

- *Parks and Recreation Director*.....Carol K. Anderson
- *Recreation Supervisor*.....Stuart Alderman
- *Facility Supervisor*.....Ann Blizzard



City of  
**Troy**



2010/11  
Budget

AQUATICS DIVISION

## FUNCTIONAL ORGANIZATIONAL CHART

- ***Administration***

- ✓ Conducts facility planning and development
- ✓ Works on intergovernmental projects
- ✓ Works on capital improvement projects
- ✓ Coordinates marketing
- ✓ Establishes staff assignments
- ✓ Coordinates planning and development
- ✓ Prepares and administers the department budget
- ✓ Manages sponsorship and donations

- ***Aquatics Division***

- ✓ Operates the Troy Family Aquatic Center
- ✓ Processes more than 48,100 admissions annually
- ✓ Conducts classes including junior lifeguarding, lifeguarding, lifeguard instructor, water safety instructor, learn to swim, preschool and private swim lessons
- ✓ Conducts birthday and celebration parties
- ✓ Provides group rentals and private rentals to residents, businesses and school groups
- ✓ Provides more than 15 special events during the summer, including a cooperative teen program and dog swim



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AQUATICS DIVISION

**REVENUES AND EXPENSES**

Description	2009 Actual	2010 Projected	2010 Budget	2011 Budget
<b><u>Revenues</u></b>				
Charges for Service	\$ 457,240	\$ 447,310	\$ 460,000	\$ 457,000
Interest and Rents	29,429	28,420	30,200	29,900
<b>Total - Revenues</b>	<b>\$ 486,669</b>	<b>\$ 475,730</b>	<b>\$ 490,200</b>	<b>\$ 486,900</b>
<b><u>Expenses</u></b>				
Personal Service Control	\$ 289,660	\$ 293,080	\$ 299,520	\$ 271,596
Supplies	33,261	31,400	33,450	31,300
Other Services/Charges	278,938	294,030	297,320	297,100
<b>Total - Expenses</b>	<b>\$ 601,859</b>	<b>\$ 618,510</b>	<b>\$ 630,290</b>	<b>\$ 599,996</b>
<b>Revenue Over (Under) Expenses</b>	<b>\$ (115,190)</b>	<b>\$ (142,780)</b>	<b>\$ (140,090)</b>	<b>\$ (113,096)</b>
<b>Capital Outlay</b>	<b>\$ 68,986</b>	<b>\$ 28,000</b>	<b>\$ 28,000</b>	<b>\$ 61,000</b>



2010/11  
Budget

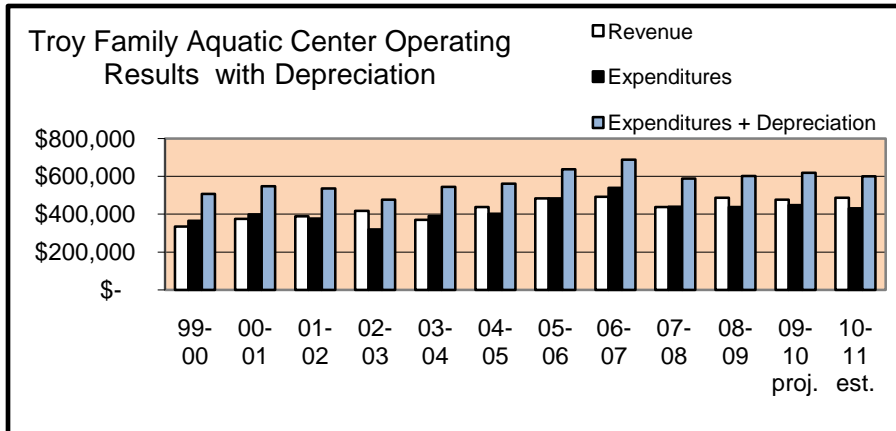
AQUATICS DIVISION

DEPARTMENT AT A GLANCE

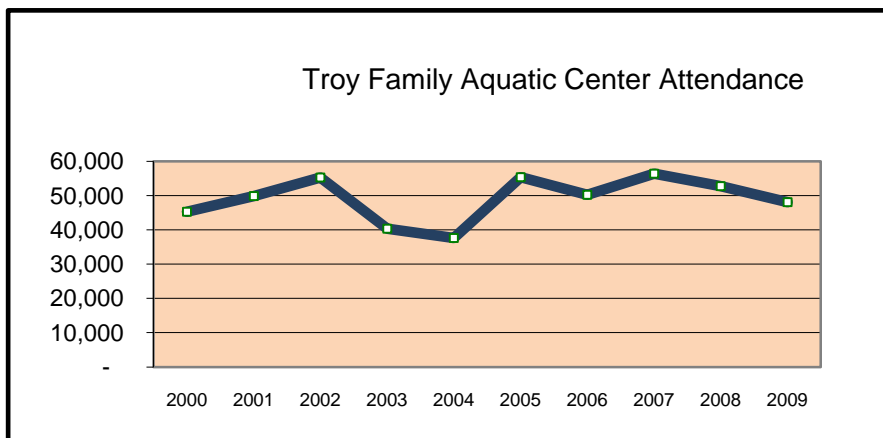
Funding Level Summary	2007/08		Estimated 2009/10		2010/11	% Of Change
	Actual	Actual	Budget	Budget	Budget	
Personal Services	\$285,738	\$289,660	\$293,080	\$299,520	\$271,596	-9%
Supplies	31,429	33,261	31,400	33,450	31,300	-6%
Other Services/ Charges	271,382	278,938	294,030	297,320	297,100	0%
<b>Total Department</b>	<b>\$588,549</b>	<b>\$601,859</b>	<b>\$618,510</b>	<b>\$630,290</b>	<b>\$599,996</b>	<b>-5%</b>

Personnel Summary	2007/08		2008/09		2009/10		2010/11	
	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time
Aquatic Center	1/3	74	1/3	88	1/3	88	0	88
<b>Total Department</b>	<b>1/3</b>	<b>74</b>	<b>1/3</b>	<b>88</b>	<b>1/3</b>	<b>88</b>	<b>0</b>	<b>88</b>

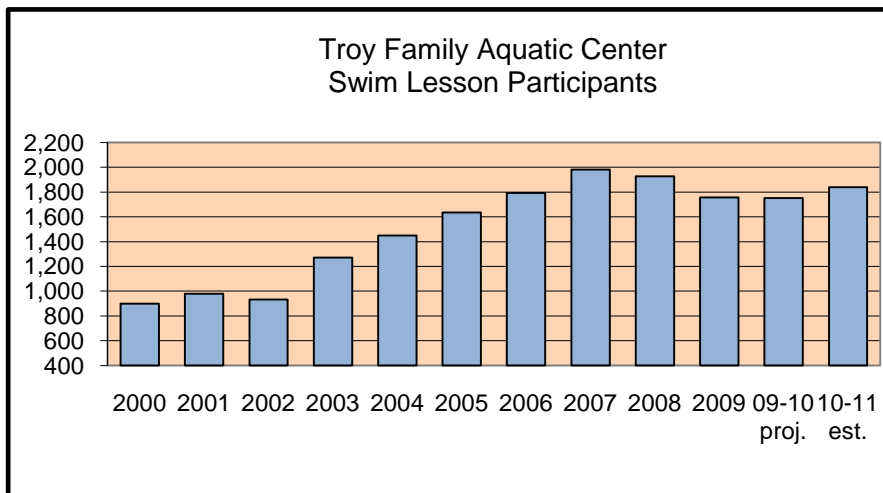
**KEY DEPARTMENTAL TRENDS**



Revenues and expenses are steady with minimal increases to expenses.



The facility was closed 12 days due to weather.



Providing quality swim lessons is a priority and a revenue generator.



2010/11  
Budget

AQUATICS DIVISION

## MISSION AND SERVICE STATEMENTS

- ***Mission Statement***

The mission of the Aquatics Division is to provide quality swim lessons, special events and recreational swimming opportunities.

- ***Service Statement***

The Aquatics Division offers programs to enrich the lives of Troy residents and businesses, and provides family recreation and education at the Troy Family Aquatic Center.

More than 87,000 residents, non-resident employees, non-residents and their guests have the opportunity to enjoy the many amenities, including water slides, volleyball courts, food concessions, a play area and recreational swimming. Special events and classes are offered for a variety of ages.

- ***Did You Know?***

- ✓ More than 48,100 people visited the Troy Family Aquatic Center in 2009.
- ✓ The Troy Family Aquatic Center employs more than 80 people each season.



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AQUATICS DIVISION

PERFORMANCE OBJECTIVES

**Outputs**

- ✓ Operate facility with revenue exceeding expenditures (less depreciation) and market accordingly to provide the community with a valuable recreation service. **(Output L, O)**
- ✓ Provide classes and programs that meet expenses and give valuable safety or recreational services. **(Output O)**

\*See the list of outputs as ranked by City Council in the [CITY-WIDE ACTION PLAN](#) on pages 15 and 16.

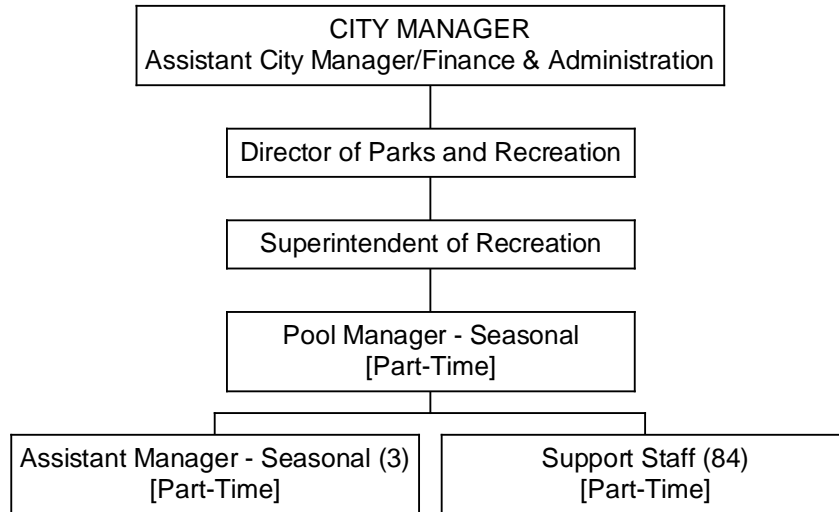
Performance Indicators		2008/09 Actual	2009/10 Projected	2009/10 Budget	2010/11 Budget
Output	✓ Aquatic Center Admissions	48,146	50,000	53,000	50,000
	✓ Season Pass Attendance	19,877	20,400	23,500	21,500
	✓ Daily Pass	20,829	21,000	22,800	21,000
	✓ Birthday Party Attendance	322	325	450	335
Efficiency	✓ Ratio of Residents to Non-Residents for Daily Visits	1.7/1	1.6/1	1.6/1	1.6/1



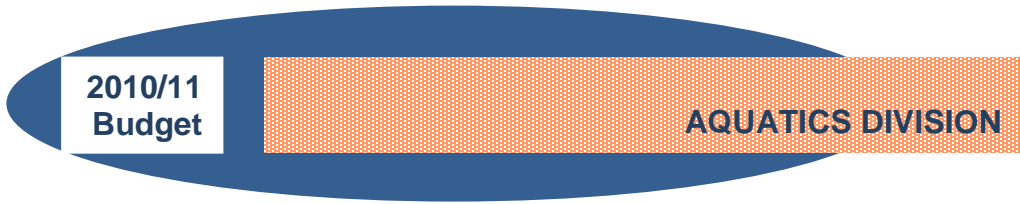
2010/11  
Budget

AQUATICS DIVISION

ORGANIZATIONAL CHART



Staff Summary	Approved 2008/09	Approved 2009/10	Recommended 2010/11
Facility Supervisor	1/3	1/3	0
Assistant Manager – Seasonal [Part-Time]	3	3	3
Pool Manager-Seasonal [Part-Time]	1	1	1
Support Staff [Part-Time]	84	84	84
<b>Total Department</b>	<b>88-1/3</b>	<b>88-1/3</b>	<b>88</b>

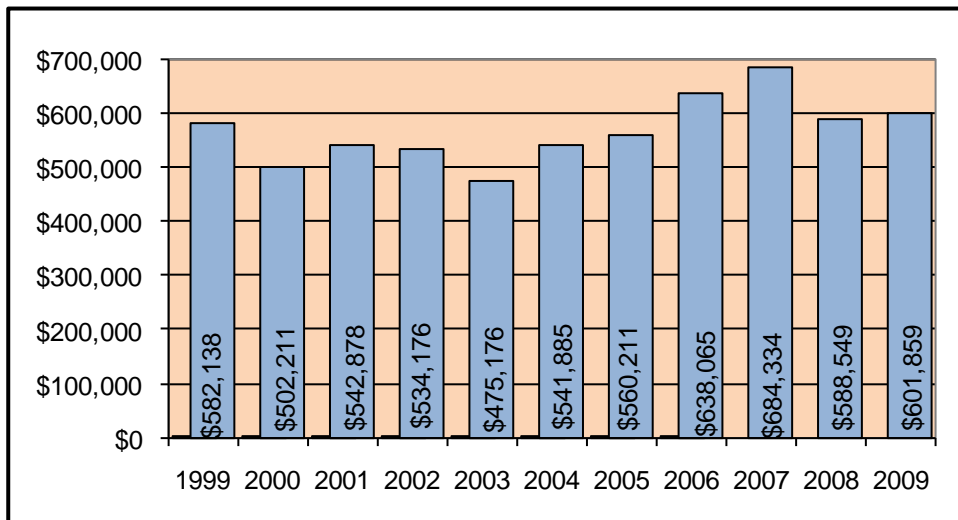


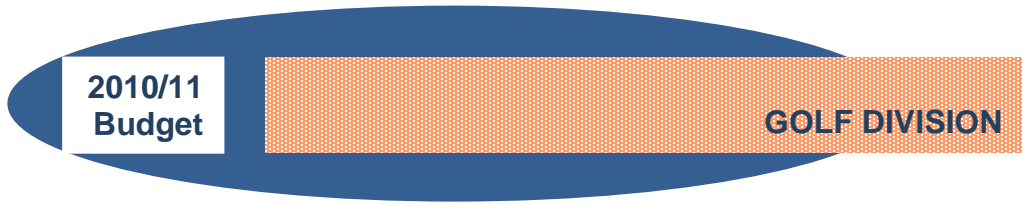
**SUMMARY OF BUDGET CHANGES**

- Significant Notes – 2010/11 Budget Compared to 2009/10 Budget**

Personal Services decreased **\$27,924 (9%)** due to the reduction of a portion of a full-time Aquatics Facility Supervisor position.

- Operating Budget History**





- *Parks and Recreation Director*.....Carol K. Anderson
- *Director of Golf Operations*.....Jake Pilat



City of  
**Troy**



2010/11  
Budget

GOLF DIVISION

## FUNCTIONAL ORGANIZATIONAL CHART

- ***Department Administration***

- ✓ Conducts facility planning and development
- ✓ Works on intergovernmental projects
- ✓ Works on capital improvement projects
- ✓ Seeks grants
- ✓ Coordinates marketing
- ✓ Coordinates staff assignments
- ✓ Conducts park planning and development
- ✓ Prepares and administers the department budget
- ✓ Coordinates sponsorship and donations

- ***Golf Division***

- ✓ Operates two municipal golf operations
- ✓ Serves as liaison with restaurant operations
- ✓ Provides for repairs and improvements to courses
- ✓ Maintains winter sledding area
- ✓ Offers quality tournament program for City residents
- ✓ Offers a full practice facility at Sanctuary Lake Golf Course
- ✓ Oversees the operation of the Sanctuary Lake Golf Academy
- ✓ Offers two full service pro-shop operations



2010/11  
Budget

GOLF DIVISION

**REVENUES AND EXPENSES - SYLVAN GLEN**

Description	2009 Actual	2010 Projected	2010 Budget	2011 Budget
<b>Revenues</b>				
<b>Sylvan Glen Golf Course</b>				
Charges for Service	\$ 975,070	\$ 960,310	\$ 1,015,000	\$ 1,020,070
Interest and Rents	233,910	193,920	230,520	193,920
Other Revenues	363	-	-	-
Operating Transfer In	-	-	509,580	383,110
<b>Total - Revenues</b>	<b>\$ 1,209,343</b>	<b>\$ 1,154,230</b>	<b>\$ 1,755,100</b>	<b>\$ 1,597,100</b>
<b>Expenses</b>				
<b>Sylvan Glen Greens</b>				
Personal Service Control	\$ 311,073	\$ 299,900	\$ 340,920	\$ 297,810
Supplies	156,113	114,830	135,900	108,220
Other Services/Charges	311,338	283,390	303,330	285,400
<b>Total - Sylvan Glen Greens</b>	<b>\$ 778,524</b>	<b>\$ 698,120</b>	<b>\$ 780,150</b>	<b>\$ 691,430</b>
<b>Sylvan Glen Pro Shop</b>				
Personal Service Control	\$ 205,473	\$ 198,340	\$ 170,990	\$ 140,746
Supplies	25,730	23,380	24,500	24,600
Other Services/Charges	94,235	94,060	92,280	94,220
<b>Total - Sylvan Glen Pro Shop</b>	<b>\$ 325,438</b>	<b>\$ 315,780</b>	<b>\$ 287,770</b>	<b>\$ 259,566</b>
<b>Total - Expenses</b>	<b>\$ 1,103,962</b>	<b>\$ 1,013,900</b>	<b>\$ 1,067,920</b>	<b>\$ 950,996</b>
<b>Revenues Over (Under) Expenses</b>	<b>\$ 105,381</b>	<b>\$ 140,330</b>	<b>\$ 687,180</b>	<b>\$ 646,104</b>
<b>Capital Outlay</b>	<b>\$ 54,174</b>	<b>\$ 180,560</b>	<b>\$ 687,180</b>	<b>\$ 646,100</b>



2010/11  
Budget

GOLF DIVISION

**REVENUES AND EXPENSES - SANCTUARY LAKE**

Description	2009 Actual	2010 Projected	2010 Budget	2011 Budget
<b>Revenues</b>				
<b>Sanctuary Lake Golf Course</b>				
Charges for Service	\$ 918,468	\$ 959,240	\$ 1,182,000	\$ 995,050
Interest and Rents	5,441	6,760	7,000	6,500
<b>Total - Revenues</b>	<b>\$ 923,909</b>	<b>\$ 966,000</b>	<b>\$ 1,189,000</b>	<b>\$ 1,001,550</b>
<b>Expenses</b>				
<b>Sanctuary Lake Greens</b>				
Personal Service Control	\$ 221,524	\$ 257,190	\$ 297,470	\$ 279,677
Supplies	109,703	82,840	90,400	75,350
Other Services/Charges	468,411	406,550	465,800	380,420
<b>Total - Sanctuary Lake Greens</b>	<b>\$ 799,638</b>	<b>\$ 746,580</b>	<b>\$ 853,670</b>	<b>\$ 735,447</b>
<b>Sanctuary Lake Pro Shop</b>				
Personal Service Control	\$ 185,712	\$ 182,080	\$ 174,250	\$ 142,415
Supplies	23,694	34,240	32,000	26,200
Other Services/Charges	95,508	105,440	93,780	95,490
Debt Service	530,133	816,600	816,600	902,350
<b>Total - Sanctuary Lake Pro Shop</b>	<b>\$ 835,047</b>	<b>\$ 1,138,360</b>	<b>\$ 1,116,630</b>	<b>\$ 1,166,455</b>
<b>Total - Expenses</b>	<b>\$ 1,634,685</b>	<b>\$ 1,884,940</b>	<b>\$ 1,970,300</b>	<b>\$ 1,901,902</b>
<b>Revenues Over (Under) Expenses</b>	<b>\$ (710,776)</b>	<b>\$ (918,940)</b>	<b>\$ (781,300)</b>	<b>\$ (900,352)</b>
<b>Capital Outlay</b>	<b>\$ -</b>	<b>\$ 24,800</b>	<b>\$ 25,000</b>	<b>\$ -</b>



2010/11  
Budget

GOLF DIVISION

DEPARTMENT AT A GLANCE

Funding Level Summary	2007/08		2008/09		Estimated 2009/10		2010/11	% Of
	Actual	Actual	Budget	Budget	Budget	Budget	Change	
Sylvan Glen Greens	\$ 772,805	\$ 778,524	\$ 698,120	\$ 780,150	\$ 691,430		-11%	
Sylvan Glen Pro Shop	332,749	325,438	315,780	287,770	259,566		-10%	
<b>Sylvan Glen</b>	<b>\$1,105,554</b>	<b>\$1,103,962</b>	<b>\$1,013,900</b>	<b>\$1,067,920</b>	<b>\$ 950,996</b>		<b>-11%</b>	
Sanctuary Lake Greens	\$ 773,127	\$ 799,638	\$ 746,580	\$ 853,670	\$ 735,447		-14%	
Sanctuary Lake Pro Shop	847,477	835,047	1,138,360	1,116,630	1,166,455		4%	
<b>Sanctuary Lake</b>	<b>\$1,620,604</b>	<b>\$1,634,685</b>	<b>\$1,884,940</b>	<b>\$1,970,300</b>	<b>\$1,901,902</b>		<b>-3%</b>	
<b>Total Department</b>	<b>\$2,726,158</b>	<b>\$2,738,647</b>	<b>\$2,898,840</b>	<b>\$3,038,220</b>	<b>\$2,852,898</b>		<b>-6%</b>	
Personal Services	\$ 907,954	\$ 923,782	\$ 937,510	\$ 983,630	\$ 860,648		-13%	
Supplies	318,465	315,240	255,290	282,800	234,370		-17%	
Other Services/Charges	961,333	969,492	889,440	955,190	855,530		-10%	
Debt Service	538,406	530,133	816,600	816,600	902,350		11%	
<b>Total Department</b>	<b>\$2,726,158</b>	<b>\$2,738,647</b>	<b>\$2,898,840</b>	<b>\$3,038,220</b>	<b>\$2,852,898</b>		<b>-6%</b>	

Personnel Summary	2007/08		2008/09		2009/10		2010/11	
	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time
Pro Shop	1	39	1	39	1	31	1	29
Greens	4	32	4	32	4	23	4	19
<b>Total Department</b>	<b>5</b>	<b>71</b>	<b>5</b>	<b>71</b>	<b>5</b>	<b>54</b>	<b>5</b>	<b>48</b>



2010/11  
Budget

GOLF DIVISION

## MISSION AND SERVICE STATEMENTS

- ***Mission Statement***

It is the mission of the Golf Division to provide a quality golf experience for residents and businesses.

- ***Service Statement***

The Golf Division is part of the Parks and Recreation Department and operates Sylvan Glen Golf Course and Sanctuary Lake Golf Course. With Sylvan Glen and Sanctuary Lake, the Golf Division provides an opportunity for 75,000 rounds of golf annually, consisting of open play, league play, and outings. In addition, Sanctuary Lake offers a full-service practice facility and a teaching academy. The Golf Division is a full-service operation that provides golf lessons, facility maintenance, mechanical repairs, pro shop operations, restaurant and banquet opportunities and course improvements. During the winter months cross-country skiing and sledding are available at Sylvan Glen.

- ***Did You Know?***

- ✓ Sylvan Glen and Sanctuary Lake host 58 leagues with more than 1,050 players. Nearly 20,000 rounds per season are played in leagues.
- ✓ Sylvan Glen and Sanctuary Lake are both recognized as part of the Michigan Turf Grass Environmental Stewardship program.
- ✓ The Golf Division employs more than 48 seasonal workers each summer.
- ✓ In addition to private and group lessons the Sanctuary Lake Golf Academy hosts junior golf camps which provide instruction for nearly 200 junior campers.



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Budget

GOLF DIVISION

**PERFORMANCE OBJECTIVES**

**Outputs**

- ✓ Employ marketing strategies to increase rounds and revenues at Sanctuary Lake and Sylvan Glen Golf Courses. **(Output M)**
- ✓ Secure additional and maintain current league players and past outings to increase revenues for both Sanctuary Lake and Sylvan Glen golf courses. **(Output M)**
- ✓ Continue with current cultural practices to maintain and improve playing conditions and aesthetics at both facilities, ensuring a more enjoyable experience for all customers. **(Output L)**
- ✓ Maintain a strong junior program through the golf academy to promote golf in the City of Troy and to increase revenues through new golfers. **(Output O)**
- ✓ Continue to provide the highest quality of customer service to retain the current customer base and attract new golfers. **( Output O )**

\*See the list of outputs as ranked by City Council in the [CITY-WIDE ACTION PLAN](#) on pages 15 and 16.

• **Sylvan Glen Golf Course**

Performance Indicators		2008/09 Actual	2009/10 Projected	2009/10 Budget	2010/11 Budget
Output	✓ Rounds of Golf	43,621	43,957	44,355	45,037
	✓ Sylvan Glen Revenue	\$1,209,343	\$1,229,560	\$1,240,290	\$1,270,530
Efficiency					

• **Sanctuary Lake Golf Course**

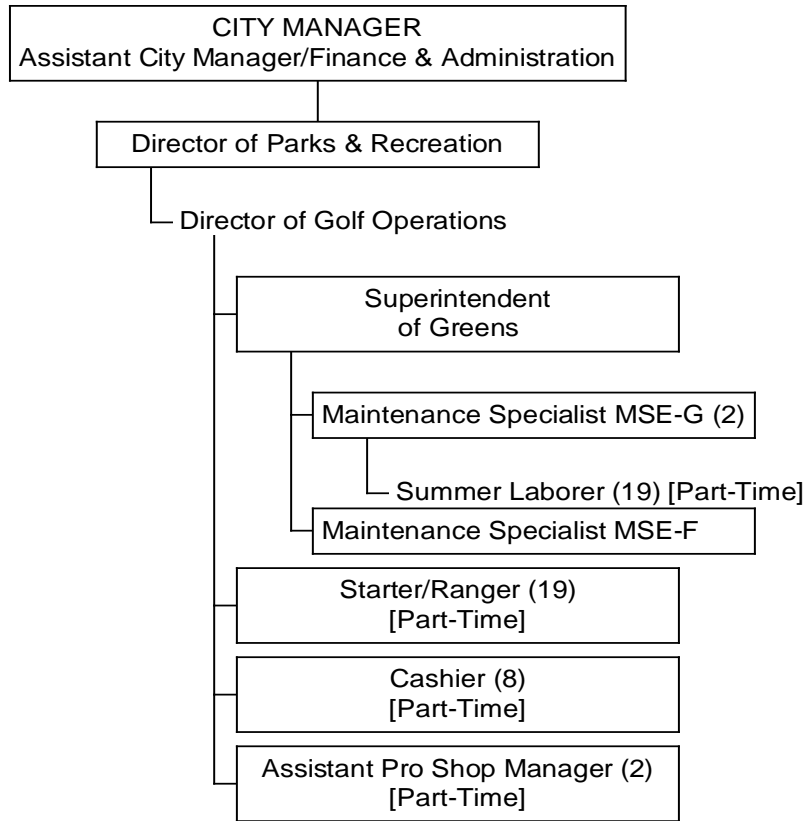
Performance Indicators		2008/09 Actual	2009/10 Projected	2009/10 Budget	2010/11 Budget
Output	✓ Sanctuary Lake Range Sales	\$78,049	\$88,190	\$94,100	\$92,100
	✓ Sanctuary Lake Revenue	\$923,908	\$963,750	\$1,070,750	\$989,810
Efficiency					



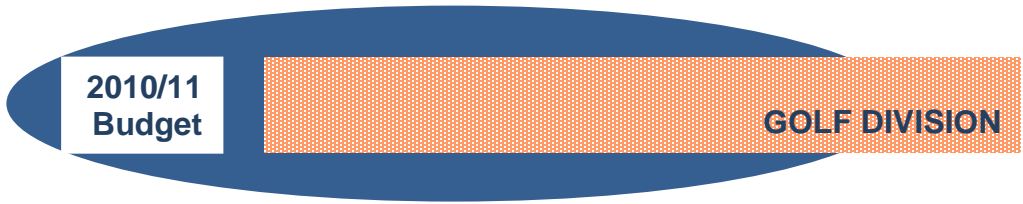
2010/11  
Budget

GOLF DIVISION

ORGANIZATIONAL CHART



Staff Summary	Approved 2008/09	Approved 2009/10	Recommended 2010/11
Director of Golf Operations	1	1	1
Assistant Pro Shop Manager [Part-Time]	2	2	2
Cashier [Part-Time]	10	10	8
Maintenance Specialist MSE-F	1	1	1
Maintenance Specialist MSE-G	2	2	2
Starter/Ranger [Part-Time]	27	19	19
Summer Laborer [Part-Time]	32	23	19
Superintendent of Greens	1	1	1
<b>Total Department</b>	<b>76</b>	<b>59</b>	<b>53</b>

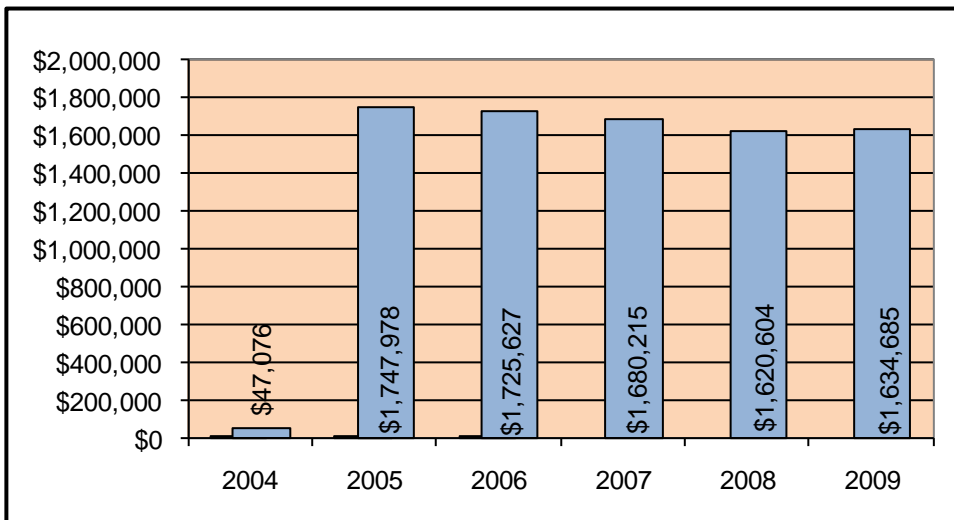


**SUMMARY OF BUDGET CHANGES**

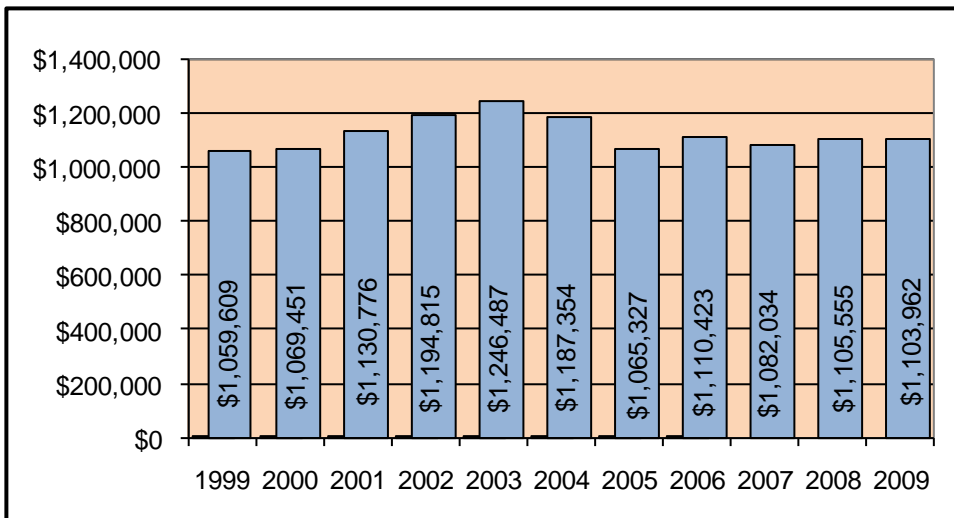
- Significant Notes – 2010/11 Budget Compared to 2009/10**

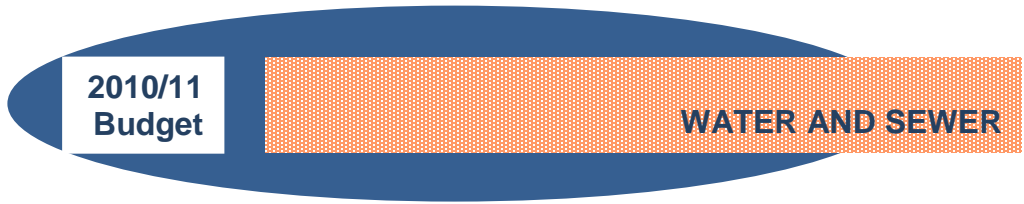
At the time of budget preparation, the City of Troy is considering a proposal from Billy Casper Golf to operate both golf courses.

- Operating Budget History - Sanctuary Lake Golf Course**



- Operating Budget History - Sylvan Glen Golf Course**





- *Public Works Director*.....**Timothy Richnak**
- *Superintendent of Water and Sewer*.....**Richard Shepler**



City of  
**Troy**



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WATER AND SEWER

## FUNCTIONAL ORGANIZATIONAL CHART

- ***Water and Sewer Billing and Accounts***

- ✓ Provides billing, account management and administration
- ✓ Communicates with field staff regarding customer service requests and information
- ✓ Provides clerical support to the department
- ✓ Educates consumers on leak detection, water-driven sump pumps, water loss through leaking toilets and lawn sprinkler systems

- ***Water Transmission and Distribution***

- ✓ Provides accurate and continuous readings of water meters
- ✓ Maintains water distribution system, including pressure reducing valves, hydrants, services and meters
- ✓ Responds to citizen service requests and inquiries related to water quality questions, water pressure problems and water main construction
- ✓ Inspects, assists and supervises contractors in the development and expansion of the water distribution system
- ✓ Inspects connections to the water supply in commercial buildings and enforces City Ordinances related to cross-connection control

- ***Sewer Maintenance***

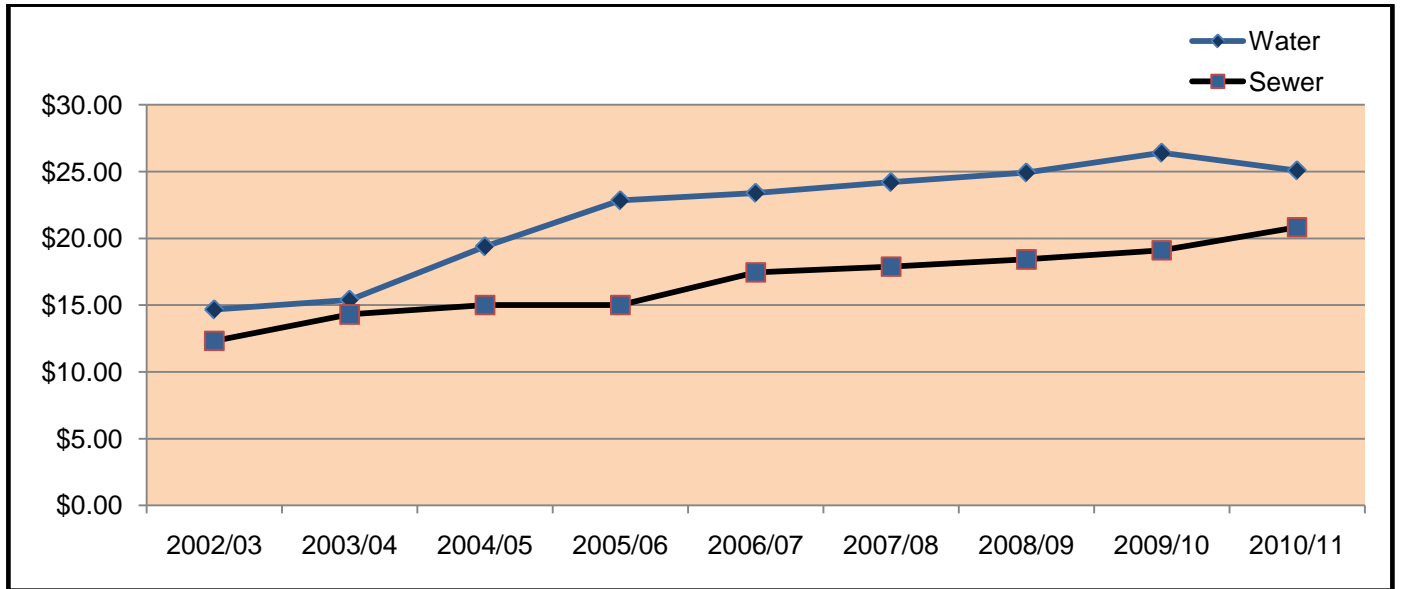
- ✓ Maintains, cleans, televises and repairs sanitary sewers, lift stations and manholes
- ✓ Responds to service request calls related to the sanitary sewer system
- ✓ Inspects, assists and supervises subcontractors in the development and expansion of the sanitary sewer system
- ✓ Provides flow metering for a study to identify inflow and infiltration issues



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WATER AND SEWER

WATER AND SEWER RATE HISTORY PER MCF



	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	Proposed 2010/11	Rate Adjustment
Water	\$19.40	\$22.84	\$23.40	\$24.20	\$24.92	\$26.40	\$25.08	(\$1.32)
Sewer	15.00	15.00	17.45	17.88	18.42	19.10	20.82	1.72
<b>Total Rate</b>	<b>\$34.40</b>	<b>\$37.84</b>	<b>\$40.85</b>	<b>\$42.08</b>	<b>\$43.34</b>	<b>\$45.50</b>	<b>\$45.90</b>	<b>\$ .40</b>



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WATER AND SEWER

**SEWER FUND REVENUE AND EXPENSES**

Description	2009 Actual	2010 Projected	2010 Budget	2011 Budget
<b><u>Revenue</u></b>				
<b>Sewer Fund Revenue</b>				
Charges for Service	\$ 9,750,201	\$ 10,278,000	\$ 12,450,000	\$ 12,683,000
Interest and Rents	567,890	255,000	425,000	250,000
Other Revenue	662,597	-	-	-
<b>Total - Revenue</b>	<b>\$ 10,980,688</b>	<b>\$ 10,533,000</b>	<b>\$ 12,875,000</b>	<b>\$ 12,933,000</b>
<b><u>Expenses</u></b>				
<b>Sewer Administration</b>				
Personal Service Control	\$ 128,457	\$ 180,810	\$ 244,790	\$ 228,772
Other Services/Charges	8,273,689	8,342,420	9,734,160	9,062,630
<b>Total - Sewer Administration</b>	<b>\$ 8,402,146</b>	<b>\$ 8,523,230</b>	<b>\$ 9,978,950</b>	<b>\$ 9,291,402</b>
<b>Sewer Maintenance</b>				
Personal Service Control	\$ 389,908	\$ 514,950	\$ 754,370	\$ 825,976
Supplies	16,955	24,340	24,340	24,340
Other Services/Charges	230,874	256,680	254,380	265,180
Operating Transfer Out	704,200	692,470	725,000	666,350
<b>Total - Sewer Maintenance</b>	<b>\$ 1,341,937</b>	<b>\$ 1,488,440</b>	<b>\$ 1,758,090</b>	<b>\$ 1,781,846</b>
<b>Total - Expenses</b>	<b>\$ 9,744,083</b>	<b>\$ 10,011,670</b>	<b>\$ 11,737,040</b>	<b>\$ 11,073,248</b>
<b>Revenue Over (Under) Expenses</b>	<b>\$ 1,236,605</b>	<b>\$ 521,330</b>	<b>\$ 1,137,960</b>	<b>\$ 1,859,752</b>
<b>Capital Outlay</b>	<b>\$ 1,025,068</b>	<b>\$ 1,335,000</b>	<b>\$ 2,690,000</b>	<b>\$ 2,910,000</b>



2010/11  
Budget

WATER AND SEWER

DEPARTMENT AT A GLANCE - SEWER DIVISION

Funding Level Summary	2007/08		Estimated 2009/10		2010/11	% of Change
	Actual	Actual	Budget	Budget	Budget	
Sewer Admin.	\$ 8,866,421	\$8,402,146	\$8,523,230	\$ 9,978,950	\$9,291,402	-7%
Sewer Maint.	1,378,465	1,341,937	1,488,440	1,758,090	1,781,846	1%
<b>Total Department</b>	<b>\$10,244,886</b>	<b>\$9,744,083</b>	<b>\$10,011,670</b>	<b>\$11,737,040</b>	<b>\$11,073,248</b>	<b>-6%</b>
Personal Services	\$ 589,046	\$ 518,365	\$695,760	\$ 999,160	\$1,054,748	6%
Supplies	33,940	16,955	24,340	24,340	24,340	0%
Other Services/ Charges	8,939,760	8,504,563	8,599,100	9,988,540	9,327,810	-7%
Transfer Out	682,140	704,200	692,470	725,000	666,350	-8%
<b>Total Department</b>	<b>\$10,244,886</b>	<b>\$9,744,083</b>	<b>\$10,011,670</b>	<b>\$11,737,040</b>	<b>\$11,073,248</b>	<b>-6%</b>

Personnel Summary	2007/08		2008/09		2009/10		2010/11	
	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time
Sewer Division	16	0	16	0	16	0	16	0
<b>Total Department</b>	<b>16</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>16</b>	<b>0</b>



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WATER AND SEWER

**WATER FUND REVENUE AND EXPENSES**

Description	2009 Actual	2010 Projected	2010 Budget	2011 Budget
<b>Revenue</b>				
<b>Water Fund Revenue</b>				
Charges for Service	\$ 13,078,126	\$ 13,863,600	\$ 16,700,000	\$ 14,991,600
Interest and Rents	611,657	150,000	552,000	160,000
Other Revenue	1,009,594	-	-	-
<b>Total - Revenue</b>	<b>\$ 14,699,377</b>	<b>\$ 14,013,600</b>	<b>\$ 17,252,000</b>	<b>\$ 15,151,600</b>
<b>Expenses</b>				
<b>Water Transfer &amp; Distribution</b>				
Personal Service Control	\$ 88,406	\$ 135,820	\$ 146,870	\$ 226,634
Supplies	22,965	24,000	25,500	24,000
Other Services/Charges	51,878	66,000	51,000	67,000
<b>Total - Water Transfer &amp; Distribution</b>	<b>\$ 163,249</b>	<b>\$ 225,820</b>	<b>\$ 223,370</b>	<b>\$ 317,634</b>
<b>Water Customer Installation</b>				
Personal Service Control	\$ 88,635	\$ 88,270	\$ 94,820	\$ 96,180
Other Services/Charges	7,709	7,800	7,000	8,000
<b>Total - Water Customer Installation</b>	<b>\$ 96,344</b>	<b>\$ 96,070</b>	<b>\$ 101,820</b>	<b>\$ 104,180</b>
<b>Water Contractors Service</b>				
Personal Service Control	\$ 106,491	\$ 151,500	\$ 168,090	\$ 200,007
Supplies	437	2,000	2,000	2,000
Other Services/Charges	9,237	11,000	11,000	11,000
<b>Total - Water Contractors Service</b>	<b>\$ 116,165</b>	<b>\$ 164,500</b>	<b>\$ 181,090</b>	<b>\$ 213,007</b>
<b>Water Main Testing</b>				
Personal Service Control	\$ 31,715	\$ 29,450	\$ 79,490	\$ 48,297
Supplies	730	500	500	500
Other Services/Charges	1,952	2,000	2,600	2,000
<b>Total - Water Main Testing</b>	<b>\$ 34,397</b>	<b>\$ 31,950</b>	<b>\$ 82,590</b>	<b>\$ 50,797</b>
<b>Maintenance of Mains</b>				
Personal Service Control	\$ 198,470	\$ 317,530	\$ 326,360	\$ 389,031
Supplies	46,291	45,000	35,000	35,000
Other Services/Charges	87,626	77,000	77,000	77,000
<b>Total - Maintenance of Mains</b>	<b>\$ 332,387</b>	<b>\$ 439,530</b>	<b>\$ 438,360</b>	<b>\$ 501,031</b>
<b>Maintenance of Services</b>				
Personal Service Control	\$ 137,120	\$ 203,060	\$ 195,820	\$ 224,442
Supplies	114,658	15,000	10,000	10,000
Other Services/Charges	48,863	45,000	41,000	45,000
<b>Total - Maintenance of Services</b>	<b>\$ 300,641</b>	<b>\$ 263,060</b>	<b>\$ 246,820</b>	<b>\$ 279,442</b>



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WATER AND SEWER

**WATER FUND REVENUE AND EXPENSES, CONTINUED**

Description	2009 Actual	2010 Projected	2010 Budget	2011 Budget
<b>Water Fund - Expenses Continued</b>				
<b>Maintenance of Meters</b>				
Personal Service Control	\$ 138,433	\$ 188,910	\$ 205,870	\$ 245,790
Supplies	322,553	400,000	400,000	400,000
Other Services/Charges	11,438	11,500	11,500	11,500
<b>Total - Maintenance of Meters</b>	<b>\$ 472,424</b>	<b>\$ 600,410</b>	<b>\$ 617,370</b>	<b>\$ 657,290</b>
<b>Maintenance of Hydrants</b>				
Personal Service Control	\$ 184,394	\$ 180,150	\$ 261,090	\$ 274,343
Supplies	43,014	35,000	35,000	35,000
Other Services/Charges	56,065	40,000	79,000	60,000
<b>Total - Maintenance of Hydrants</b>	<b>\$ 283,473</b>	<b>\$ 255,150</b>	<b>\$ 375,090</b>	<b>\$ 369,343</b>
<b>Water Meters &amp; Tap-Ins</b>				
Personal Service Control	\$ 77,073	\$ 94,820	\$ 163,180	\$ 163,638
Supplies	224,846	150,000	150,000	150,000
Other Services/Charges	24,310	25,000	40,000	30,000
<b>Total - Water Meters &amp; Tap-Ins</b>	<b>\$ 326,229</b>	<b>\$ 269,820</b>	<b>\$ 353,180</b>	<b>\$ 343,638</b>
<b>Water Meter Reading</b>				
Personal Service Control	\$ 45,496	\$ 60,100	\$ 87,150	\$ 80,007
Other Services/Charges	5,337	5,000	5,000	5,000
<b>Total - Water Meters Reading</b>	<b>\$ 50,833</b>	<b>\$ 65,100</b>	<b>\$ 92,150</b>	<b>\$ 85,007</b>
<b>Water Account &amp; Collecting</b>				
Personal Service Control	\$ 28,223	\$ 37,430	\$ 33,280	\$ 67,833
Supplies	19,283	24,500	25,000	25,500
Other Services/Charges	29,344	37,570	37,570	37,570
<b>Total - Water Account &amp; Collecting</b>	<b>\$ 76,850</b>	<b>\$ 99,500</b>	<b>\$ 95,850</b>	<b>\$ 130,903</b>
<b>Water Administration</b>				
Personal Service Control	\$ 802,888	\$ 259,120	\$ 326,360	\$ 208,368
Supplies	20,325	19,140	17,140	19,140
Other Services/Charges	9,622,390	10,376,280	12,115,280	10,769,780
<b>Total - Water Administration</b>	<b>\$ 10,445,603</b>	<b>\$ 10,654,540</b>	<b>\$ 12,458,780</b>	<b>\$ 10,997,288</b>
<b>Total - Expenses</b>	<b>\$ 12,698,595</b>	<b>\$ 13,165,450</b>	<b>\$ 15,266,470</b>	<b>\$ 14,049,560</b>
<b>Revenue Over (Under) Expenses</b>	<b>\$ 2,000,782</b>	<b>\$ 848,150</b>	<b>\$ 1,985,530</b>	<b>\$ 1,102,040</b>
<b>Capital Outlay</b>	<b>\$ 4,245,629</b>	<b>\$ 6,081,000</b>	<b>\$ 8,360,000</b>	<b>\$ 6,430,000</b>



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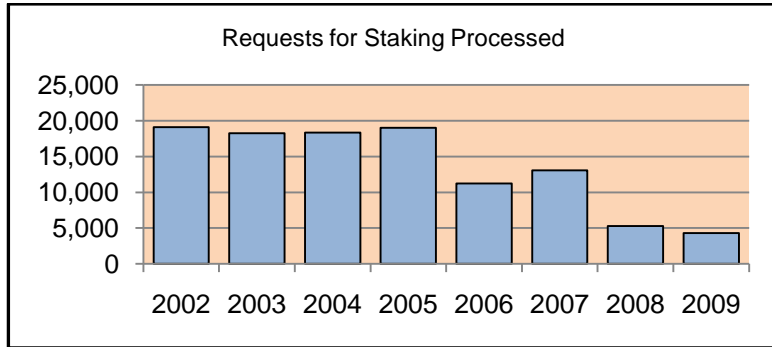
WATER AND SEWER

**DEPARTMENT AT A GLANCE - WATER DIVISION**

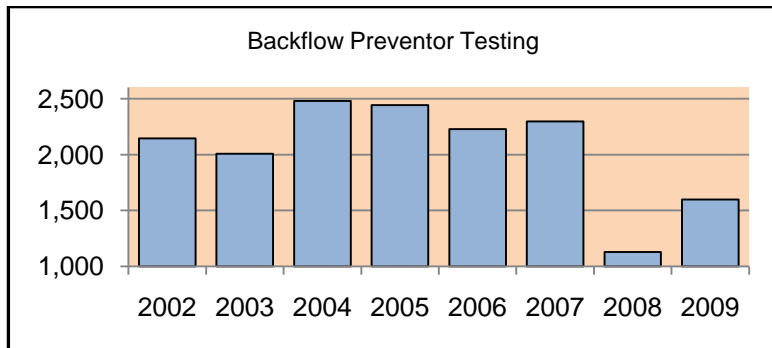
Funding		Estimated				
Level	2007/08	2008/09	2009/10	2009/10	2010/11	% of
Summary	Actual	Actual	Budget	Budget	Budget	Change
Transmission & Dist.	\$ 2,053,283	\$ 1,799,081	\$ 2,076,490	\$ 2,266,510	\$ 2,492,724	10%
Accounting/ Collecting	320,577	127,683	164,600	188,000	215,910	15%
Meters and Tap-ins	314,024	326,229	269,820	353,180	343,638	-3%
Administration	11,088,917	10,445,602	10,654,540	12,458,780	10,997,288	-12%
<b>Total Department</b>	<b>\$13,776,801</b>	<b>\$12,698,595</b>	<b>\$13,165,450</b>	<b>\$15,266,470</b>	<b>\$14,049,560</b>	<b>-8%</b>
Personal Services	\$ 2,020,230	\$ 1,927,344	\$ 1,746,160	\$ 2,088,380	\$ 2,224,570	7%
Supplies	652,460	815,102	715,140	700,140	701,140	0%
Other Services/ Charges	11,104,111	9,956,149	10,704,150	12,477,950	11,123,850	-11%
<b>Total Department</b>	<b>\$13,776,801</b>	<b>\$12,698,595</b>	<b>\$13,165,450</b>	<b>\$15,266,470</b>	<b>\$14,049,560</b>	<b>-8%</b>

Personnel									
Summary	2007/08		2008/09		2009/10		2010/11		
	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time	
Water Division	18	7	18	7	18	7	18.3	7	
<b>Total Department</b>	<b>18</b>	<b>7</b>	<b>18</b>	<b>7</b>	<b>18</b>	<b>7</b>	<b>18.3</b>	<b>7</b>	

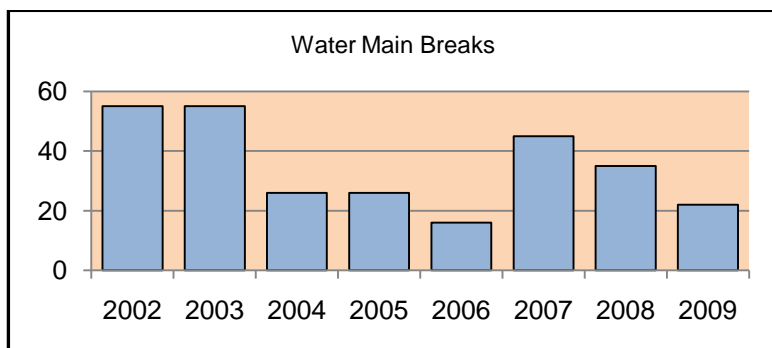
**KEY DEPARTMENTAL TRENDS**



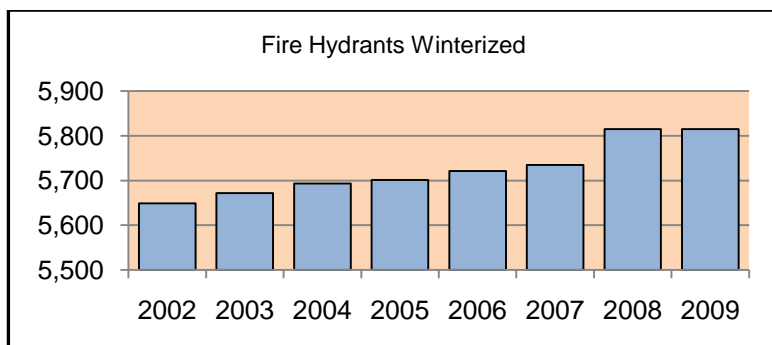
Staking requests fluctuate based on the level of construction activity in the city.



Testing provides integrity and ensures the safety of our water supply.



A historical reduction trend for the number of water main breaks per year is a good sign of an aggressive water main replacement program. The weather also is a factor in the number of water main breaks per year.



The number of fire hydrants winterized represents all the fire hydrants in the City of Troy.



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WATER AND SEWER

## MISSION AND SERVICE STATEMENTS

- ***Mission Statement***

The Water Division is dedicated to serving residents of the City of Troy by ensuring that the quality of the drinking water is above all standards and that water needed to fight fires is never compromised. The Sewer Division is dedicated to ensuring the safe and efficient discharge of wastewater to the Detroit Water and Sewerage Department (DWSD) waste treatment facility.

- ***Service Statement***

Service provided by the Water and Sewer Division is available 24 hours a day, 365 days a year. The staff is well trained to operate and maintain the system in the most efficient manner for the health, safety and welfare of the residents and businesses in the community alike.

The Water Division is responsible for the accurate and continuous monitoring of residential, commercial, and industrial water meters. The maintenance and service of water meters, validation of high, low, or questionable reads and testing for accuracy are important daily functions. Fire hydrants, gatewells, valves and meter vaults are routinely inspected for repairs, cleaning, and structural integrity. Inspections are conducted at commercial and industrial establishments annually to check for cross-connection violations and the proper installation of backflow prevention devices.

When necessary, violation notices are issued to those establishments not meeting City and State ordinances, rules and regulations. Follow-up visits are made to re-inspect for compliance.

The Sewer Division is responsible for maintaining designed sewerage flows through the City-owned sanitary sewer system. The staff conducts regular thorough sewer inspections and continuously repairs and restores damaged structures and sewer lines. The sanitary sewer system is cleaned on a regular basis as part of a proactive maintenance program. Debris is removed from the system to prevent blockage.

The office staff is responsible for preparing accurate water and sanitary sewer bills and ensuring that they are mailed out to customers in a timely fashion. They maintain the water billing system and all pertinent water and sewer records for every residential, commercial and industrial customer in our community.

- ***Did You Know?***

- ✓ The City of Troy enacted an outdoor water use ordinance. The purpose of this ordinance was to shift the heavy use from automated underground irrigation systems to non peak periods. This resulted in a successful shift of our peak usage from 7 AM to 4 AM for 2 consecutive years.
- ✓ Water consumption system-wide declined considerably due to economic concerns.



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WATER AND SEWER

**PERFORMANCE OBJECTIVES**

**Outputs**

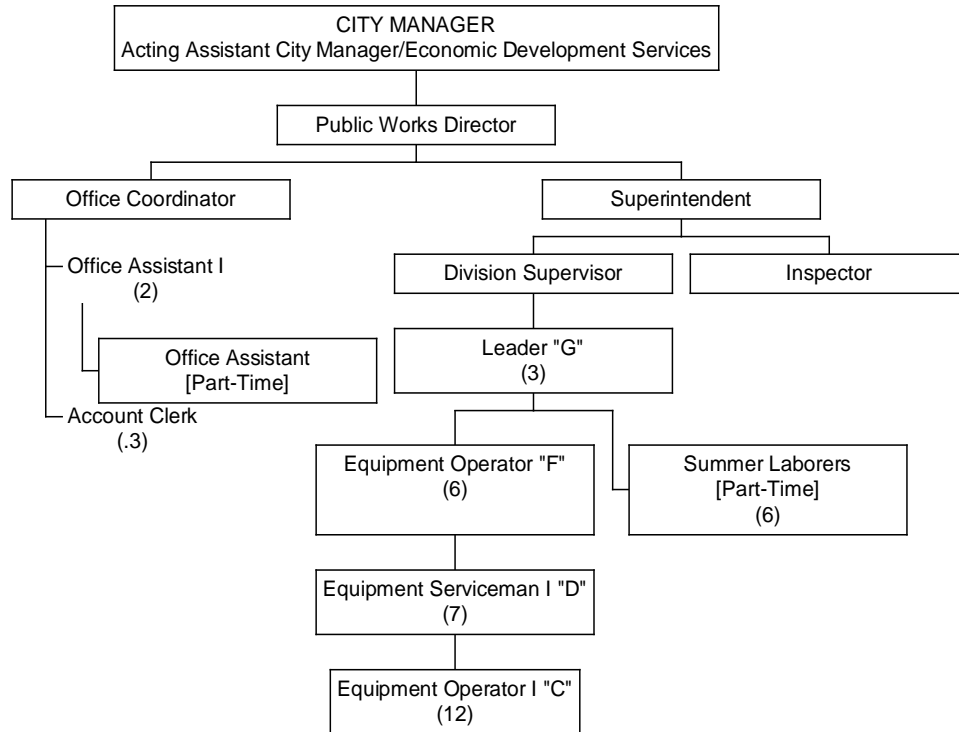
- ✓ Test, repair and/or replace large water meters in distribution system. These meters are inconvenient to work on, but as they use a large percentage of water, it's very important to make sure of their accuracy. **(Output B, J)**
- ✓ Upgrade the supervisory control and data acquisition (SCADA) system to stay current with standards in the industry, and expand our detection points on our critical water and sewer infrastructure. **(Output B)**

\*See the list of outputs as ranked by City Council in the [CITY-WIDE ACTION PLAN](#) on pages 15 and 16.

Performance Indicators		2008/09 Actual	2009/10 Projected	2009/10 Budget	2010/11 Budget
Output	✓ Service Requests Received	2,835	2,800	2,400	2,400
	✓ New Water Taps	32	40	50	50
	✓ New Water Meter Installations	45	40	100	50
	✓ Backflow Preventer Testing Compliance Notices	1,600	1,200	1,200	1,200
	✓ Site Plans Reviewed	24	30	40	40
	✓ Repaired Water Main Breaks	22	36	40	40
	✓ Valves Turned	6,783	6,783	6783	6,783
	✓ Water Services Re-tapped	167	200	200	500
	✓ Miss Dig Teletypes	4,298	4,500	7,000	5,000
	✓ Hydrants Winterized	5,815	5,815	5,815	5,815
	✓ Water Sample Testing	168	168	168	168
	✓ Sanitary Sewers Cleaned (feet)	2,070,000	2,070,000	2,070,000	2,070,000
	✓ Radio Read Program Meter Interface Units	6,000	6,000	6,000	4,000
	✓ 10 Year Meter Exchanges	1,302	1,400	1,400	2,000
	Efficiency	✓ Service Requests Processed	100%	100%	100%
✓ Miss Dig Teletypes Processed		100%	100%	100%	100%
✓ City of Detroit Water Bills Processed		100%	100%	100%	100%
✓ % of Sanitary Sewers Cleaned		100%	100%	100%	100%



**ORGANIZATIONAL CHART**



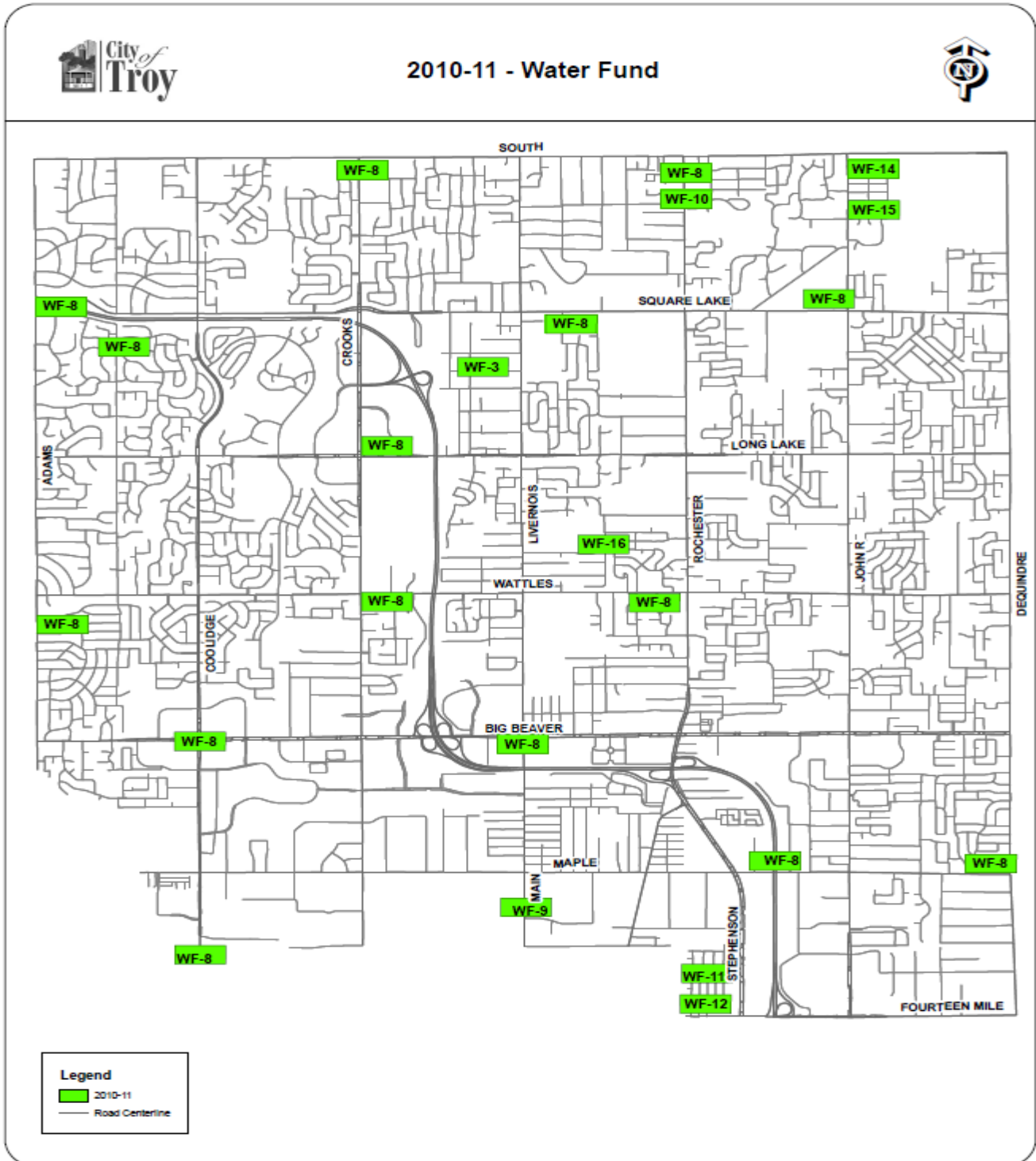
Staff Summary	Approved 2008/09	Approved 2009/10	Recommended 2010/11
Superintendent	1	1	1
Division Supervisor	0	0	1
Equipment Operator "F"	6	6	6
Equipment Operator I "C"	11	12	12
Equipment Serviceman I "D"	7	7	7
Field Supervisor	2	0	0
Inspector	1	1	1
Leader "G"	3	3	3
Office Assistant I	2	2	2
Office Assistant Part-Time	1	1	1
Office Coordinator	1	1	1
Account Clerk	0	0	.3
Summer Laborers [Part-Time]	6	6	6
<b>Total Department</b>	<b>41</b>	<b>40</b>	<b>41.3</b>



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WATER AND SEWER

WATER MAIN PROJECTS





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WATER AND SEWER

WATER MAIN PROJECTS, CONTINUED

WATER FUND 2010/11 BUDGET (591.537.555.7972)												
Map Number	Project Name	Total Project Cost	Total City Cost	Other Sources	09/10 Amended Budget	09/10 Expenditure to 6/30/10	09/10 Balance at 6/30/10	09/10 Re-Approp. 10/11	New Approp. 10/11	Proposed 10/11 Budget	Future Years	Comments
WF-3	NE 1/4 of Section 9	3,200,000	3,200,000	0	200,000	100,000	100,000	100,000	0	100,000		Various Streets
	NE 1/4 of Section 9	400,000	400,000	0	400,000	430,000	(30,000)	0	0	0		Road Repair
	Rochester, Torpey to Barclay	900,000	900,000	0	900,000	900,000	0	0	0	0		TROY - Rochester - 2009/10
	Square Lake, Rochester to Livernois	650,000	650,000	0	0	105,000	(105,000)	0	0	0		
	Park, Livernois to Combermere	900,000	900,000	0	750,000	90,000	660,000	0	0	0		16" WM - Incl. CPR
WF-8	SCADA Upgrades	400,000	400,000	0	400,000	100,000	300,000	300,000	0	300,000		
WF-9	Livernois, Elmwood to Maple	500,000	500,000	0	0	35,000	(35,000)	0	25,000	25,000		Part of Clawson Main St. Project
WF-10	PRV # 9	700,000	700,000	0	600,000	50,000	550,000	550,000	100,000	650,000		Rochester at South Blvd., West Side
	Combermere, Park to Maple	775,000	775,000	0	750,000	1,710,000	(960,000)	0	0	0		16" WM - Incl. CPR
	Heide, Maple to Oliver	1,120,000	1,120,000	0	520,000	725,000	(205,000)	0	0	0		16" WM - Incl. CPR
	Thunderbird, Maple to Oliver	700,000	700,000	0	600,000	550,000	50,000	0	0	0		16" WM - Incl. CPR
	Oliver, Heide to East End	430,000	430,000	0	330,000	330,000	0	0	0	0		16" WM - Incl. CPR
WF-11	SW 1/4 Sec. 35 - Panhandle	2,700,000	2,700,000	0	300,000	0	300,000	300,000	2,400,000	2,700,000		
WF-12	SW 1/4 Sec. 35 - Panhandle	800,000	800,000	0	0	0	0	0	400,000	400,000	400,000	Road Repair
	Section 12	2,500,000	2,500,000	0	2,500,000	0	2,500,000	0	0	0	2,500,000	Various Streets
	Wattles, East & West of Rochester	110,000	110,000	0	0	110,000	(110,000)	0	0	0		Part of Rochester/Wattles Reconstruction
WF-14	John Arbor Subdivision	850,000	850,000	0	0	725,000	(725,000)	0	125,000	125,000		Jarman, Chancery, Gulliver & Ravenna
WF-15	John Arbor Subdivision	300,000	300,000	0	0	0	0	0	300,000	300,000		Road Repair



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WATER AND SEWER

WATER MAIN PROJECTS, CONTINUED

WATER FUND 2010/11 BUDGET (591.537.555.7972)												
Map Number	Project Name	Total Project Cost	Total City Cost	Other Sources	09/10 Amended Budget	09/10 Expenditure to 6/30/10	09/10 Balance at 6/30/10	09/10 Re-Approp. 10/11	New Approp. 10/11	Proposed 10/11 Budget	Future Years	Comments
WF-16	Tallman & Eckford	1,700,000	1,700,000	0	0	0	0	0	1,700,000	1,700,000		
	Coolidge, Derby to Golfview	500,000	500,000	0	0	1,000	(1,000)	0	0	0		Include Golfview
WF-27	Various Projects & Locations	100,000	100,000	0	100,000	100,000	0	0	100,000	100,000	100,000	As-Needed Maintenance Repairs by DPW
WF-28	Water System Engineering Services	10,000	10,000	10,000	0	10,000	(10,000)	0	10,000	10,000	10,000	As-Needed Consultant Services
WF-29	General Equipment	20,000	20,000	20,000	10,000	10,000	0	0	20,000	20,000	20,000	(2) Meter Reading Devices + Annual Amt.
<b>TOTALS:</b>		<b>20,265,000</b>	<b>20,265,000</b>	<b>30,000</b>	<b>8,360,000</b>	<b>6,081,000</b>	<b>2,279,000</b>	<b>1,250,000</b>	<b>5,180,000</b>	<b>6,430,000</b>	<b>3,030,000</b>	
<b>PROPOSED 2010/11 minus 09/10 BALANCE:</b>										<b>4,151,000</b>		



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WATER AND SEWER

### WATER MAIN PROJECTS, CONTINUED

The City of Troy receives its water from the City of Detroit through large diameter transmission mains, ranging in size from 54-inch to 84-inch, that flow into the city through 6 Detroit Water and Sewerage Department (DWSD) metered locations located along the perimeter of the city. There are 2 of these meter vaults located along Adams, 2 along South Boulevard and 2 along Dequindre. The water flows from these entrance points through approximately 536 miles of City water mains consisting of 6-inch to 36-inch mains. Pressures are increased or reduced, as needed, within the 5 pressure districts within the city to maintain proper fire flows and pressures in response to water demands.

The City's water system is managed by the use of a Supervisory Control and Data Acquisition (SCADA) system. SCADA allows the collection of real-time operations data and the ability to monitor locations to optimize the overall water system. The SCADA system is comprised of 22 remote data collection sites, the central computer location at the DPW yard and 6 DWSD meter vaults.

Proposed projects in the Water Fund are selected primarily based on the following factors:

- Age of the water main
- History of water main breaks
- Size of the water main
- Flow requirements based on the Water System Master Plan
- Redundancy or the looping of the water system
- Coordination with other capital improvement projects

The proposed water system projects are flexible, allowing for the addition of new improvements to address specific needs without deferring other projects along the way. Studies and analysis of the existing system is an on-going endeavor that, coupled with new technologies, provides for improved system capabilities and reliability.

#### ***WF-3. Northeast ¼ of Section 9 (Water Main Replacement)***

This project replaced the existing 6" water mains on Houghten, Blanche, Habrand, McKinley and Haldane with new 8" and 12" water mains. Also included in the project was the construction of storm sewer for drainage. The water mains were replaced due to the mains substandard size, age and/or history of breaks.

Construction was completed in 2009. 2010/11 budgeted funds are for final contractor payments. This project will be paid for entirely by City funds. Operation and maintenance costs for water main are estimated at \$900 per mile. Replacement of older water mains reduces the number of water main breaks that occur, reducing costs for repairs.

#### ***WF-8. Supervisory Control and Data Acquisition (SCADA) Upgrades (City-wide)***

The existing Supervisory Control and Data Acquisition system is being replaced with a wireless system due to the age and obsolescence of the existing remote site hardware. The City will be able to collect real-time operations data on our water system and expand as needed. The proposed upgrades will allow monitoring of the upgraded locations to optimize the overall water system.



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WATER AND SEWER

### WATER MAIN PROJECTS, CONTINUED

There are 11 pressure reducing vaults, 3 pump stations and the central computer location at the Department of Public Works facility in the Troy system that will be affected by the upgrades. This project will replace the current obsolete hardware and meet the requirements of Homeland Security for securing water system data as set forth by the National Infrastructure Protection Plan of 2006.

Operation and maintenance costs are expected to decrease by \$66,000 per year due to the upgrade.

#### ***WF-9 Livernois Road, Elmwood to Maple Road (Water Main Replacement)***

The existing 12" water main on the west side of Livernois Road was replaced with a new 16" water main outside of the pavement as part of the reconstruction and widening of Livernois Road. Construction was completed in 2009. 2010/11 budgeted funds are for final contractor payments.

Operation and maintenance costs for water main are estimated at \$900 per mile. Replacement of older water mains reduces the number of water main breaks that occur, reducing costs for repairs.

#### ***WF-10. Pressure Reducing Vault #9 (Replacement)***

The existing pressure reducing vault #9 is located on the west side of Rochester Road, just south of South Boulevard. This pressure reducing vault is proposed to be taken off-line and a new vault constructed just south of its current location.

The existing pressure reducing vault is obsolete and currently unsafe for entry, except in emergency situations. Replacement with a new facility will assure performance and reliability, and will provide for an OSHA compliant site. Operation and maintenance costs will not be impacted.

#### ***WF-11. Southwest ¼ of Section 35 (Water Main Replacement)***

This project will replace the existing 6" water mains on Sheffield, Kenyon, Lyons, Redwood, Burtman, Grant, Wacon, Jamaica, Key West and Hendrickson with new 8" water mains.

Due to the limited right-of-way, current underground utilities and small lot sizes with mature trees directional drilling and/or pipe bursting are being considered to replace these water mains rather than traditional open cut methods. The water main replacement is due to the main's substandard size, age and/or history of breaks.

This project will be paid for entirely by City funds. Operation and maintenance costs for water main are estimated at \$900 per mile. Replacement of older water mains reduces the number of water main breaks that occur, reducing costs for repairs.

#### ***WF-12. Southwest ¼ of Section 35 (Road Repair due to Water Main Construction)***

After the water main replacement project has been completed the existing asphalt over concrete roads in the project area will receive a mill and overlay due to damage caused by the water main and storm sewer construction.



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## WATER MAIN PROJECTS, CONTINUED

### ***WF-12. Southwest ¼ of Section 35 (Road Repair due to Water Main Construction), continued***

This project will be paid for entirely by City funds. Operation and maintenance costs are expected to decrease by \$2,000 per year due to road rehabilitation.

### ***WF-14. John Arbor Subdivision (Water Main Replacement)***

This project will replace the existing 6" water mains on Jarman, Chancery, Gulliver and Ravenna with new 8" water mains. Also included in the project will be the construction of storm sewer for drainage where required. The water main replacement is due to the main's current size, age and/or history of breaks

This project will be paid for entirely by City funds. Operation and maintenance costs for water main are estimated at \$900 per mile. Replacement of older water mains reduces the number of water main breaks that occur, reducing costs for repairs.

### ***WF-15. John Arbor Subdivision (Road Repair due to Water Main Construction)***

After the water main replacement project has been completed the existing asphalt roads in the project area will receive a mill and overlay due to damage caused by the water main and storm sewer construction.

This project will be paid for entirely by City funds. Operation and maintenance costs are expected to decrease by \$2,000 per year due to road rehabilitation.

### ***WF-16. Tallman and Eckford (Water Main Replacement)***

This project will replace the existing 8" water mains on Tallman and sections of Eckford, Evaline and Leetonia with new 12" water mains. The water main replacement is due to the main's current size, age and/or history of breaks. A section of existing 12" water main on the north side of Wattles Road will also be replaced as part of this project to provide for a looped system.

This project will be paid for entirely by City funds. Operation and maintenance costs for water main are estimated at \$900 per mile. Replacement of older water mains reduces the number of water main breaks that occur, reducing costs for repairs.

### ***WF-27. Water Fund (Various Projects and Locations)***

This item is used by the Water Department for small projects that are encountered throughout the year that do not fit within a traditional water fund project. Examples are maintenance items and expenditures for materials and parts for the water system.

An annual amount is included in the budget which is on-going. This project will be paid for entirely by City funds. Operation and maintenance costs will not be impacted.



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### WATER MAIN PROJECTS, CONTINUED

#### ***WF-28. Water System Engineering Services***

This is an annual budget amount in the Water Fund for as-needed engineering services required by the Department of Public Works for work associated with the Water Fund that is not otherwise provided by the Engineering Department.

The budget amount is established annually based on anticipated needs and is on-going. This project will be paid for entirely by City funds. Operation and maintenance costs are not expected to be impacted.

#### ***WF-29. General Equipment***

This is an annual budget amount in the Water Fund for miscellaneous equipment required by the Department of Public Works or Engineering Department for work associated with the Water Fund that are otherwise not specifically noted in the capital improvement plan.

The budget amount is established annually based on anticipated needs and is on-going. This project will be paid for entirely by City funds. Operation and maintenance costs are not expected to be impacted.



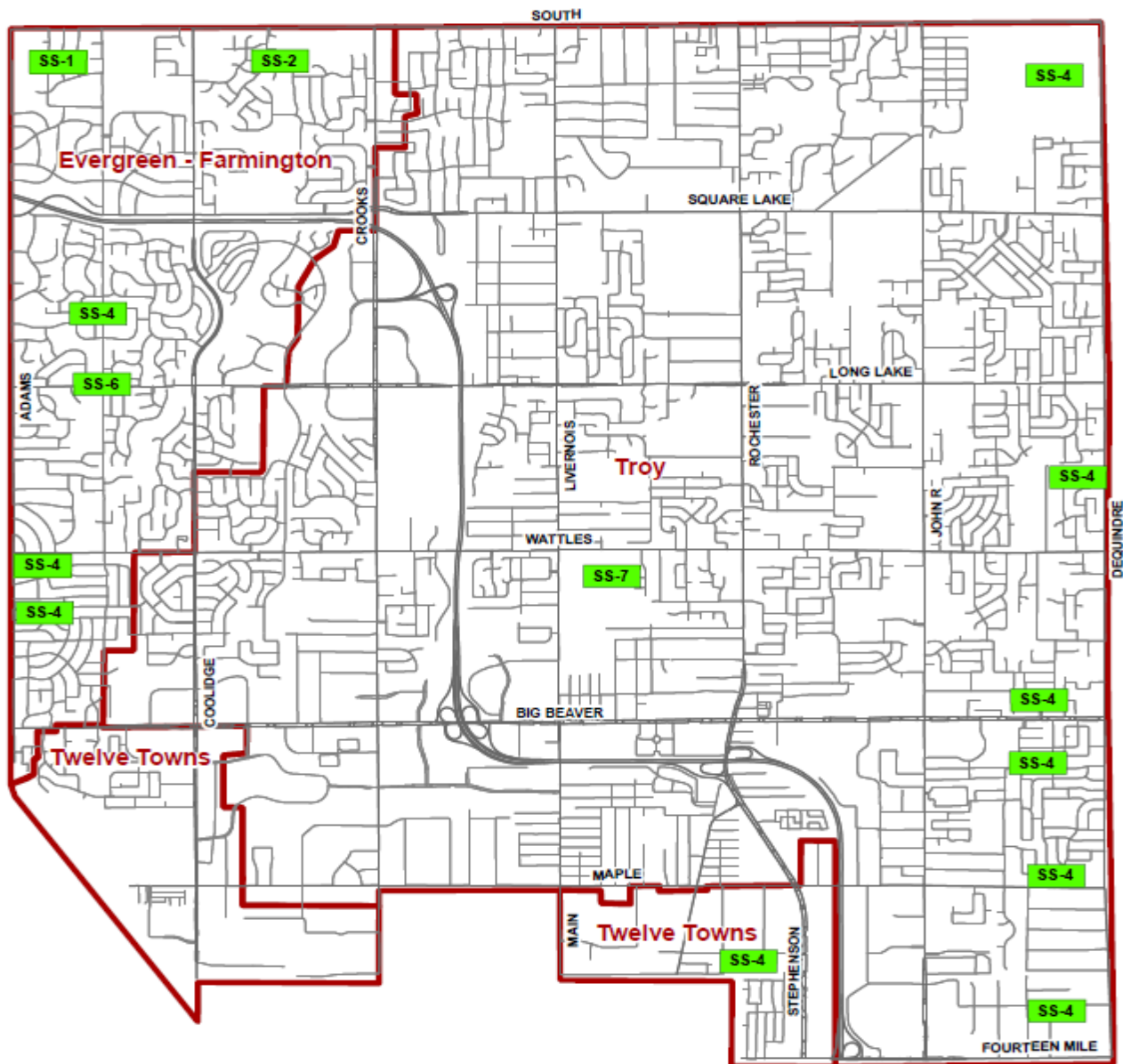
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SANITARY SEWER PROJECTS



2010-11 - Sewer Fund



**Legend**

- 2010-11
- Sewer District
- Road Centerline



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**SANITARY SEWER PROJECTS, CONTINUED**

<b>SEWER FUND 2010/11 BUDGET (590.527.535.7973)</b>												
Map Number	Project Name	Total Project Cost	Total City Cost	Other Sources	09/10 Amended Budget	09/10 Expenditure to 6/30/10	09/10 Balance at 6/30/10	09/10 Re-Approp. to 10/11	New Approp. 10/11	Proposed 10/11 Budget	Future Years	Comments
SS-1	Evergreen - Farmington SSO Program	13,300,000	480,000	12,820,000	100,000	0	100,000	0	100,000	100,000	100,000	Eliminate sewage in Ev-Frm District/
SS-2	Sanitary Sewer Overflow - Ev.Frm. District	3,500,000	3,500,000	0	500,000	0	500,000	405,000	95,000	500,000	3,000,000	MDEQ ACO Contingency
	Charmwood Hills SAD	4,300,000	900,000	3,400,000	0	25,000	(25,000)	0	0	0		Phase I & II
	Sanitary Sewer Extension Program	1,000,000	1,000,000	0	300,000	350,000	(50,000)	0	0	0		City Wide Sanitary Sewer Extensions
SS-4	SCADA Upgrade	350,000	350,000	0	270,000	70,000	200,000	200,000	80,000	280,000		
SS-5	Miscellaneous Sanitary Sewer Locations	2,500,000	2,500,000	0	500,000	0	500,000	500,000	500,000	1,000,000	1,500,000	
	Rochester Road Sanitary Sewer	80,000	80,000	0	0	80,000	(80,000)	0	0	0		
	Wattles Road Sanitary Sewer	40,000	40,000	0	0	40,000	(40,000)	0	0	0		
SS-6	Flow Metering in Evergreen-Farmington	500,000	500,000	0	500,000	250,000	250,000	250,000	0	250,000		Inflow and Infiltration Removal
SS-7	Flow Metering in Troy District	500,000	500,000	0	500,000	500,000	0	0	750,000	750,000		Inflow & Infiltration Removal
SS-9	General Equipment	20,000	20,000	0	10,000	10,000	0	0	20,000	20,000		6" Trailer Mounted Pump + Annual Amt.
SS-10	Office Equipment Computers	10,000	10,000	0	10,000	10,000	0	0	10,000	10,000		General Equipment
<b>TOTALS:</b>		<b>26,100,000</b>	<b>9,880,000</b>	<b>16,220,000</b>	<b>2,690,000</b>	<b>1,335,000</b>	<b>1,355,000</b>	<b>1,355,000</b>	<b>1,555,000</b>	<b>2,910,000</b>	<b>4,600,000</b>	
<b>PROPOSED 2010/11 minus 2009/10 BALANCE:</b>										<b>1,555,000</b>		



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## SANITARY SEWER PROJECTS, CONTINUED

The City of Troy is divided into 3 sanitary sewer districts: the Twelve Towns Relief Drains Evergreen-Farmington Sewage Disposal District and the Troy Sewage Disposal District. Wastewater from all 3 districts is carried through large diameter interceptor pipes to the Detroit Wastewater Treatment Plant for treatment before discharge to the Detroit River.

Following is a description of the specific functions of each district:

- ***Twelve Towns Relief District***

This district includes the area in the southwest portion of the city that is within the Twelve Towns Drains plus, some area south of Maple Road, west of Crooks Road and west of I-75. The Twelve Towns system is a combined sewer system carrying both storm water and sanitary waste water flow. Sanitary waste water flow drains into the Twelve Towns system and storm water flow drains to the Henry-Graham Drain system. The sanitary flows discharge to the Dequindre Interceptor in Dequindre Road.

- ***Evergreen-Farmington Sewage Disposal District***

This district is in the northwest portion of the city in the Rouge River Drainage Basin. This interceptor was constructed by the Oakland County Department of Public Works in 1959 and serves the City of Troy and surrounding communities. The County contracted with each community for their share of the interceptor based on population.

- ***Troy Sewage Disposal District***

The interceptor sewers in this district were constructed for the City of Troy by the Oakland County Department of Public Works. The sanitary flow from this district discharges to the Dequindre Interceptor at Fourteen Mile and Dequindre. The City contracted for capacity in the Southeastern Oakland County Sewage Disposal System. Troy's capacity was computed on the basis of population in the Twelve Towns Drain District and the Troy Sewage Disposal District.

Sewer Fund projects typically are initiated to address one of 3 issues:

1. To provide for the City of Troy's share towards major sewer projects that may be mandated by state or federal laws or permit requirements.
2. Sewer system studies that identify projects to address state and federal requirements.
3. Elimination of septic systems in Troy.

### ***SS-1. Evergreen-Farmington Sanitary Sewer Overflow Program***

### ***SS-2. Sanitary Sewer Overflow – Evergreen-Farmington District***

These items are intimately connected and linked to the same mandates, but are budgeted separately to allow for annual changes as required in each program. Sanitary sewers are designed to carry sewage (and only sewage) to the wastewater treatment plant. In practice, however, storm water enters the collection system during rain events causing the system to exceed the design capacity.



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WATER AND SEWER

## SANITARY SEWER PROJECTS, CONTINUED

### ***SS-1. Evergreen-Farmington Sanitary Sewer Overflow Program***

### ***SS-2. Sanitary Sewer Overflow – Evergreen-Farmington District, continued***

To prevent basement flooding, this excess water is discharged to the nearby waterways. Sanitary sewer overflows violate the Clean Water Act and must be prevented. The Evergreen-Farmington sanitary sewer overflow control project was initiated to keep sewage out of our rivers and to avoid litigation.

The Oakland County Water Resources Commissioner's Office (formerly the Oakland County Drain Commission) and the communities within the Evergreen-Farmington Sewage Disposal District are required to comply with the state and federal sanitary sewer overflow policies. Unfortunately, compliance is very costly and care must be taken to assure that the funding committed to sanitary sewer overflow control is sufficient to fulfill the requirements of the law while minimizing the costs to our rate payers.

The City of Troy entered into an administrative consent order for the Evergreen-Farmington Sanitary Sewerage District as negotiated by the Oakland County Water Resources Commission, with the Michigan Department of Environmental Quality. This agreement resolved some significant technical and legal issues relative to sewer system overflows in the district. As part of the administrative consent order, all communities in the Evergreen-Farmington Sewage Disposal District with sanitary sewer overflows and/or town outlet capacity problems had to submit a short-term corrective action plan for resolution of these problems by 2009.

Since Troy is below our town outlet capacity, this means our corrective action plan must address one sanitary sewer overflow that we have in the district. The resulting program has been underway with the purpose of reducing sewer inflow and infiltration. These corrective actions must be implemented and their effectiveness determined by flow monitoring and engineering analysis. The ultimate goal is to continue implementing improvements to the sanitary sewer system in the Evergreen-Farmington Sewage Disposal District to eliminate the sanitary sewer overflows.

The overall project requirements include potential projects totaling \$13,300,000. The annual budget amount is for Troy's share of projects that are carried out by the City to meet the requirements of the administrative consent order and/or projects completed within the district that are spread to all member communities. Penalties for non-compliance range from \$500 to \$2,500 per day depending on the violation. This project will be paid for entirely by City funds. There is no impact on operation and maintenance costs.

### ***SS-4. Supervisory Control and Data Acquisition Upgrades (City-wide)***

Due to the age and obsolescence of existing remote hardware, the existing Supervisory Control and Data Acquisition System is being replaced with a wireless system. By upgrading the current Supervisory Control and Data System, the City will be able to remotely collect real-time operations data on our sewer system and expand as needed. The proposed system will allow control of the upgraded locations remotely using handheld or portable computer based devices.



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## SANITARY SEWER PROJECTS, CONTINUED

### ***SS-4. Supervisory Control and Data Acquisition Upgrades (City-wide), continued***

There are 7 pump stations, 3 monitoring manholes and the central computer location at the Department of Public Works facility in the Troy system that will be affected by the upgrades. This project will replace obsolete hardware and meet the requirements of Homeland Security for securing sewer system data as set forth by the National Infrastructure Protection Plan of 2006.

Operation and maintenance costs are expected to decrease by \$66,000 per year due to the upgrade.

### ***SS-5. Miscellaneous Sanitary Sewer Locations***

This project will provide new sanitary sewers throughout the City over the next 5 years. Locations that are currently serviced by septic systems have been identified. The first phase of this City-wide effort to eliminate septic systems was constructed in 2009/10. A continuation of this program will require that right-of-way and/or easements be acquired in order to construct additional sanitary sewer.

This project will be paid for entirely by City Funds. Operation and maintenance costs will not be impacted due to design and property acquisition. Future construction of sanitary sewer would increase operation and maintenance costs by \$4,000 per year.

### ***SS-6. Flow Metering in the Evergreen-Farmington Sewage Disposal District***

In accordance with the administrative consent order, the City performs flow metering throughout the Evergreen-Farmington Sewage Disposal District on an annual basis. The data acquired is analyzed and recommended projects are developed. Typically, these projects involve manhole rehabilitation and sanitary sewer lining projects. The intent of these projects is to eliminate storm water infiltration into the sanitary sewer system. Funds are budgeted annually for monitoring, reporting and construction. This project will be paid for entirely by City funds. There will be no impact on operation and maintenance costs.

### ***SS-7. Flow Metering in the Troy Sewage Disposal District***

The City recently completed flow metering throughout the Troy Sewage Disposal District, similar to what was done in the Evergreen-Farmington Sewage Disposal District. The data acquired was analyzed and additional testing and analysis is underway in areas found to have significant inflow and infiltration. Additional projects will follow this analysis. Typically these projects involve manhole rehabilitation and sanitary sewer lining. The intent is to eliminate storm water infiltration into the sanitary sewer system and stay within our contract capacity. Funds are budgeted annually for monitoring, reporting and construction.

This project will be paid for entirely by City funds. There will be no impact on operation and maintenance costs.



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## SANITARY SEWER PROJECTS, CONTINUED

### ***SS-9. General Equipment***

This is an annual budget amount in the Sewer Fund for miscellaneous equipment required by the Public Works or Engineering Department for work associated with the Sewer Fund that are otherwise not specifically noted in the capital improvement plan.

The budget amount is established annually based on anticipated needs and is on-going. This project will be paid for entirely by City funds. Operation and maintenance costs are not expected to be impacted.

### ***SS-10. Office Equipment Computers***

This is an annual budget amount in the Sewer Fund for computer equipment required by the Public Works or Engineering Department for work associated with the Sewer Fund that are otherwise not specifically noted in the capital improvement plan.

The budget amount is established annually based on anticipated needs and is on-going. This project will be paid for entirely by City funds. Operation and maintenance costs are not expected to be impacted.



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**SUMMARY OF BUDGET CHANGES**

• **Significant Notes – 2010/11 Budget Compared to 2009/10 Budget**

Detroit water rate reflects a **9.3% decrease** due to the City’s ability to shift our peak water demands via watering restrictions.

The overall sewerage rate increase is estimated at 9%.

• **City of Detroit Water Rate:**

2005/06	\$14.80
2006/07	\$14.92
2007/08	\$15.39
2008/09	\$15.70
2009/10	\$16.26
2010/11	\$14.75

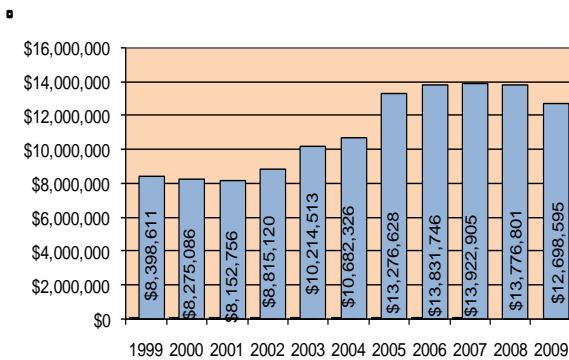
• **Southeast Oakland County Sewerage Rate:**

2005/06	\$10.25
2006/07	\$10.49
2007/08	\$10.76
2008/09	\$11.62
2009/10	\$11.87
2010/11	\$12.93E

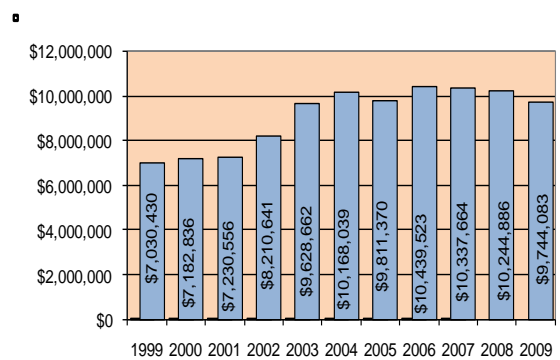
• **Evergreen-Farmington Sewerage Rate:**

2005/06	\$13.02
2006/07	\$14.03
2007/08	\$14.61
2008/09	\$14.79
2009/10	\$15.54
2010/11	\$16.99E

**Operating Budget History – Water**



**Operating Budget History – Sewer**





City of  
**Troy**