

TABLE 5

Volume of discharge at the Birch Lake Dam vs. GWFC for Birch Lake

$$\text{Average Discharge} = \frac{\text{GWFC} * \text{Annual Discharge}}{(60\text{s/m} * 60\text{m/h} * 24\text{h/d} * 214\text{d/yr})}$$

year	GWFC for Birch Lake	Volume of Discharge per year (ft ³ /yr)	CALCULATED Average Discharge (ft ³ /sec)
2000	5.32	2.889E+08	15.62
2001	5.45	2.959E+08	16.01
2002	3.93	2.130E+08	11.52
2000	4.72	2.561E+08	13.84
2001	4.88	2.649E+08	14.32
2002	3.43	1.861E+08	10.06
2000	4.11	2.232E+08	12.07
2001	4.31	2.339E+08	12.65
2002	2.93	1.592E+08	8.61

	average annual SRO from Birch Lake Dam (ft)	Volume of Discharge per year (ft ³ /yr)	Area of Lakes (ft ²)	Lake Level change for Ten Mile and Birch Lakes (ft)	Lake Level change for Ten Mile Lake (ft)	CALCULATED Lake Level Change for Birch Lake (ft)
2000	16.163	2.933E+08	Ten Mile 2.190E+08	1.073	1.339	5.404
2001	17.846	3.238E+08	Birch 5.426E+07	1.185	1.479	5.967
2002	12.607	2.287E+08	Ten Mile and Birch 2.733E+08	0.837	1.045	4.215
2003	12.466	2.262E+08		0.828	1.033	4.168

$$\text{Change in Lake Level} = \frac{\text{SRO} * \text{Annual discharge}}{\text{Area of Lake}}$$