John H. Kerr Project
Drought Update—1 November 2001

1. **Tabulated John H. Kerr Dam Watershed Rainfall and Inflows**. As shown in Table One below and since June 1998, only 10 out of the past 41 months had above average rainfall and only three of the past 41 months had average monthly inflows equal to or greater than average. Each of the previous 16 months had inflows below normal with the inflows trending 52 percent of normal. **However, inflows to Kerr Reservoir over the past two months have averaged only 20 percent of normal.** Table One shown below tabulates this information.

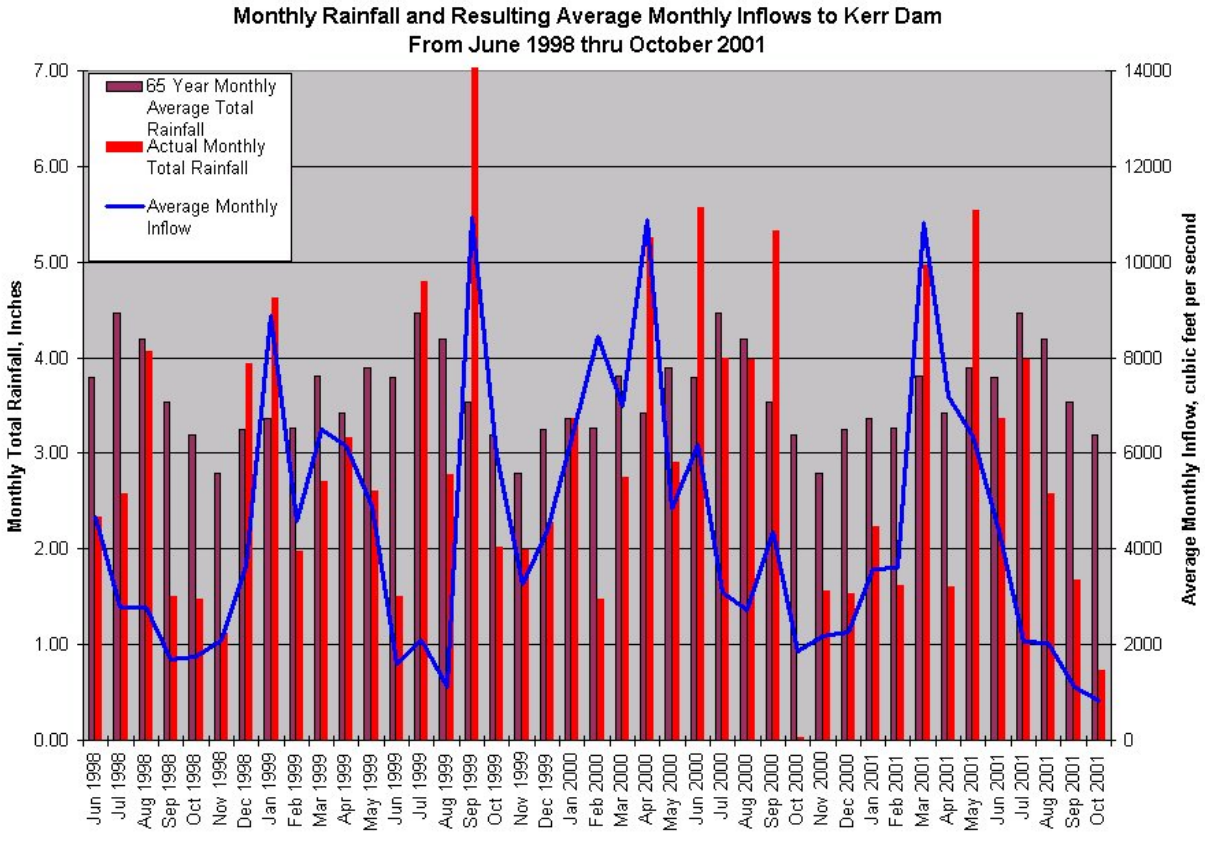
Table One
John H. Kerr--Inflows, Rainfall, and Lake Levels From June 1998 to Present

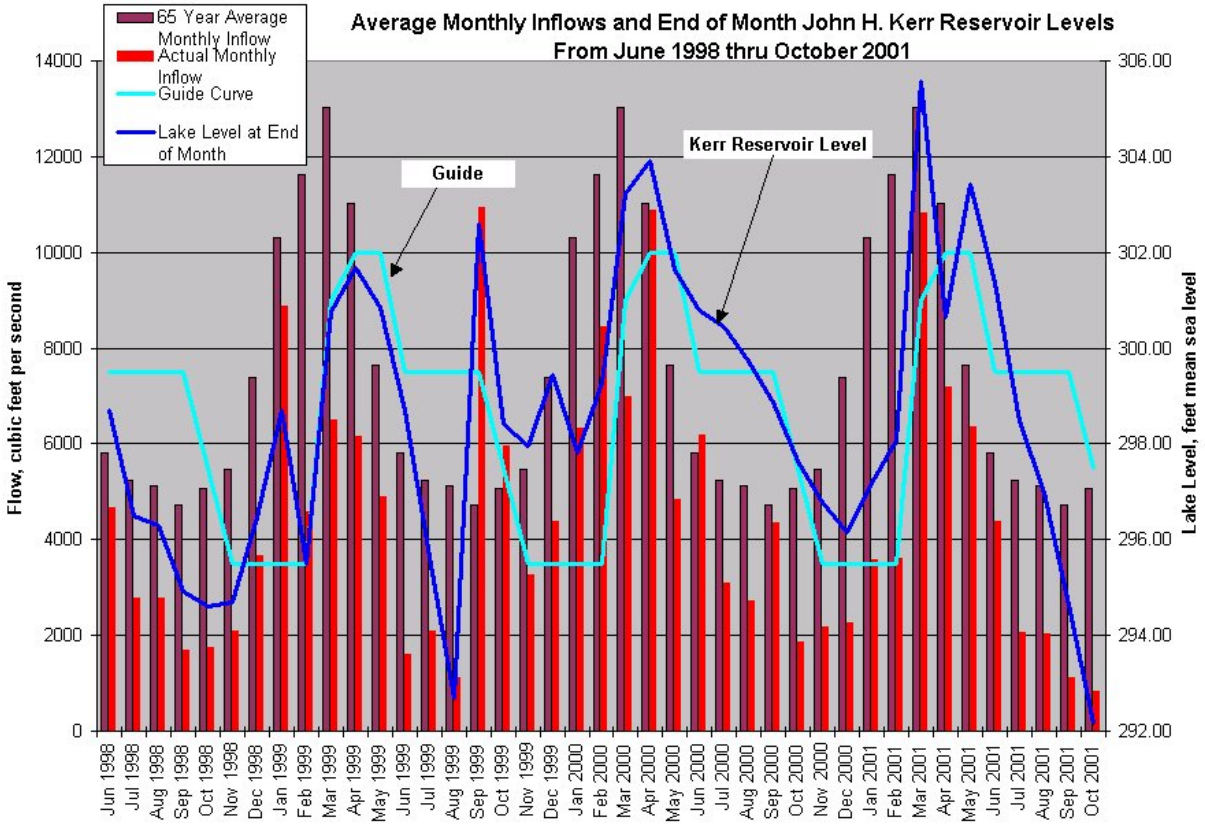
	Inflow to Kerr Dam			Watershed Rainfall			Lake	Lake
	Long Term Avg Cfs	Actual cfs	Percent of Normal	Long Term Avg inch	Actual inch	Percent of Normal	Level End of Month Ft-msl	Level End of Month Ft-msl
Jun 1998	5822	4680	80	3.80	2.34	62	298.69	299.50
Jul 1998	5253	2779	53	4.46	2.58	58	296.50	299.50
Aug 1998	5128	2769	54	4.19	4.06	97	296.29	299.50
Sep 1998	4738	1685	36	3.53	1.50	42	294.93	299.50
Oct 1998	5070	1755	35	3.19	1.48	46	294.60	297.50
Nov 1998	5474	2085	38	2.79	1.12	40	294.68	295.50
Dec 1998	7394	3671	50	3.25	3.94	121	296.48	295.50
Jan 1999	10316	8866	86	3.36	4.62	138	298.69	295.50
Feb 1999	11618	4569	39	3.27	1.97	60	295.49	295.50
Mar 1999	13019	6485	50	3.81	2.70	71	300.75	301.00
Apr 1999	11031	6154	56	3.42	3.16	92	301.68	302.00
May 1999	7656	4882	64	3.90	2.60	67	300.86	302.00
Jun 1999	5822	1610	28	3.80	1.51	40	298.69	299.50
Jul 1999	5253	2100	40	4.46	4.79	107	295.64	299.50
Aug 1999	5128	1112	22	4.19	2.77	66	292.70	299.50
Sep 1999	4738	10931	231	3.53	10.21	289	302.60	299.50
Oct 1999	5070	5965	118	3.19	2.02	63	298.42	297.50
Nov 1999	5474	3258	60	2.79	1.99	71	297.96	295.50
Dec 1999	7394	4381	59	3.25	2.27	70	299.45	295.50
Jan 2000	10316	6318	61	3.36	3.36	100	297.82	295.50
Feb 2000	11618	8437	73	3.27	1.47	45	299.26	295.50
Mar 2000	13019	6972	54	3.81	2.75	72	303.23	301.00
Apr 2000	11031	10890	99	3.42	5.25	154	303.90	302.00
May 2000	7656	4848	63	3.90	2.90	74	301.66	302.00
Jun 2000	5822	6182	106	3.80	5.57	147	300.78	299.50
Jul 2000	5253	3085	59	4.46	3.99	89	300.46	299.50
Aug 2000	5128	2717	53	4.19	3.98	95	299.74	299.50
Sep 2000	4738	4353	92	3.53	5.33	151	298.88	299.50
Oct 2000	5070	1861	37	3.19	0.03	1	297.65	297.50
Nov 2000	5474	2171	40	2.79	1.56	56	296.77	295.50
Dec 2000	7394	2253	30	3.25	1.53	47	296.14	295.50
Jan 2001	10316	3588	35	3.36	2.23	66	297.19	295.50
Feb 2001	11618	3598	31	3.27	1.62	50	298.06	295.50

Table One (Continued)
John H. Kerr--Inflows, Rainfall, and Lake Levels From June 1998 to Present

	Inflow to Kerr Dam			Watershed Rainfall			Lake	Lake
	Long Term Avg Cfs	Actual cfs	Percent of Normal	Long Term Avg inch	Actual inch	Percent of Normal	Level End of Month Ft-msl	Level End of Month Ft-msl
Mar 2001	13019	10827	83	3.81	4.97	130	305.58	301.00
Apr 2001	11031	7192	65	3.42	1.61	47	300.66	302.00
May 2001	7656	6367	83	3.90	5.54	142	303.42	302.00
Jun 2001	5822	4375	75	3.80	3.37	89	301.36	299.50
Jul 2001	5253	2054	39	4.46	3.98	89	298.48	299.50
Aug 2001	5128	2034	40	4.19	2.57	61	296.97	299.50
Sep 2001	4738	1123	24	3.53	1.67	47	294.64	299.50
Oct 2001	5070	841	17	3.19	0.73	23	292.76	297.50
Average	7404	4435	60	3.61	3.02	82		

2. **Plotted John H. Kerr Project Watershed Rainfall, Project Inflows and End of Month Lake Level**. The following two plots show the data shown in Table One and illustrate the relationships between rainfall, the resultant inflow to Kerr Dam and the end of month Kerr Reservoir levels. The second plot greatly illustrates the magnitude of actual inflows over the past few months compared with typical inflows and the resulting rapidly falling lake level.





3. **<u>Status of Kerr Reservoir</u>**: Conditions continue to get progressively worse at Kerr Dam. As of this report, Kerr Reservoir is at 292.0 feet, msl or 5.5 feet below a dropping guide curve and is below the dependable capacity curve. An extended forecast of the Kerr Reservoir level is being analyzed and will be updated soon. This extended forecast will include data from partners both upstream and downstream in an effort to balance out resources, protect the City of Henderson's water supply intake and industry downstream.

4. <u>Impacts to Public Recreation Facilities at Kerr Reservoir</u>. Public recreation facilities at John H. Kerr Dam and Reservoir include approximately 62 boat-ramp lanes and 41 swimming beaches (13 Corps, 10 State, 18 other). Draw down of the reservoir reduces the usable surface area, and can render boat ramps and swimming areas unusable. Table Two below shows the bottom of ramp elevation of the public boat ramps at John H. Kerr. The reservoir elevation should be at least 3 feet higher than the bottom of ramp elevation for the ramp to be usable. As can be seen from the information below, boat-ramp access to the reservoir becomes increasingly limited below pool elevation 293 feet, m.s.l. An additional concern is recreational access within narrow and shallow coves in Kerr Reservoir where boating would be prohibited and some boats would be grounded.

Table Two
Public Boat Ramps at John H. Kerr Reservoir

Location	Ramps	Number of Lanes	Bottom Ramp Elevation (feet, m.s.l.)
Satterwhite Point	2	2	294
Flemingtown	1	2	293
Palmer Point	1	2	293
Clover	1	1	292
Eagle Point	1	2	292
North Bend Park	2	4	291
Steel Creek Marina	2	3	291
Staunton	1	2	291
Bullocksville	1	2	291
Hyco Landing	1	1	291
Clarksville Marina	1	2	290
Henderson Point	2	4	290
Nutbush	1	3	290
Bluestone	1	2	289
Occoneechee	3	5	289
Kimball Point	1	2	289
Grassy Creek	1	2	289
Island Creek	1	2	288
Williamsboro Wayside	1	1	288
North Bend Park Marina	1	1	286
Satterwhite Point Marina	1	2	286
Longwood	1	2	286
Eastland Creek	1	2	286
Buffalo Landing	1	2	285
Ivy Hill	1	2	285
Rudds Creek	2	3	285
County Line	1	2	285
Hibernia	2	4	285