

Well Capacity History: Hadnot Point and Holcomb Boulevard

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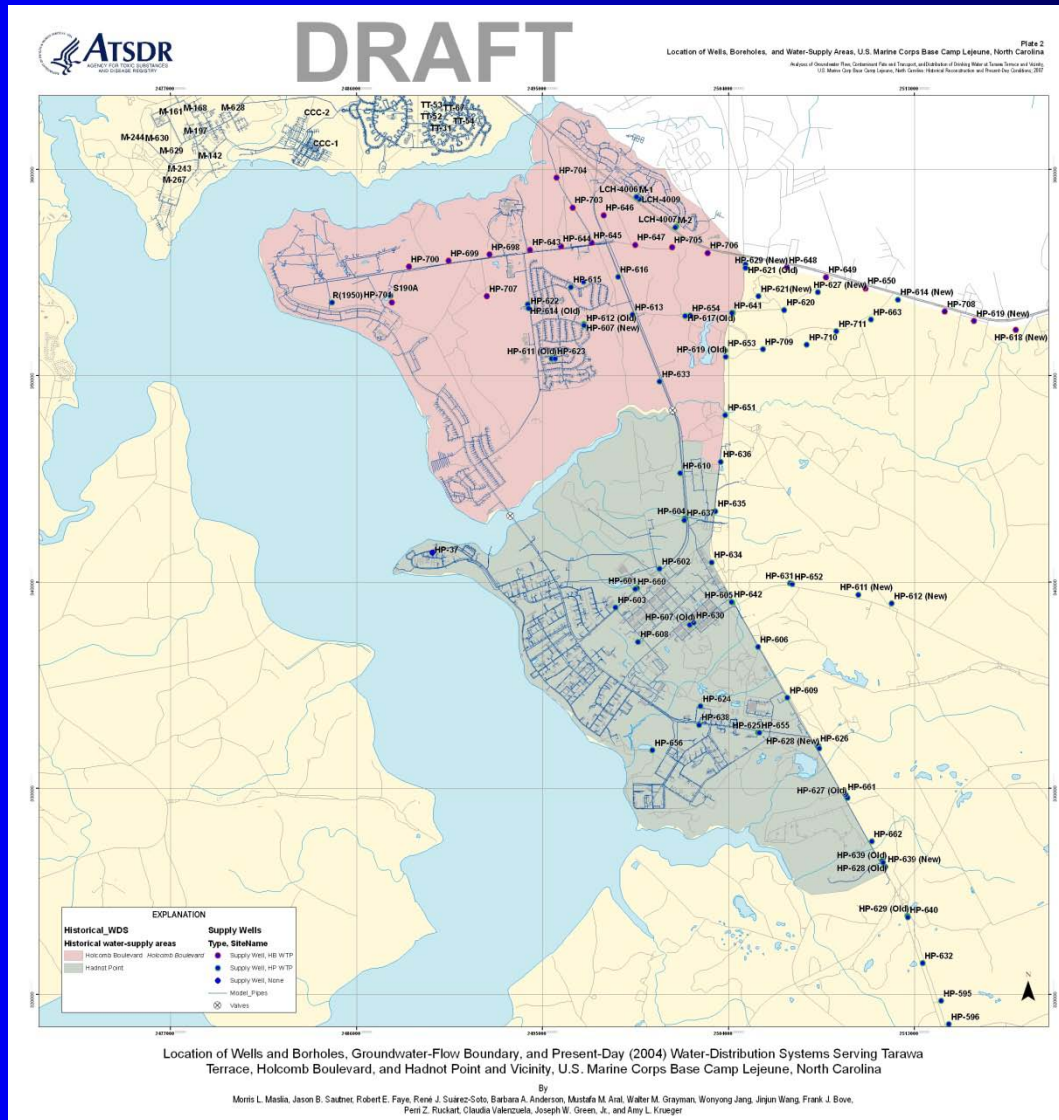
Division of Health Assessment and Consultation

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Well Capacity History Overview

- Hadnot Point and Holcomb Boulevard
 - 100+ supply wells
 - “Well Packet” of information obtained for each supply well
 - ▲ Driller logs, well capacity tests, well construction drawings, operation records, various other miscellaneous sources of information
 - Several other documentation sources examined
 - ▲ Well data lists, raw water supply lists, building dimension lists, operational records, water level tables, transmittal and correspondence letters, numerous CLW documents, various published reports
 - Daily Logs for Well Pumps
 - ▲ Well pump status for each day of each month from 1998 to 2008

Supply Wells Locations



HP-633 Well Capacity History Example

Date	Capacity, in gpm	Operational Status	Data Source
1959		Construction completed	Well pump information list
Unknown	200		Well construction drawing
1/1/1960		In service	Estimated date
10/25/1966	119	In service	Well capacity test
4/5/1968	222	In service	Well capacity test
8/11/1969	221	In service	Well capacity test
8/3/1971		In service	Building dimension list
1/1976		In service	CLW-4039
4/1/1977	159	In service	Well capacity test
1/1978		In service	Operation records
1/16/1979	219	In service	Well capacity test
1/1980		In service	Operation records
1/1981		In service	Operation records
9/24/1982	183	In service	Well capacity test
9/30/1983	175	In service	Well capacity test
10/22/1984	197	In service	Well capacity test
9/9/1985	210	In service	Well capacity test
5/29/1986		In service	CLW-4935
2/1989	222	In service	Operational records
11/21/1991	205	In service	CLW-1939
2/3/1995		In service	CLW-2541 and CLW-2544
7/2/1996		In service	CLW-2687 and CLW-2688
1/6/1997		In service	CLW-2703
6/17/1998		In service	CLW-2963
8/4/1998		In service	CLW-2973
1/1999		In service	Daily Log for Well Pumps
1/2000		In service	Daily Log for Well Pumps
9/23/2000		Out of service	Daily Log for Well Pumps
2001		Out of service	AH Environmental Consultants ¹
2002		Out of service	2002 Well run ²
2003		Out of service	2003 Well run ²
6/2004		Service terminated	AH Environmental Consultants ²

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Daily Log for Well Pumps

DAILY LOG FOR WELL PUMPS
MCBCL 11330/6 (REV 12-73)

BLDG. 633 MONTH 1-99

DATE	PUMP OILED	PUMP GREASED	PUMP CLEANED	STATIC	PUMPING LEVEL	G.P.M.	DRAW DOWN	PUMP ON	PUMP OFF	DIST. PRESSURE	BACK PRESSURE VALVE CLEANED & ADJUSTED	BLDG. CLEANED	GROUNDS CLEANED	TIME CHECKED	OPERATORS INITIALS
1				62			✓	16					2030		
2							✓	15					2000		
3							✓	13					1920		
4							✓	14					1710		
5							✓	20					1870		
6							✓	18					1850		
7							✓	16					2005		
8							✓	11					1950		
9							✓	11					1640		
10							✓	11					1840		
11							✓	16					1650		
12							✓	17					1725		
13			47		5		✓	17					2010		
14							✓	17					1925		
15							✓	17					2025		
16							✓	17					2015		
17							✓	17					1940		
18							✓	17					1920		
19							✓	16					1620		
20							✓	17					2010		
21							✓	17					1720		
22							✓	16					1650		
23							✓	16					2000		
24							✓	16					1650		
25							✓	16					1640		
26							✓	16					1840		
27							✓	16					2000		
28							✓	16					2000		
29							✓	16					1940		
30							✓	16					1810		
31							✓	16					1810		

- HP-633
 - January 1999
 - Well pump status ON or OFF
 - Helped determine monthly adjusted capacities from 1998 to 2008

Monthly Adjusted Capacities HP-633: 1999

DAILY LOG FOR WELL PUMPS
WELL IDENTIFICATION: HP-633

DATE	OPERATOR	TIME STARTED	TIME STOPPED	FLOW RATE (GPM)	WELL HEAD PRESSURE (PSI)	WELL HEAD TEMPERATURE (°F)	WELL HEAD VIBRATION (mm)	WELL HEAD NOISE (dB)	WELL HEAD VIBRATION (mm)	WELL HEAD NOISE (dB)	OPERATOR INITIALS
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
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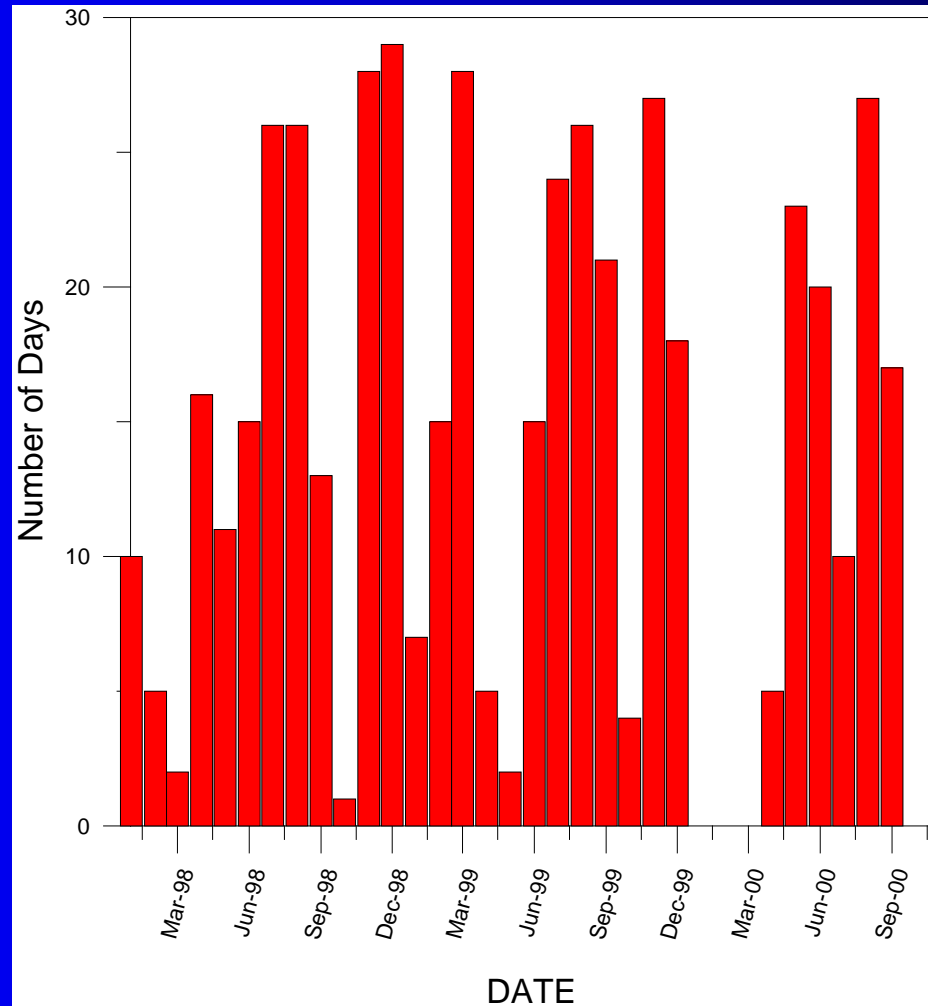
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Date	Capacity, in gpm	Operational Status	Data Source
1979			
Unknown	300	Construction completed	Well pump manufacturer's test
1-1-1980		In service	Well construction drawing
1-1-1980		In service	Estimated data
10-20-1980	110	In service	Well capacity test
4-1-1981	110	In service	Well capacity test
8-11-1980	111	In service	Well capacity test
8-9-1971		In service	Brilliant diagnostic test
1-1975		In service	CLW-4939
4-1-1971	116	In service	Well capacity test
1-1978		In service	Operations records
1-1979	210	In service	Well capacity test
1-1980		In service	Operations records
1-1981		In service	Operations records
8-20-1981	185	In service	Well capacity test
8-30-1983	175	In service	Well capacity test
10-20-1984	197	In service	Well capacity test
9-9-1985	210	In service	Well capacity test
1-29-1988		In service	CLW-4935
7-1989	212	In service	Operations records
11-3-1991	205	In service	CLW-2149
2-2-1993		In service	CLW-2141 and CLW-2144
5-2-1994		In service	CLW-2141 and CLW-2144
1-6-1997		In service	CLW-2149
6-17-1998		In service	CLW-2840
8-4-1998		In service	CLW-2073
1-1999		In service	Crab Log for Well Pumps
1-2000		In service	Crab Log for Well Pumps
9-23-2000		Out of service	Crab Log for Well Pumps
2001		Out of service	AM Environmental Consultant
2002		Out of service	2000 Well log
2003		Out of service	2001 Well log
6-2004		Service reassessed	AM Environmental Consultant

Date	Number days pumped in month	Capacity in gpm	Gallons pumped in month	Number days in month	Adjusted Capacity in gpm
Jan99	7	205	2066400	31	46.3
Feb99	15	205	4428000	28	109.8
Mar99	28	205	8265600	31	185.2
Apr99	5	205	1476000	30	34.2
May99	2	205	590400	31	13.2
Jun99	15	205	4428000	30	102.5
Jul99	24	205	7084800	31	158.7
Aug99	26	205	7675200	31	171.9
Sep99	21	205	6199200	30	143.5
Oct99	4	205	1180800	31	26.5
Nov99	27	205	7970400	30	184.5
Dec99	18	205	5313600	31	119.0

Number of Days HP-633 Operated 1998-2000



*** D R A F T - S U B J E C T T O C H A N G E ***

Summary of Available Pumpage Data

Type of Information	System/Component	Data Timeframe
Daily operations schedule	HP WTP individual supply wells	Nov 28, 1984– Feb 4, 1985
Hours pumped and corresponding pumping rates	HP and HB WTP individual supply wells	Oct 1988–Mar 1989
Total gallons pumped, average pumping rate, average daily withdrawal, and % of time inactive	HP and HB WTP individual supply wells	1993
Daily log for well pumps indicating operational status (on/off)	HP and HB WTP individual supply wells	Jan 1998–Jun 2008

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Summary

- 100+ supply wells
- A lot of information to review in order to create a well capacity history for each supply well
- Information for past 10-15 years is more detailed than information for 50-60 years ago
- ATSDR is exploring ways to find historical trends of well pumpage using the detailed daily information