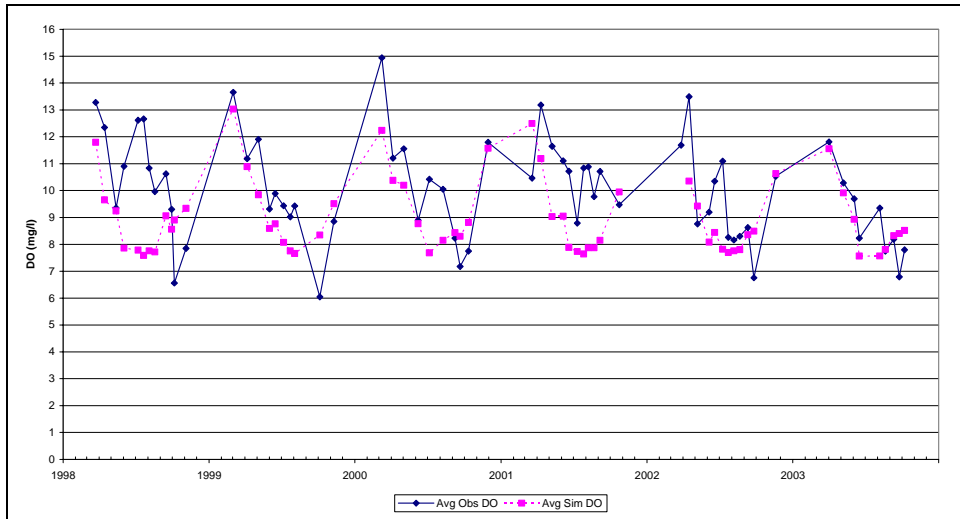
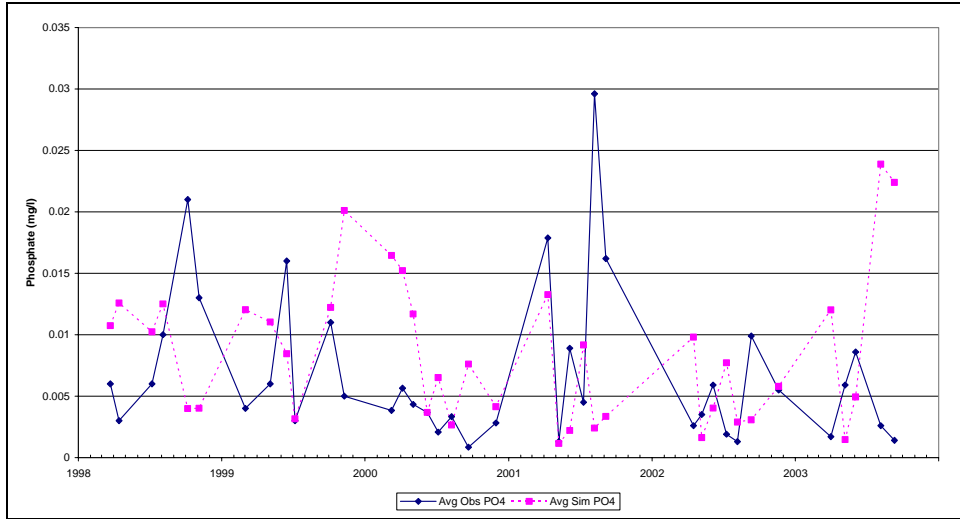


**Figure C3. Observed and Simulated Max Chla Concentrations, TR3, Calibration Scenario, Triadelphia Reservoir**

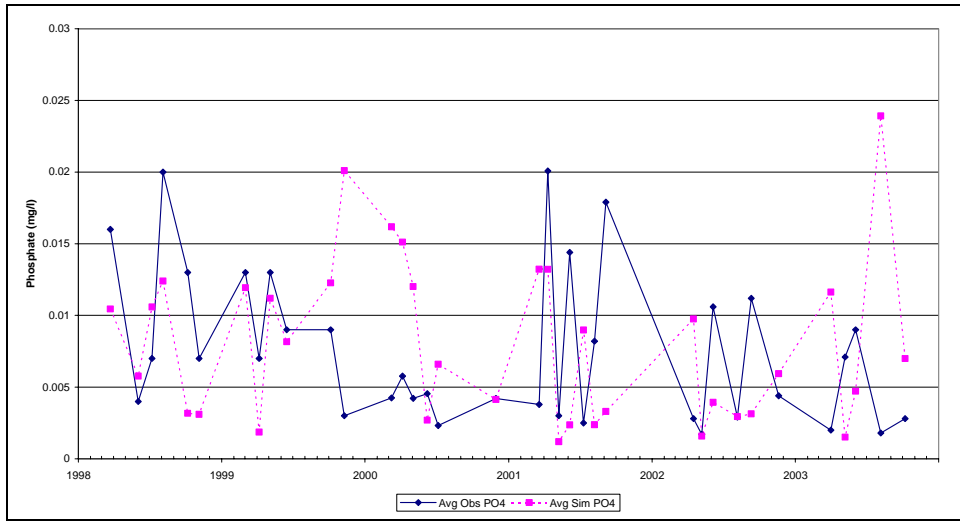


**Figure C4. Observed and Simulated Average Surface DO Concentrations, TR2, Calibration Scenario, Triadelphia Reservoir.**

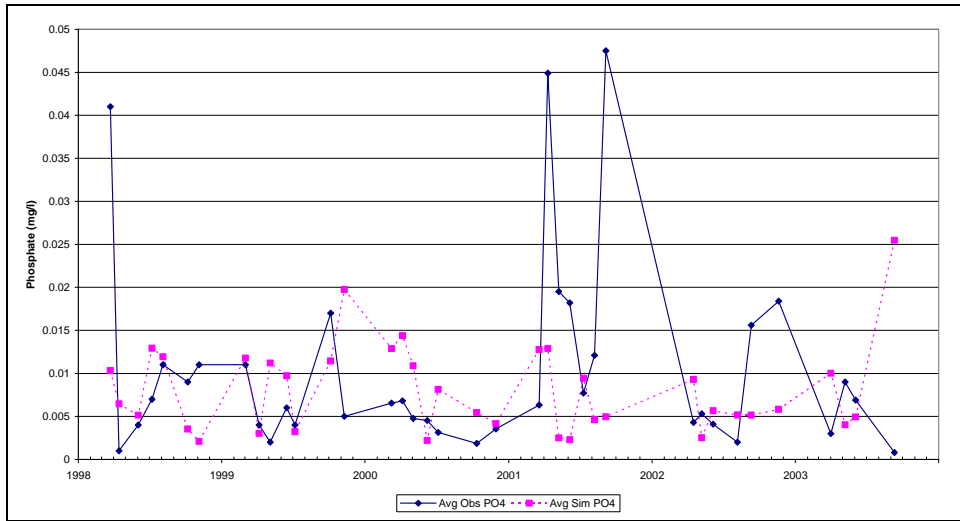




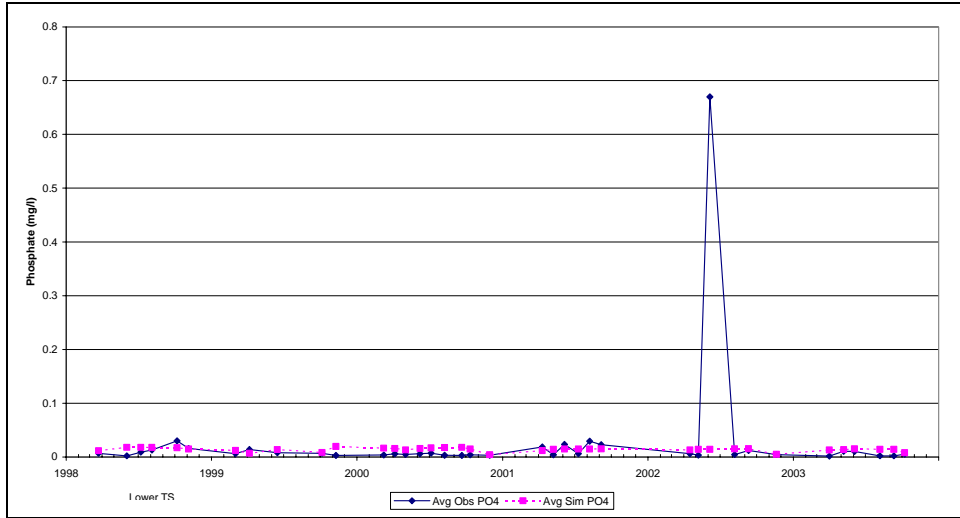
**Figure C7. Observed and Simulated Average Surface Phosphate Concentrations, TR1, Calibration Scenario, Triadelphia Reservoir.**



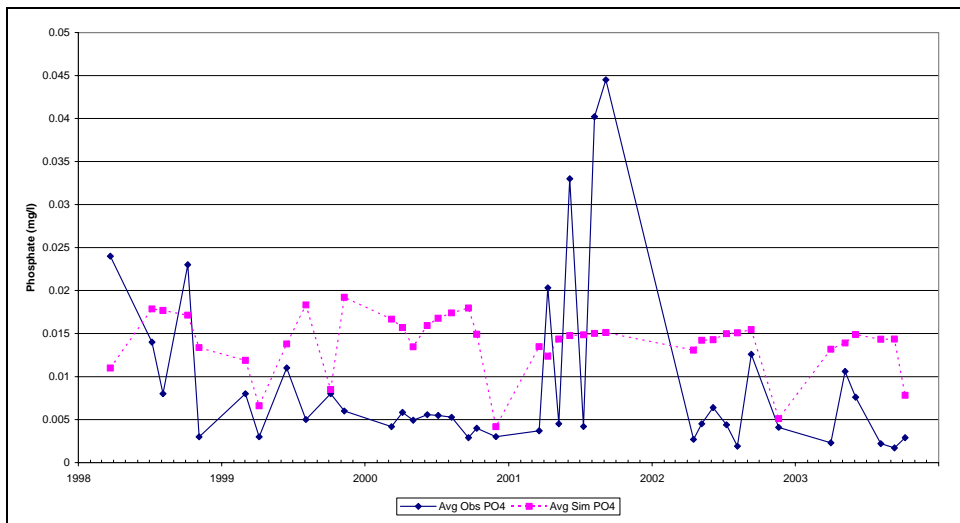
**Figure C8. Observed and Simulated Average Surface Phosphate Concentrations, TR2, Calibration Scenario, Triadelphia Reservoir**



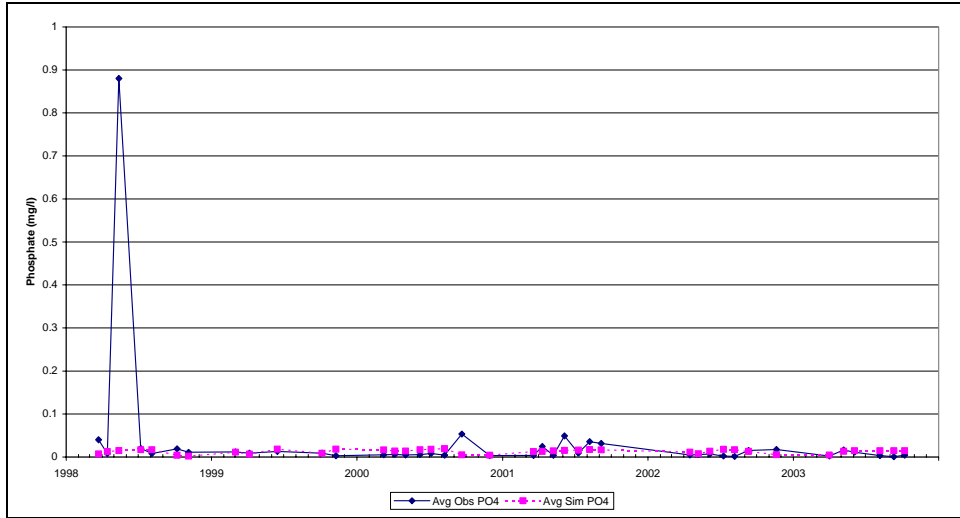
**Figure C9. Observed and Simulated Average Surface Phosphate Concentrations, TR3, Calibration Scenario, Triadelphia Reservoir.**



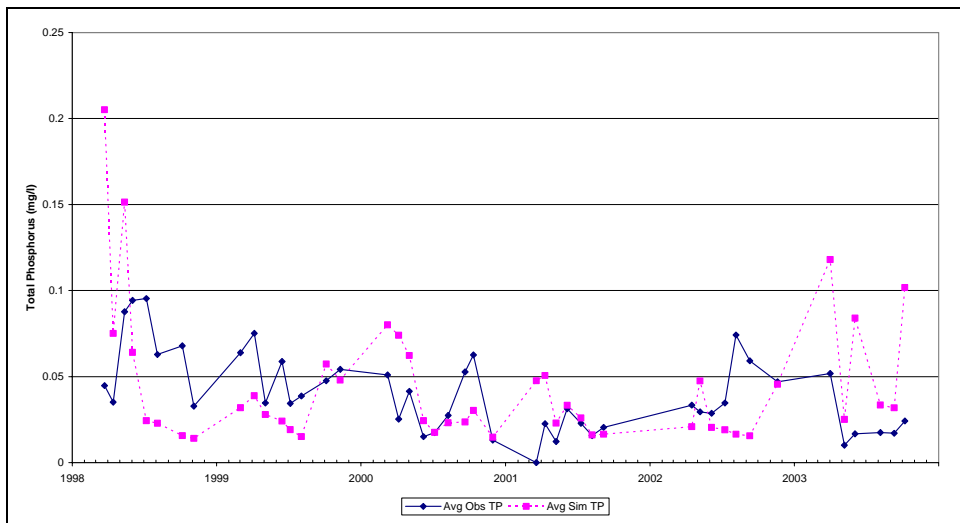
**Figure C10. Observed and Simulated Average Bottom Phosphate Concentrations, TR1, Calibration Scenario, Triadelphia Reservoir**



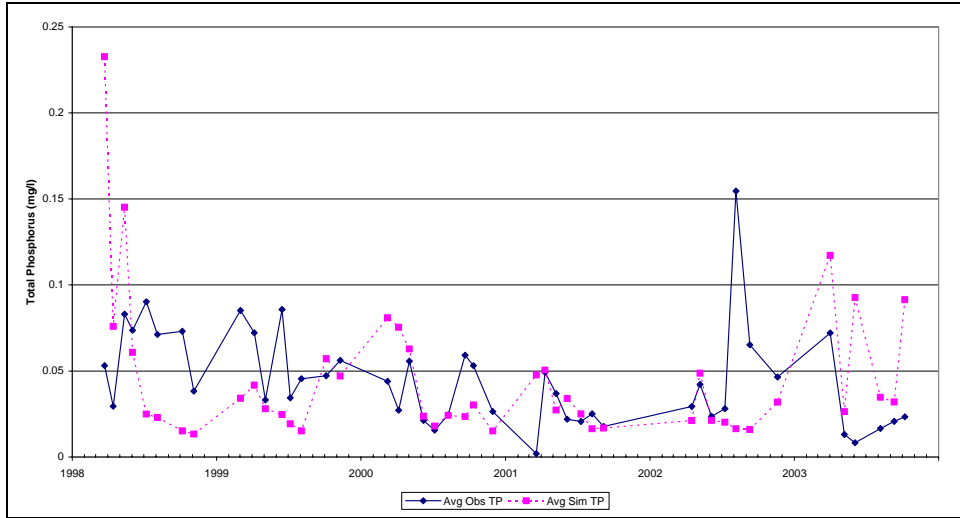
**Figure C11. Observed and Simulated Average Bottom Phosphate Concentrations, TR2, Calibration Scenario, Triadelphia Reservoir**



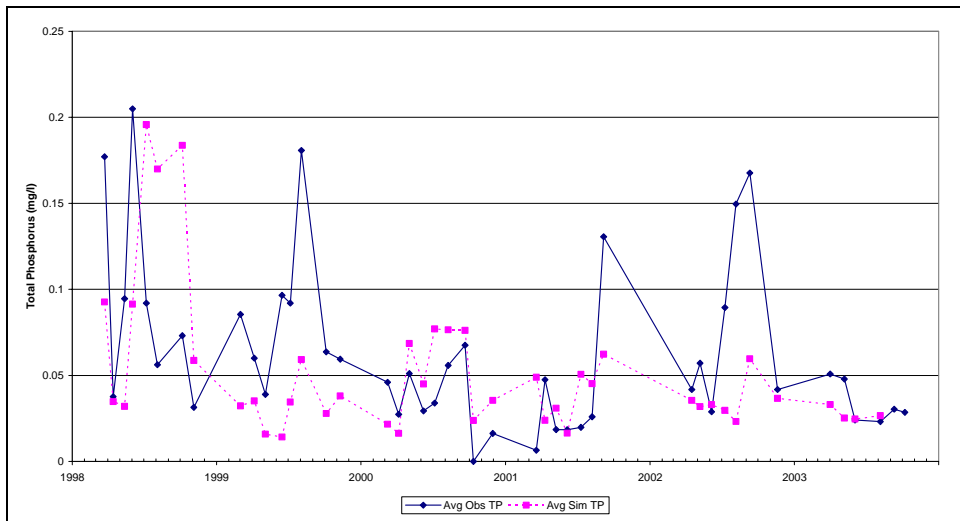
**Figure C12. Observed and Simulated Average Bottom Phosphate Concentrations, TR3, Calibration Scenario, Triadelphia Reservoir**



**Figure C13. Observed and Simulated Average Surface Total Phosphorus Concentrations, TR1, Calibration Scenario, Triadelphia Reservoir.**

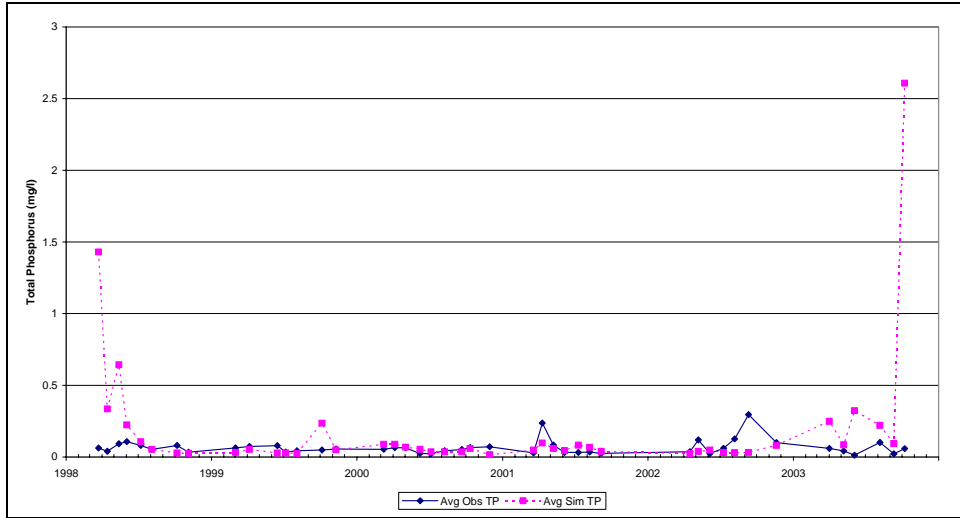


**Figure C14. Observed and Simulated Average Surface Total Phosphorus Concentrations, TR2, Calibration Scenario, Triadelphia Reservoir.**

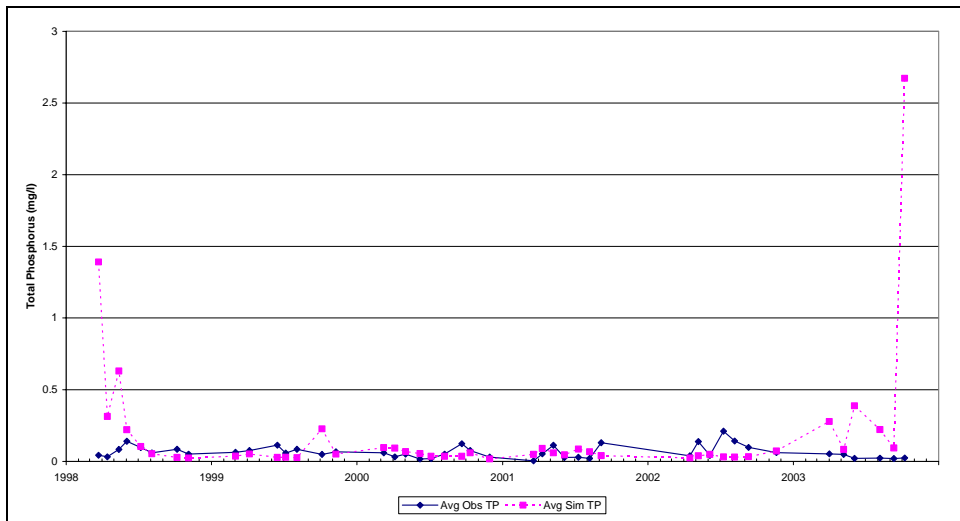


**Figure C15. Observed and Simulated Average Surface Total Phosphorus Concentrations, TR3, Calibration Scenario, Triadelphia Reservoir.**

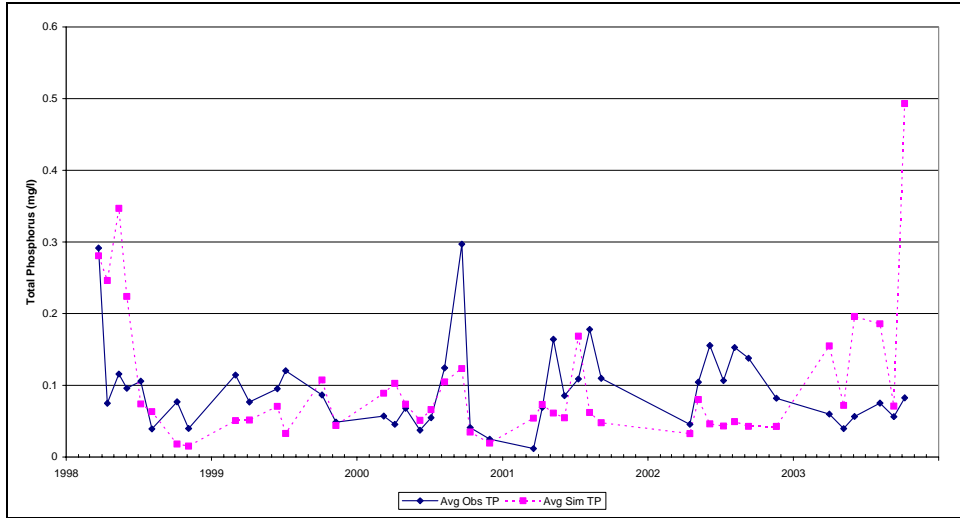




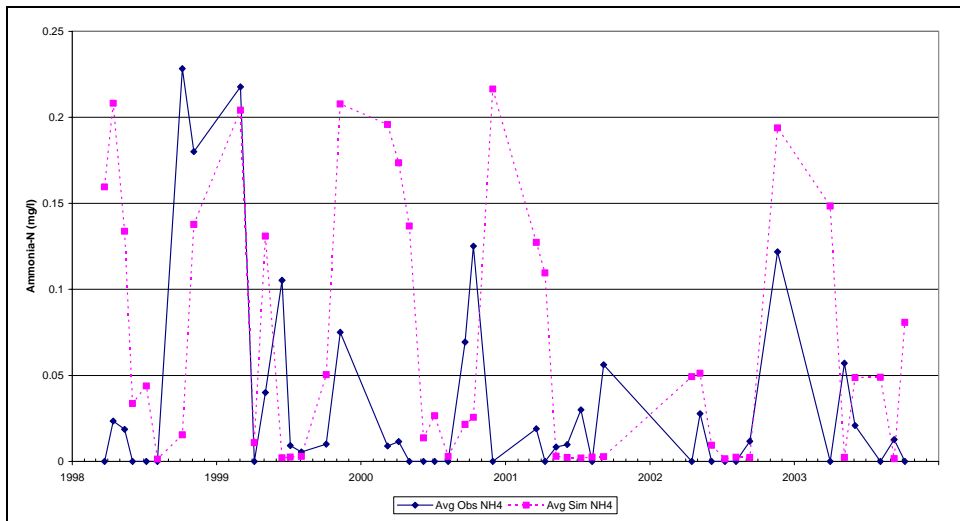
**Figure C16. Observed and Simulated Average Bottom Total Phosphorus Concentrations, TR1, Calibration Scenario, Triadelphia Reservoir**



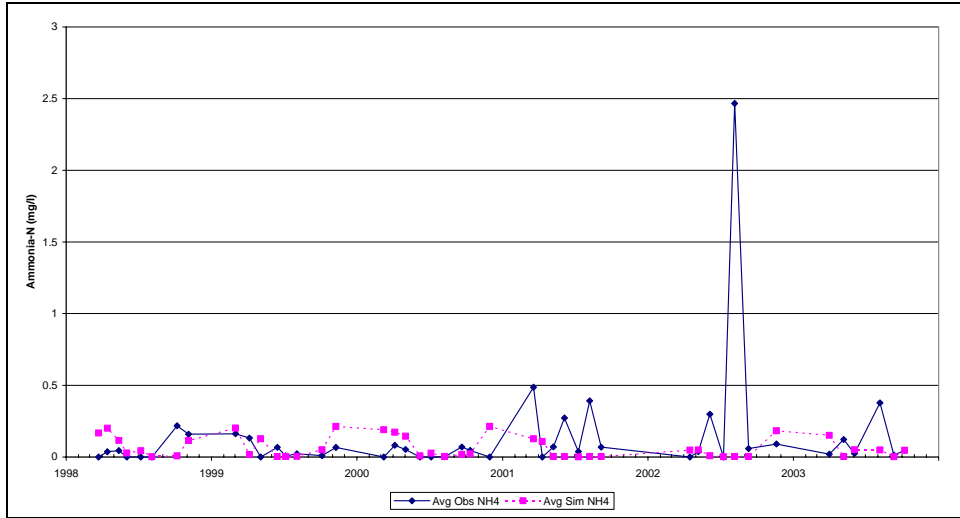
**Figure C17. Observed and Simulated Average Bottom Total Phosphorus Concentrations, TR2, Calibration Scenario, Triadelphia Reservoir.**



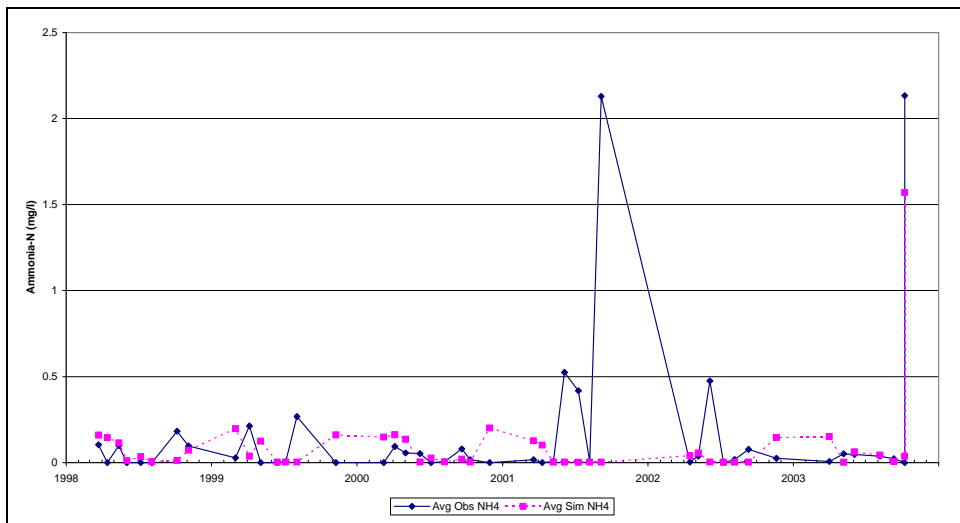
**Figure C18. Observed and Simulated Average Bottom Total Phosphorus Concentrations, TR3, Calibration Scenario, Triadelphia Reservoir**



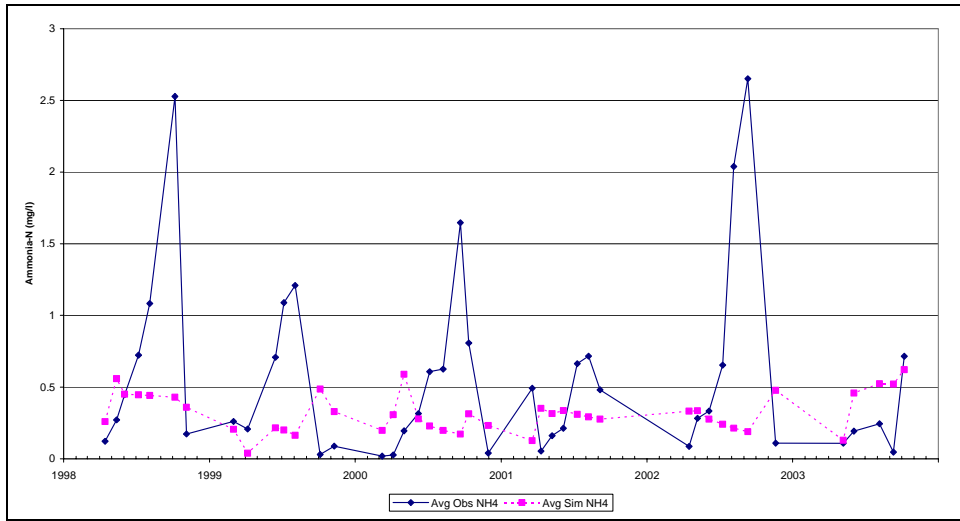
**Figure C19. Observed and Simulated Average Surface Ammonia Concentrations, TR1, Calibration Scenario, Triadelphia Reservoir.**



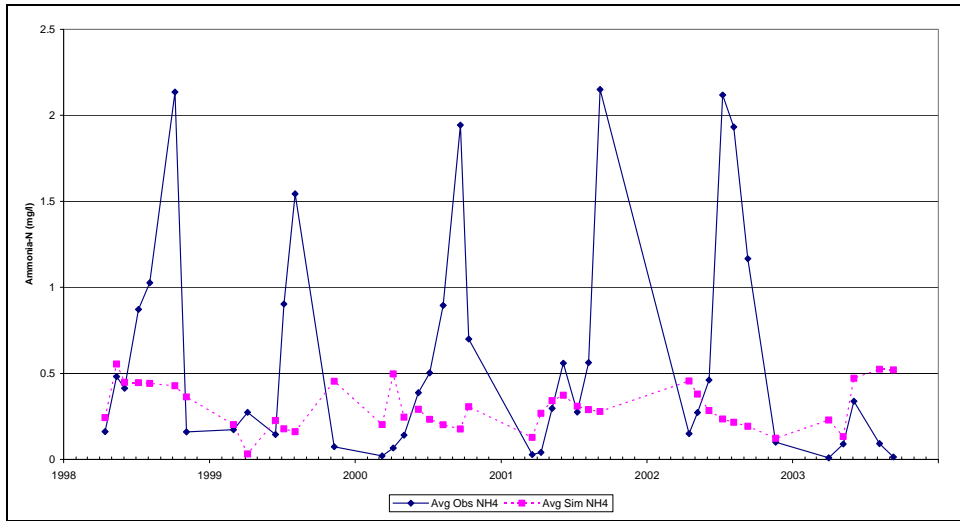
**Figure C20. Observed and Simulated Average Surface Ammonia Concentrations, TR2, Calibration Scenario, Triadelphia Reservoir.**



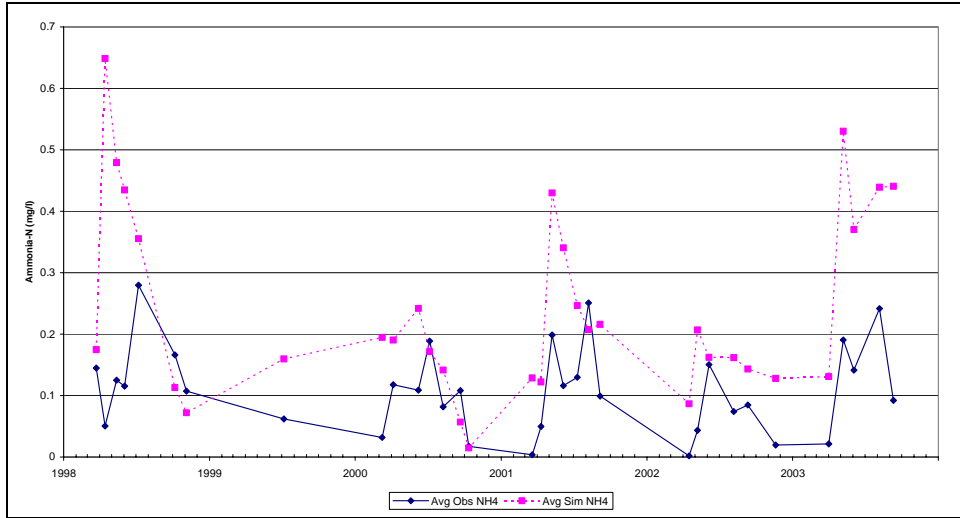
**Figure C21. Observed and Simulated Average Surface Ammonia Concentrations, TR3, Calibration Scenario, Triadelphia Reservoir.**



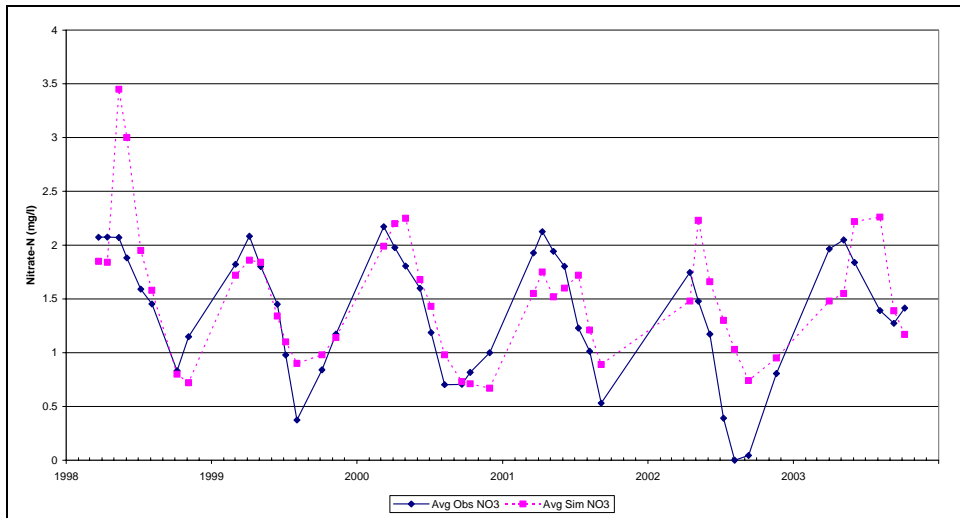
**Figure C22. Observed and Simulated Average Bottom Ammonia Concentrations, TR1, Calibration Scenario, Triadelphia Reservoir.**



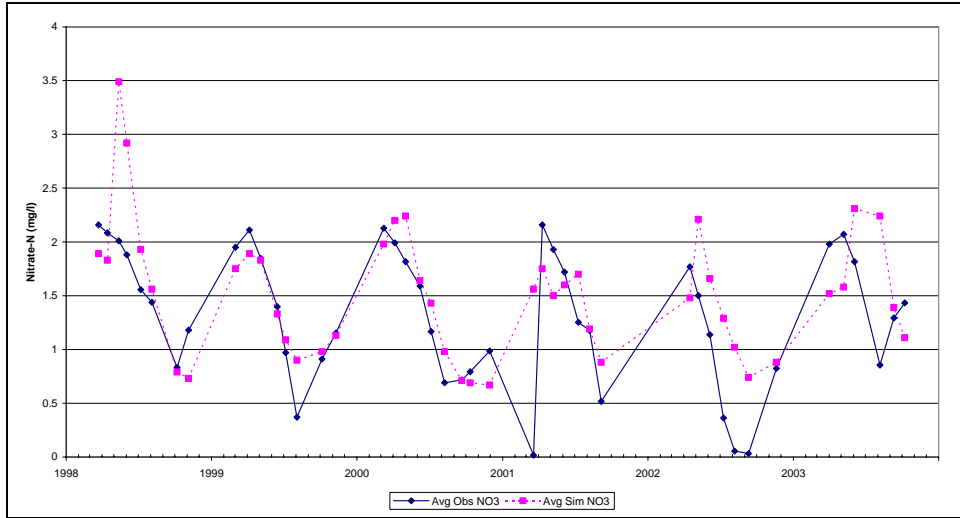
**Figure C23. Observed and Simulated Average Bottom Ammonia Concentrations, TR2, Calibration Scenario, Triadelphia Reservoir.**



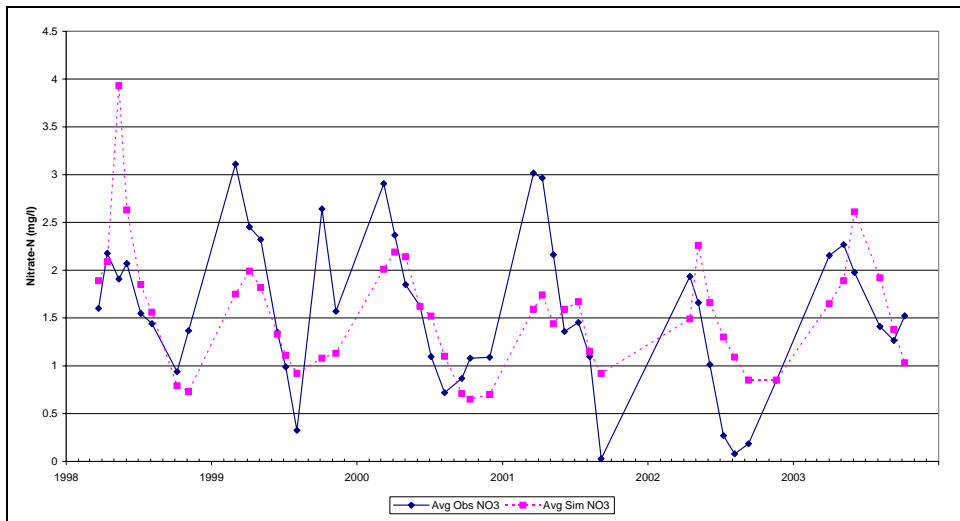
**Figure C24. Observed and Simulated Average Bottom Ammonia Concentrations, TR3, Calibration Scenario, Triadelphia Reservoir.**



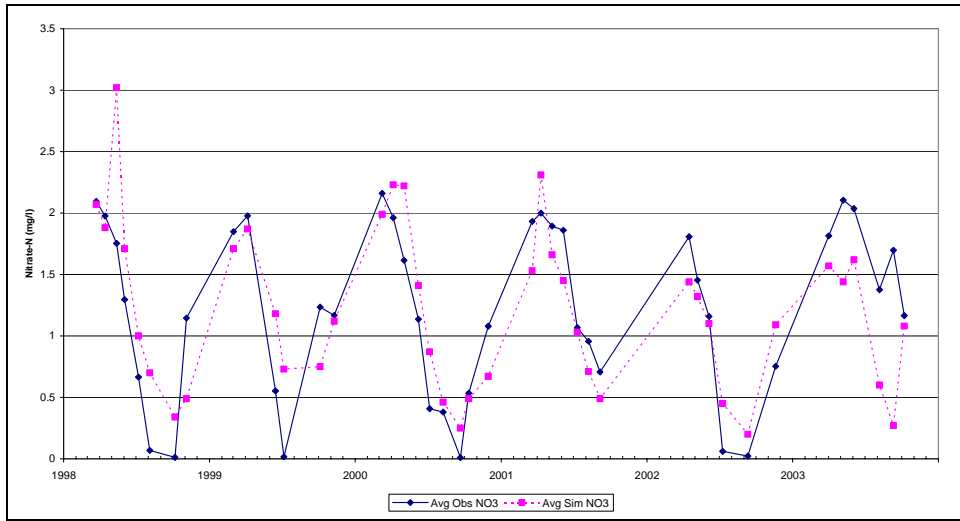
**Figure C25. Observed and Simulated Average Surface Nitrate Concentrations, TR1, Calibration Scenario, Triadelphia Reservoir.**



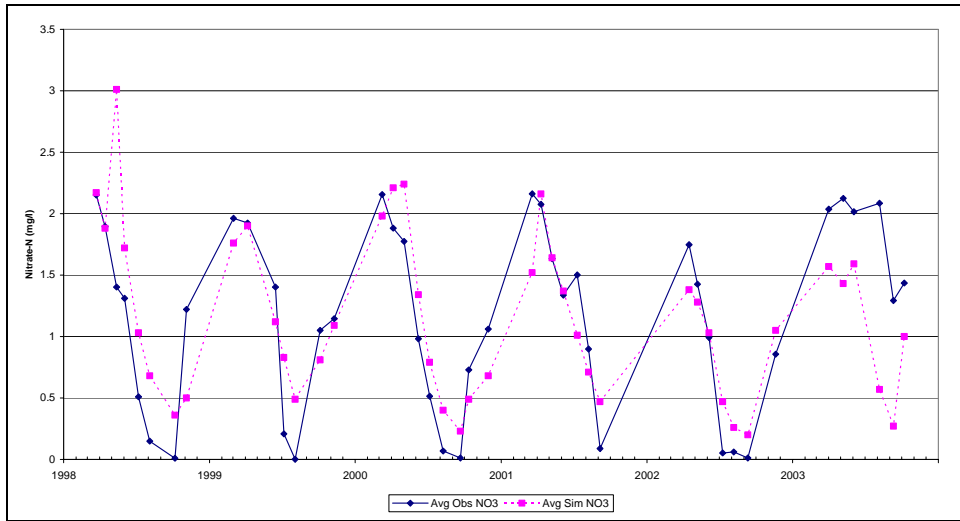
**Figure C26. Observed and Simulated Average Surface Nitrate Concentrations, TR2, Calibration Scenario, Triadelphia Reservoir**



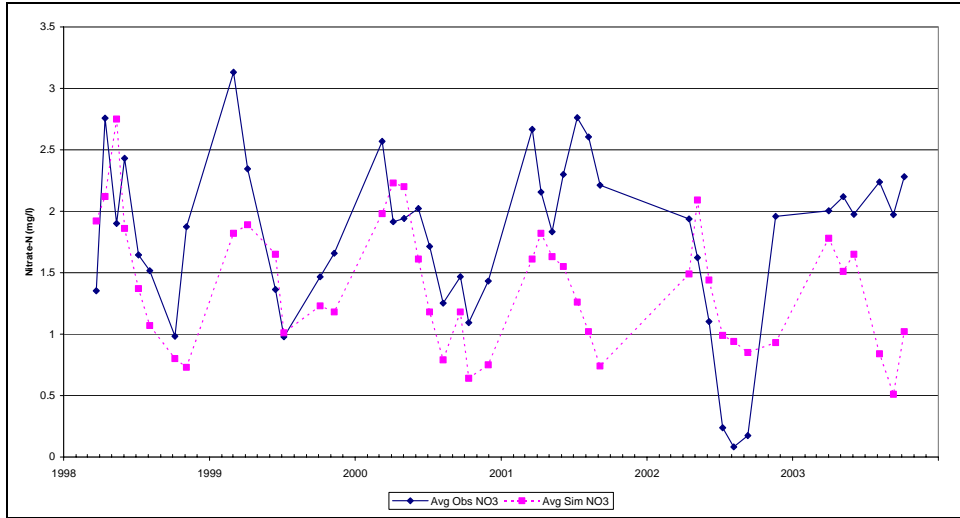
**Figure C27. Observed and Simulated Average Surface Nitrate Concentrations, TR3, Calibration Scenario, Triadelphia Reservoir.**



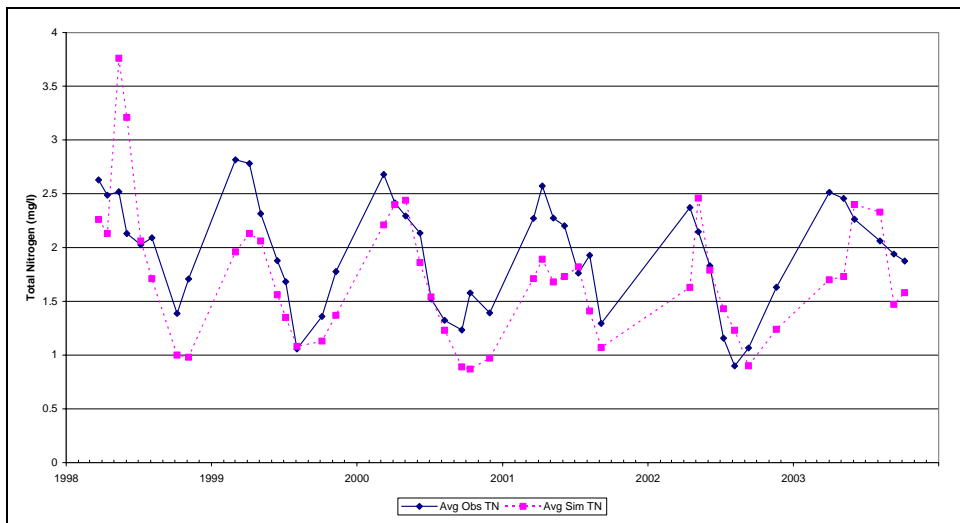
**Figure C28. Observed and Simulated Average Bottom Nitrate Concentrations, TR1, Calibration Scenario, Triadelphia Reservoir**



**Figure C29. Observed and Simulated Average Bottom Nitrate Concentrations, TR2, Calibration Scenario, Triadelphia Reservoir.**

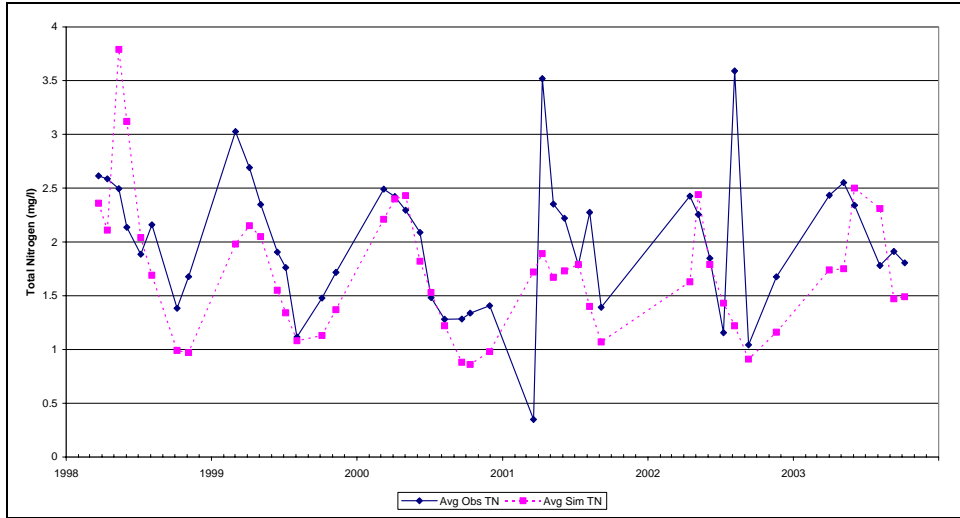


**Figure C30. Observed and Simulated Average Bottom Nitrate Concentrations, TR3, Calibration Scenario, Triadelphia Reservoir.**

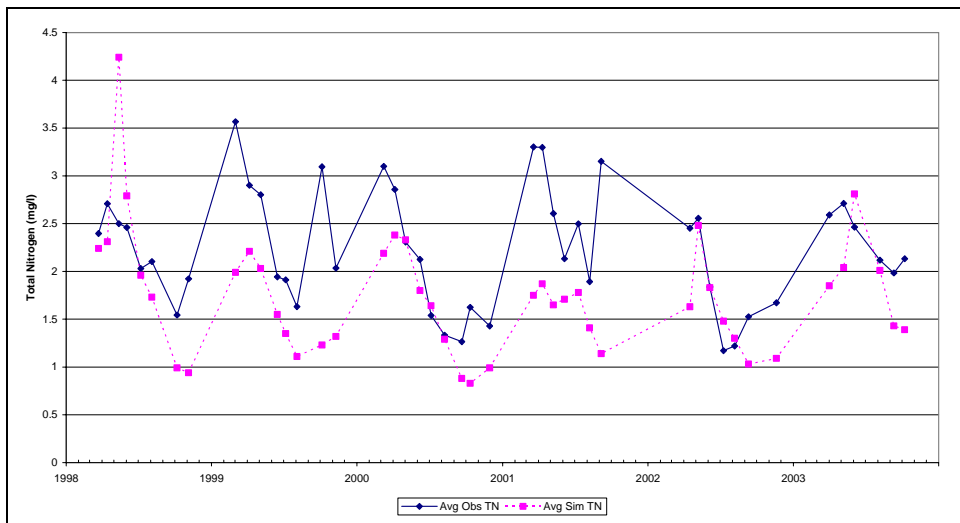


**Figure C31. Observed and Simulated Average Surface Total Nitrogen Concentrations, TR1, Calibration Scenario, Triadelphia Reservoir**

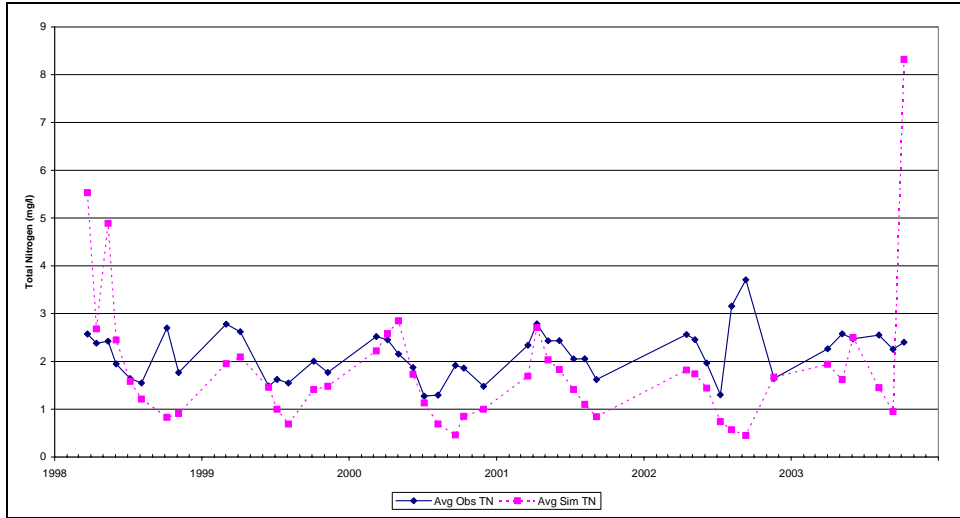




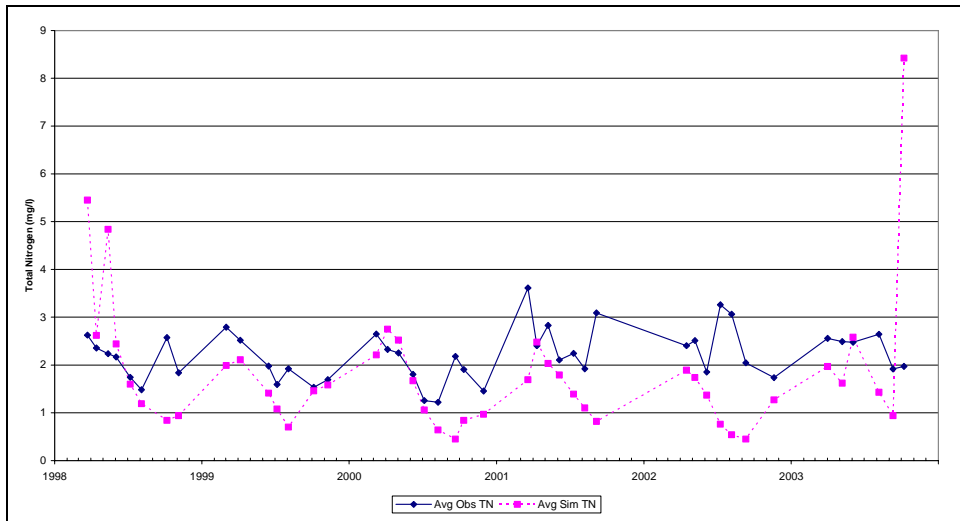
**Figure C32. Observed and Simulated Average Surface Total Nitrogen Concentrations, TR2, Calibration Scenario, Triadelphia Reservoir**



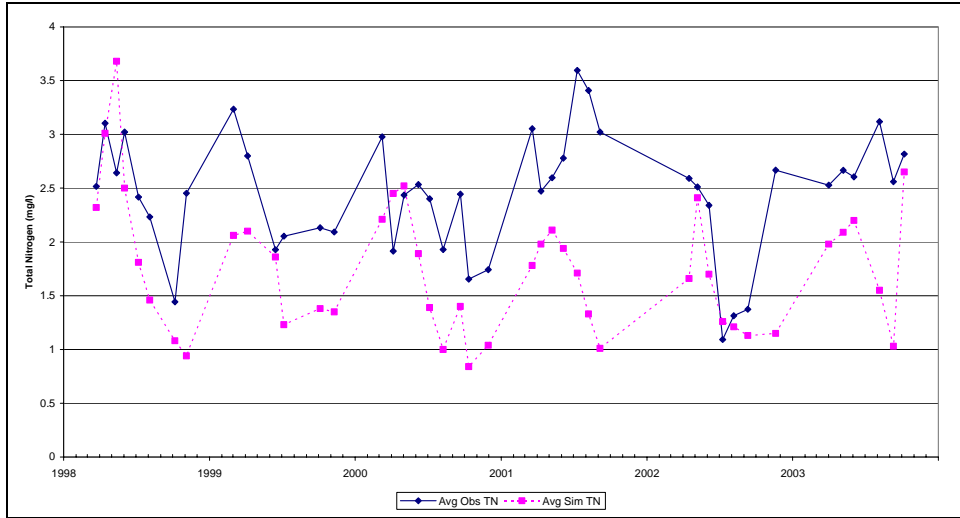
**Figure C33. Observed and Simulated Average Surface Total Nitrogen Concentrations, TR3, Calibration Scenario, Triadelphia Reservoir**



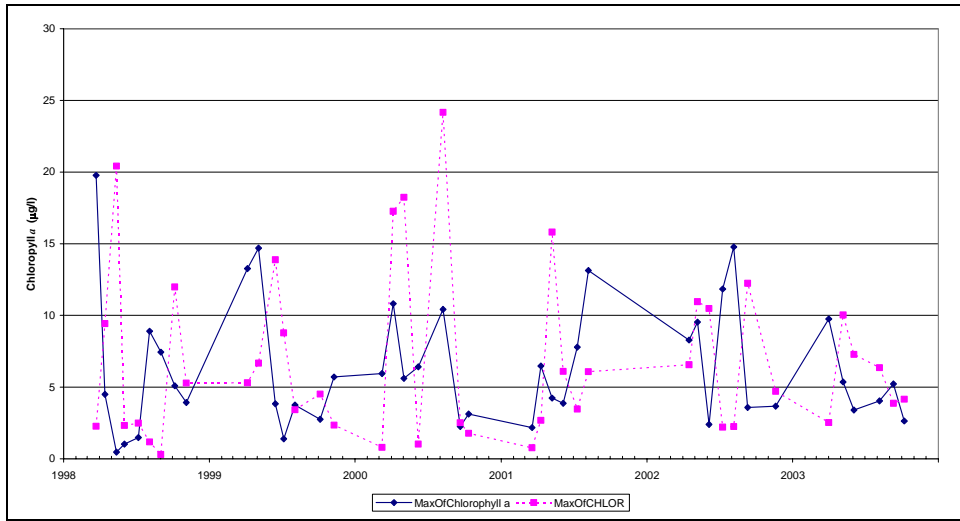
**Figure C34. Observed and Simulated Average Bottom Total Nitrogen Concentrations, TR1, Calibration Scenario, Triadelphia Reservoir**



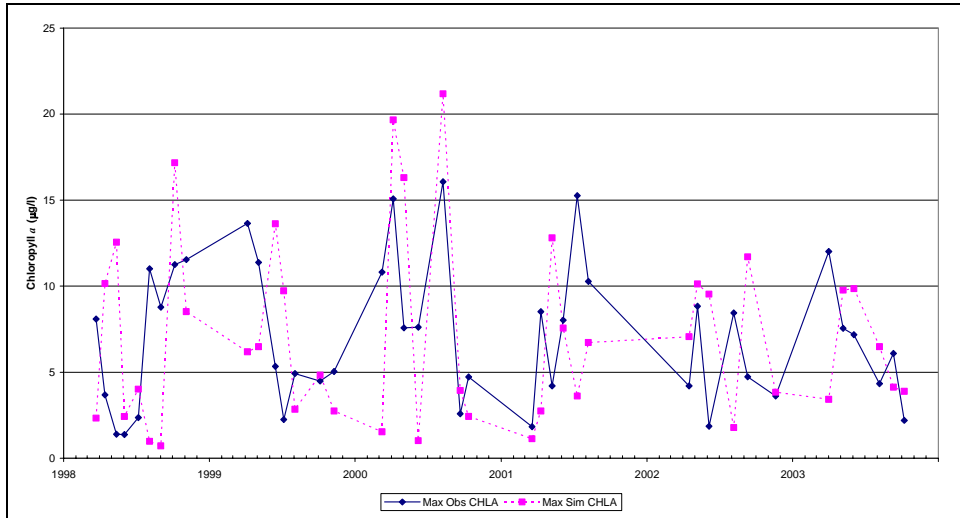
**Figure C35. Observed and Simulated Average Bottom Total Nitrogen Concentrations, TR2, Calibration Scenario, Triadelphia Reservoir**



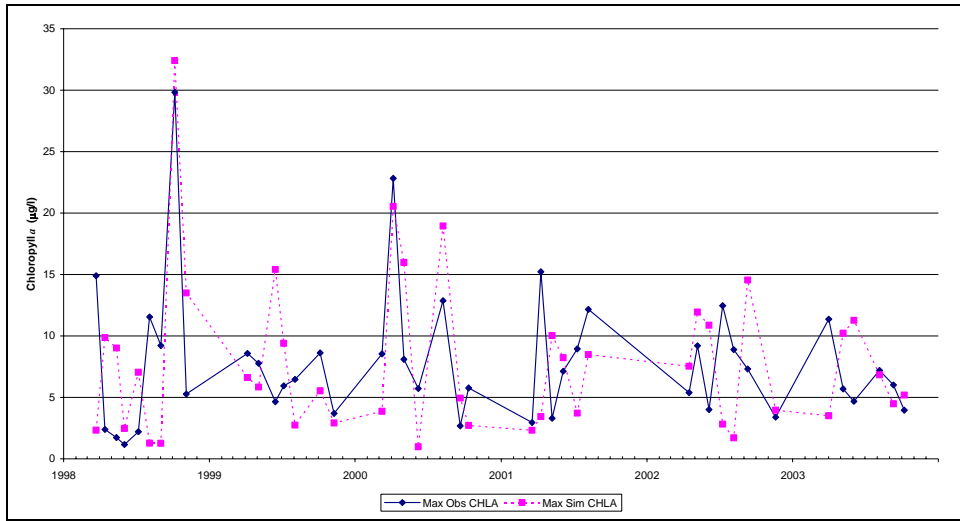
**Figure C36. Observed and Simulated Average Bottom Total Nitrogen Concentrations, TR3, Calibration Scenario, Triadelphia Reservoir**



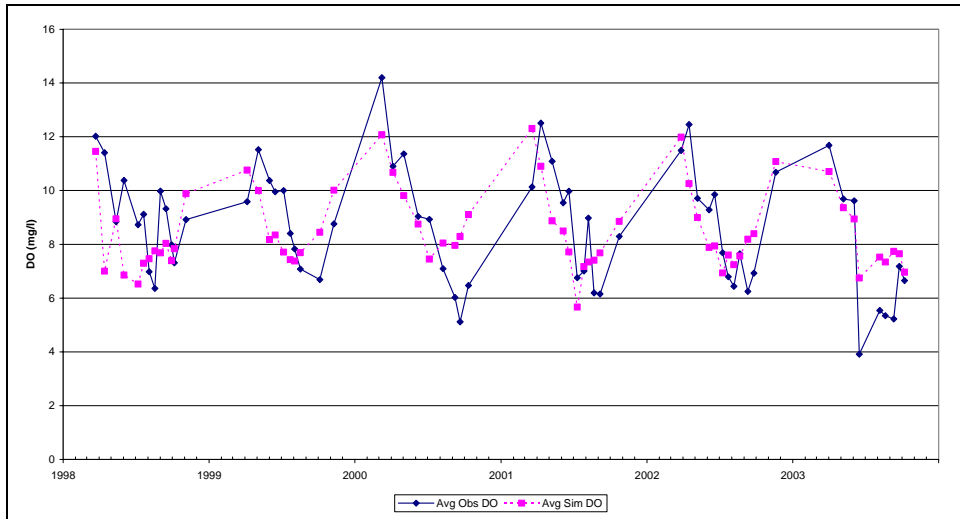
**Figure C37. Observed and Simulated Max Chla Concentrations, RG1, Calibration Scenario, Rocky Gorge Reservoir**



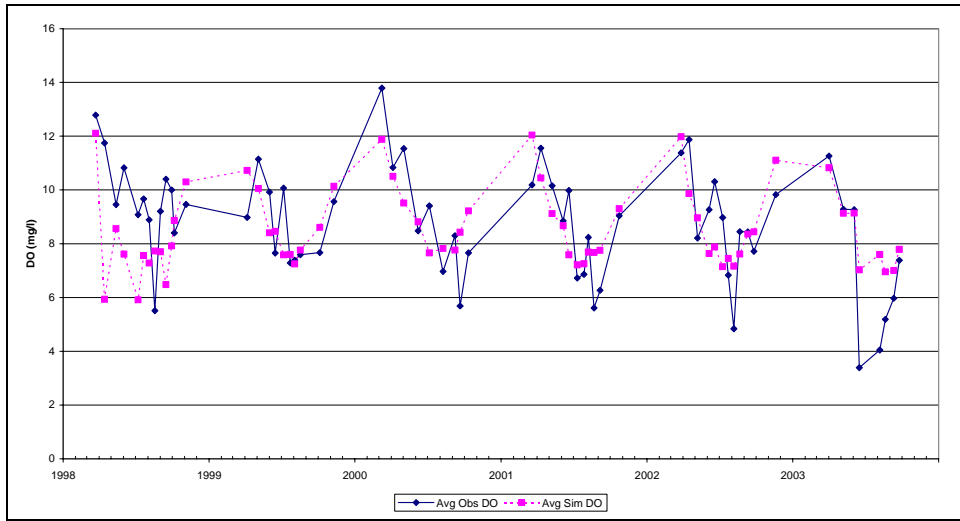
**Figure C38. Observed and Simulated Max Chla Concentrations, RG2, Calibration Scenario, Rocky Gorge Reservoir**



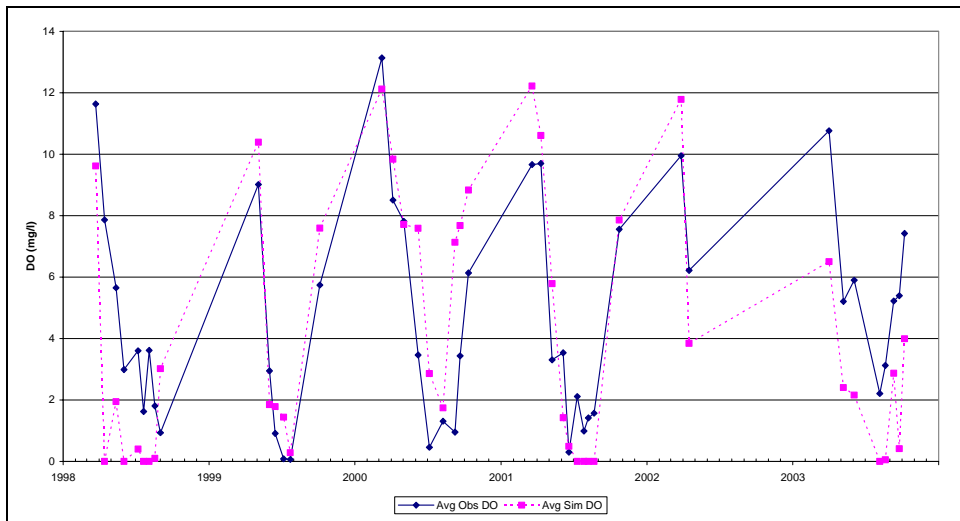
**Figure C39. Observed and Simulated Max Chla Concentrations, RG3, Calibration Scenario, Rocky Gorge Reservoir**



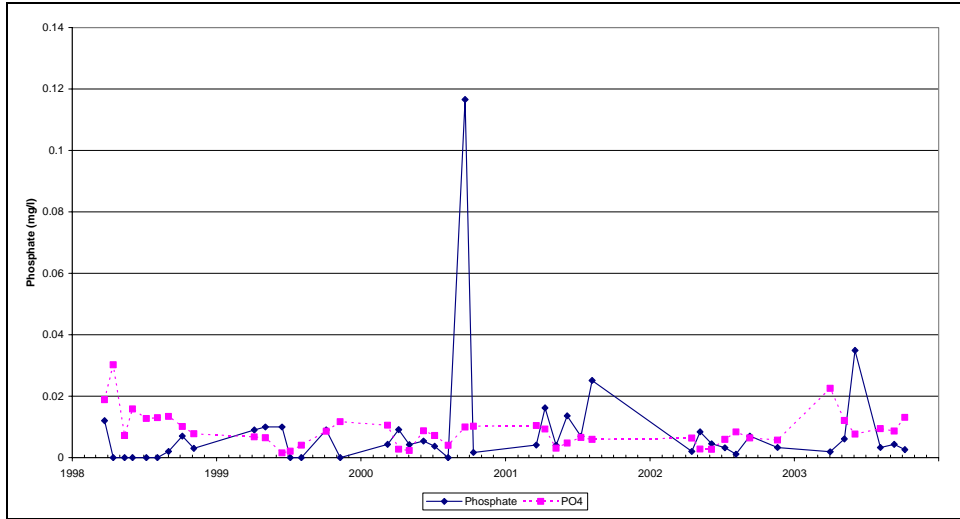
**Figure C40. Observed and Simulated Average Surface DO Concentrations, RG2, Calibration Scenario, Rocky Gorge Reservoir.**



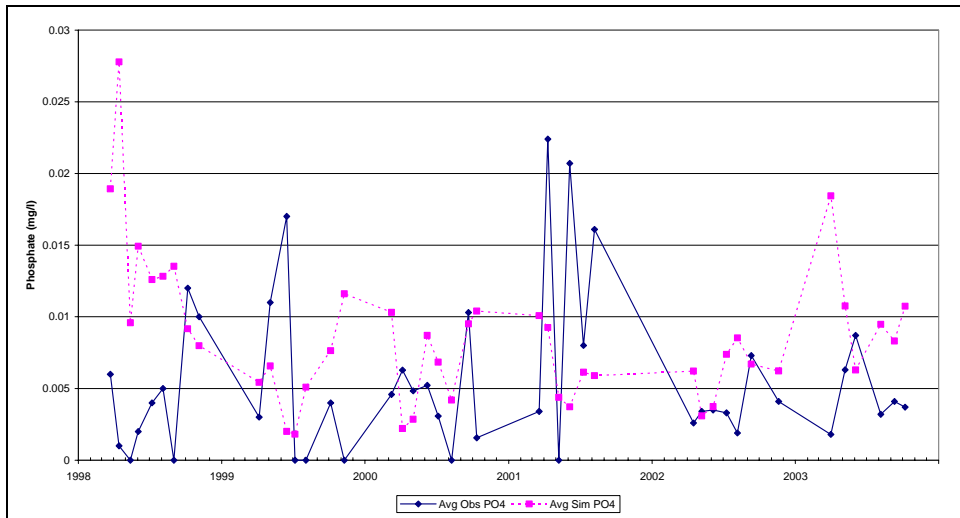
**Figure C41. Observed and Simulated Average Surface DO Concentrations, RG3, Calibration Scenario, Rocky Gorge Reservoir**



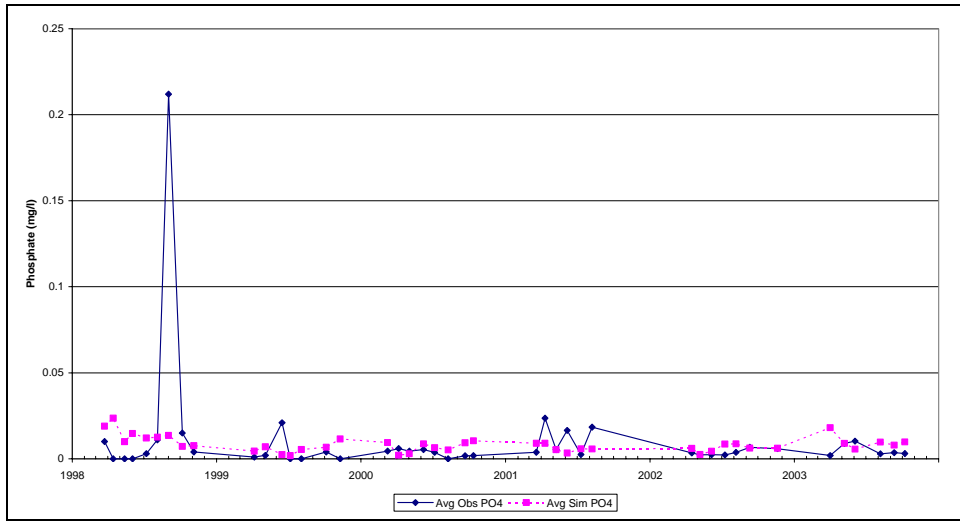
**Figure C42. Observed and Simulated Average Bottom DO Concentrations, RG2, Calibration Scenario, Rocky Gorge Reservoir**



**Figure C43. Observed and Simulated Average Surface Phosphate Concentrations, RG1, Calibration Scenario, Rocky Gorge Reservoir.**

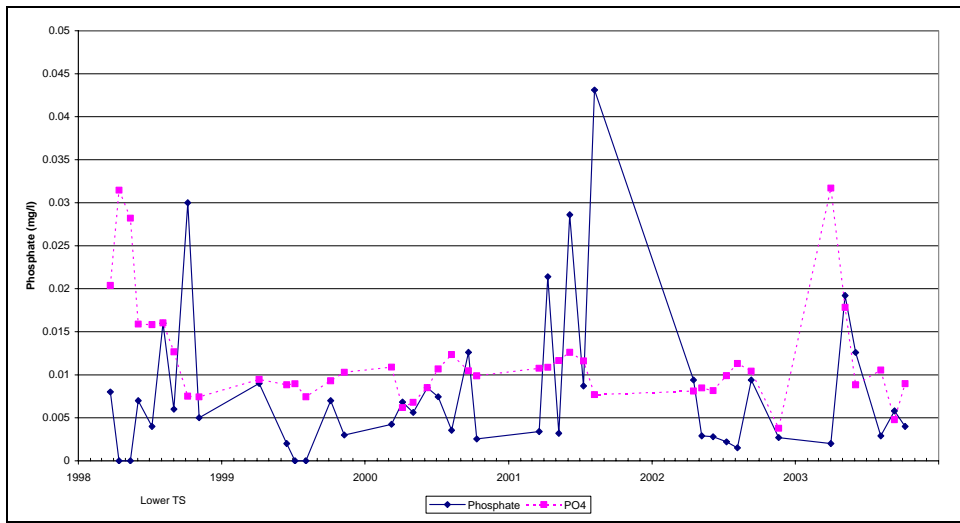


**Figure C44. Observed and Simulated Average Surface Phosphate Concentrations, RG2, Calibration Scenario, Rocky Gorge Reservoir.**

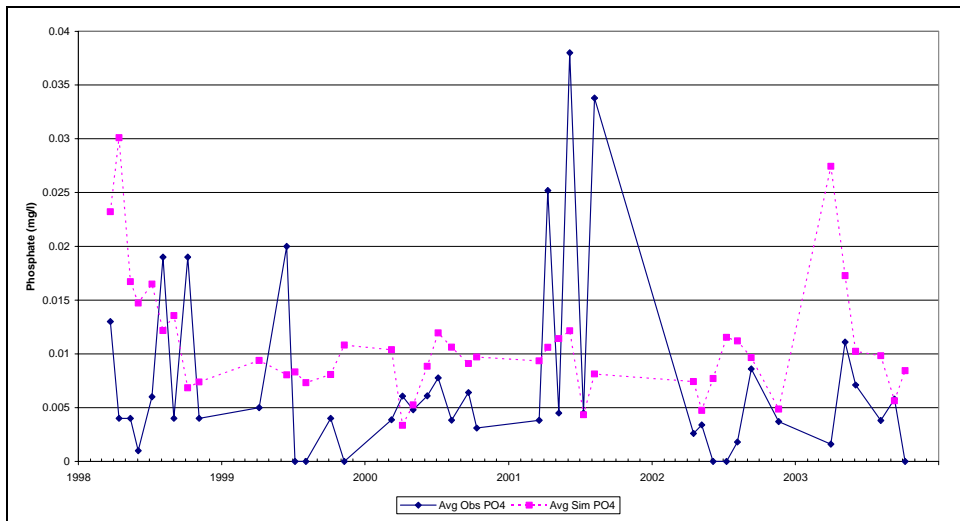


**Figure C45. Observed and Simulated Average Surface Phosphate Concentrations, RG3, Calibration Scenario, Rocky Gorge Reservoir.**

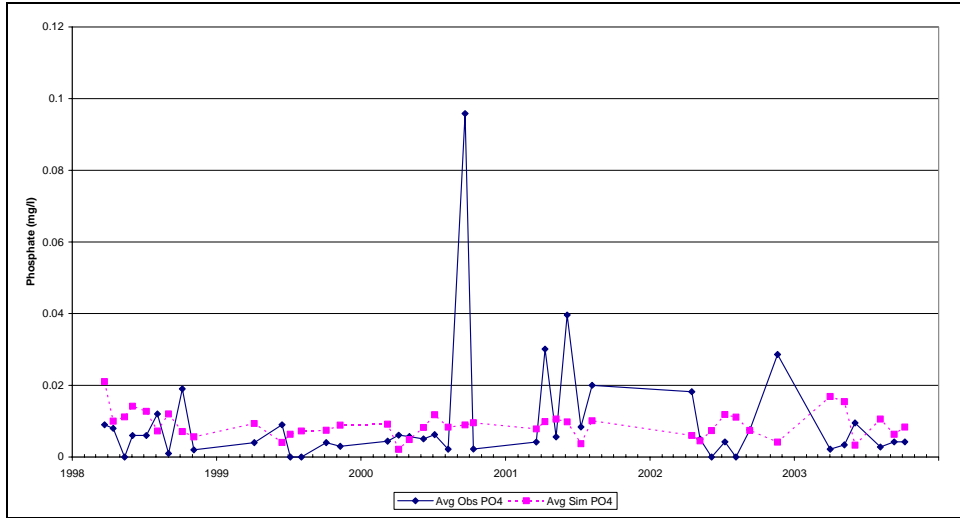




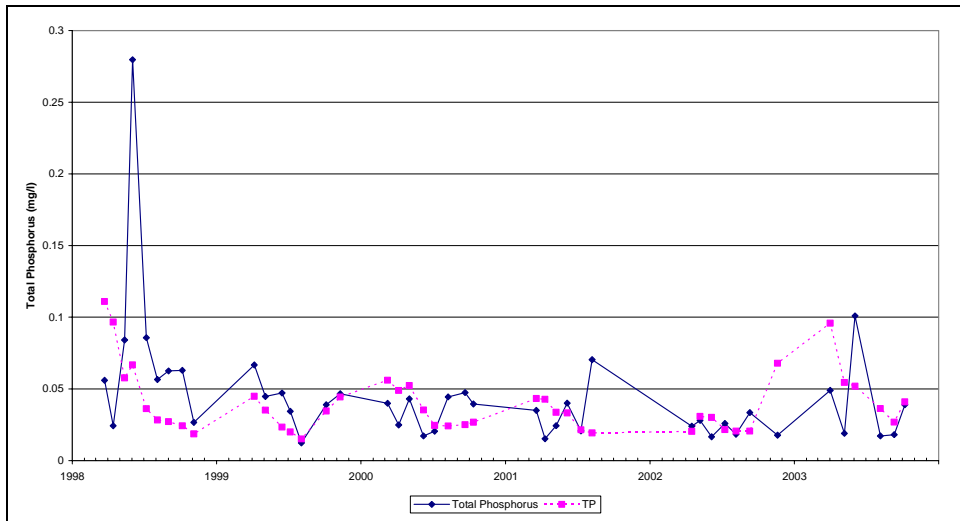
**Figure C46. Observed and Simulated Average Bottom Phosphate Concentrations, RG1, Calibration Scenario, Rocky Gorge Reservoir**



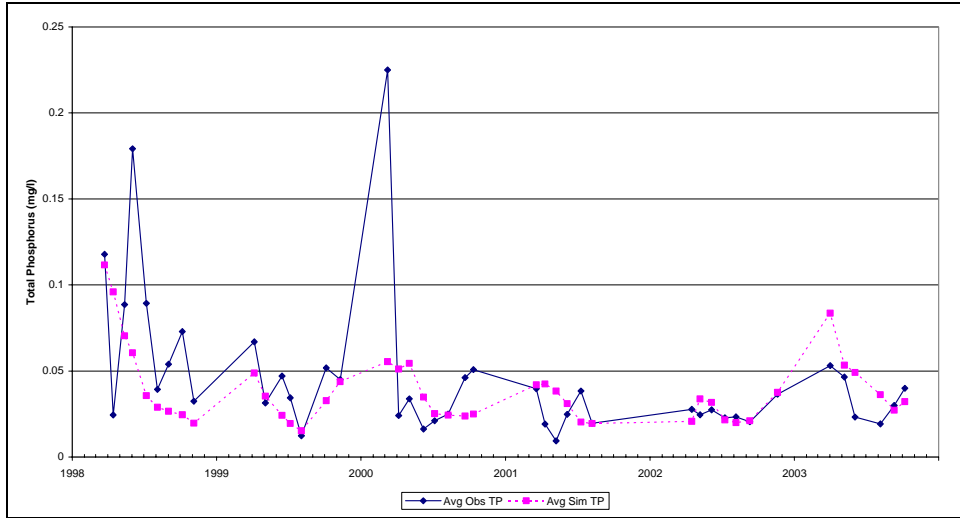
**Figure C47. Observed and Simulated Average Bottom Phosphate Concentrations, RG2, Calibration Scenario, Rocky Gorge Reservoir**



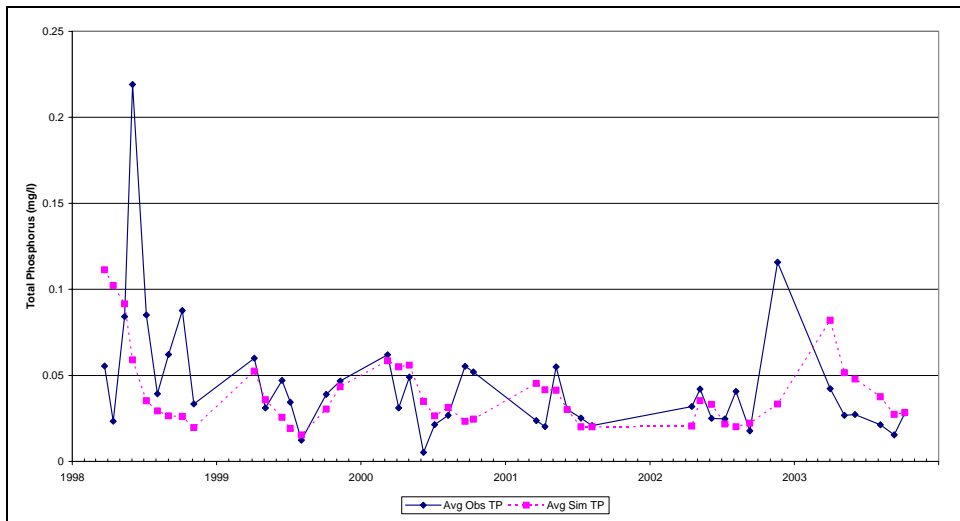
**Figure C48. Observed and Simulated Average Bottom Phosphate Concentrations, RG3, Calibration Scenario, Rocky Gorge Reservoir**



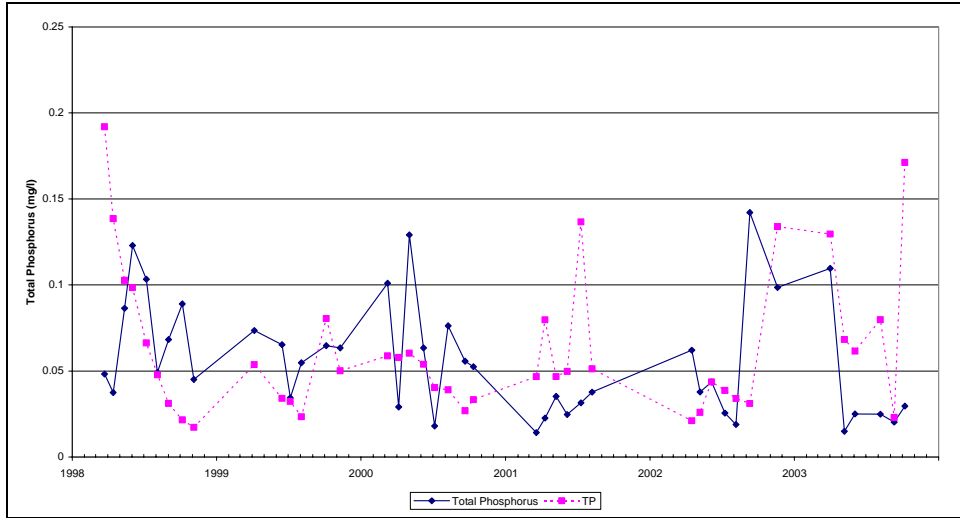
**Figure C49. Observed and Simulated Average Surface Total Phosphorus Concentrations, RG1, Calibration Scenario, Rocky Gorge Reservoir.**



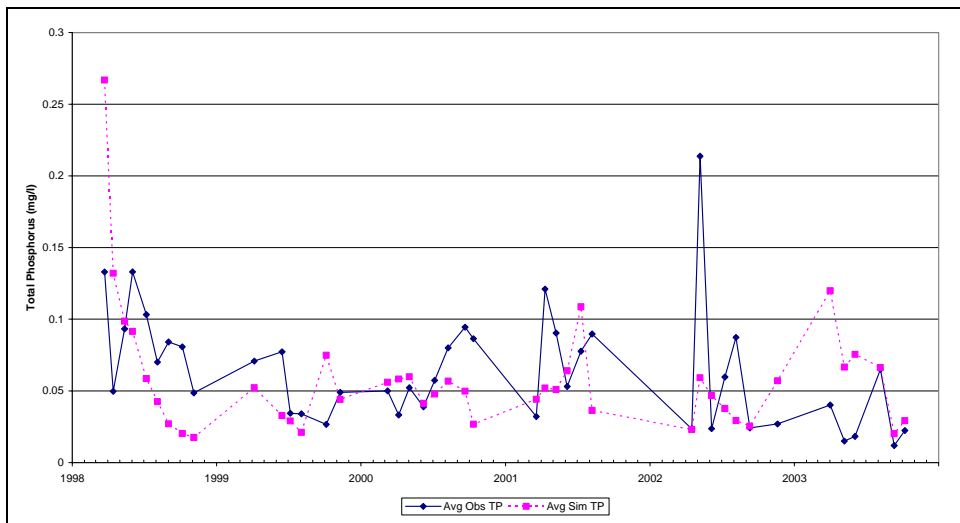
**Figure C50. Observed and Simulated Average Surface Total Phosphorus Concentrations, RG2, Calibration Scenario, Rocky Gorge Reservoir.**



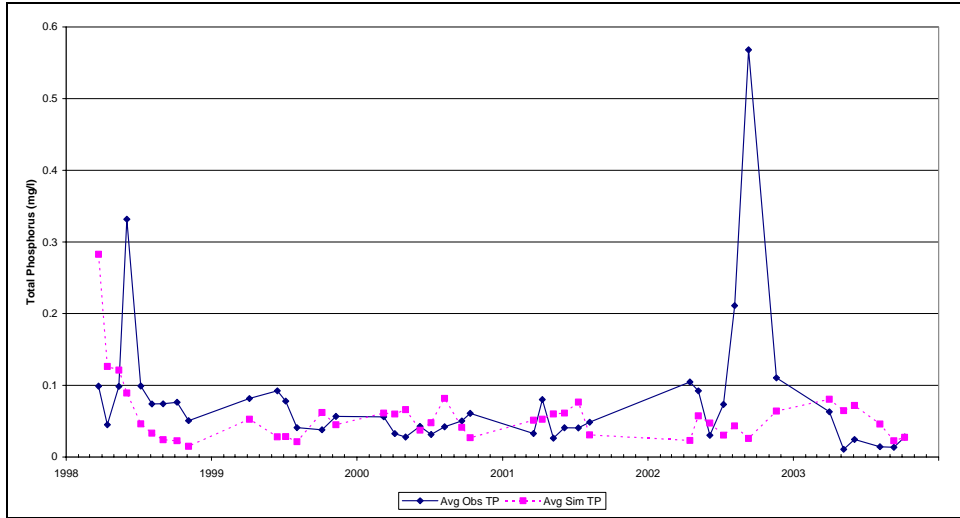
**Figure C51. Observed and Simulated Average Surface Total Phosphorus Concentrations, RG3, Calibration Scenario, Rocky Gorge Reservoir.**



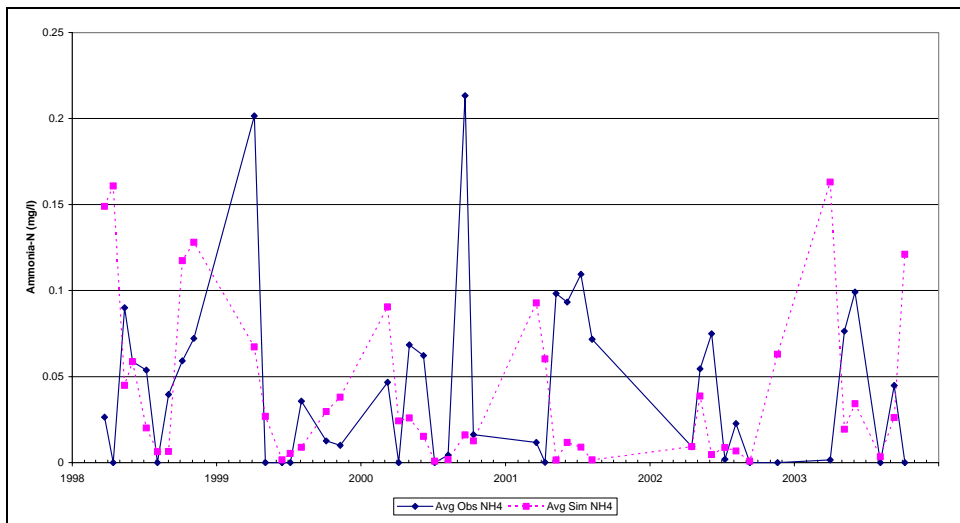
**Figure C52. Observed and Simulated Average Bottom Total Phosphorus Concentrations, RG1, Calibration Scenario, Rocky Gorge Reservoir**



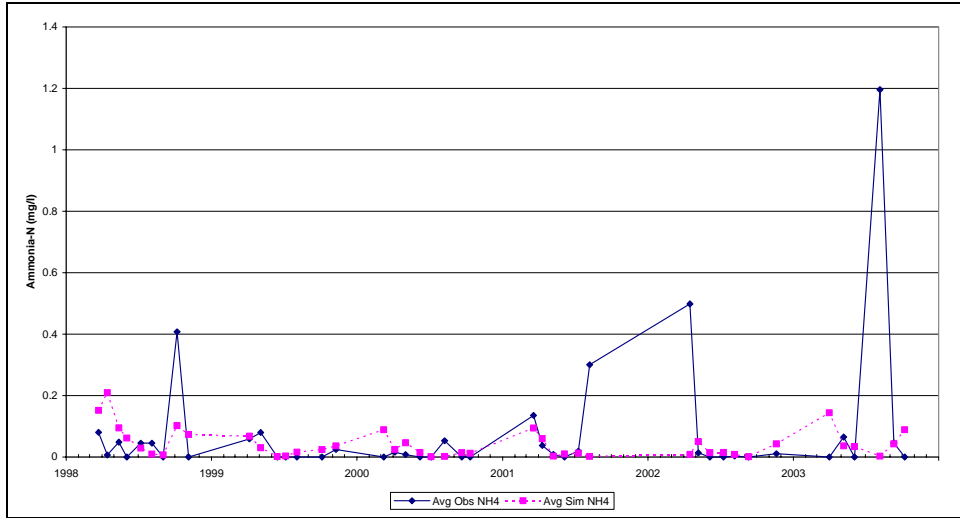
**Figure C53. Observed and Simulated Average Bottom Total Phosphorus Concentrations, RG2, Calibration Scenario, Rocky Gorge Reservoir.**



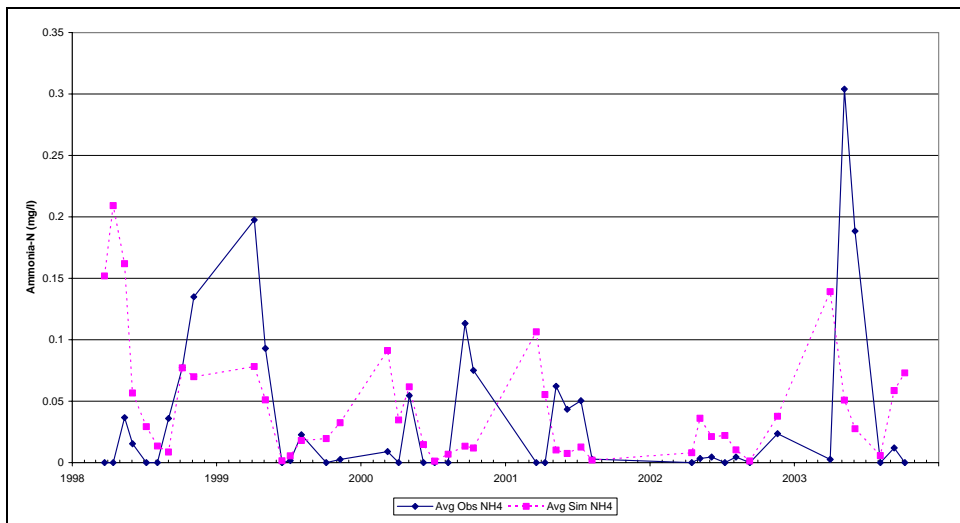
**Figure C54. Observed and Simulated Average Bottom Total Phosphorus Concentrations, RG3, Calibration Scenario, Rocky Gorge Reservoir**



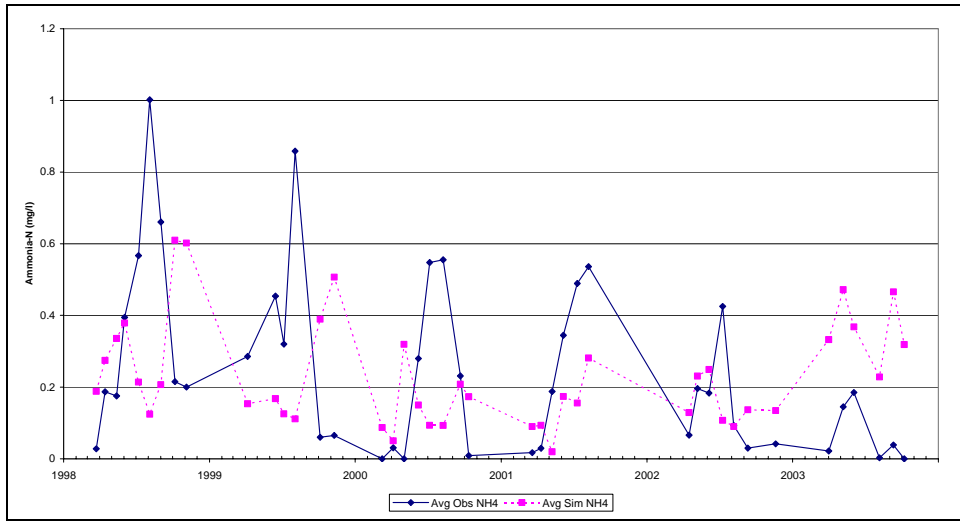
**Figure C55. Observed and Simulated Average Surface Ammonia Concentrations, RG1, Calibration Scenario, Rocky Gorge Reservoir.**



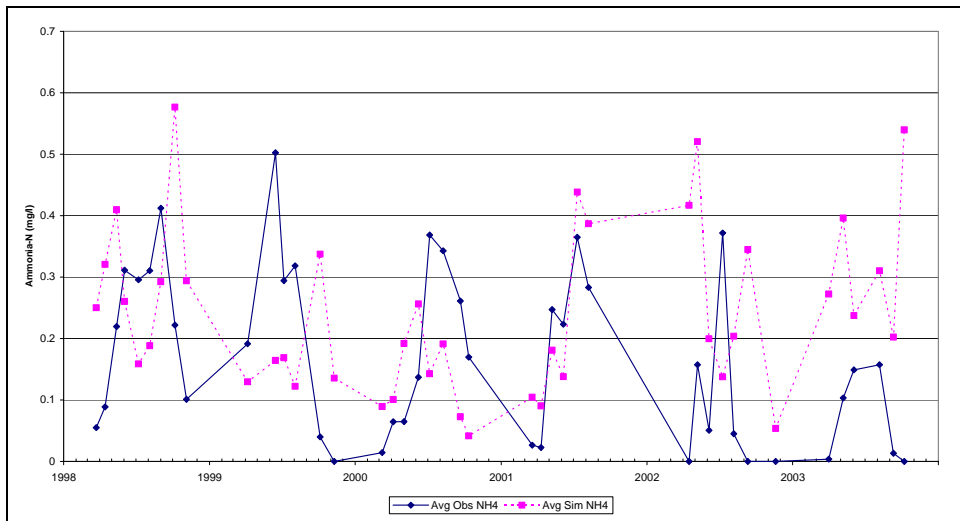
**Figure C56. Observed and Simulated Average Surface Ammonia Concentrations, RG2, Calibration Scenario, Rocky Gorge Reservoir.**



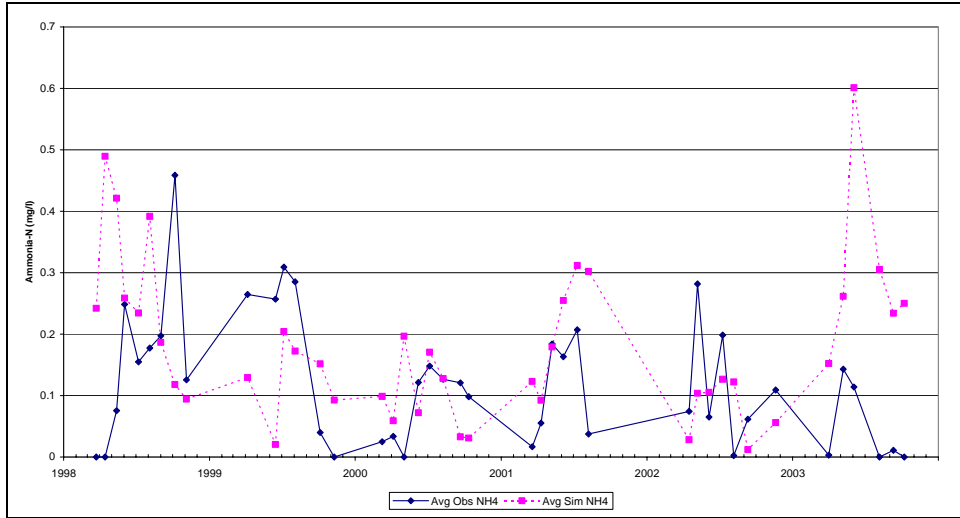
**Figure C57. Observed and Simulated Average Surface Ammonia Concentrations, RG3, Calibration Scenario, Rocky Gorge Reservoir.**



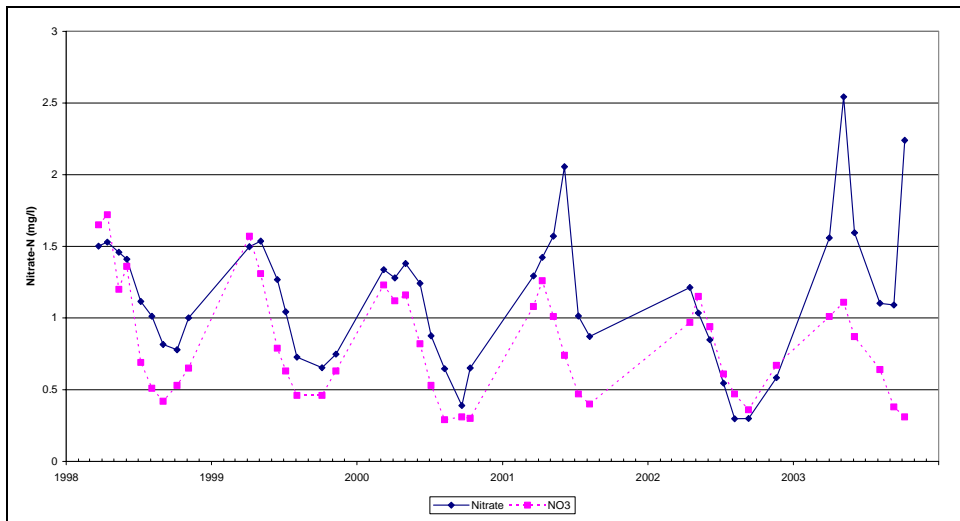
**Figure C58. Observed and Simulated Average Bottom Ammonia Concentrations, RG1, Calibration Scenario, Rocky Gorge Reservoir.**



**Figure C59. Observed and Simulated Average Bottom Ammonia Concentrations, RG2, Calibration Scenario, Rocky Gorge Reservoir.**

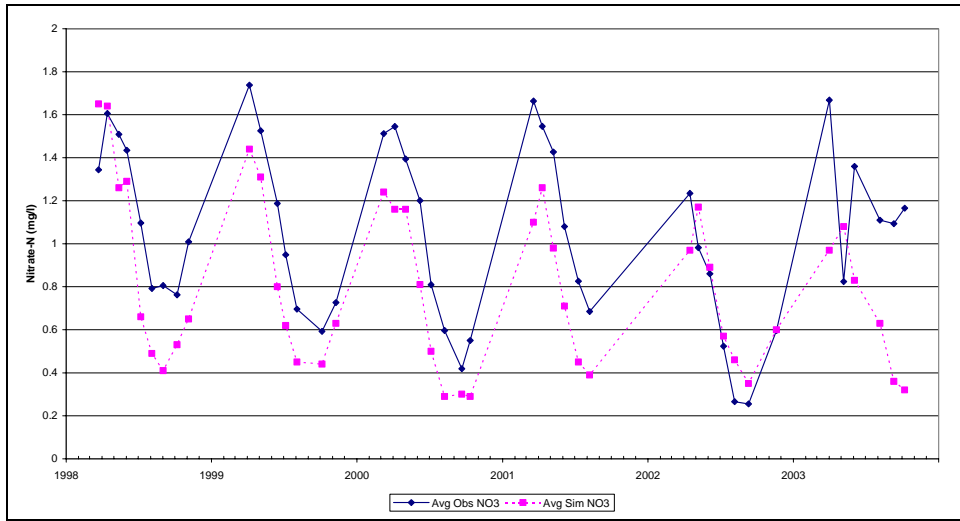


**Figure C60. Observed and Simulated Average Bottom Ammonia Concentrations, RG3, Calibration Scenario, Rocky Gorge Reservoir**

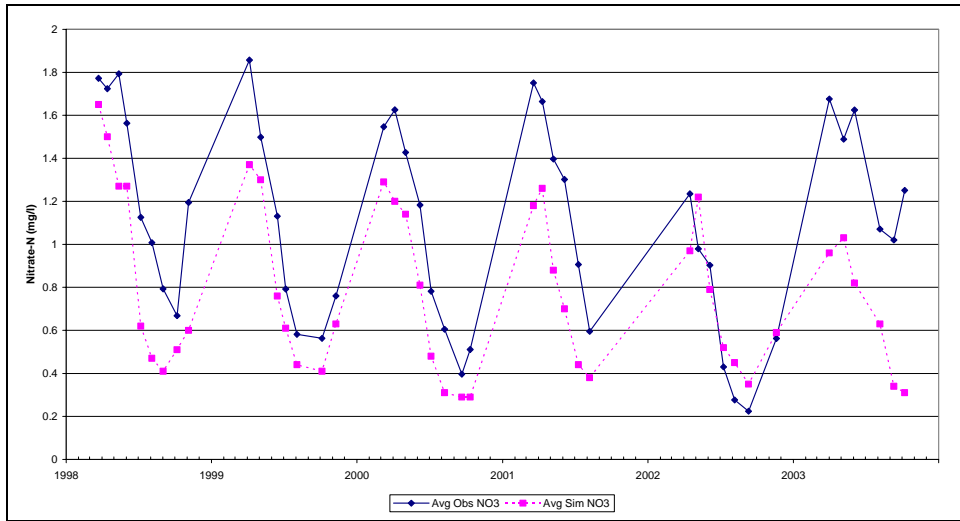


**Figure C61. Observed and Simulated Average Surface Nitrate Concentrations, RG1, Calibration Scenario, Rocky Gorge Reservoir.**

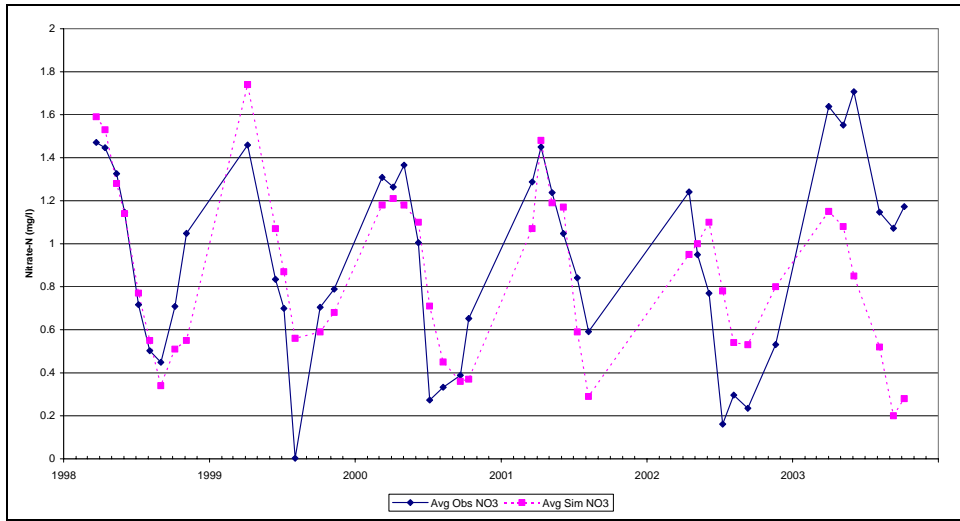




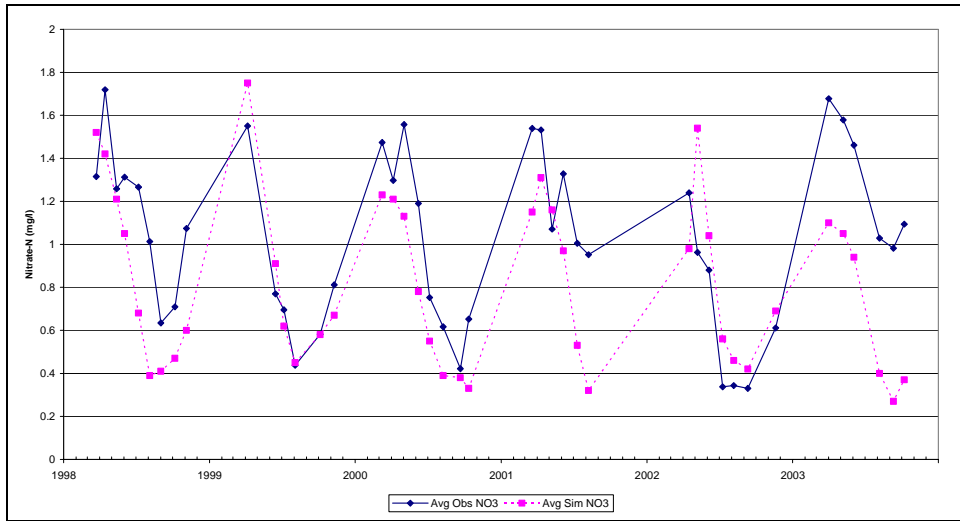
**Figure C62. Observed and Simulated Average Surface Nitrate Concentrations, RG2, Calibration Scenario, Rocky Gorge Reservoir**



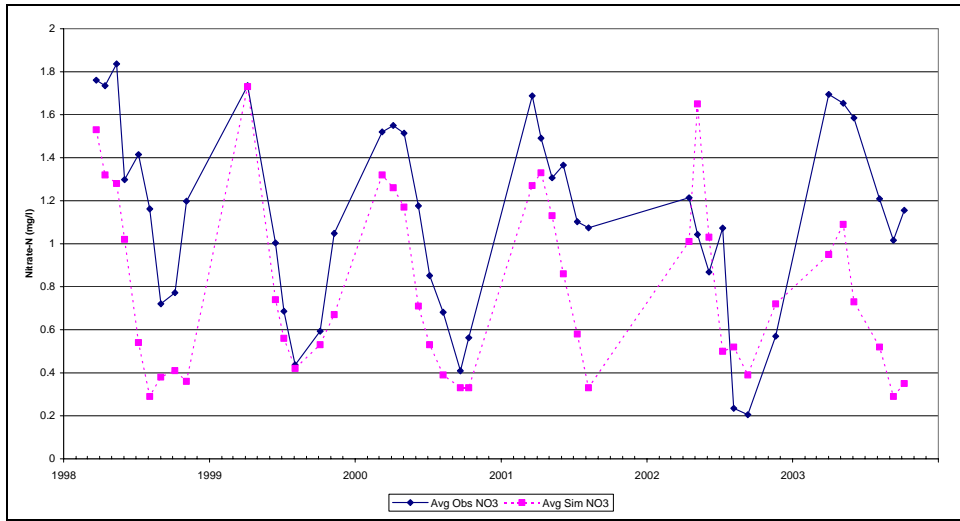
**Figure C63. Observed and Simulated Average Surface Nitrate Concentrations, RG3, Calibration Scenario, Rocky Gorge Reservoir.**



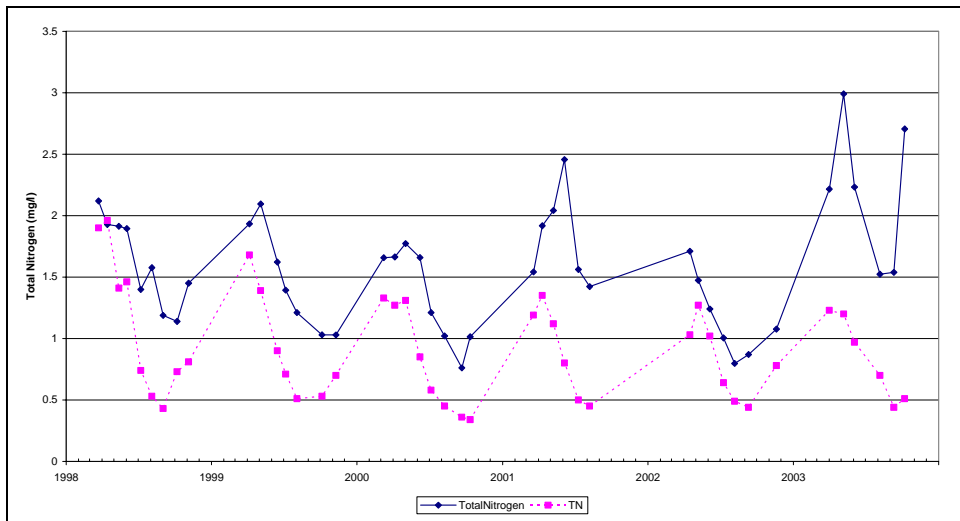
**Figure C64. Observed and Simulated Average Bottom Nitrate Concentrations, RG1, Calibration Scenario, Rocky Gorge Reservoir.**



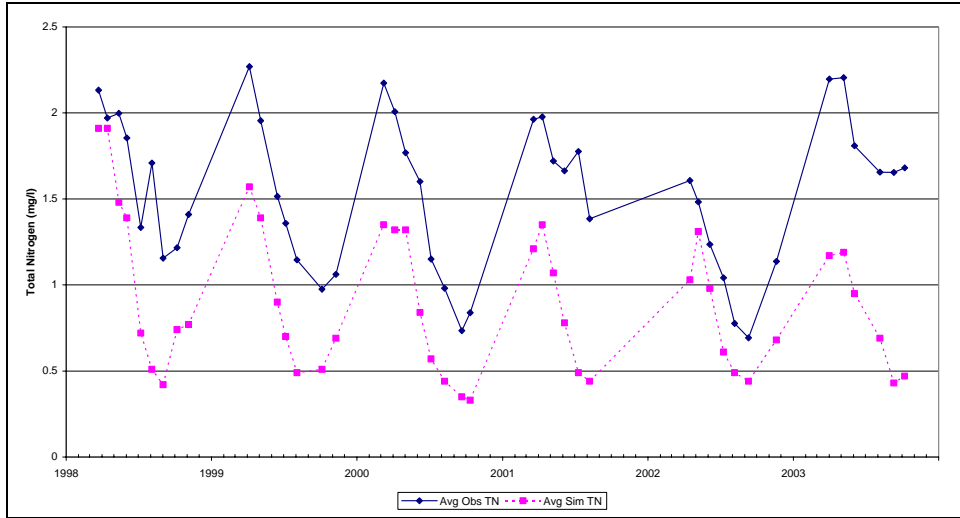
**Figure C66. Observed and Simulated Average Bottom Nitrate Concentrations, RG2, Calibration Scenario, Rocky Gorge Reservoir.**



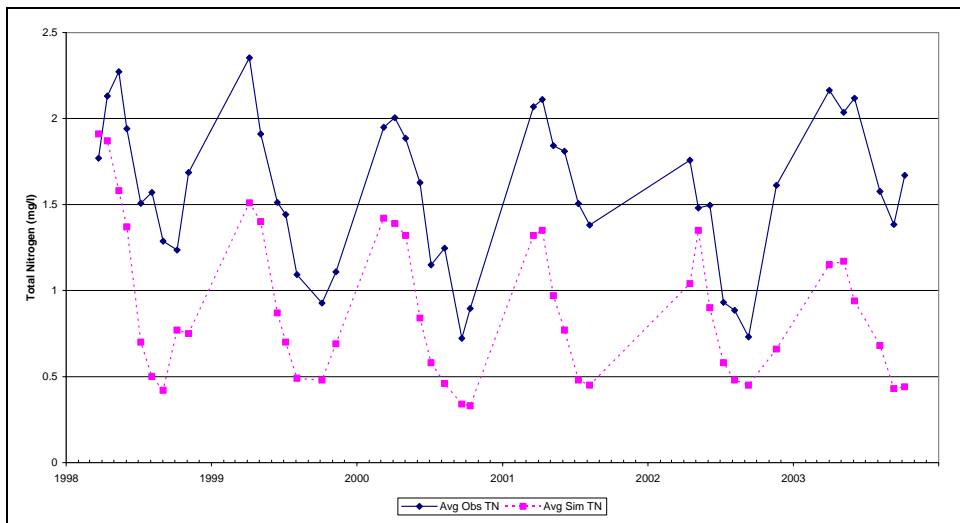
**Figure C66. Observed and Simulated Average Bottom Nitrate Concentrations, RG3, Calibration Scenario, Rocky Gorge Reservoir**



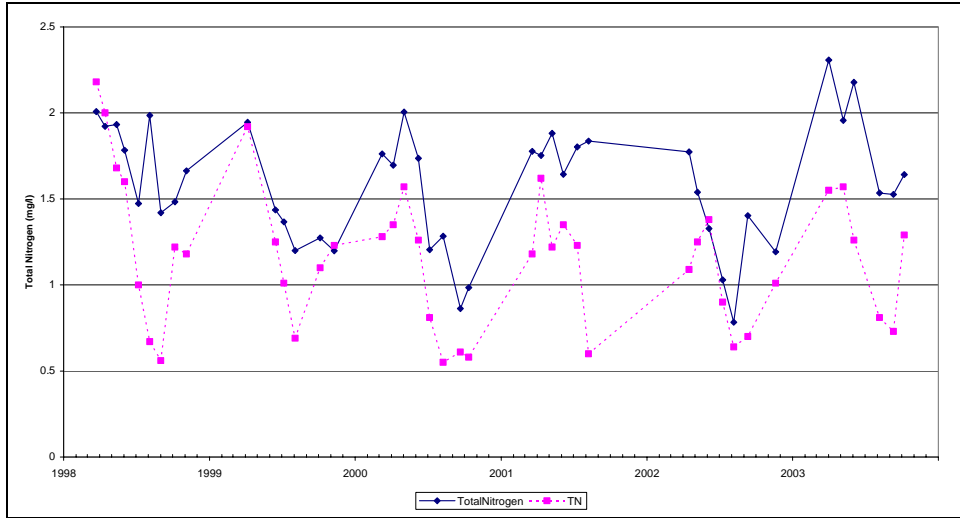
**Figure C67. Observed and Simulated Average Surface Total Nitrogen Concentrations, RG1, Calibration Scenario, Rocky Gorge Reservoir**



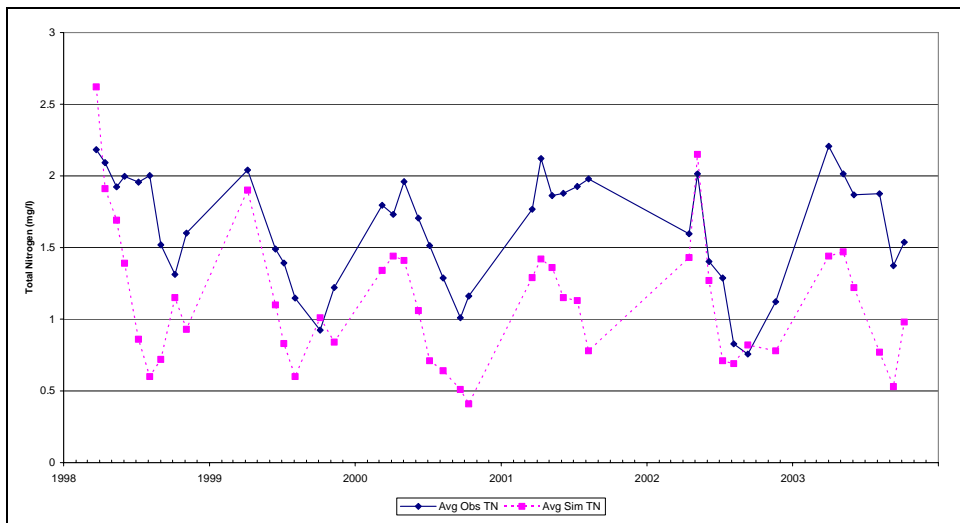
**Figure C68. Observed and Simulated Average Surface Total Nitrogen Concentrations, RG2, Calibration Scenario, Rocky Gorge Reservoir**



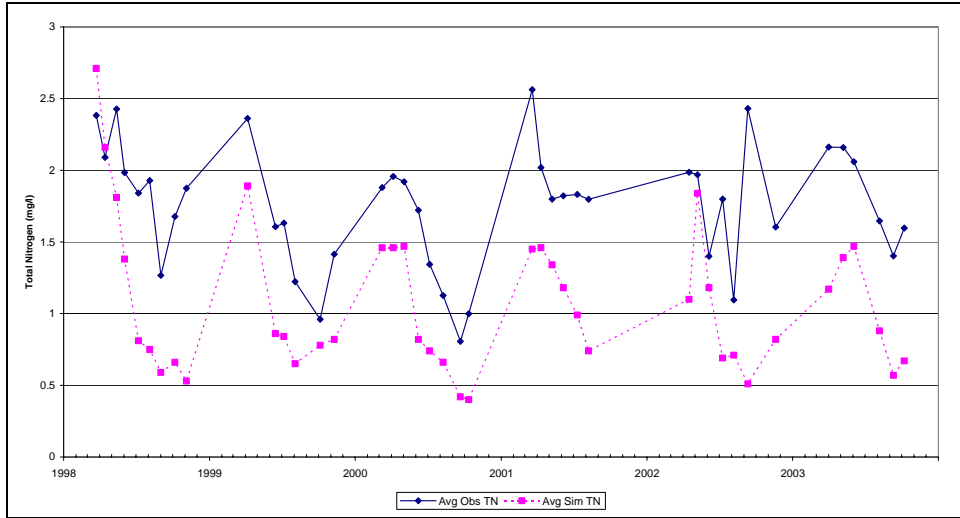
**Figure C69. Observed and Simulated Average Surface Total Nitrogen Concentrations, RG3, Calibration Scenario, Rocky Gorge Reservoir**



**Figure C70. Observed and Simulated Average Bottom Total Nitrogen Concentrations, RG1, Calibration Scenario, Rocky Gorge Reservoir**



**Figure C71. Observed and Simulated Average Bottom Total Nitrogen Concentrations, RG2, Calibration Scenario, Rocky Gorge Reservoir**



**Figure C72. Observed and Simulated Average Bottom Total Nitrogen Concentrations, RG3, Calibration Scenario, Rocky Gorge Reservoir**

**Table C.1 Cell Width (m), CE-QUAL W2 Model of Triadelphia Reservoir**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1																									
2		68	116	172	287	158	228	94	222	714	148	227	327	426	704	745	546	568	1852	671	1398	746	641	332	
3		39	99	150	278	146	207	87	211	622	139	205	290	397	671	714	518	531	1657	656	1259	707	614	312	
4			56	20	263	121	189	84	207	585	131	199	264	371	618	694	464	497	1455	640	1157	678	593	303	
5			27	118	224	98	169	77	195	515	124	191	245	345	567	676	424	471	1224	619	1025	641	574	293	
6				74	161	78	146	69	173	408	120	181	233	318	518	658	397	454	953	592	954	595	557	284	
7					78	56	135	67	162	355	113	168	202	288	448	618	384	427	853	531	876	529	531	278	
8						40	126	63	150	299	107	157	177	257	393	582	373	397	755	479	795	478	502	273	
9						33	118	57	133	228	101	148	162	227	363	557	363	365	669	447	712	450	470	271	
10						22	62	49	108	170	89	143	145	202	351	511	349	347	586	426	650	418	456	265	
11							25	37	75	84	69	134	128	175	324	460	337	334	521	404	577	387	440	257	
12							22	21	31	36	36	119	110	144	272	403	329	326	433	381	535	360	419	247	
13									22	25	30	61	64	84	185	324	303	297	343	370	461	343	398	237	
14													27	35	96	217	243	252	317	354	368	320	372	222	
15													26	26	23	55	114	181	267	318	319	281	333	198	
16																	47	82	130	164	262	241	294	190	
17																				33	184	180	240	179	
18																				28	65	74	150	153	
19																									

**Table C.2 Segment Length and Cell Width, CE-QUAL W2 Model of Rocky Gorge Reservoir**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
1																														
2		138	171	218	226	175	142	199	254	337	357	256	287	359	301	358	315	334	334	337	381	483	511	454	346	360	467			
3		138	132	171	178	146	122	171	223	301	308	231	256	324	274	322	295	306	307	311	361	445	470	419	326	342	439			
4		138	92	123	129	118	101	143	193	266	258	206	226	288	248	287	274	277	279	286	340	407	429	383	306	324	410			
5		56	52	76	81	89	81	115	162	230	209	181	196	252	221	251	254	249	252	260	320	370	389	348	286	307	382			
6		15	18	28	32	61	61	86	132	194	159	156	165	217	194	216	234	220	225	235	300	332	348	312	266	289	353			
7				15	15	30	30	50	93	135	114	113	135	181	165	190	219	194	203	220	286	300	311	284	250	274	338			
8					15	15	30	54	75	69	70	104	146	136	165	203	168	180	205	271	267	274	255	233	260	323				
9								15	15	24	27	74	110	107	139	188	141	158	189	257	234	238	227	217	246	308				
10										15	20	50	83	81	111	167	125	144	174	236	214	207	205	204	232	289				
11											15	25	57	56	82	147	108	130	158	215	193	177	183	191	218	271				
12												15	30	30	53	126	92	116	143	193	173	147	161	177	203	253				
13															15	25	93	68	91	112	170	160	130	148	165	188	239			
14																15	59	45	66	81	147	147	113	135	153	172	225			
15																	26	22	41	50	124	134	96	122	141	156	210			
16																			15	35	89	98	76	104	127	141	197			
17																				15	55	62	55	86	114	126	184			
18																					20	26	35	68	101	110	171			
19																						23	32	50	84	97	156			
20																						18	28	32	68	83	142			
21																						8	25	28	54	69	128			
22																							20	25	42	57	117			
23																							15	23	35	45	107			
24																								21	29	33	97			
25																								19	25	29	85			
26																									18	25	73			
27																									16	21	60			
28																									8	18	51			
29																										16	42			
30																											33			
31																														