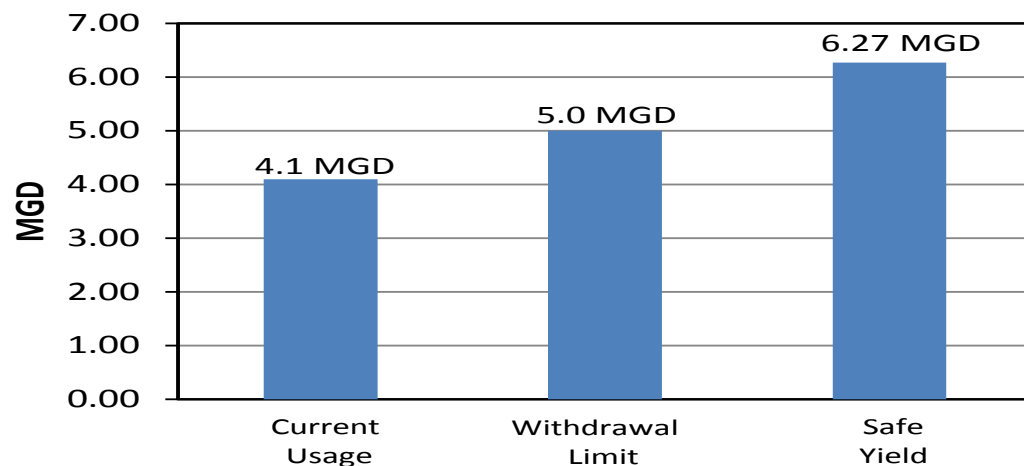


The impacts of Southfield on the Weymouth Water System

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

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 WEYMOUTH

Great Pond Monthly Water Level

December 31, 2013

[illegible][illegible]

Water level as reported on last day of the month	Water Ban Phase if Pond Height Less Than:

Water level as reported on last day of the month			Water Ban Phase if Pond Height Less Than:
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[illegible]

TOWN OF WEYMOUTH
Monthly Precipitation
December 31, 2013

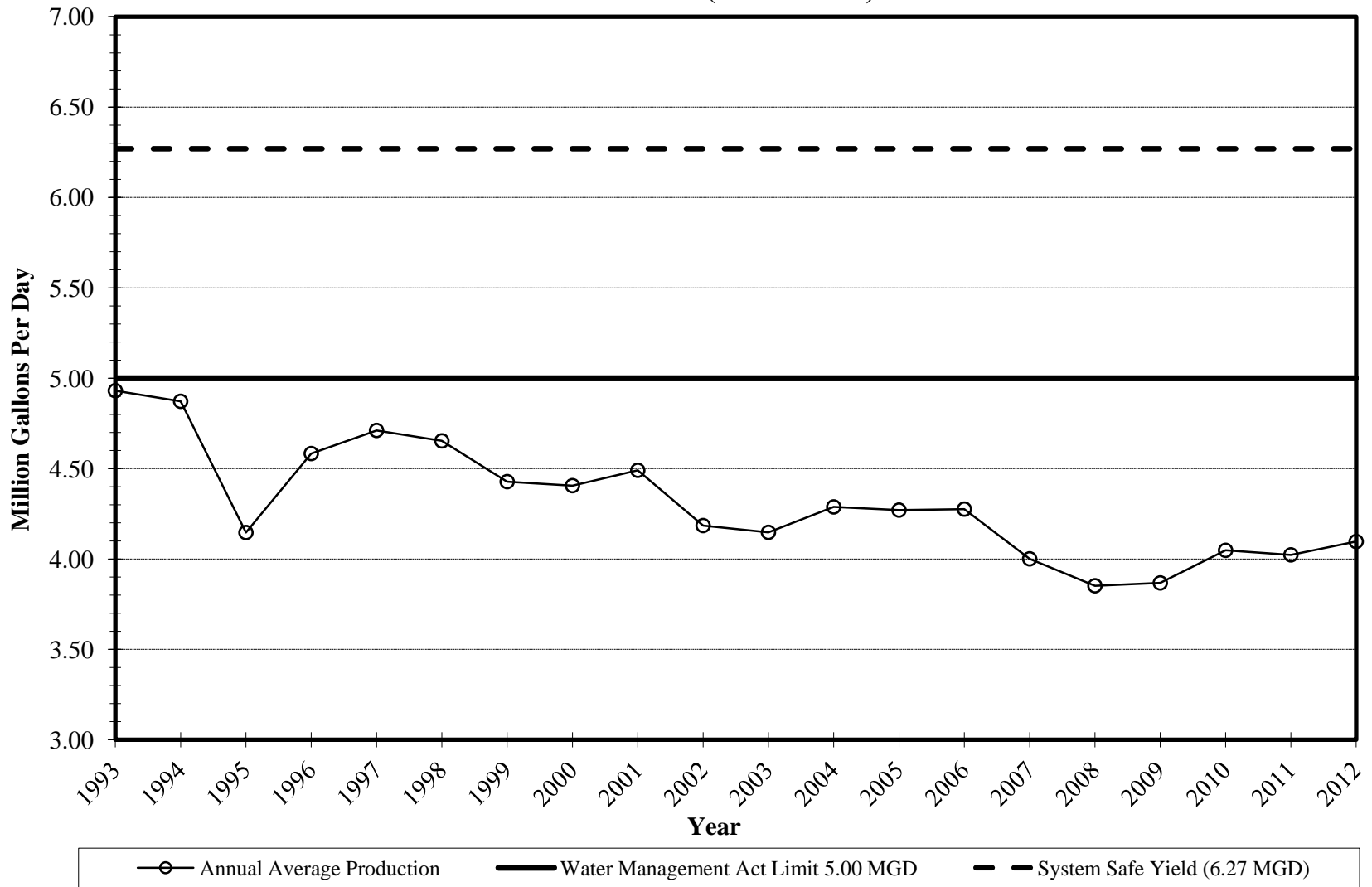
Weymouth Water Division
PWS ID # 4336000

Month	2001 (Inches)	2002 (Inches)	2003 (Inches)	2004 (Inches)	2005 (Inches)	2006 (Inches)	2007 (Inches)	2008 (Inches)	2009 (Inches)	2010 (Inches)	2011 (Inches)	2012 (Inches)	2013 (Inches)	Avg (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

December 31, 2013

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
<i>High Pressure Zone</i>	1.60	2.29
<i>Intermediate Pressure Zone</i>	1.79	2.61
<i>Low Pressure Zone</i>	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) ¹	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

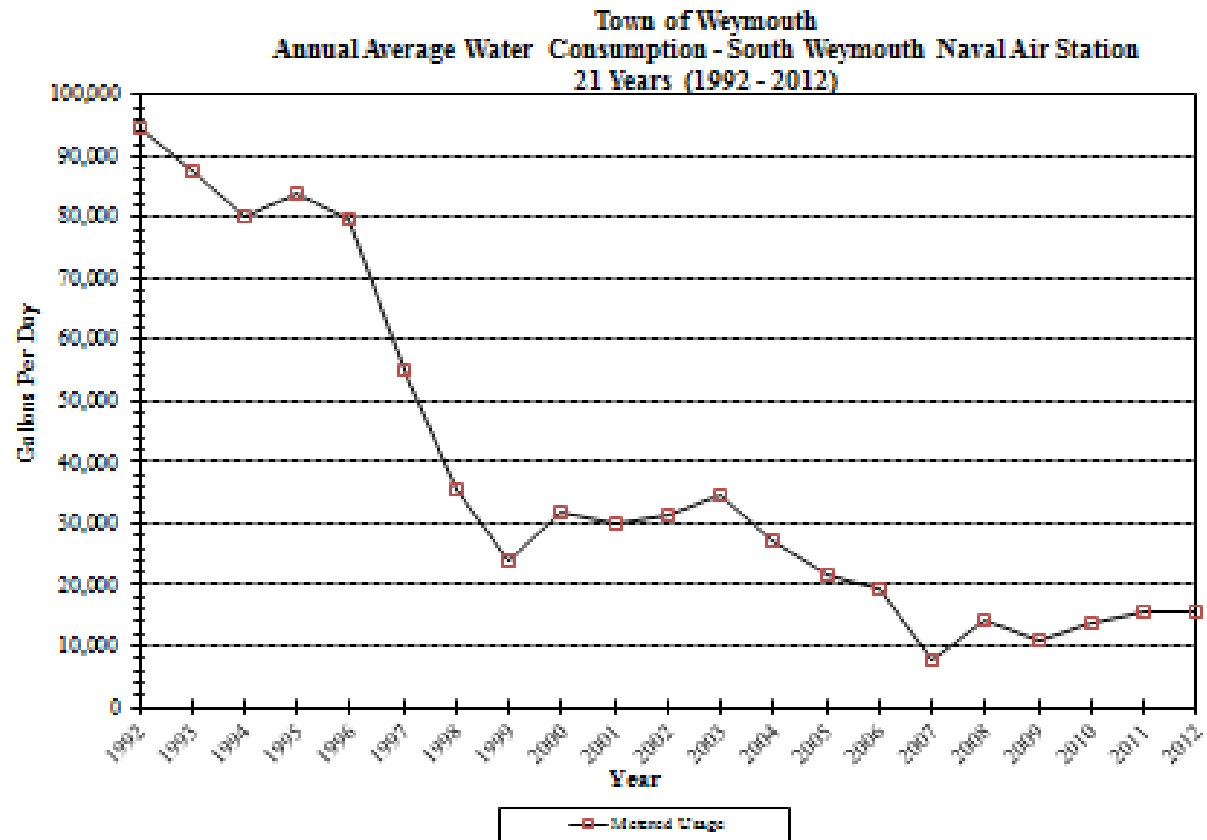
1. Based on most recent 5 years of data

Evaluation of Southfield

Southfield Assessment	Existing	Phase 1 MOA	Phase 2
Existing Weymouth Demand (MGD) ¹	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

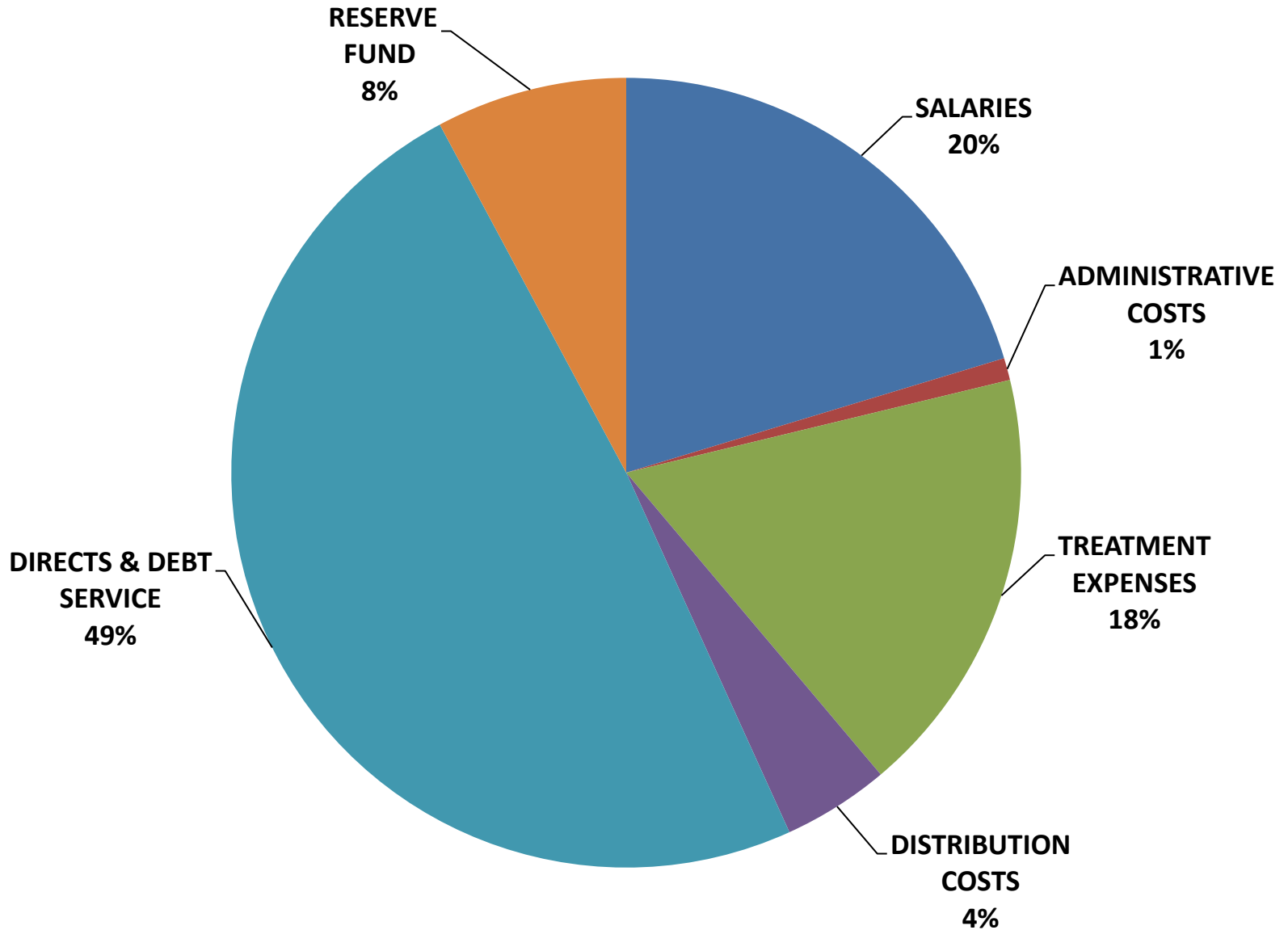
- May 2012

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 Development Phase	Water		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 WATER BUDGET



FY13 SEWER BUDGET

