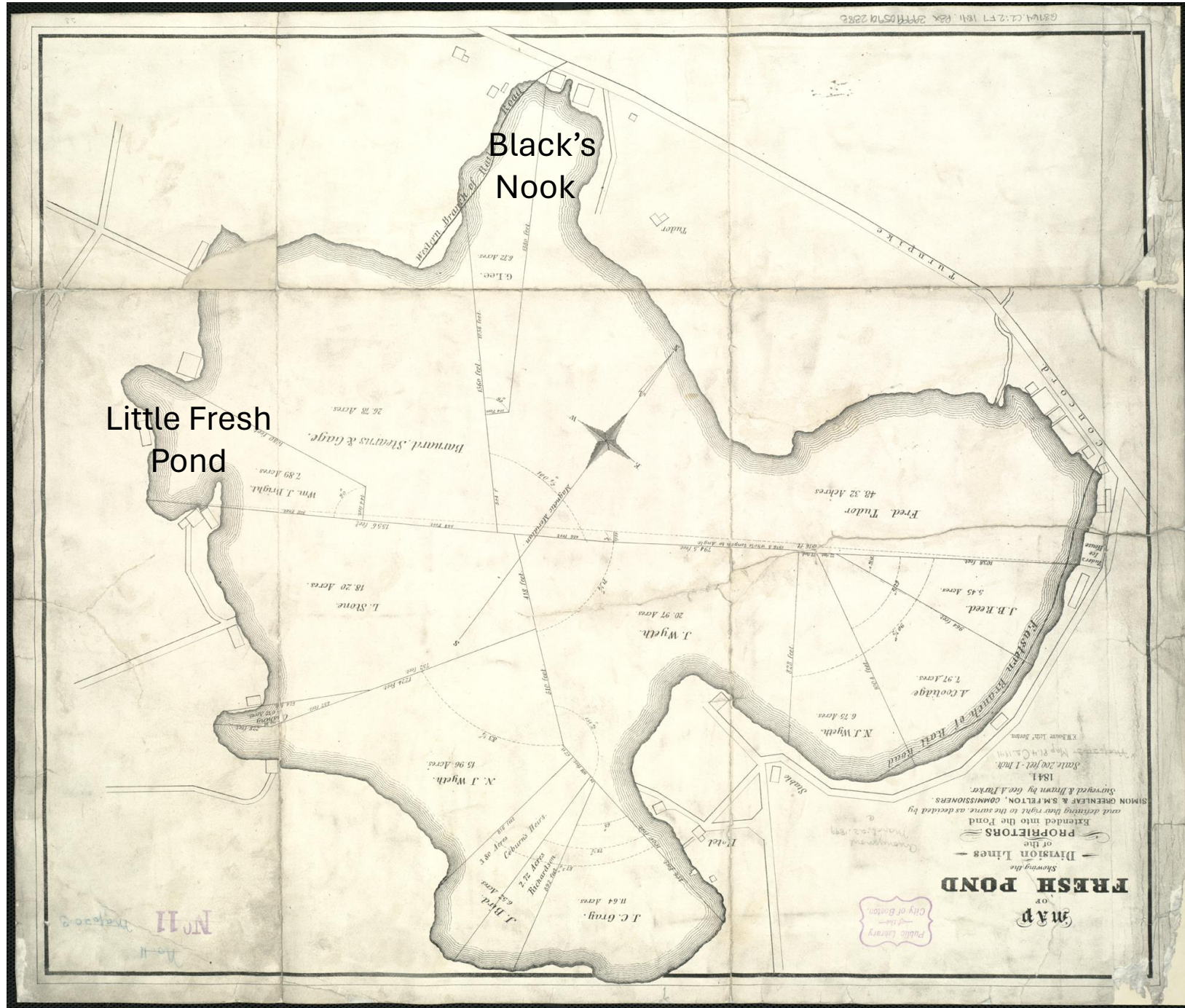


# Fresh Pond Reservoir Watershed

Cambridge  
Water Board  
3/12/2024



Fresh Pond  
Reservation  
1841







# Groundwater

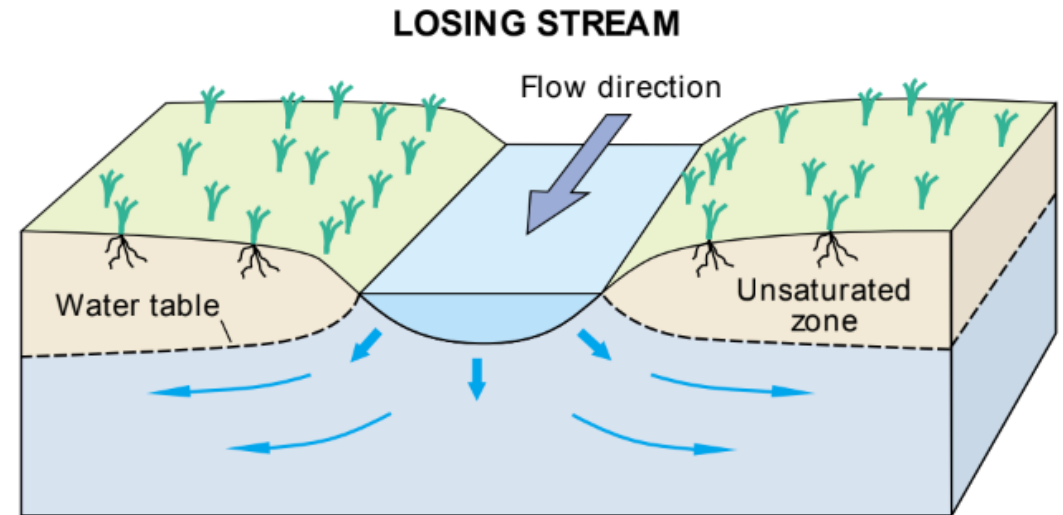
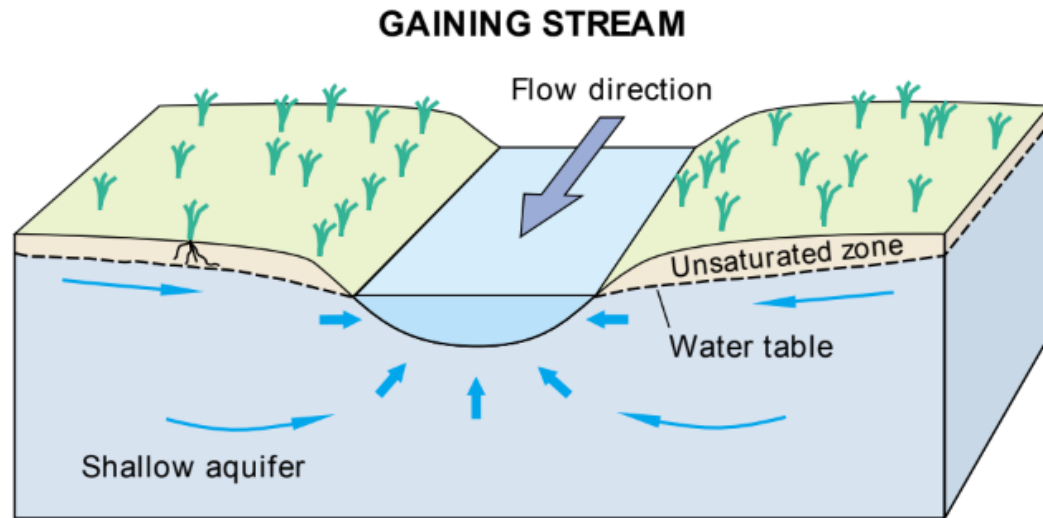


Image source <https://geology.utah.gov/map-pub/survey-notes/climatically-controlled-water-supply-in-the-bryce-canyon-region/stream-block-diagrams/>



# Fresh Pond Groundwater

**CDM** Camp Dresser & McKee

## Report

### Fresh Pond Reservoir

Final Report  
Groundwater Quality Impacts  
to Fresh Pond Reservoir

May 1997

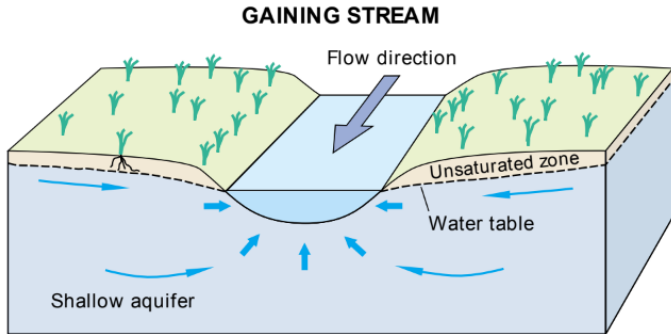
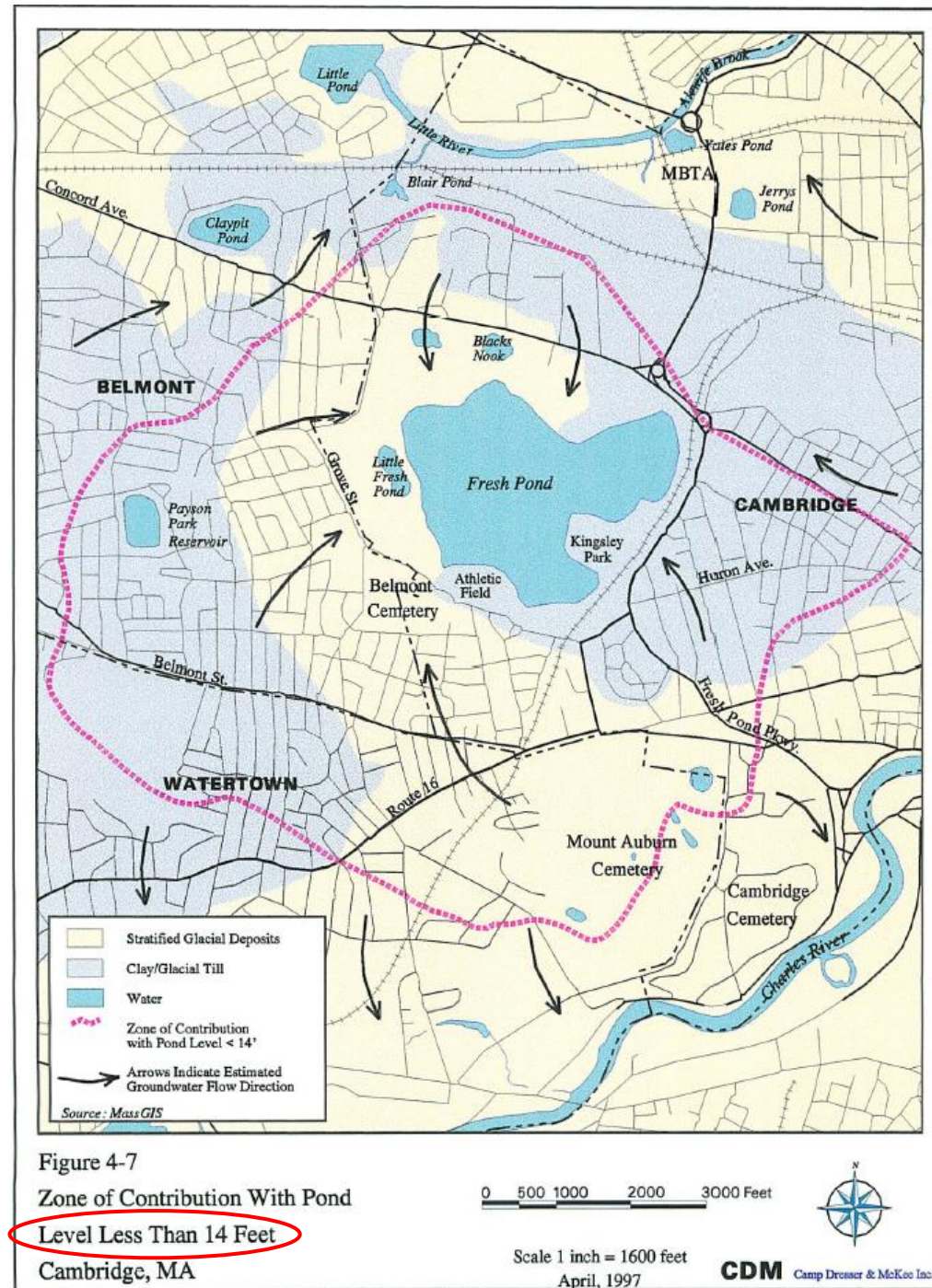


Image source <https://geology.utah.gov/map-pub/survey-notes/climatically-controlled-water-supply-in-the-bryce-canyon-region/stream-block-diagrams/>

Fresh Pond gaining an estimated **3 – 9 MGD**





# Fresh Pond Groundwater

**CDM** Camp Dresser & McKee

## Report

### Fresh Pond Reservoir

Final Report  
Groundwater Quality Impacts  
to Fresh Pond Reservoir

May 1997

Fresh Pond Reservoir's target operating level is 16' Cambridge Datum

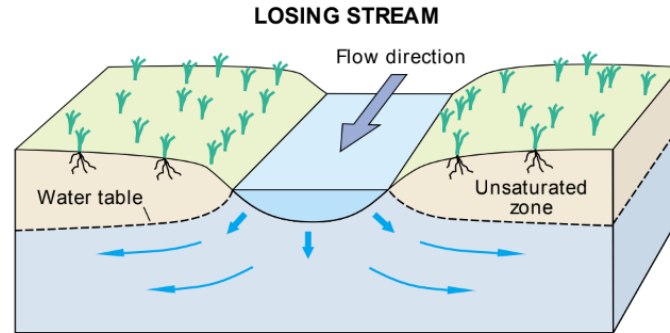
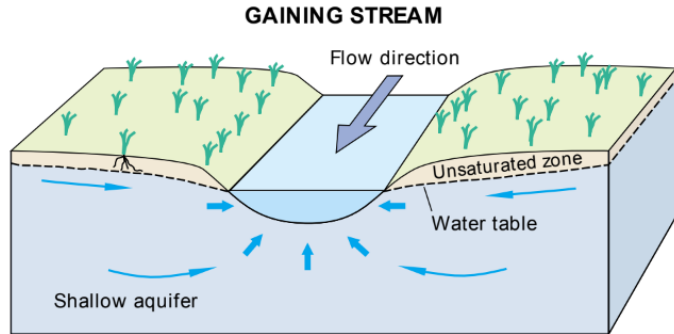


Image source <https://geology.utah.gov/map-pub/survey-notes/climatically-controlled-water-supply-in-the-bryce-canyon-region/stream-block-diagrams/>

Fresh Pond gaining an estimated **0.5 – 1MGD**

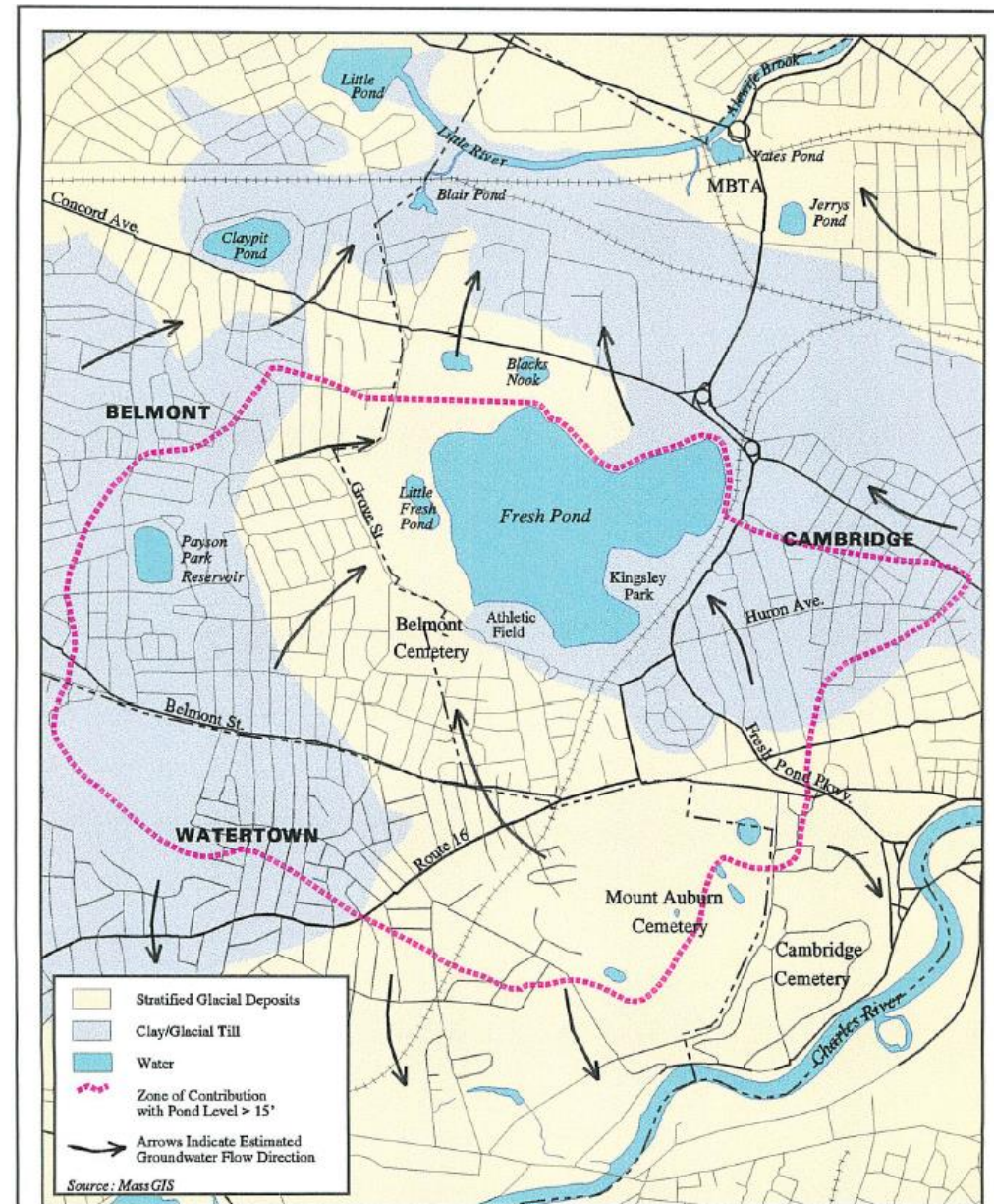


Figure 4-6  
Zone of Contribution With Pond  
Level Greater Than 15 Feet  
Cambridge, MA



0 500 1000 2000 3000 Feet



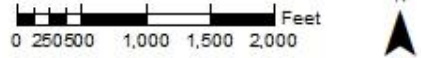
Scale 1 inch = 1600 feet  
April, 1997



# Stormwater

-  Historic Topographic Watershed
-  Engineered Watershed

Municipal Storm Sewer Systems route runoff away from Fresh Pond



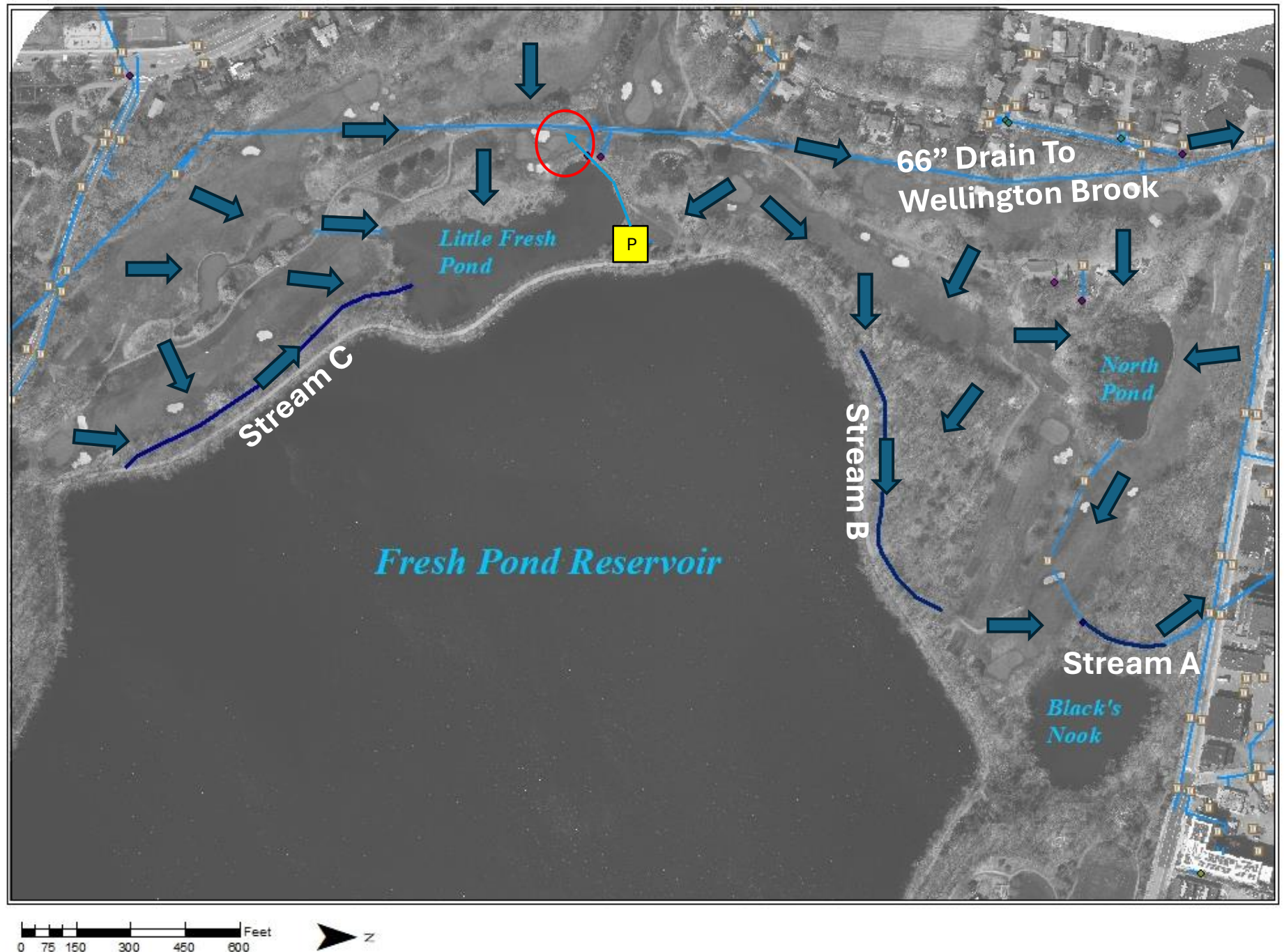


# Stormwater Flow Direction

Through a series of pipes, ditches, and ponds, runoff is intercepted and diverted away from Fresh Pond Reservoir

Work in the 1950s elevated the Perimeter Road and reduced direct stormwater discharges

Pump station feeds Little Fresh Pond overflow to a 66" storm drain





# Groundwater Quality

**Table B-1**

**Summary of Groundwater Analyses for Well FP-MW-1  
 Cambridge, MA - Fresh Pond Reservoir  
 Groundwater Monitoring Program**

Parameter	Units	Standards		RND 1 Nov-94	RND 2 May-95	RND 3 Nov-95	RND 4 May-96	(1) Avg	Min	Max
		MCL	SMCL							
<b>Conventionals</b>										
Temperature	Celsius			12.5	10.2	11.4	8.8	10.7	8.8	12.5
Dissolved Oxygen	mg/l			1.85	0.5	0.6	0.8	0.9	0.5	1.85
pH	log units		6.5-8.5	6.45	6.5	6.7	6.8	6.6	6.45	6.8
Sp. Conductivity	umhos/cm			390	250	330	275	311.3	250	390
Nitrate	mg/l	10		1.6	0.28	0.58	0.28	0.7	0.28	1.6
Sulfate	mg/l		250	23.7	16	14	18	17.9	14	23.7
Chloride	mg/l		250	55	35	44	40	43.5	35	55
<b>Metals</b>										
Aluminum	mg/l		0.05-0.2	4	0.18	11	ND	5.1	ND	11
Iron	mg/l		0.3	3.3	0.2	19	0.026	5.6	0.026	19
Lead	mg/l	TT 0.015								
Manganese	mg/l		0.05	0.59	0.042	1.5	0.02	0.5	0.02	1.5
Mercury	mg/l		0.002				ND	ND	ND	ND
Sodium	mg/l			32	11	16	17	19.0	11	32
TPH	mg/l			ND	ND	ND	ND	ND	ND	ND
<b>Pesticides</b>										
2,4-D	ug/l	70		ND	ND	ND	ND	ND	ND	ND
Dicamba	ug/l			ND	ND	ND	ND	ND	ND	ND
Anilazine	ug/l			Absent	ND	ND	ND	ND	ND	ND
Chloroneb	ug/l				ND	ND	ND	ND	ND	ND
Chlorothalonil	ug/l			ND	ND	ND	ND	ND	ND	ND
Chloropyrifos	ug/l			ND	ND	ND	ND	ND	ND	ND
Iprodione	ug/l				Absent	ND	ND	ND	ND	ND
Isofenfos	ug/l			Absent	Absent	ND	ND	ND	ND	ND
Mancozeb	ug/l					ND	ND	ND	ND	ND
Thiram	ug/l					ND	ND	ND	ND	ND
Zineb	ug/l					ND	ND	ND	ND	ND
Triadimefon	ug/l				ND	ND	ND	ND	ND	ND
Benomyl	ug/l				ND	ND	ND	ND	ND	ND

(1) Average of detected values.

MCL = EPA Drinking Water Maximum Contaminant Level

SMCL = EPA Drinking Water Secondary Maximum Contaminant Level

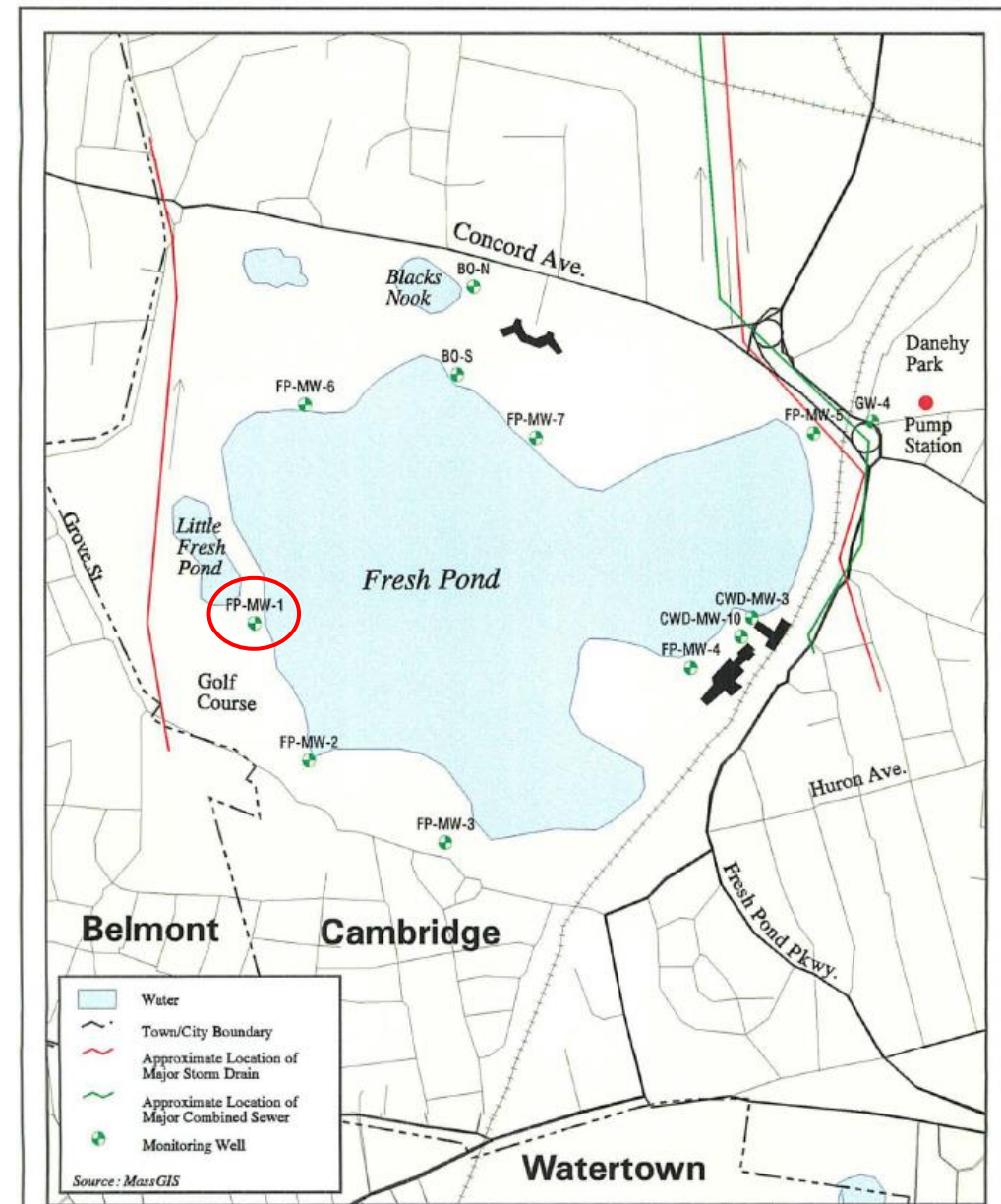


Figure 2-1: Location Map  
 Fresh Pond Groundwater  
 Monitoring Program  
 Cambridge, MA

Scale 1 inch = 800 feet

April 1997





Questions?

