes of calculating a TMDL, the stream design flows shall be all of the following:

(a) The 7−day, 10−year stream design flow (7Q10), or the 4−day, 3−year biologically−based stream design flow for chronic aquatic life criteria or values.

(b) The 1−day, 10−year stream design flow (1Q10), for acute aquatic life criteria or values.

(c) The harmonic mean flow for human health criteria or values.

(d) The 90−day, 10−year flow (90Q10) for wildlife criteria.

(e) TMDLs, calculated using dynamic modeling are not required to incorporate the stream design flows specified in pars. (a) to (d) of this procedure.

(5) The loading capacity is initially calculated at the farthest downstream location for the impaired reach by multiplying the applicable criterion or target value by the flow condition described in sub. (4). The loading capacity is then compared to the loadings at sites within the basin to assure that applicable numeric criteria or values for a given pollutant are not exceeded at all applicable sites. The lowest load is then selected as the loading capacity to be consistent with the attainment of each applicable numeric criterion or value for a given pollutant.

History: CR 15−085: cr. Register August 2016 No. 728, eff. 9−1−16.

NR 212.76 Establishing WQBELs for publicly and privately owned wastewater facilities or treatment works. (1) WQBEL CALCULATION PROCEDURES. Calculation of WQBELs derived from TMDL wasteload allocations shall be derived consistent with the wasteload allocation and assumptions of an EPA−approved TMDL. The department shall use scientifically defensible methods to calculate these WQBELs. All of the following conditions shall apply when calculating WQBELs derived from TMDL wasteload allocations:

(a) WQBELs shall be expressed as mass limitations unless the pollutant cannot appropriately be expressed by mass or a mass limitation is infeasible because the mass of the pollutant cannot be related to a measure of operation.

(b) When establishing WQBELs in permits the department shall ensure that substances are not present in amounts that are acutely toxic to animals, plants, or aquatic life in all surface waters including those portions of the mixing zone normally habitable by aquatic life and effluent channels as required by s. NR 102.04 (1).

(c) When establishing WQBELs in permits the department shall ensure that substances are not exceeding applicable chronic toxicity criteria, wildlife criteria, taste and odor criteria, human threshold criteria, human cancer criteria, and secondary values, as specified in chs. NR 102 to 105, after dilution with an appropriate allowable quantity of receiving water flow unless the conditions specified in s. NR 102.05 (3) or the TMDL wasteload allocation require less dilution or no dilution be allowed. WQBELs may be more restrictive than the applicable water quality criteria in order to be consistent with the wasteload allocation and assumptions of an EPA−approved TMDL.

(2) WQBEL CALCULATION PROCEDURES IN GREAT LAKES BASIN. In addition to the requirements in sub. (1), WQBELs derived from TMDLs under ss. NR 212.74 and 212.75 shall also meet all of the following:

(a) WQBELs shall be sufficiently stringent to ensure that accumulation of the pollutant of concern cannot occur in sediments at levels injurious to designated or existing uses, human health, wildlife, or aquatic life.

(b) When establishing WQBELs in permits the department shall assume that the pollutant of concern does not degrade over time unless any the following conditions are met:

1. Scientifically valid field studies or other relevant information demonstrate that degradation of the pollutant is expected to occur under the full range of environmental conditions expected.

2. Scientifically valid field studies or other relevant information address other factors that affect the level of pollutants in the water column including suspension of sediments, chemical speciation, and biological and chemical transformation.

(3) MIXING ZONES FOR BIOACCUMULATIVE CHEMICALS OF CONCERN (BCCs). WQBELs derived from TMDL wasteload allocations for BCCs shall be consistent with and no less stringent than the mixing zone provisions under s. NR 106.06 (2).

(4) EXPRESSION OF LIMITS. WQBELs derived from TMDL wasteload allocations shall be expressed consistent with the provisions specified in s. NR 205.065 unless impracticable or an alternative expression of limitations is determined appropriate by the department and is consistent with the assumptions of the TMDL.

(5) COMPLIANCE SCHEDULES. When a permit is issued, reissued, or modified with new WQBELs based on a TMDL established using the procedures in this subchapter, the department may include a compliance schedule to achieve compliance with the TMDL based limitation if the permittee's treatment system is unable to immediately comply with the limitation. The compliance schedule shall meet all of the following conditions:

(a) The schedule of compliance will lead to compliance with the water quality based effluent limitation as soon as possible.

(b) The compliance schedule may not extend beyond the expiration date of the permit unless extended compliance schedules are authorized in ch. NR 217, other Wisconsin administrative code chapters, or a TMDL schedule in an approved areawide water quality management plan under ch. NR 121. Compliance schedules for toxic and organoleptic substances shall be consistent with the requirements of s. NR 106.117.

(c) Dates between interim compliance steps in the compliance schedule may not exceed one year.

(d) Development and implementation of an optimization plan or pollution minimization plan may be included as part of the compliance schedule as a means of complying with the effluent limitation.

(6) RELATIONSHIP OF WQBELS DERIVED FROM TMDL WASTELOAD ALLOCATIONS AND OTHER WQBELS. The department may include WQBELs derived from TMDL wasteload allocations in a permit in addition to, or in lieu of, other WQBELs.

History: CR 15−085: cr. Register August 2016 No. 728, eff. 9−1−16.

NR 212.77 Public Participation. (1) The department shall conduct an informational public hearing and provide an opportunity for the public to comment on a proposed TMDL before the TMDL is submitted to EPA for approval. The minimum time period for written comments shall be 30 days from the date of public notice of a TMDL. The department shall post notice of a proposed TMDL on the department's website.

(2) Once a TMDL is approved by EPA, the TMDL is automatically incorporated into all applicable areawide water quality management plans, lake management plans, or remedial action plans.

(3) The department may not impose a WQBEL based on a TMDL in a permit under s. NR 212.76 (6), until the TMDL has been approved by EPA.

(4) The department shall provide public notice and provide an opportunity for comment on a calculated WQBEL that is derived from the EPA−approved TMDL during the public notice and comment period on the permit as provided in ch. NR 203 and ch. 283, Stats.

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