

**REGIONAL GROUND-WATER STUDY
TOWN OF CHESTER
ORANGE COUNTY, NEW YORK**

Prepared For
Orange County Water Authority
June 1994

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Groundwater Inventory Map ("GIM")

REGIONAL GROUND-WATER STUDY
TOWN OF CHESTER
ORANGE COUNTY, NEW YORK

INTRODUCTION

The Orange County Water Authority retained Hudson Engineering Associates, P.C. to conduct a regional ground water study for the Town of Chester. The emphasis of Hudson Engineering Associates' investigation was to:

- C Inventory existing and proposed municipal and community water supplies within the Town;
- C Determine the adequacy of existing and proposed water supplies and their ability to meet present and future demands;
- C Review land-use and zoning; and
- C Review existing and potential ground water contamination problems within the Town, which may affect the existing and proposed water supplies.

EXISTING WATER SUPPLY SYSTEMS

Town Water Districts

Sugar Loaf Hills Water District

Well Supply in Service

Mr. Philip Salerno, P.E., Town Engineer, reported that the District currently operates one production well completed in the bedrock aquifer (Groundwater Inventory Map ["GIM"], Well CT-2). The present well yield capacities and available well data are presented on Tables 1 and 2A.

Well Supply Not in Service

Well No. 1 (GIM, Well CT-1) is a caisson well that is not used and Well No. 3 (GIM, Well CT-3) is an inactive well. The available data are presented on Tables 1 and 2A. Other wells that were constructed for this District produce low yield and were abandoned (Salerno, 1994). Well TW1 (GIM, Well CT-28) was developed for the expansion of this water district. Available well data are presented on Tables 1 and 2A (LBG, 1988).

Walton Lake Estates Water District

Well Supply in Service

Mr. Salerno reported two wells, Fridlich 2 (GIM, Well CT-5) and Fridlich 3 (GIM, Well CT-7), are currently in operation. Well Fridlich 2 is impacted by Walton Lake; thus varying the capacity throughout the year. Well Fridlich 3 is not impacted by the Lake, but has a deep drawdown. Both wells are completed in the bedrock aquifer. The well data are presented in Tables 1 and 2B.

Well Supply Not in Service

Two wells completed in bedrock aquifers are currently established as auxiliary wells. These wells are Chester Well No. 1 (GIM, Well CT-6), and Chester Well No. 2 (GIM, Well CT-8). Well Fridlich 1 (GIM, Well CT-4) was abandoned. Detailed well data are presented on Tables 1 and 2B. The well locations are shown on the GIM (Salerno, 1993).

Surrey Meadows Water District

Well Supply in Service

Two 6-inch diameter wells (GIM, Wells CT-9 and CT-10), approximately four feet apart, are currently in operation. Both wells are completed in gravel aquifers. Both wells are high in manganese, and manganese removal filters have been installed. The present well yield capacities and available well data are presented in Tables 1 and 2C.

Well Supply Not in Service

One well "Old 9" has been taken out of service and is no longer equipped. No information has been obtained on this well (OCHD).

Lake Hill Farm Water District

Well Supply in Service

Two wells are currently in production (GIM, Wells CT-12 and CT-13). The largest of the two is in an artesian condition, overflowing the well from time to time. This well is completed in a gravel aquifer. The other well also is completed in a gravel aquifer. The well locations are shown on the GIM. Well capacities and data are presented in Tables 1 and 2D.

Well Supply Not in Service

Well No. 3 (GIM, Well CT-14) is not in service. This well is completed in a consolidated rock aquifer, approximately forty feet from a stream. This well is high in manganese. Well data are presented in Table

CT-2

1 (Salerno, 1993).

Private Water Supply Systems

King Tract

Well 1 (GIM, Well CT-15) presently serves the King Tract area. The well was completed in a sand and gravel aquifer, approximately fifty feet from Seely Creek. The well was drilled in 1962. According to the Orange County Health Department, the well may possibly be influenced by surface water. Well data are presented in Tables 1 and 2E (Salerno, 1993).

Miscellaneous Water Supply Systems

Town Hall Well

Mr. Salerno, Town Engineer, reported the Town Hall is served by a well completed in a gravel aquifer (GIM, Well CT-2). The well has artesian pressure and occasionally overflows. The present well yield capacities and available well data are presented in Table 1 (Salerno, 1993).

Camp LaGuardia

Camp LaGuardia has developed a bedrock well with a safe yield of 55 gpm (GIM, Well CT-25). This well is utilized for laundry service. The remainder of Camp LaGuardia's potable water needs are served by the Village of Chester. It was reported by L.B.G., Inc. (LBG, 1990) that the aquifer is capable of yielding more than the laundry pump capacity. Available well data are presented on Table 1.

Village of Chester

The Village of Chester relies on two sources of water. The primary source is Walton Lake. This supply is filtered. The secondary source consists of two wells; having a combined pumping capacity of 750 gpm (GIM, Wells CT-26 and CT-27). (LBG, 1990).

Both wells influence each other and are completed in a sand and gravel aquifer. They are approximately 45 feet from a stream. According to the Orange County Health Department, these wells are not under the influence of surface water. Available well data are presented in Tables 1 and 2F (Salerno, 1993).

PROPOSED COMMUNITY WATER

SUPPLY SYSTEMS

Chester Properties

Based on studies made by L.B.G., Inc., (LBG, 1990) three wells were tested (GIM, Wells CT-16, CT-17, and CT-18). The water demand was 450 gpm, and the study indicated 500 gpm could be developed utilizing three wells. One well is completed in a sand and gravel aquifer (GIM, Well CT-18). The other two are completed in a bedrock aquifer. Well data are presented in Table 1 (LBG, 1990).

Lexington Meadows

Five wells (GIM, Wells CT-19, CT-20, CT-21, CT-22 & CT-23) have been drilled to supply this proposed residential project. One well (GIM, Well CT-19) was completed in a sand and gravel aquifer. The others are completed in a bedrock aquifer. With the largest well out of service, the remaining wells are still capable of meeting the required yield for this project. Three wells (GIM, Wells CT-29, CT-30 and CT-31) have been abandoned due to the low yield. Available well data are shown on Table 1 (LBG, 1991).

WATER SUPPLY DEMAND

Sugar Loaf Hills Water District

The present average daily water demand is 16,200 gpd, and the estimated maximum daily demand is 32,400 gpd. Well yield capacity is 144,000 gpd. The well is capable of meeting the average daily demand of 16,200 gpd, and the daily demand of 32,400 gpd. Well TW-1 (GIM, Well CT-28) was developed for the expansion of this water district. The well yield is 144,000 gpd. With this well added to the system, they will be able to meet the average daily demand with the largest well out of service. Data are summarized in Table 3 (Salerno, 1994).

Walton Lake Estates Water District

The present supply meets the average daily demand of 35,600 gpd and the maximum daily water demand of 72,800 gpd with two of the existing wells in service. The present capacities of the two wells are 57,600 gpd each; totaling 115,200 gpd. This is more

than adequate. There are two auxiliary wells which presently yield a total of 38,880 gpd. Data are summarized on Table 3 (OCHD, 1993).

Surrey Meadows Water District

The present average daily demand is 58,400 gpd. Both wells are throttled to yield an average capacity of approximately 58,000 gpd each, which meets the average daily water demand of 58,400 gpd. With both wells in service, the maximum daily water demand, 191,000 gpd, is not met. Both wells produce water high in manganese, and the water must be treated. Data are summarized on Table 3 (OCHD, 1993).

Lake Hill Farm Water District

The present supply meets the estimated average daily water demand of 73,000 gpd and the maximum water demand of 147,000 gpd with the two existing gravel wells in service. With the largest well out of service, the system is not capable of meeting maximum or average daily water demand.

Well 3 (GIM, Well CT-14) is not used because of the high manganese content which would require treatment. Data are summarized on Table 3 (OCHD, 1993).

King Tract

One well with an original yield of 158,400 gpd, meets the average daily water demand of 10,300 gpd. The maximum daily water demand is not available, however, it is estimated to be about 15,450 gpd. According to the Orange County Health Department, this well may be under the influence of surface water. Data are summarized on Table 3 (OCHD, 1993).

Village of Chester

The primary water source for the Village of Chester is Walton Lake. The allowed water taking is 0.5 mgd. This meets the average daily demand of 0.44 mgd. This water is treated at the Walton Lake Treatment Plant. The filter plant is supplemented by Wells 12 (GIM, Well CT-26) and 12A (GIM, Well CT-27) located on Black Meadow Road. To meet the maximum daily demand of 1.17 mgd, the largest well (Well 12) with a yield capacity of

0.65 mgd can be utilized. With Well No. 12 out of service, Well 12A will yield a capacity of 0.43 mgd, which will not meet maximum daily demand.

INVENTORY OF GROUND-WATER CONTAMINATION PROBLEMS

Existing Ground-Water Contamination Problems

Hudson Engineering Associates, P.C. reviewed existing known ground water contamination sites, including New York State Department of Environmental Conservation's (NYSDEC) inactive hazardous waste sites, remediation projects (NYSDEC Spill Response), solid waste sites, and RCRA sites for the Town and Village of Chester. The information was provided by Lawler, Matusky and Skelly Engineers (LMS, 1993) and gathered from a Freedom of Information Law (FOIL) request from the NYSDEC. The FOIL response from the NYSDEC for the above categories did not inventory any sites which are known to have contaminated ground water in the Town of Chester.

Potential Ground-Water Contamination Problems

Information about potential ground-water contamination sites was obtained from:

- ! FOIL request to NYSDEC (LMS, 1993); and
- ! Land use data from the Orange County, New York Real Property Tax Assessment data base (Space Track, 1993).

The following summarizes the potential ground water contamination sites, including the NYSDEC's potential inactive hazardous waste sites and solid waste facilities from the FOIL request from the NYSDEC. The following sites were inventoried:

St. Columbia C&D Disposal Site

No specific information available. Site is located on Route 94 (LMS, 1993).

Campanella (Filers)

No specific information available. Site is located on Doug Road (LMS, 1993).

Key Bank

No specific information available. Site is located on Route 17M near Exist 126 on Route 17 (LMS, 1993).

L.P. Transportation

No specific information available. Site is located on Route 17M between Exist 126 on Route 17 and County Route 13 (LMS, 1993).

U.P.S.

No specific information available. Site is located on Black Meadow Road near County Route 13 (LMS, 1993).

Wayne Beverage

No specific information available. Site is located on Black Meadow Road (LMS, 1993).

Midway Texaco

No specific information available. Site is located on Route 17M (LMS, 1993).

Chester Union Free School

No specific information available. Site is located on Maple Avenue (LMS, 1993).

Pius 12th School Parking Lot

No specific information available. Site is located on Gibson Hill Road (LMS, 1993).

Each property in Orange County has a land use code number. Properties with land use code numbers associated with potential contamination of ground water were identified through analysis of the Real Property Tax Assessment data base by Space Track, Inc. The types of land uses in the potential contamination category include:

- ! industrial facilities;
- ! gas stations;
- ! dry cleaners, and
- ! auto repair facilities.

Where possible, approximate locations of these sites are shown as triangles on the GIM.

Petroleum Bulk Storage

The FOIL request from the NYSDEC inventoried the petroleum bulk storage sites presented on Table 5.

The above sites are listed as potential ground water contamination sites. Further investigation would be required to determine if contamination exists at the respective locations.

TABLE 1
TOWN OF CHESTER
Summary of Available Well Data

Well ----- Water District	Tax Map Municipality ----- Section ----- Block ----- Lot	Map Location ----- I.D. #	Well Status	Reported Yield (gpm) Original ----- Present	Depth of Well (feet)	Well Diameter (inches)	Length of Casing (inches)	Well Screen Length (feet) ----- Setting Interval (feet)	Aquifer	Date Drilled	Comments
1 ----- Sugar Loaf Hills	Chester 30 ----- 1 ----- 19	Chester ----- CT-1	Inactive ----- Abandoned	N/A ----- N/A	20	N/A	N/A	N/A ----- N/A	Caission	N/A	Caission Well
2 ----- Sugar Loaf Hills	Chester 30 ----- 1 ----- 19	Chester ----- CT-2	In Service ----- Active	100 ----- 30	350	6	82		Bedrock On	N/A	Artesian
3 ----- Sugar Loaf Hills	Chester 30 ----- 1 ----- 19	Chester ----- CT-3	Inactive ----- Equipped	100 ----- N/A	182	N/A	N/A		Bedrock On	1987	Auxiliary
Fridlick 1 ----- Walton Lake	Chester 8 ----- 1 ----- 18.11	Chester ----- CT-4	Inactive ----- Abandoned	40 ----- 27	250	6	40		Bedrock Dh	N/A	

CT-6

Fridlick 2 ----- Walton Lake	Chester 8 ---- 1 ---- 18.11	Chester ----- CT-5	In Service ----- Active	60 ---- 40	280	8	N/A		Bedrock Dh	1980	
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**TABLE 1
(continued)**

TOWN OF CHESTER

Summary of Available Well Data

Well ----- Water District	Tax Map Municipality ----- Section ----- Block ----- Lot	Map Location ----- I.D. #	Well Status -----	Reported Yield (gpm) Original ----- Present	Depth of Well (feet)	Well Diameter (inches)	Length of Casing (inches)	Well Screen Length (feet) ----- Setting Interval (feet)	Aquifer	Date Drilled	Comments
Chester Well 1 ----- Walton Lake	Chester 10 ----- 10 ----- 14	Chester ----- CT-6	Inactive ----- Equipped	34 ----- 15	195	8	40		Bedrock Dh	1975	Auxiliary 20' from swamp
Fridlick 3 ----- Walton Lake	Chester 8 ----- 1 ----- 18.11	Chester ----- CT-7	In Service ----- Active	60 ----- 40	515	8	40		Bedrock Dh	1987	25' from swamp
Chester Well 2 ----- Walton Lake	Chester 10 ----- 10 ----- 14	Chester ----- CT-8	In Service ----- Active	52 ----- 12	340	8	43		Bedrock Dh	N/A	Auxiliary
Well 9 ----- Surrey Meadows	Chester 1 ----- 1 ----- 1.11	Chester ----- CT-9	In Service ----- Active	41 ----- N/A	61	6	N/A	N/A ----- N/A	Gravel	1990	

Well 10 ----- Surrey Meadows	Chester 1 ----- 1 ----- 1.11	Chester ----- CT-10	In Service ----- Active	40 ----- N/A	61	6	N/A	N/A ----- N/A	Gravel	1979	
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**TABLE 1
(continued)**

TOWN OF CHESTER

Summary of Available Well Data

Well ----- Water District	Tax Map Municipality ----- Section ----- Block ----- Lot	Map Location ----- I.D. #	Well Status -----	Reported Yield (gpm) Original ----- Present	Depth of Well (feet)	Well Diameter (inches)	Length of Casing (inches)	Well Screen Length (feet) ----- Setting Interval (feet)	Aquifer	Date Drilled	Comments
Old 9 ----- Surrey Meadows	Chester 1 ----- 1 ----- 1.11	Chester ----- CT-11	In Service ----- Unequipped	N/A ----- N/A	N/A	N/A	N/A	N/A ----- N/A	N/A	N/A	
Well 2 ----- Lake Hill Farm	Chester 28 ----- 6 ----- 1	Chester ----- CT-12	In Service ----- Active	109 ----- 85	40	18" outer 10" inner	N/A	N/A ----- N/A	Gravel	N/A	Artesian 20' from swamp
Well 1 ----- Lake Hill Farm	Chester 28 ----- 6 ----- 1	Chester ----- CT-13	In Service ----- Active	40 ----- N/A	40	8	N/A	N/A ----- N/A	Gravel	N/A	Approx. 30' from swamp

Well 3 ----- Lake Hill Farm	Chester 28 ----- 6 ----- 1	Chester ----- CT-14	Not In Service ----- Not Used	50 ----- N/A	300	8	45		Bedrock Dh	N/A	40' from stream
Well 1 ----- King Tract	Chester 9 ----- 3 ----- 6	Chester ----- CT-15	In Service ----- Active	110 ----- N/A	97	8	75	N/A ----- N/A	Sand & Gravel	1962	50' from Seeley Creek

**TABLE 1
(continued)**

TOWN OF CHESTER

Summary of Available Well Data

Well ----- Water District	Tax Map Municipality ----- Section ----- Block ----- Lot	Map Location ----- I.D. #	Well Status	Reported Yield (gpm) Original ----- Present	Depth of Well (feet)	Well Diameter (inches)	Length of Casing (inches)	Well Screen Length (feet) ----- Setting Interval (feet)	Aquifer	Date Drilled	Comments
Well 1 ----- Chester Properties	Chester 12 ----- 1 ----- 31	Chester ----- CT-16	Inactive ----- Unequipped	100 ----- N/A	500	6	N/A		Bedrock On	N/A	
Well 2 ----- Chester Properties	Chester 12 ----- 1 ----- 31	Chester ----- CT-17	Inactive ----- Unequipped	100 ----- N/A	425	6	N/A		Bedrock On	1990	
Well B ----- Chester Properties	Chester 12 ----- 1 ----- 31	Chester ----- CT-18	Inactive ----- Unequipped	300 ----- N/A	N/A	8	N/A	N/A ----- N/A	Sand & Gravel	1990	
TW4 ----- Lexington Meadows	Chester 6 ----- 1 ----- 1.3	Chester ----- CT-19	Inactive ----- Unequipped	50 ----- N/A	N/A	N/A	N/A	N/A ----- N/A	Sand & Gravel	N/A	
TW5 ----- Lexington Meadows	Chester 6 ----- 1 ----- 1.3	Chester ----- CT-20	Inactive ----- Unequipped	35 ----- 50	505	N/A	N/A		Bedrock On	N/A	

**TABLE 1
(continued)**

TOWN OF CHESTER

Summary of Available Well Data

Well ----- Water District	Tax Map Municipality ----- Section ----- Block ----- Lot	Map Location ----- I.D. #	Well Status -----	Reported Yield (gpm) Original ----- Present	Depth of Well (feet)	Well Diameter (inches)	Length of Casing (inches)	Well Screen Length (feet) ----- Setting Interval (feet)	Aquifer	Date Drilled	Comments
TW11 ----- Lexington Meadows	Chester 6 ----- 1 ----- 1.3	Chester ----- CT-21	Inactive ----- Unequipped	35 ----- 42	502	N/A	N/A		Bedrock On	N/A	
TW13 ----- Lexington Meadows	Chester 6 ----- 1 ----- 1.3	Chester ----- CT-22	Inactive ----- Unequipped	50 ----- 48	602	6	40'		Bedrock On	N/A	
Well 1A ----- Lexington Meadows	Chester 6 ----- 1 ----- 1.3	Chester ----- CT-23	Inactive ----- Unequipped	N/A ----- 100	N/A	N/A	N/A		Bedrock On	N/A	Off Site
Town Hall ----- Chester	Chester 7 ----- 1 ----- 2.221	Chester ----- CT-24	Active ----- Equipped	N/A ----- 50	N/A	N/A	N/A	N/A ----- N/A	Gravel	N/A	
Well 1 ----- Camp LaGuardia	Chester 3 ----- 1 ----- 1	Chester ----- CT-25	Active ----- Equipped	55 ----- N/A	550	8	42		Bedrock On	1990	

**TABLE 1
(continued)**

TOWN OF CHESTER

Summary of Available Well Data

Well ----- Water District	Tax Map Municipality ----- Section ----- Block ----- Lot	Map Location ----- I.D. #	Well Status ----- ----- -----	Reported Yield (gpm) Original ----- Present	Depth of Well (feet)	Well Diameter (inches)	Length of Casing (inches)	Well Screen Length (feet) ----- Setting Interval (feet)	Aquifer	Date Drilled	Comments
TW1 ----- Sugar Loaf	Chester 13 ----- 1 ----- 3	Chester ----- CT-28	Inactive ----- Unequipped	100 ----- N/A	182	6	32.5	N/A ----- N/A	Sand & Gravel	1988	
Expansion TW 3 ----- Lexington Meadows	Chester 6 ----- 1 ----- 1.3	Chester ----- CT-29	Inactive ----- Unequipped	18 - 19.5 ----- N/A	N/A	N/A	N/A	N/A ----- N/A	Sand & Gravel	N/A	
TW1 ----- Lexington Meadows	Chester 6 ----- 1 ----- 1.3	Chester ----- CT-30	Inactive ----- Unequipped	17 ----- N/A	N/A	N/A	N/A		Bedrock On	N/A	
EW1 ----- Lexington Meadows	Chester 6 ----- 1 ----- 1.3	Chester ----- CT-31	Inactive ----- Unequipped	30 ----- N/A	N/A	N/A	N/A		Bedrock On	N/A	

**TABLE 1
(continued)**

VILLAGE OF CHESTER

Summary of Available Well Data

Well ----- Water District	Tax Map Municipality ----- Section ----- Block ----- Lot	Map Location ----- I.D. #	Well Status	Reported Yield (gpm) Original ----- Present	Depth of Well (feet)	Well Diameter (inches)	Length of Casing (inches)	Well Screen Length (feet) ----- Setting Interval (feet)	Aquifer	Date Drilled	Comments
Well 2 ----- Village of Chester	Village of Chester 6 ----- 1 ----- 21.1	Chester ----- CT-26	In Service ----- Active	450 ----- N/A	125	10	N/A	10" ----- 102 - 112	Sand & Gravel	1966	Top of Casing El. 476.00
Well 12A ----- Village of Chester	Village of Chester 6 ----- 1 ----- 21.1	Chester ----- CT-27	In Service ----- Active	300 ----- N/A	125	10	N/A	10" ----- 102 - 112	Sand & Gravel	1970	

gpm - Gallons per minute.
N/A - Not available.

Well Status: In service-active; In service-stand by; Inactive-equipped; Inactive-not equipped; Abandoned

cttb11/orange

TABLE 1
TOWN OF CHESTER
Summary of Available Well Data

Well ----- Water District	Tax Map Municipality ----- Section ----- Block ----- Lot	Map Location ----- I.D. #	Well Status -----	Reported Yield (gpm) Original ----- Present	Depth of Well (feet)	Well Diameter (inches)	Length of Casing (inches)	Well Screen Length (feet) ----- Setting Interval (feet)	Aquifer	Date Drilled	Comments
1 ----- Sugar Loaf Hills	Chester 30 ----- 1 ----- 19	Chester ----- CT-1	Inactive ----- Abandoned	N/A ----- N/A	20	N/A	N/A	N/A ----- N/A	Caission	N/A	Caission Well
2 ----- Sugar Loaf Hills	Chester 30 ----- 1 ----- 19	Chester ----- CT-2	In Service ----- Active	100 ----- 30	350	6	82		Bedrock On	N/A	Artesian
3 ----- Sugar Loaf Hills	Chester 30 ----- 1 ----- 19	Chester ----- CT-3	Inactive ----- Equipped	100 ----- N/A	182	N/A	N/A		Bedrock On	1987	Auxiliary
Fridlick 1 ----- Walton Lake	Chester 8 ----- 1 ----- 18.11	Chester ----- CT-4	Inactive ----- Abandoned	40 ----- 27	250	6	40		Bedrock Dh	N/A	
Fridlick 2 ----- Walton Lake	Chester 8 ----- 1 ----- 18.11	Chester ----- CT-5	In Service ----- Active	60 ----- 40	280	8	N/A		Bedrock Dh	1980	

**TABLE 1
(continued)**

TOWN OF CHESTER

Summary of Available Well Data

Well ----- Water District	Tax Map Municipality ----- Section ----- Block ----- Lot	Map Location ----- I.D. #	Well Status -----	Reported Yield (gpm) Original ----- Present	Depth of Well (feet)	Well Diameter (inches)	Length of Casing (inches)	Well Screen Length (feet) ----- Setting Interval (feet)	Aquifer	Date Drilled	Comments
Chester Well 1 ----- Walton Lake	Chester 10 ----- 10 ----- 14	Chester ----- CT-6	Inactive ----- Equipped	34 ----- 15	195	8	40		Bedrock Dh	1975	Auxiliary 20' from swamp
Fridlick 3 ----- Walton Lake	Chester 8 ----- 1 ----- 18.11	Chester ----- CT-7	In Service ----- Active	60 ----- 40	515	8	40		Bedrock Dh	1987	25' from swamp
Chester Well 2 ----- Walton Lake	Chester 10 ----- 10 ----- 14	Chester ----- CT-8	In Service ----- Active	52 ----- 12	340	8	43		Bedrock Dh	N/A	Auxiliary
Well 9 ----- Surrey Meadows	Chester 1 ----- 1 ----- 1.11	Chester ----- CT-9	In Service ----- Active	41 ----- N/A	61	6	N/A	N/A ----- N/A	Gravel	1990	

Well 10 ----- Surrey Meadows	Chester 1 ----- 1 ----- 1.11	Chester ----- CT-10	In Service ----- Active	40 ----- N/A	61	6	N/A	N/A ----- N/A	Gravel	1979	
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TABLE 1
(continued)

TOWN OF CHESTER

Summary of Available Well Data

Well ----- Water District	Tax Map Municipality ----- Section ----- Block ----- Lot	Map Location ----- I.D. #	Well Status -----	Reported Yield (gpm) Original ----- Present	Depth of Well (feet)	Well Diameter (inches)	Length of Casing (inches)	Well Screen Length (feet) ----- Setting Interval (feet)	Aquifer	Date Drilled	Comments
Old 9 ----- Surrey Meadows	Chester 1 ----- 1 ----- 1.11	Chester ----- CT-11	In Service ----- Unequipped	N/A ----- N/A	N/A	N/A	N/A	N/A ----- N/A	N/A	N/A	
Well 2 ----- Lake Hill Farm	Chester 28 ----- 6 ----- 1	Chester ----- CT-12	In Service ----- Active	109 ----- 85	40	18" outer 10" inner	N/A	N/A ----- N/A	Gravel	N/A	Artesian 20' from swamp
Well 1 ----- Lake Hill Farm	Chester 28 ----- 6 ----- 1	Chester ----- CT-13	In Service ----- Active	40 ----- N/A	40	8	N/A	N/A ----- N/A	Gravel	N/A	Approx. 30' from swamp

CT-20

Well 3 ----- Lake Hill Farm	Chester 28 ----- 6 ----- 1	Chester ----- CT-14	Not In Service ----- Not Used	50 ----- N/A	300	8	45		Bedrock Dh	N/A	40' from stream
Well 1 ----- King Tract	Chester 9 ----- 3 ----- 6	Chester ----- CT-15	In Service ----- Active	110 ----- N/A	97	8	75	N/A ----- N/A	Sand & Gravel	1962	50' from Seeley Creek

**TABLE 1
(continued)**

TOWN OF CHESTER

Summary of Available Well Data

Well ----- Water District	Tax Map Municipality ----- Section ----- Block ----- Lot	Map Location ----- I.D. #	Well Status	Reported Yield (gpm) Original ----- Present	Depth of Well (feet)	Well Diameter (inches)	Length of Casing (inches)	Well Screen Length (feet) ----- Setting Interval (feet)	Aquifer	Date Drilled	Comments
Well 1 ----- Chester Properties	Chester 12 ----- 1 ----- 31	Chester ----- CT-16	Inactive ----- Unequipped	100 ----- N/A	500	6	N/A		Bedrock On	N/A	
Well 2 ----- Chester Properties	Chester 12 ----- 1 ----- 31	Chester ----- CT-17	Inactive ----- Unequipped	100 ----- N/A	425	6	N/A		Bedrock On	1990	
Well B ----- Chester Properties	Chester 12 ----- 1 ----- 31	Chester ----- CT-18	Inactive ----- Unequipped	300 ----- N/A	N/A	8	N/A	N/A ----- N/A	Sand & Gravel	1990	
TW4 ----- Lexington Meadows	Chester 6 ----- 1 ----- 1.3	Chester ----- CT-19	Inactive ----- Unequipped	50 ----- N/A	N/A	N/A	N/A	N/A ----- N/A	Sand & Gravel	N/A	
TW5 ----- Lexington Meadows	Chester 6 ----- 1 ----- 1.3	Chester ----- CT-20	Inactive ----- Unequipped	35 ----- 50	505	N/A	N/A		Bedrock On	N/A	

**TABLE 1
(continued)**

TOWN OF CHESTER

Summary of Available Well Data

Well ----- Water District	Tax Map Municipality ----- Section ----- Block ----- Lot	Map Location ----- I.D. #	Well Status -----	Reported Yield (gpm) Original ----- Present	Depth of Well (feet)	Well Diameter (inches)	Length of Casing (inches)	Well Screen Length (feet) ----- Setting Interval (feet)	Aquifer	Date Drilled	Comments
TW11 ----- Lexington Meadows	Chester 6 ----- 1 ----- 1.3	Chester ----- CT-21	Inactive ----- Unequipped	35 ----- 42	502	N/A	N/A		Bedrock On	N/A	
TW13 ----- Lexington Meadows	Chester 6 ----- 1 ----- 1.3	Chester ----- CT-22	Inactive ----- Unequipped	50 ----- 48	602	6	40'		Bedrock On	N/A	
Well 1A ----- Lexington Meadows	Chester 6 ----- 1 ----- 1.3	Chester ----- CT-23	Inactive ----- Unequipped	N/A ----- 100	N/A	N/A	N/A		Bedrock On	N/A	Off Site
Town Hall ----- Chester	Chester 7 ----- 1 ----- 2.221	Chester ----- CT-24	Active ----- Equipped	N/A ----- 50	N/A	N/A	N/A	N/A ----- N/A	Gravel	N/A	
Well 1 ----- Camp LaGuardia	Chester 3 ----- 1 ----- 1	Chester ----- CT-25	Active ----- Equipped	55 ----- N/A	550	8	42		Bedrock On	1990	

**TABLE 1
(continued)**

TOWN OF CHESTER

Summary of Available Well Data

Well ----- Water District	Tax Map Municipality ----- Section ----- Block ----- Lot	Map Location ----- I.D. #	Well Status	Reported Yield (gpm) Original ----- Present	Depth of Well (feet)	Well Diameter (inches)	Length of Casing (inches)	Well Screen Length (feet) ----- Setting Interval (feet)	Aquifer	Date Drilled	Comments
TW1 ----- Sugar Loaf	Chester 13 ----- 1 ----- 3	Chester ----- CT-28	Inactive ----- Unequipped	100 ----- N/A	182	6	32.5	N/A ----- N/A	Sand & Gravel	1988	
Expansion TW 3 ----- Lexington Meadows	Chester 6 ----- 1 ----- 1.3	Chester ----- CT-29	Inactive ----- Unequipped	18 - 19.5 ----- N/A	N/A	N/A	N/A	N/A ----- N/A	Sand & Gravel	N/A	
TW1 ----- Lexington Meadows	Chester 6 ----- 1 ----- 1.3	Chester ----- CT-30	Inactive ----- Unequipped	17 ----- N/A	N/A	N/A	N/A		Bedrock On	N/A	
EW1 ----- Lexington Meadows	Chester 6 ----- 1 ----- 1.3	Chester ----- CT-31	Inactive ----- Unequipped	30 ----- N/A	N/A	N/A	N/A		Bedrock On	N/A	

**TABLE 1
(continued)**

VILLAGE OF CHESTER

Summary of Available Well Data

Well ----- Water District	Tax Map Municipality ----- Section ----- Block ----- Lot	Map Location ----- I.D. #	Well Status	Reported Yield (gpm) Original ----- Present	Depth of Well (feet)	Well Diameter (inches)	Length of Casing (inches)	Well Screen Length (feet) ----- Setting Interval (feet)	Aquifer	Date Drilled	Comments
Well 2 ----- Village of Chester	Village of Chester 6 ----- 1 ----- 21.1	Chester ----- CT-26	In Service ----- Active	450 ----- N/A	125	10	N/A	10" ----- 102 - 112	Sand & Gravel	1966	Top of Casing El. 476.00
Well 12A ----- Village of Chester	Village of Chester 6 ----- 1 ----- 21.1	Chester ----- CT-27	In Service ----- Active	300 ----- N/A	125	10	N/A	10" ----- 102 - 112	Sand & Gravel	1970	

gpm - Gallons per minute.
N/A - Not available.

Well Status: In service-active; In service-stand by; Inactive-equipped; Inactive-not equipped; Abandoned

cttbl1/orange

**TABLE 2-A
TOWN OF CHESTER**

Summary of Well Yield Capacities

Sugar Loaf Hills Water District

Well ----- Water District	WSA No. ----- Permitted Yield (gpm)	Average Yield Capacity (gpm) ----- (gpd)	Maximum Yield Capacity (gpm) ----- (gpd)	Comments
1 ----- Sugar Loaf Hills	N/A ----- N/A	N/A ----- N/A	N/A ----- N/A	Abandoned
2 ----- Sugar Loaf Hills	8135 ----- 100	30 ----- 30,000	100 ----- 144,000	
3 ----- Sugar Loaf Hills	8135 ----- 100	100 ----- 100,800	100 ----- 144,000	Auxiliary
TOTALS	(Total Permitted Yield) 200 gpm	(Total Yield Capacity) 30 ----- 30,000	(Total Maximum Yield Capacity) 100 ----- 144,000	

gpm - Gallons per minute.
gpd - Gallons per day.

WSA No. - Water Supply Application Number.

**TABLE 2-B
TOWN OF CHESTER**

Summary of Well Yield Capacities

Walton Lake Estates Water District

Well ----- Water District	WSA No. ----- Permitted Yield (gpm)	Average Yield Capacity (gpm) ----- (gpd)	Maximum Yield Capacity (gpm) ----- (gpd)	Comments
Fridlick 1 ----- Walton Lake Estates	N/A ----- N/A	N/A ----- N/A	N/A ----- N/A	Abandoned
Fridlick 2 ----- Walton Lake Estates	7158 ----- 130	40 ----- 40,300	60 ----- 86,400	
Chester Well 1 ----- Walton Lake Estates	6602 ----- 86	15 ----- 15,100	34 ----- 48,960	Auxiliary
Fridlick 3 ----- Walton Lake Estates	8161 ----- 75	40 ----- 40,300	60 ----- 86,400	
Chester Well 2 ----- Walton Lake Estates	6602 ----- 86	12 ----- 12,100	52 ----- 74,880	Auxiliary
TOTALS	(Total Permitted Yield) 291 gpm	(Total Yield Capacity) 80 ----- 80,600	(Total Maximum Yield Capacity) 120 ----- 172,800	

g p m - Gallons per minute.
 WSA No. - Water Supply Application Number.
 gpd - Gallons per day.

**TABLE 2-C
TOWN OF CHESTER**

Summary of Well Yield Capacities

Surrey Meadows Water District

Well ----- Water District	WSA No. ----- Permitted Yield (gpm)	Average Yield Capacity (gpm) ----- (gpd)	Maximum Yield Capacity (gpm) ----- (gpd)	Comments
Well 9 ----- Surrey Meadows	-----	40 ----- 57,600	80 ----- 115,200	
Well 10 ----- Surrey Meadows	-----	40 ----- 57,600	40 ----- 115,200	
Old 9 ----- Surrey Meadows	- ----- -	- ----- -	- ----- -	Abandoned
TOTALS	(Total Permitted Yield) 993 gpm	(Total Yield Capacity) 40 ----- 57,600	(Total Maximum Yield Capacity) 80 ----- 115,200	

g p m - Gallons per minute.
 WSA No. - Water Supply Application Number.
 gpd - Gallons per day.

**TABLE 2-D
TOWN OF CHESTER**

Summary of Well Yield Capacities

Lake Hill Farm Water District

Well ----- Water District	WSA No. ----- Permitted Yield (gpm)	Average Yield Capacity (gpm) ----- (gpd)	Maximum Yield Capacity (gpm) ----- (gpd)	Comments
Well 2 ----- Lake Hill Farm	6907 ----- 300	85 ----- 85,680	109 ----- 156,960	
Well 1 ----- Lake Hill Farm	6907 ----- 300	40 ----- 40,320	40 ----- 57,600	
Well 3 ----- Lake Hill Farm	- ----- -	- ----- -	- ----- -	Abandoned
TOTALS	(Total Permitted Yield) 993 gpm	(Total Yield Capacity) 125 ----- 126,000	(Total Maximum Yield Capacity) 149 ----- 214,560	

g p m - Water Supply Application Number. G a l l o n s p e r m i n u t e .
gpd - Gallons per day.

**TABLE 2-E
TOWN OF CHESTER**

Summary of Well Yield Capacities

King Tract

Well ----- Water District	WSA No. ----- Permitted Yield (gpm)	Average Yield Capacity (gpm) ----- (gpd)	Maximum Yield Capacity (gpm) ----- (gpd)	Comments
Well 1 ----- King Tract	-----	110 ----- 111,000	110 ----- 158,400	
TOTALS	(Total Permitted Yield) N/A	(Total Yield Capacity) 110 ----- 111,000	(Total Maximum Yield Capacity) 110 ----- 158,400	

g p m - Gallons per minute.
 WSA No. - Water Supply Application Number.
 gpd - Gallons per day.

**TABLE 2-F
TOWN OF CHESTER**

Summary of Well Yield Capacities

Village of Chester

Well ----- Water District	WSA No. ----- Permitted Yield (gpm)	Average Yield Capacity (gpm) ----- (gpd)	Maximum Yield Capacity (gpm) ----- (gpd)	Comments
Well 12 ----- Village of Chester	5250 ----- 0	450 ----- 453,600	450 ----- 648,000	
Well 12A ----- Village of Chester	5250 ----- 0	300 ----- 302,400	300 ----- 432,000	
TOTALS	(Total Permitted Yield) 0	(Total Yield Capacity) 750 ----- 756,000	(Total Maximum Yield Capacity) 750 ----- 1,080,000	

g p m - Gallons p e r m i n u t e .
 WSA No. - Water Supply Application Number.
 gpd - Gallons per day.

**TABLE 3-A
TOWN OF CHESTER**

Summary of Water-Supply Sources

In the Town of Chester there are four water districts and a private water supply system.

Existing Source	Water District	Ground Water (mgd)
Current Average Daily Water Demand	Sugar Loaf Hills Water District Walton Lake Estates Water District Surrey Meadows Water District Lake Hill Farm Water District King Tract Private Water Supply Total	0.016 0.035 0.058 0.073 <u>0.010</u> 0.192
Current Maximum Daily Water Demand	Sugar Loaf Hills Water District Walton Lake Estates Water District Surrey Meadows Water District Lake Hill Farm Water District King Tract Private Water Supply Total	0.032 0.073 0.191 0.147 <u>0.010</u> 0.453
Maximum Yield Capacity	Sugar Loaf Hills Water District Walton Lake Estates Water District Surrey Meadows Water District Lake Hill Farm Water District King Tract Private Water Supply Total	0.144 0.172 0.115 0.215 <u>0.158</u> 0.803
Average Yield Capacity	Sugar Loaf Hills Water District Walton Lake Estates Water District Surrey Meadows Water District Lake Hill Farm Water District King Tract Private Water Supply Total	0.030 0.080 0.057 0.126 <u>0.111</u> 0.404
Proposed Sources (Average Day)		0.621
TOTAL MAXIMUM YIELD CAPACITY (MGD) = -----		0.803 -----
CURRENT MAXIMUM DAILY USE (MGD)=		0.453

mgd - Million gallons per day.

COMMENTS:

- ! Proposed Water sources are Chester Properties, Lexington Meadows, Town Hall Well, and Camp LaGuardia. (Numbers based on 18-hour pump rate.)

**TABLE 3-B
VILLAGE OF CHESTER**

Summary of Water-Supply Sources

**The Village of Chester's main water source is from surface water.
The supply is supplemented by two wells used as needed.**

Existing Source

	Surface Water (mgd)	Ground Water (mgd)
Current Average Daily Water Demand	0.525	0
Current Maximum Daily Water Demand	0.575	0.100
Maximum Yield Capacity	0.5	1.080
Average Yield Capacity	0.5	0.756
Proposed Sources (Average Day)	0	0
TOTAL MAXIMUM YIELD CAPACITY (MGD) = -----		1.580 -----
CURRENT MAXIMUM DAILY USE (MGD) =		0.675

mgd - Million gallons per day.

COMMENTS:

- ! Total water source includes surface and groundwater.

**TABLE 4-A
TOWN OF CHESTER**

**Projected Water Demand
1993 - 2020
(mgd)**

Water District	Current Maximum Yield Capacity (mgd)	Current and Proposed* Maximum Yield Capacity (mgd)	1993 Projected Water Demand ----- Water-Supply Adequacy	2000 Projected Water Demand ----- Water-Supply Adequacy	2010 Projected Water Demand ----- Water-Supply Adequacy	2020 Projected Water Demand ----- Water-Supply Adequacy
1 Chester	0.803	1.424	0.443 ----- +0.360**	0.615 ----- +0.809***	0.779 ----- +0.645***	1.004 ----- +0.420***
TOTAL	0.803	1.424	0.443 ----- +0.360**	0.615 ----- +0.809***	0.779 ----- +0.645***	1.004 ----- +0.420***

1. All water districts and water supplies combined.

mgd - Million gallons per day.

+ Surplus water supply, mgd.

* Combined yield capacity of both current and proposed water supply(s).

- Water supply deficiency (mgd).

**Calculated by current maximum yield capacity minus projected water demands.

***Calculated by current and proposed maximum yield capacity minus projected water demands.

COMMENTS:

C Data indicates that with current and proposed maximum yield capacity, the Town will likely meet projected water demand up to the year 2020. C Proposed water demand includes all additional proposed water sources mentioned in report.

**TABLE 4-B
VILLAGE OF CHESTER**

**Projected Water Demand
1993 - 2020
(mgd)**

Water District	Current Maximum Yield Capacity (mgd)	Current and Proposed* Maximum Yield Capacity (mgd)	1993 Projected Water Demand ----- Water-Supply Adequacy	2000 Projected Water Demand ----- Water-Supply Adequacy	2010 Projected Water Demand ----- Water-Supply Adequacy	2020 Projected Water Demand ----- Water-Supply Adequacy
Village of Chester	1.58	1.58	0.675 ----- + 0.905**	0.733 ----- +0.847**	0.838 ----- +0.742**	0.908 ----- +0.672**
TOTAL	1.58	1.58	0.675 ----- +0.905**	0.733 ----- +0.847**	0.838 ----- +0.742**	0.908 ----- +0.672**

mgd - Million gallons per day.

+ Surplus water supply, mgd.

* Combined yield capacity of both current and proposed water supply(s).

- Water supply deficiency (mgd).

**Calculated by current maximum yield capacity minus projected water demands.

COMMENTS:

C Data indicates that with current and proposed maximum yield capacity, the Village will likely meet projected water demand up to year 2020.

**TABLE 5
TOWN OF CHESTER**

Petroleum Bulk Storage Facilities

FACILITY NAME	LOCATION	MUNICIPALITY
Blue Circle Raia Inc.	106 Black Meadow Road	Chester
Butch's Auto Machine	Millers Lane	Chester
Camp LaGuardia	1 Grey Court Road	Chester
Chester Cable	15 Oakland Avenue	Chester
Chester Lumber Inc.	Route 17M	Chester
Chester Union Free School District	3 Maple Avenue	Chester
Chester Valley Inc.	Lehigh Avenue	Chester
Chester Valley Inc.	Brookside Avenue	Chester
Cloverleaf Trans Inc.	Route 94	Chester
Cumberland Farms #3148	174 Main Street	Chester
HRA/DSS Camp LaGuardia	1 LaGuardia Road	Chester
HRT of O.C. Inc.	P.O. Box 513 Leona Lane	Chester
LP Transportation Inc.	P.O. Box 489	Chester
Martin-Brower Co.	65 Leone Ln. Chester Ind. Pk.	Chester
Mobile S/S 06-747	Rt 17M & Quickway	Chester
Moodna Basin Joint O & M Commis.	RD 1, Box 248-K	Chester
NY Bituminous Products	P.O. Box 900, Rt 17M Oxford Rd.	Chester
Pius XII Youth & Family Service	Gibson Hill Road	Chester

PMI Service Station	66 Route 17M	Chester
Ryder Truck Rental	Route 94 South	Chester
Sunoco #0001-4340	Rt 17M Near Academy St.	Chester
Super Value	Rt 17M	Chester
Town of Chester Highway Department	Laroe Road	Chester
United Parcel Service	Black Meadow Road	Chester
Village of Chester St. Dept.	Millers Lane	Chester
Wayne Beverage Corp.	Black Meadow Road	Chester
Wm. & Elsie Mae Ferris	Greycourt Avenue	Chester