The Weymouth Water System has supplied Southfield, and the former South Weymouth Naval Air Station with public drinking water since the 1940s.

7.00 6.27 MGD 6.00 5.0 MGD 5.00 4.1 MGD **G** 4.00 3.00 4.00 2.00 1.00 0.00 Safe Current Withdrawal Yield Usage Limit

Question 1: Can Weymouth's water sources supply Southfield?

Answer 1: Yes, see below

Question 2: Can Weymouth's distribution system supply Southfield?

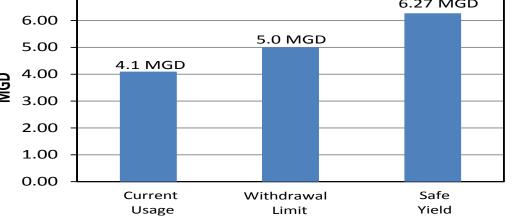
Answer 2: Yes

Hydraulic modeling and Master Plan results indicate that with modest infrastructure • improvements the piping network and storage facilities are hydraulically sufficient to provide adequate flows, pressures, and storage capacity for Southfield, and the rest of the Weymouth water system.

Question 3: What are the Benefits of continuing to supply Southfield with drinking water?

Answer 3: See below

- The revenue generated from the sale of water to Southfield keeps the rates down in Weymouth.
- The provision of water is one of the key elements which will allow for the continuance of the • project, it will satisfy commercial demands, as has been reported repeatedly by the master developer as a project road block.



Question 4: What is the Department of Public Works asking for from Southfield?

Answer 4: See below

- First and foremost the proponent would be responsible for a "buy in" fee to the MWRA allowing for the "insurance" of 0.75mgd intended to supplement the Weymouth water system if the emergency need ever arose.
- Any infrastructure improvements necessary to allow for the wheeling of MWRA water through Weymouth if or when it becomes necessary.
- A guarantee that the Southfield project would remain a consecutive system.
- Other mitigation items appropriate to the protection of the Weymouth Water supply.

Question 5: What happens if conditions change in the future (more water needed)?

Answer 5: As part of the MOA the master developer would be asked to pay the MWRA Entrance Fee and infrastructure modifications to upgrade/improve Weymouth's existing connection to Quincy (MWRA).

Question 6: Can the Town of Weymouth accept the proposed wastewater flow(s) from the Southfield Development?

Answer 6: Yes, providing the MWRA agrees to the additional flow,...

- The Town of Weymouth currently accepts the flow generated from the Southfield property and the entire former WNAS. Also accepted flows when the Base was in operation by the government.
- With modifications to the Weymouth sewer infrastructure, the system will handle the additional flows proposed by the Southfield development.
- The infrastructure improvements may include some changes to pipe(s) diameter(s) which will allow for a greater system capacity to prevent the possibility of surcharge.
- As part of this effort certain infiltration issues may be mitigated which is expected to reduce current excessive flows in the system.
- See attached schedule identifying necessary improvements for verification.

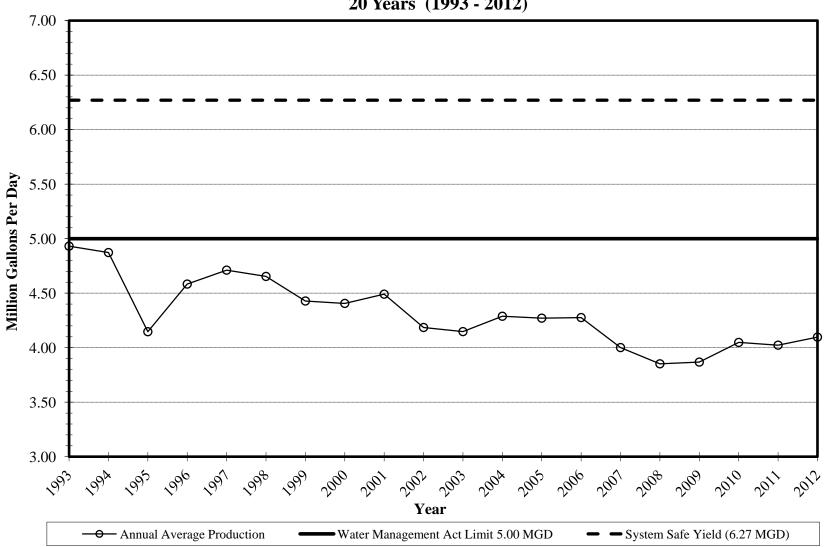
						TOWN OF	WEYMOUT	Н						
	Great Pond Monthly Water Level													
						Decembe	er 31, 2013							
Weymouth Water D	ivision													
PWS ID # 4336000														
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Yr Avg
Month	(Feet)	(Feet)	(Feet)	(Feet)	(Feet)	(Feet)	(Feet)	(Feet)	(Feet)	(Feet)	(Feet)	(Feet)	(Feet)	(Feet)
JANUARY	163.15	163.00	165.50	164.30	165.50	166.20	164.50	164.10	165.65	165.90	164.10	166.10	165.60	164.9
FEBRUARY	164.10	164.30	165.67	163.75	166.00	165.90	164.10	166.00	166.00	166.20	164.90	165.70	166.50	165.3
MARCH	166.53	165.78	166.45	166.75	166.30	165.40	165.70	166.00	166.00	166.60	165.70	165.50	166.10	166.1
APRIL	165.75	165.90	166.15	166.10	165.95	165.55	166.30	166.05	166.00	165.60	166.00	165.10	165.90	165.9
MAY	165.20	165.90	166.15	165.65	166.20	166.05	165.90	165.45	165.55	165.00	165.70	165.10	165.40	165.6
JUNE	164.50	165.55	165.75	165.35	165.25	166.10	165.10	165.15	165.30	164.00	165.20	165.00	166.00	165.3
JULY	163.60	164.20	165.00	164.50	164.90	165.50	164.20	164.70	165.80	162.70	164.30	163.60	165.30	164.5
AUGUST	162.55	163.47	163.90	163.60	164.87	164.40	163.10	163.85	164.70	162.20	163.70	162.90	164.40	163.7
SEPTEMBER	161.68	162.50	163.94	163.20	164.19	163.45	162.40	163.60	164.10	160.70	164.00	161.90	163.30	163.0
OCTOBER	161.20	162.40	163.35	163.50	166.22	163.00	161.45	162.80	164.30	161.70	165.30	161.50	162.10	163.0
NOVEMBER	160.87	164.00	163.18	163.50	166.12	164.30	161.40	162.95	164.25	161.80	166.00	163.00	161.50	163.3
DECEMBER	161.55	165.50	164.95	164.45	166.10	164.40	162.65	165.20	165.35	163.10	166.00	164.90	162.40	164.4
Yr. Avg.	163.4	164.4	165.0	164.6	165.6	165.0	163.9	164.7	165.3	163.8	165.1	164.2	164.5	164.6
									, _,					
Water level as reported on	last day of the m	onth					Dhara 1		Ban Phase if Po	Ũ	ss Than:			
						April 30	<u>Phase 1</u> 164.5	Phase 2 164.0	<u>Phase 3</u> 163.5	<u>Phase 4</u> 163.0				
						May 31	164.0	163.5	163.0	162.5				
						June 30	163.0	162.5	162.0	161.5				
						July 31	162.0	161.5	161.0	160.5				
						August 31	161.0	160.5	160.0	159.5				

#### TOWN OF WEYMOUTH Monthly Precipitation December 31, 2013

Weymouth Water Division PWS ID # 4336000

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Avg
Month	(Inches)													
JANUARY	3.49	3.68	2.91	1.34	4.72	6.88	2.78	3.37	4.35	4.30	5.88	2.92	1.45	3.70
FEBRUARY	2.15	2.32	6.47	1.78	4.39	2.81	2.57	8.36	2.39	4.49	4.98	1.15	5.75	3.82
MARCH	14.25	5.47	5.66	4.41	5.51	0.03	7.68	5.29	3.85	18.05	3.08	1.13	4.88	6.10
APRIL	1.59	1.20	6.76	8.49	3.99	1.44	8.97	3.27	4.47	1.84	4.40	3.63	2.00	4.00
MAY	2.36	6.52	4.50	2.76	7.19	13.50	2.81	1.85	5.21	3.24	2.64	3.54	3.58	4.59
JUNE	6.52	2.96	4.70	0.54	1.03	13.67	2.99	2.71	4.06	0.45	3.64	4.36	12.02	4.59
JULY	2.63	2.98	3.75	3.58	3.46	4.32	2.31	3.89	6.95	0.42	2.43	3.66	3.34	3.36
AUGUST	3.86	2.70	4.48	5.92	11.20	3.87	0.80	3.78	3.37	7.61	5.27	4.98	3.39	4.71
SEPTEMBER	4.34	4.88	2.26	7.40	2.46	1.68	2.20	7.11	3.96	1.59	6.54	3.60	3.17	3.94
OCTOBER	1.39	3.81	6.49	1.18	15.21	6.36	2.66	2.47	7.29	4.45	9.22	4.50	1.01	5.08
NOVEMBER	1.63	7.49	2.24	4.25	5.82	7.46	3.07	5.05	3.86	3.81	4.43	2.40	3.63	4.24
DECEMBER	3.48	7.49	6.62	5.16	3.06	2.12	7.47	8.52	5.83	5.37	4.32	6.23	4.79	5.42
Annual Total	47.69	51.50	56.84	46.81	68.04	64.14	46.31	55.67	55.59	55.62	56.83	42.10	49.01	53.93
Monthly Average	3.97	4.29	4.74	3.90	5.67	5.35	3.86	4.64	4.63	4.64	4.74	3.51	4.08	4.49
Year to Date	47.69	51.50	56.84	46.81	68.04	64.14	46.31	55.67	55.59	55.62	56.83	42.10	49.01	53.55

					то	WN OF WE								
					-	ILY WATER		ΓΙΟΝ						
						December 3								
Weymouth Water Divisio	n													
PWS ID # 4336000														
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Yr Avg
Month	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)	(MG)
JANUARY	131.21	127.56	128.46	129.81	128.79	132.63	127.48	116.08	114.67	122.69	116.54	118.76	117.15	123.99
FEBRUARY	116.71	111.48	116.39	125.23	120.09	119.91	107.87	110.74	103.03	110.54	113.38	114.14	110.67	113.86
MARCH	130.07	121.40	128.06	125.01	128.70	133.32	113.06	114.33	115.57	116.43	121.10	122.84	119.09	122.23
APRIL	132.05	118.59	121.21	127.66	117.87	133.51	114.76	114.46	111.57	114.35	118.00	123.97	115.63	120.28
MAY	157.01	130.35	132.44	137.84	125.72	141.25	128.04	121.86	127.12	127.95	127.86	132.07	130.37	132.30
JUNE	149.89	131.07	130.69	140.26	143.20	131.83	130.72	133.30	123.90	129.14	132.97	129.90	124.82	133.21
JULY	147.31	141.41	136.15	145.92	143.08	134.30	137.29	134.04	123.52	149.12	142.81	145.28	136.29	139.73
AUGUST	147.71	141.99	130.07	140.52	139.92	135.16	136.03	118.22	130.19	133.87	127.75	136.27	132.91	134.66
SEPTEMBER	136.19	126.19	122.27	126.70	125.44	122.68	124.12	113.39	115.09	119.55	121.16	124.79	123.68	123.17
OCTOBER	141.05	125.69	129.17	127.19	129.32	126.74	114.68	109.23	115.35	117.47	116.28	123.19	120.55	122.76
NOVEMBER	125.30	126.60	117.18	120.23	125.19	122.54	108.70	107.43	115.63	115.28	112.59	108.72	114.93	116.95
DECEMBER	124.58	125.23	121.72	123.16	131.48	126.88	117.60	116.71	116.09	121.17	117.93	112.43	122.03	121.31
Annual Total (MG)	1639.08	1527.56	1513.81	1569.53	1558.80	1560.75	1460.34	1409.80	1411.74	1477.56	1468.37	1492.36	1468.13	1504.45
Monthly Average (MG)	136.59	127.30	126.15	130.79	129.90	130.06	121.69	117.48	117.65	123.13	122.36	124.36	122.34	125.37
Daily Average (MGD)	4.49	4.19	4.15	4.29	4.27	4.28	4.00	3.85	3.87	4.05	4.02	4.09	4.06	4.12
Note: Daily average for current y	ear is the avera	ge water prod	uction per day	to date.		Water Ban Pha	se if Annual T	otal is Greater	Than:					
Volumes are expressed in							Phase 1	Phase 2	Phase 3	Phase 4				
Production is based on fini	Production is based on finished water pumped.				April 30	580	590	600	610					
						May 31	750	760	770	780				
						June 30	920	930	940	950				
						July 31	1100	1110	1120	1130				
						August 31	1255	1265	1275	1285				



# Town of Weymouth Annual Average Water Production 20 Years (1993 - 2012)

# Town of Weymouth

# Water Supply Information

#### **Existing Water Management Act Limits**

Allowable Withdrawal Volume	(MGD)
Registered	4.51
Permitted	0.49
Total	5.00

**Registered:** Great Pond & South Cove; Main St Well, Circuit Ave Well, Libbey Park Well, Winter St. Well #2 **Permitted:** Winter St Well #1

#### Safe Yield Summary of Weymouth Water System

Source	Existing DEP Approved Safe Yield
Great Pond	3.63 MGD
Mill River Wells	2.26 MGD
Libbey Park Well	0.38 MGD
Total	6.27 MGD

#### **Recent Water Demands**

Year	Annual Production (MGD)
2009	3.87
2010	4.05
2011	4.02
2012	4.10
2013	4.02
Average	4.01

#### 2012 Water Demand Summary

Distribution System	Average MGD	Maximum MGD
High Pressure Zone	1.60	2.29
Intermediate Pressure Zone	1.79	2.61
Low Pressure Zone	0.71	1.04
Total System	4.10	5.94

### Southfield Water Demands

Southfield Development Phase	Minimum MGD	Maximum MGD
Phase 1A	0.089	0.108
Phase 1B	0.089	0.137
Phase 1 (Total)	0.178	0.245
Phase 2	0.209	0.454
Subtotal (Phase 1 & Phase 2)	0.386	0.698
Phase 3	0.097	0.517
Total (all 3 Phases)	0.482	1.215

### Weymouth Water Supply Capacity

Existing Conditions					
Water Demand (MGD) <sup>1</sup>	4.01				
WMA Withdrawal Limit (MGD)	5.00				
Excess WMA Capacity (MGD)	0.99				
Total Available Safe Yield (MGD	6.27				
Excess Available Water (MGD)	2.26				

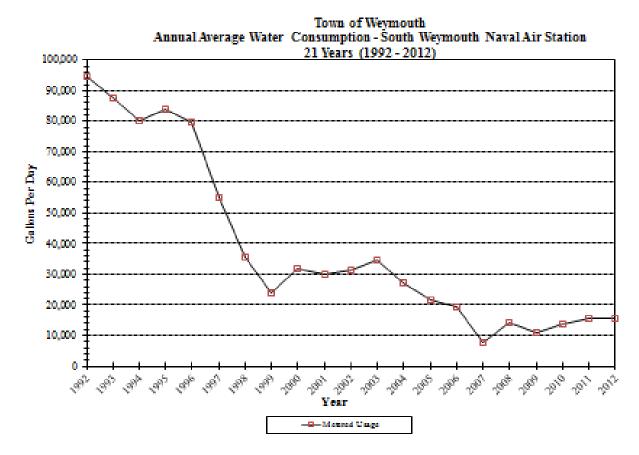
1. Based on most recent 5 years of data

#### **Evaluation of Southfield**

Southfield Assessment	Existing	Phase 1 MOA	Phase 2
Existing Weymouth Demand (MGD) <sup>1</sup>	4.01	4.01	4.01
Southfield Demand (MGD)	0.02	0.245	0.698
Total (MGD)	4.03	4.255	4.708
Excess WMA Capacity (MGD)	0.97	0.75	0.29
Total Available Safe Yield (MGD)	6.27	6.27	6.27
Excess Available Water (MGD)	2.24	2.015	1.562

1. Based on most recent 5 years of data

# HISTORICAL METERED USAGE



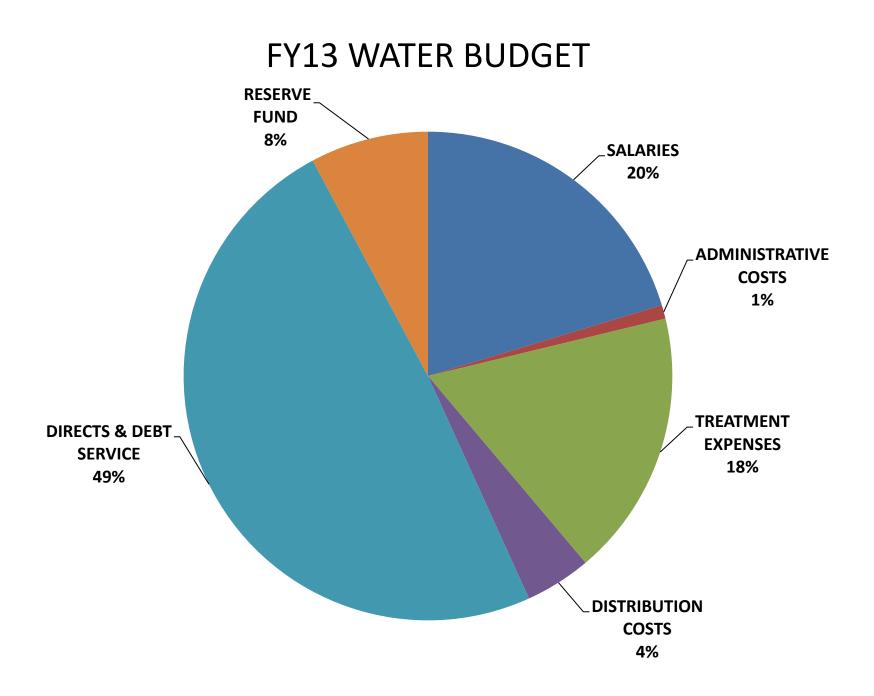
# Water and Sewer Infrastructure Development Timeline

• May 2012

Southfield releases report "Evaluation of Alternative Water Supply and Sewer Service Options for Southfield" Contains estimates of water use for the 3 phases of development

Southfield Developm ent Phase	Wa	iter	Sewer			
	Minimum (GPD)	Maximum (GPD)	Minimum (GPD)	Maximum (GPD)		
Phase 1	178,000	245,000	132,000	187,000		
Phase 2	209,000	454,000	154,000	385,000		
Phase 3	97,000	517,000	75,000	456,000		
Total:	482,000	1,215,000	360,000	1,028,000		

data extracted from report table 1-2



# FY13 SEWER BUDGET

