of water yielded by the lake has during the same time been nearly 53 per cent of the rain fall."

In the Reports of the Regents of the University, the average annual rain fall for the whole State, taking a mean of 4 years, is 35½ inches: 40 per cent of this depth over an area of 27,554 acres, which is the area of the rain shed of Hemlock Lake, will give an amount sufficient to furnish a daily discharge from this Lake of 24,000,000 gallons for the whole year.

The outlet of Canadice unites with that of Hemlock Lake very near the foot of the latter, and might, at a small cost, be extended to the Lake itself, and thus considerably increase the volume of water flowing from it.

The following table will show the character of these Lakes and their capacity to furnish water for this city.

Table showing the Extent and Capacity of the Lakes, their Depth, Drainage and other Characteristics.

	Honeoye.	Canadice	Hemlock	Conesus.
Length miles.....	4 1-5	3 1-10	6 7-10	7 4-5
Width "	⅝	½	6-10	⅝
Depth—feet.....	10 to 25	50–80	45–80	35–70
Area—acres.....	1727	648	1828	3,330
Drainage, "	36,100	8,883	27,554	39,980
Swamp at head of Lake, Acres	715	45	100	0
Distance from Rochester,	28	28	26	29
—Minimum discharge in cubicfeet per minute	300	200	300	150
Same in gallons per day,	3,240,000	2,160,000	3,240,000	1,620,000
No. of gallons in 1 foot depth at surface.....	560,290,500	178,878,200	505,731,600	1,078,926,750
Equal to gall's pr. day,)	1,535,042	488,707	1,385,566	2,955,963
Add minimum flow...)	3,240,000	2,160,000	3,240,000	1,620,000
Total daily discharge... of each Lake,.....	4,775,042	2,648,707	4,625,566	4,575,963

In the above table, the quantity of water which may be furnished from Hemlock Lake, by making a draught upon the same, as upon a reservoir one foot deep, is shown to be for the whole year, as stated in gallons per day, - - - - - 1,385,566

Do. of Canadice Lake, 1½ feet deep, - - 733,060

2,118,626

This for 4 months only, would be, - - - - - 6,355,878

Should Hemlock Lake be drawn down 2 feet, and Canadice, 3 feet, the quantity would be 4,237,252 gallons per day, for the year, and 12,711,756 gallons for 4 months.

For the remaining part of the year, the natural discharge of these two lakes would be ample both for the wants of Rochester, and for the mills situated upon the outlet.

The citizens of Rochester need not therefore entertain any fear should one or more of these lakes be adopted as the principal Reservoir for the city, that there will be any deficiency in the supply.

Although the surface of Hemlock Lake is so much elevated above Rochester, this beautiful sheet of water lies in a deep valley or depression between the hills, whose slopes generally rise either directly from the water's edge, or from a narrow beach without intervening flats or swamps, except at the head of the Lake. Canadice is quite similar to Hemlock Lake, both in appearance, and in the quality of the water.

For the first 5 miles, the outlet of Hemlock Lake passes through a narrow and somewhat winding valley, the water channel being still more circuitous, and descending about 104 feet in the distance of 5 3-5 miles, to the Honeye Flats, where the junction is made with the outlet of Honeoye Lake. From this point to the village called Smithtown, situated near the north-west corner of the town of Bloomfield, the descent in the outlet is moderate, but its course is very circuitous, often changing from side to side of a valley, varying in width from one-tenth to one-half of a mile. Should the water of these Lakes be taken to supply Rochester, whatever mode may be adopted to convey it to this point, the general course of the outlet can not be departed from for any considerable portion of the distance, which is about 14 miles.

From Smithtown either of three routes may be followed,—the first proceeds westerly to a point about three-fourths of a mile