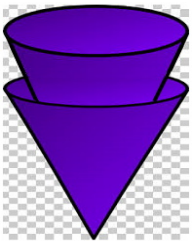
Go Jump in the Lake - Crater Lake

Alternate Version 1 - Cone inside Cone

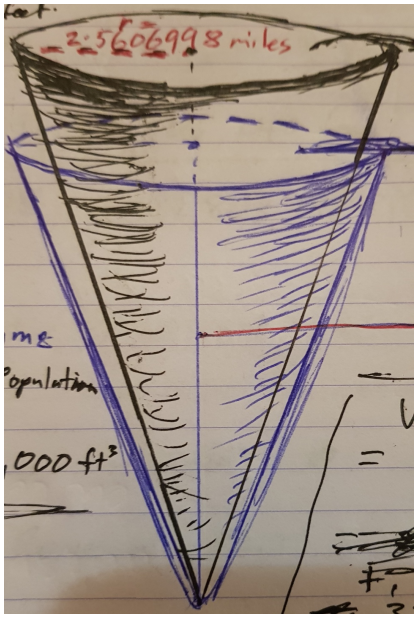
Original Cone replaced with new taller Cone but with same water surface area.



Crater Lake

Depth :	h_1	=	1,943	feet deep
Surface Area :	A_1	=	20.6	square miles

World Population :	WP	=	7,800,000,000	people
Average Human Volume :	V_{ah}	=	2.176	cubic feet



Volume of World Population

	V_{wp}	=	WP x V_h	
	V_{wp}	=	7800000000 x 2.176	
	V_{wp}	=	16,972,800,000	cubic feet
1 cubic mile		=	147,197,952,000	cubic feet
	V_{wp}	=	0.115305952082812	cubic miles

Area of a Circle

		=	A = Pi x r^2	
	A_1	=	20.6	square miles
1 square mile		=	27,878,000	square feet
	A_1	=	574,286,800.0	square feet
	r_1	=	Sqrt(A_1/Pi)	
	r_1	=	2.56069984	miles
1 mile		=	5,280	feet
	r_1	=	13,520.49514	feet

Volume Original Cone :	V_1	=	(Pi x r_1^2 x h_1) / 3	
	r_1	=	13,520.4951	feet
	r_1^2	=	182,803,788.8183	square feet
Surface Area	A_1 = Pi x r_1^2	=	574,295,040.0000	square feet
	h_1	=	1,943	feet
Volume Original Cone :	V_1	=	371,951,754,240	cubic feet
Volume of Population :	V_p	=	16,972,800,000	cubic feet
Volume of New Cone :	V_2	=	V_1 + V_p	
	V_2	=	388,924,554,240	cubic feet

Height of a Cone

h = 3 x (V / Pi x r^2)

h_2	=	2,031.662440825	feet
h_1	=	1,943.000000000	feet
Change in Height = (h_2 - h_1)	=	88.662440825	feet

Cross Check Volume

Volume New Cone :	V_2	=	(Pi x r_1^2 x h_2) / 3	
Water Surface Area	A_1	=	Pi x r_1^2	
	A_1	=	574,295,040	square feet
	h_2	=	2,032	feet
Volume New Cone :	V_2	=	388,924,554,240	cubic feet