

# **City of Tracy Water Management Plan**

**Date of first draft – November 24, 2008 (Larry Farwell/David Woolley)**

**Date of second draft – August 31, 2009 (Larry Farwell/David Woolley)**

**Date of third draft - August 9, 2011 (Anna Sutton)**

**Date of final – October 25, 2011 (Tracy Slavin)**

# Index

	<u>Page</u>
Section 1: Description of the City	3
Section 2: Inventory of Water Resource	8
<del>Section 3: Best Management Practices (BMPs) for Agricultural Contractors</del>	<del>10</del>
Section 4: Best Management Practices for Urban Contractors	10
City Water Inventory Tables:	18
Attachment A: Tracy Municipal Code Chapter 11.04 - Water Rates and Regulations	23
Attachment B: City of Tracy - Water Rates	39
Attachment C: Commercial/Business Utility Bill Sample	40
Attachment D: City of Tracy – Residential Utility Bill Sample	41
Attachment E: Water Usage Data System (WUDS) Weekly Reads Sample	42
Attachment F: City of Tracy Water Shortage Plan	45
Attachment G: Tracy Municipal Code Chapter 11.28 – Water Management	70
Attachment H: Water Management – Notice of Violation	77
Attachment I: City Map of Groundwater Facilities	79
Attachment J: City Annual Water Quality Report	80
Attachment K: Notices of City Education Programs and Services Available to Customers	82
Attachment L: Programs available for Schools	88
Attachment M: Website Sample	89

## Section 1: Description of the City

City Name: City of Tracy

Contact Name: Stephanie Reyna

Title: Water Resources Analyst

Telephone: 209-831-4333

E-mail: Stephanie.reyna@ci.tracy.ca.us

### A. History

1. *Date City formed:* July 20, 1910      *Date of first Reclamation contract:* July 22, 1974  
*Original size (sq.mi.):* 1.1      *Current year (last complete calendar year):* 2007

#### 2. *Current size, population, and irrigated acres*

	<i>Current Year</i>
<i>Size (acres)</i>	14,080
<i>Population served</i>	81,107
<i>Irrigated acres</i>	NA

#### 3. *Water supplies received in current year*

<i>Water Source</i>	<i>AF</i>
<i>Federal urban water</i>	6,824
<i>Federal agricultural water</i>	0
<i>State water</i>	0
<i>Other Wholesaler (SSJID)</i>	9,130
<i>Local surface water</i>	0
<i>City ground water</i>	3,671
<i>Transferred water</i>	-2845
<i>Recycled water</i>	0
<i>Other (Flushing/Fire)</i>	0
<i>Total</i>	16,780

#### 4. *Annual entitlement under each right and/or contract*

	<i>AF</i>	<i>Contract #</i>	<i>Contract Restrictions</i>
<i>USBR Urban AF/Y</i>	10,000	14-06-200-7858A	Reduction in dry years
<i>USBR Agriculture AF/Y</i>	5,000	14-06-200-4305M	Reduction in dry years
	2,500	7-07-20W04BM	Reduction in dry years
<i>Other AF/Y SSJID</i>	10,000	Verbal Agreement	No

#### 5. *Anticipated land-use changes*

**Tracy Residential Areas Specific Plan.** Created in 1987, the Plan guides the development of 1,480 acres within the City limit. The land is grouped into three planning areas or neighborhoods, two on the southern side of the City and one in the northwest, and is largely built out.

**Plan C.** Formed in 1998, Plan C represents an infrastructure financing area comprised of approximately 1,417 acres of land. Plan C includes areas located in the west, south and southeast portions of the City. Plan C is comprised of many separate PUDs which are predominantly in place to guide the development of single-family homes with accompanying parks and schools. Plan C is largely built out, but still has several vacant parcels which are zoned for multifamily housing and commercial development.

**I-205 Corridor Specific Plan.** The I-205 Specific Plan includes approximately 714 acres of land on the northwest and northeast sides of Tracy, adjacent to I-205. The site is split into two planning areas and currently contains working and dormant agricultural uses, with commercial uses close to the intersection of Grant Line Road and I-205. The Specific Plan has designated 835,000 square feet of shopping centers and auto plazas, 1,057,000 square feet of general commercial/retail, 834,000 square feet of service commercial, 165,000 square feet of freeway commercial and 1,688,000 square feet of light industrial uses. There are also approximately 200 acres of residential development, including 216 high density units and 733 medium and low density units.

**Northeast Industrial PUD.** This PUD addresses 870 acres in the northeast corner of the City. Anticipated land uses include a mixture of manufacturing, warehousing, and distribution uses including rail-dependent industries and “flex-tech” light industrial.

**Industrial Areas Specific Plan (ISP).** The Industrial Areas Specific Plan covers approximately 685 acres of total land, mostly in two locations: the northeast quadrant of the South Tracy Boulevard - Linne Road intersection, and the northeast quadrant of the MacArthur Drive – Eleventh Street intersection. The area is designated for general, light industrial, office and “flex-tech” uses. The Edgewood Corporate Center and South Tracy Business Park, which cater to small to medium sized companies, have already been developed in this Specific Plan area.

**South Schulte Specific Plan.** Approved in 1998, the South Schulte Specific Plan covers 1,844 acres located outside of the City limits on the southwest side of the City, northwest of the Airport. The Plan includes a mix of residential, employment and recreational uses, including neighborhood commercial for local shopping needs. Approximately 1,090 acres for residential uses will accommodate a maximum of 5,700 dwelling units; approximately 423 acres of industrial and commercial uses with up to 6.3 million square feet of space; 173 acres are designated for schools, parks and public facilities; and the remaining 157 acres is designated for roads. Revisions to the South Schulte Specific Plan are currently being evaluated by the City.

**Tracy Gateway PUD.** The 538-acre Tracy Gateway project is located at the western edge of the incorporated City boundary, and south of I-205 at the Eleventh Street off-ramp. The proposed development consists of 5.8 million square feet of office uses, commercial uses and retail uses that support the Tracy community and an anticipated 20,000-person business population. The proposed project also includes a multi-story hotel and a golf course.

**Tracy Hills Specific Plan.** The Tracy Hills Specific Plan area, located on the southwest side of the City, covers 6,175 acres, approximately 2,700 acres of which falls within the City limits and is planned with residential, commercial, office, industrial and recreational land uses, and approximately 3,550 acres located outside the City limits and within the Sphere of Influence planned as permanent open space for habitat conservation and managed grazing. Of the 2,700 acres within the City limits, proposed land uses include approximately 1,300 acres at a mixture of densities with a maximum of 5,499 residential units. Approximately 600 acres with up to 6 million square feet of space are planned for commercial, office and industrial uses. Roughly half of the remaining 800 acres of the Specific Plan area within the City limits is designated to accommodate neighborhood parks, schools, recreational uses and other open space, while the other half is devoted to roads and canals.

## B. Location and Facilities

### 1. Incoming measurement methods and locations

<i>Incoming Locations</i>	<i>Type of Measurement Device</i>	<i>Accuracy</i>
Delta Mendota Canal	Magnetic type measurement device	99% (+/- 1%)
SSJID	Magnetic type measurement device	99% (+/- 1%)

### 2 Current year Urban Distribution System

<i>Miles AC Pipe</i>	<i>Miles Steel Pipe</i>	<i>Miles Cast Iron Pipe</i>	<i>Miles - PVC</i>
90	10	255	5

**3. Storage facilities**

The City of Tracy has five storage reservoirs. Three of these are adjacent to the John Jones Water Treatment Plant (JJWTP), with a total storage capacity of approximately six million gallons (mg). An additional reservoir is located at the Northeast Industrial reservoir with a capacity of 2.2 mg. The fifth storage reservoir is on Linne Road and has a capacity of 7.2 mg.

**4. Restrictions on water source(s)**

<i>Restriction</i>	<i>Cause of Restriction</i>	<i>Effect on Operations</i>
Voluntary Max 9,000 AFY groundwater	Self-imposed to protect groundwater quality	Minimal effect

**5. Proposed changes or additions to facilities and operations for the next 5 years**

In 2008, the JJWTP completed its expansion which increased the total capacity to 30 million gallons per day. Nothing further planned or anticipated at this time.

**C. Topography and Soils**

**1. Topography of the City and its impact on water operations and management**

The natural slope of the land is from south to north with ground surface elevations ranging from about 210 feet above sea level at the southern boundary to about 9 feet at the northern boundary.

**D. Climate**

**1. General climate of the City service area** – The climate is arid, with an average rainfall of 9.9 inches and windy, typically from the west – southwest. The City of Tracy generally experiences mild, rainy winters and hot, dry summers. The mean temperature ranges from 45.4°F to 93.8°F.

	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>	<i>Yrly</i>
<i>Avg Precip</i>	1.89	1.68	1.41	.83	.47	.08	.03	.09	.23	.51	1.13	1.56	9.9
<i>Avg Temp.</i>	45.4	52.1	59.1	61.1	69.0	74.1	76.2	75.3	69.6	62.5	57.4	46.9	68.4
<i>Max. Temp.</i>	54.1	61.0	66.8	73.2	80.8	88.2	93.8	92.2	87.8	78.6	64.9	54.7	74.7
<i>Min. Temp</i>	36.7	40.0	42.6	45.4	50.2	55.0	57.1	55.7	53.8	48.7	42.1	36.6	47.0
<i>ETo</i>	0.95	1.75	3.48	5.37	6.88	7.79	8.29	7.24	5.33	3.63	1.76	1.01	53.5

Weather station ID 048999 Data period: Year 10/1/1949 to Year 12/31/2007

Average wind velocity 11.2 mph Average annual frost-free days: 297 (90% @ 28.5° F)

**2. Impact of microclimates on water management within the service area - NONE**

**E. Natural and Cultural Resources**

**1. Natural resource areas within the service area - NONE**

**2. Description of City management of these resources in the past or present - NONE**

**3. Recreational and/or cultural resources areas within the service area - NONE**

**F. Operating Rules and Regulations**

**1. Operating rules and regulations**

See Attachment A, City Rules and Regulations

**2. Policies on water transfers by the City and its customers**

When the City has a surplus Bureau allocation of water from the Delta – Mendota Canal, it is frequently transferred to other Central Valley Project contractors if they have a need of the water. The City Water Rates are included. (Attachment B)

**G. Water Measurement, Pricing, and Billing**

**Urban Customers**

1. Total number of connections           23269
2. Total number of metered connections           23269
3. Total number of connections not billed by quantity           -0-
4. Percentage of water that was measured at delivery point           100%
5. Percentage of delivered water that was billed by quantity           100%
6. Measurement device table

<i>Meter Size and Type</i>	<i>Number</i>	<i>Accuracy (+/-percentage)</i>	<i>Reading Frequency (Days)</i>	<i>Calibration Frequency (Months)</i>	<i>Maintenance Frequency (Months)</i>
5/8-3/4"	11,151	98%	30	NONE	NONE - Replacement
1"	11,507	98%	30	NONE	NONE - Replacement
1 1/2"	120	98%	30	NONE	NONE - Replacement
2"	372	98%	30	60	60 - rebuild
3"	50	98%	30	12	12
4"	39	98%	30	12	12
6"	27	98%	30	12	12
8"	7	98%	30	12	12
10"	5	98%	30	12	12
Other (City)	91	98%	30	12 – 60	As needed
<b>Total</b>	<b>23,269</b>				

**1. Current year urban water charges - including rate structures and billing frequency**

The City of Tracy bills its consumers on a monthly basis and uses block rate structure with winter (November 1 – April 30) and summer (May 1 – October 31) water rates. The City bills on a hundred cubic foot basis. One hundred-cubic feet water is equal to one unit of water billed.

We still have one industrial consumer who regularly uses over 10,000 units of water per month. This customer was switched to a uniform block rate structure in 2008. (See Attachment C)

## 2. Annual charges collected from customers (current year data)

<i>Charges (\$ unit)</i>	<i>Charge units (meter size) etc.</i>	<i>Units billed during year (customer) etc.</i>	<i>\$ collected (\$ times units)</i>
<b>Fixed Charges</b>			
<b>9.85</b>	5/8 – 3/4	127,500	1,255,875.00
<b>0</b>	5/8 low	0	0
<b>17.15</b>	1”	135,192	2,318,542.80
<b>7.30</b>	1” low	2,892	21,111.60
<b>39.50</b>	1.5”	1,440	56,880.00
<b>69.55</b>	2”	4,464	310,471.20
<b>156.50</b>	3”	600	93,900.00
<b>278.35</b>	4”	468	130,267.80
<b>626.25</b>	6”	324	202,905.00
<b>1,113.50</b>	8”	84	93,534.00
<b>1,739.85</b>	10”	60	104,391.00
<b>other</b>	0	0	0
<b>TOTAL</b>		273,024	\$4,587,878.40
<b>Volumetric charges</b>			
<i>Charges (\$ HCF)</i>	<i>Charge units (hcf) etc.</i>	<i>Units billed during year (hcf) etc.</i>	<i>\$ collected (\$ times units billed)</i>
<b>\$1.00 - Tier 1</b>	HCF	2,865,916	2,865,916.00
<b>\$1.45 - Tier 2</b>	HCF	844,662	1,224,759.60
<b>\$1.65 - Tier 3</b>	HCF	1,446,460	2,386,689.20
<b>\$1.80 - Tier 4</b>	HCF	922,845	1,661,121.00
<b>0.65 – Other</b>	HCF	134,620	87,503.00
<b>TOTAL</b>		19,098,643	\$8,225,988.80

## 3. Water-use data accounting procedures

City staff read water meters using visual read on older meters that have not been converted to radio read; and by automated wand system in vicinity of meters. The wand “reads” are uploaded to a computer with special file transfer software that then converts the data so it may be processed by the City’s computerized billing software and historical consumption software. Each consumer’s usage is archived for a five year period in a database and is available upon request. The City is switching out all meters to radio read over a designated period of time due to budgetary constraints.

See Attachment D, City Sample Bills

See Attachment E, Weekly Read Data Sample

## H. Water Shortage Allocation Policies

### 1. Current year water shortage policies or shortage response plan - specifying how reduced water supplies are allocated

See Attachment F, City Water Shortage Plan

2. *Current year policies that address wasteful use of water and enforcement methods*

See Attachment G, Tracy Municipal Code Chapter 11.28 – Water Management

See Attachment H, Notice of Violation – Corrective Action.

## **Section 2: Inventory of Water Resources**

### **A. Surface Water Supply**

1. *Acre-foot amounts of surface water delivered to the City by each of the City sources*

See Water Inventory Tables, Table 1

2. *Amount of water delivered to the City by each of the City sources for the last 10 years*

See Water Inventory Tables, Table 8

### **B. Ground Water Supply**

1. *Acre-foot amounts of ground water pumped and delivered by the City*

See Water Inventory Tables, Table 2

2. *Ground water basin(s) that underlies the service area*

<i>Name</i>	<i>Size (Square Miles)</i>	<i>Usable Capacity (AF)</i>	<i>Safe Yield (AF/Y)</i>
Tracy Basin`	600	Unknown	Unknown

3. *Map of City-operated wells and managed ground water recharge areas*

See Attachment I

4. *Description of Conjunctive use – None*

5. *Groundwater Management plan – None*

6. *Groundwater Banking Plan - None*

### **C. Other Water Supplies**

1. *“Other” water used as part of the water supply*

See the Water Inventory Tables, Table 1

### **D. Source Water Quality Monitoring Practices**

1. *Surface water and/or ground water quality problems, and how the quality problems limit the use of that source or affect customer use decisions*

The aesthetic quality of City water supply varies with the mix of ground and surface waters. The treated surface water supply and the groundwater supply are tested at their respective points of entry to the distribution system and are each in compliance with State drinking water standards. The City’s 2007 Water Quality Report and State primary and secondary water quality standards are included in

Attachment J. The groundwater supply contains varying levels of total dissolved solids (TDS) averaging about 300 mg/l and sulfates that often impart objectionable taste to the water.

2. *Potable Water Quality (Urban only)*

See Attachment J – City Annual Water Quality Report

**E. Water Uses Within the City**

1. *Urban use by customer type in current year*

<i>Customer Type</i>	<i>Number of Connections</i>	<i>(AF)</i>
<i>Single-family</i>	21488	11288
<i>Multi-family</i>	502	795
<i>Commercial</i>	498	1102
<i>Industrial</i>	31	775
<i>Institutional</i>	119	586
<i>Landscape irrigation</i>	296	1321
<i>Wholesale</i>		
<i>Recycled</i>		
<i>Other (Unclassified)</i>	335	912
<i>Unaccounted for</i>		0
<b>Total</b>	<b>23269</b>	<b>16779</b>

2. *Urban Wastewater Collection/Treatment Systems serving the service area – current year*

<i>Treatment Plant</i>	<i>Treatment Level (1, 2, 3)</i>	<i>AF</i>	<i>Disposal to / uses</i>
City of Tracy POTW	3	10,000	Old River
	<b>Total</b>	<b>10,000</b>	

3. *Ground water recharge / management / banking in current year - NONE*

4. *Transfers and exchanges into or out of the service area in current year (Table 6)*

<i>From Whom</i>	<i>To Whom</i>	<i>(AF)</i>	<i>Use</i>
City of Tracy	Westlands	2395	Irrigation

5. *Trades, wheeling, wet/dry year exchanges or other transactions in current year (Table 6)*

<i>From Whom</i>	<i>To Whom</i>	<i>(AF)</i>	<i>Use</i>
City of Tracy	Patterson Pass Business Park	450	Municipal and Industrial Uses

6. *Other uses of water in current year - NONE*

**G. Water Accounting (Inventory)**

1. *Water Supplies Quantified*

- a. *Surface water supplies, imported and originating within the service area, by month (Table 1)*
- b. *Ground water extracted by the City, by month (Table 2)*
- d. *Estimated annual ground water extracted by non-City parties (Table 2)*
- e. *Recycled urban wastewater, by month (Table 3)*
- f. *Other supplies, by month (Table 1)*

2. *Water Used Quantified*
  - a. *Urban leaks, breaks and flushing/fire uses in piped systems (Urban Table 4)*
  - d. *Urban water use (Table 6)*
  - e. *Ground water recharge (Table 6)*
  - f. *Water exchanges and transfers (Table 6)*
  - j. *Other*
3. *Overall Water Inventory*
  - a. *Table 6*

### ~~Section 3: Best Management Practices for Agricultural~~

NA

## **Section 4: Best Management Practices for Urban Contractors**

### *Foundational BMPs*

#### **BMP 1 - UTILITY OPERATIONS PROGRAM**

##### **1.1 Operations Practices**

###### **A. Conservation Coordinator**

Program description – The City of Tracy shall staff and maintain the position of conservation coordinator and provide staff as necessary.

1. The program includes the following actions:
  - Designation of a conservation coordinator and support staff (if necessary), whose duties shall include the following:
    - Coordination and oversight of conservation programs and BMP implementation;
    - Preparation and submittal of the Annual Report;
    - Communication and promotion of water conservation issues to City of Tracy senior management; coordination of conservation programs with operations and planning staff; preparation of annual conservation budget; participation in the water conservation meetings; and preparation of the conservation elements of the agency’s Urban Water Management Plan.
  - Agencies jointly operating regional conservation programs are not expected to staff duplicative and redundant conservation coordinator positions.
2. The City will annually collect and make available/submit the following information:
  - Conservation Coordinator name, staff position, and years on job.
  - Date Conservation Coordinator position created by agency.
  - Number of Conservation Coordinator staff.
  - Duties of Conservation Coordinator and staff.

## **B. Water Waste Prohibition**

Program description – Through implementation and enforcement of a Water Conservation Ordinance, the City shall prohibit water waste.

1. The program includes the following actions:
  - New development
    - Enact, enforce, or support legislation, regulations, ordinances, or terms of service that (1) prohibit water waste such as, but not limited to: single-pass cooling systems; conveyer and in-bay vehicle wash and commercial laundry systems which do not reuse water; non-recirculating decorative water fountains, and
    - (2) address irrigation, landscape, and industrial, commercial, and other design inefficiencies.
  - Existing users
    - Enact, enforce, or support legislation, regulations, ordinances, or terms of service that prohibit water waste such as, but not limited to: landscape and irrigation inefficiencies, commercial or industrial inefficiencies, and other misuses of water.
  - Water shortage measures
    - Enact, enforce, or support legislation, regulations, ordinances, or terms of service that facilitate implementation of water shortage response measures.
2. The City will annually update and make available/submit the following information:
  - A description of, or electronic link to, any ordinances or terms of service adopted by the City of Tracy to meet the requirements of this BMP
  - A description of, or electronic link to, any ordinances or requirements adopted by local jurisdictions or regulatory agencies within the City of Tracy's service area.
  - A description of any water agency efforts to cooperate with other entities in the adoption or enforcement of local requirement consistent with this BMP.
  - A description of City of Tracy support positions with respect to adoption of legislation or regulations consistent with this BMP.

### **1.2 Water Loss Control**

Program description – Through data-gathering and analysis, the City of Tracy shall utilize modern water loss control methods to include both an increase in water use efficiency in the utility operations and proper economic valuation of water losses to support water loss control activities.

1. The program includes the following actions:
  - The City of Tracy will compile a standard water audit and balance annually using the AWWA Software.
    - Beginning in the 2nd year of implementation the City of Tracy shall test source, import, and production meters annually.
  - The City of Tracy shall improve the data accuracy and data completeness of the standard water balance during the first four years of implementation. The City of Tracy shall achieve a Water Audit Data Validity score of 66 or higher using the AWWA software no later than the end of the first four year period; and shall achieve data validity Level IV no later than the end of the 5th year of implementation. Estimations for data that are not directly measured should be improved using the methods outlined by the AWWA.
  - The City of Tracy staff shall seek training in the AWWA water audit method and component analysis process (offered by CUWCC or AWWA) during the first four years of BMP

implementation. The City shall complete a component analysis of real losses by the end of the fourth year, and update this analysis every four years.

- Beginning in the fifth year of implementation, through the tenth year of implementation, the City of Tracy shall demonstrate progress in water loss control performance as measured by the AWWA software real loss performance indicator "gallons per service connection per day;" "gallons per mile of mains per day;" or other appropriate indicator by one of the following:
    - Achieving a performance indicator score less than the agency's score the previous year;
    - Achieving a performance indicator score less than the average of the agency's scores for the previous three years; or
    - Achieving a performance indicator score in the top quintile (20%) of all signatory agencies reporting such performance indicator with a Data Validity Level IV; or ;
    - In year 6 and beyond reducing real losses to or below the benchmark value determined in the Council's process referenced in section B3.
  - The City of Tracy shall repair all reported leaks and breaks to the extent cost effective. By the end of the second year, the City shall establish and maintain a record-keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair. By the end of the fourth year, the City shall include estimated leakage volume from report to repair, and cost of repair (including pavement restoration costs and paid-out damage claims, if any).
  - The City of Tracy shall locate and repair unreported leaks to the extent cost effective.
2. The City will annually update and make available/submit the following information:
- A completed AWWA Standard Water Audit and Water Balance worksheets in the BMP 1.2 report form every reporting period.
  - Validation for any data reported for each reporting period.
  - In-house records of audit results, methodologies, and worksheets for each completed audit period.
  - Records of each component analysis performed and incorporate results into future annual standard water balances.
  - For the purpose of setting the Benchmark:
    - keep records of intervention(s) performed, including standardized reports on leak repairs, the economic value assigned to apparent losses and to real losses, miles of system surveyed for leaks, pressure reduction undertaken for loss reduction, infrastructure rehabilitation and renewal, volumes of water saved, and costs of intervention(s); and
    - prepare a yearly summary of this information for submission to the Council, during years two through five of implementation, unless extended by the Council.

### **1.3 METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS**

Program description – The City of Tracy currently meters all connections within the City Water Supply System and requires that all new construction have meters for all new accounts. Service lines dedicated to fire suppression systems are exempt from this requirement.

1. The program includes the following actions:
  - Require meters for all new service connections.
  - Establish a program for retrofitting existing unmetered service connections.
  - Read meters and bill customers by volume of use.
    - Establish and maintain billing intervals that are no greater than bimonthly (every two months) for all customers.

- For each metered connection, perform at least five actual meter readings (including remotely sensed) per twelve month period.
  - Prepare a written plan, policy or program that includes:
    - A census of all meters, by size, type, year installed, customer class served and manufacturer's warranty accuracy when new;
    - A currently approved schedule of meter testing and repair, by size, type and customer class;
    - A currently approved schedule of meter replacement, by size, type, and customer class; and
  - Identifying intra- and inter-agency disincentives or barriers to retrofitting mixed use commercial accounts with dedicated landscape meters, and conducting feasibility study(s) to assess the merits of a program to provide incentives to switch mixed use accounts to dedicated landscape meters.
2. The City will annually collect and make available/submit the following information:
- Confirmation that all new service connections are metered and are being billed by volume of use and provide:
    - Number of metered accounts;
    - Number of metered accounts read;
    - Number of metered accounts billed by volume of use;
    - Frequency of billing (i.e. six or twelve times per year) by type of metered customer (e.g. single family residential, multiple family residential, commercial, industrial, and landscape irrigation); and
    - Number of estimated bills per year by type of metered customer (e.g. single family residential, multiple family residential, commercial, industrial, and landscape irrigation) vs. actual meter readings.
  - Number of unmetered accounts in the service area. For the purposes of evaluation, this shall be defined as the baseline meter retrofit target, and shall be used to calculate the agency's minimum annual retrofit requirement.
  - Number of unmetered service connections retrofitted during the reporting period.
  - Estimated number of CII accounts with mixed-use meters.
  - Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period.

#### 1.4 Retail Conservation Pricing

Program description – The City of Tracy shall maintain a water conservation rate structure for Part I that satisfies Option 1 specified in Section 1. Conformance to Option 1 will first be assessed using the revenue from the most recent year. If the most recent year does not satisfy the option, the average revenue from the three (3) most recent years will be used. The City of Tracy shall also maintain a sewer conservation rate structure for Part II as described in Section 1.

1. The program includes the following actions:

##### **PART I – Water**

**Adequacy of Volumetric Rate(s):** The City of Tracy's volumetric rate(s) shall be deemed sufficiently consistent with the definition of conservation pricing when it satisfies the following option.

- **Option 1:** Let V stand for the total annual revenue from the volumetric rate(s) and M stand for total annual revenue from customer meter/service (fixed) charges, then:

$$\text{Volume Revenue} \geq 70\% \text{ of Meter/service (fixed) Revenue}$$

This calculation shall only include utility revenues from volumetric rates and monthly or bimonthly meter/service charges. It shall not include utility revenues from new service connection charges; revenue from special rates and charges for temporary service, fire protection, or other irregular services; revenue from grants or contributions from external sources in aid of construction or program implementation; or revenue from property or other utility taxes.

## **PART II - Wastewater**

The City of Tracy shall be deemed sufficiently consistent with the definition of conservation pricing when it satisfies one of the following pricing guidelines:

- Conservation pricing of sewer service is also characterized by one or more of the following components:
    - rates in which the unit rate is the same across all units of service (uniform rates);
    - rates in which the unit rate increases as the quantity of units purchased increases (increasing block rates);
    - rates in which the unit rate is based upon the long-run marginal cost or the cost of adding the next unit of capacity to the sewer system.
  - Rates that charge customers a fixed amount per billing cycle for sewer service regardless of the units of service consumed do not satisfy the definition of conservation pricing of sewer service.
  - Rates in which the typical bill is determined by high fixed charges and low commodity charges also do not satisfy the definition of conservation pricing of sewer service.
2. The City will annually collect and make available/submit the following information:
- Report the rate structure in effect for each customer class for the reporting period.
  - Report the annual revenue derived from volume charges for each retail customer class.
  - Report the annual revenue derived from monthly or bimonthly meter/service charges for each retail customer class.
  - Report annual revenue requirement for sewer service by customer class for the reporting period.
  - Report annual revenue for sewer service from commodity charges by customer class for the reporting period.
  - Report rate structure by customer class for sewer service.

## **BMP 2 – EDUCATION PROGRAMS**

### **2.1 Public Information Programs**

Program description – The City of Tracy shall maintain an active public information program to promote and educate customers about water conservation.

1. The program includes the following actions:
- A public information program to promote water conservation and water conservation related benefits.
  - Program should include, but is not limited to, providing speakers to employees, community groups and the media; using paid and public service advertising; using bill inserts; providing information on customers' bills showing use in gallons per day for the last billing period compared to the same period the year before; providing public information to promote water conservation practices; and coordinating with other government agencies, industry groups, public interest groups, and the media.
    - Contact with the public and media shall be quarterly.
  - An actively maintained website that is updated quarterly.

2. The City will annually collect and make available/submit the following information:
  - Number of public speaking events relating to conservation during reporting period.
  - Number of media events relating to conservation during reporting period.
  - Number of paid or public service announcements relating to conservation produced or sponsored during reporting period.
  - Description of materials provided to customers.
  - Annual budget for public outreach program
  - Description of all other outreach programs.

## 2.2 School Education Programs

**Program description** – The City of Tracy shall maintain an active school education program to educate students in its service areas about water conservation and efficient water uses.

1. The program includes the following actions:
  - A school education program to promote water conservation and water conservation related benefits.
  - Programs that include working with school districts and private schools in the City’s service area to provide instructional assistance, educational materials, and classroom presentations that identify urban, agricultural, and environmental issues and conditions in the local watershed. Education materials shall meet the state education framework requirements, and grade appropriate materials shall be distributed to grade levels K-3, 4-6, 7-8, and high school.
2. The City will annually collect and make available/submit the following information:
  - Number of school presentations made during reporting period.
  - Number and type of curriculum materials developed and/or provided by water supplier, including confirmation that curriculum materials meet state education framework requirements and are grade-level appropriate.
  - Number of students reached.
  - Number of in-service presentations or teacher’s workshops conducted during reporting period.
  - Annual budget for school education programs related to conservation.

### *Programmatic BMPs*

#### **GPCD COMPLIANCE OPTION**

(Approved by the Plenary June 11, 2009)

**Program Description** – The City of Tracy shall maintain water conserving measures that will assist in meeting the GPCD targeted reduction of 18% by 2018 according to the CUWCC’s MOU. It will continue to provide ULFT incentives for both pre 1984 residential and CII, leak detection and elimination, landscape water audits and enforcement of ordinances in order to meet GPCD goals.

**Potable Water GPCD** shall equal  $(PWI - PWS) / Pop / 365$ ; where

1. PWI = Potable Water Into the retail water agency’s service area distribution system.
2. PWS = Potable Water taken out of the retail water agency’s service area distribution system and:
  - placed into storage and/or
  - delivered to an agricultural customer through a dedicated agricultural meter, at discretion of the retail water agency.

3. Pop = residential population of the City of Tracy’s service area “(using available CA Dept of Finance statistic and adjusted to include the population outside City of Tracy’s service area when they’re served by the City).”

**Baseline GPCD = 275.9**

The Baseline GPCD shall equal the average annual Potable Water GPCD for the years 1997 through 2006

**GPCD Target = 226.2**

For purposes of compliance the 2018 GPCD Target for all signatories as of July 1, 2009 shall equal Baseline GPCD multiplied by 0.82 (an 18% reduction).

**Biennial GPCD Targets**

Using the Compliance Table below, for each “Year” in the table, the City’s Biennial GPCD Target shall equal its Baseline GPCD multiplied by that year’s Target (% Baseline). The City of Tracy may choose a starting point as either its Baseline GPCD or its 2006 Potable Water GPCD.

**The City will annually collect and make available/submit the following information:**

- First Biennial Report:
  - Potable Water GPCD for each year in the baseline period;
  - 2018 GPCD Target and four other Biennial GPCD Targets; and
- All Biennial Reports:
  - Complete “Water Supply & Reuse” and “Accounts & Water Use” standard reports;
  - Supporting data necessary to calculate that reporting period’s Potable Water GPCD; and
  - Calculations showing the reporting period’s Potable Water GPCD is less than or equal to that period’s Biennial GPCD Target, or Highest Acceptable Bound after weather normalization.
  - Calculation of and data (for example: ETo, rainfall, and solar radiation) necessary to make the weather normalization adjustment.

Year	Report	Target		Highest Acceptable Bound	
		% Base	GPCD	% Base	GPCD
2010	1	96.4%	265.9	100%	275.9
2012	2	92.8%	256.0	96.4%	265.9
2014	3	89.2%	246.1	92.8%	256.0
2016	4	85.6%	236.1	89.2%	246.1
2018	5	82.0%	226.2	82.0%	226.2

## Provide a 3-Year Budget for Expenditures and Staff Effort for BMPs

### *Actual Current Year Expenditures*

<b>Year</b> <u>          FY 10-11          </u>	<b>Actual Expenditures</b>	
<b>Foundational BMP Name</b>	<b>(not including staff hours)</b>	<b>Staff Hours</b>
Conservation Coordinator	\$ 58,231	1020
Water Loss Control	\$ 20,773	560
Public Information Programs	\$ 7,905	208
School Education Program	\$ 537	52
<b>Programmatic BMP Name</b>		
Washing Machine Rebates	\$ 20,000	20
ULFT Rebates	\$ 6,803	7
Residential Water Audits	\$ 0	10
Residential Retrofit	\$ 160	6
Landscape Water Audits	<u>\$ 0</u>	<u>2</u>
<b>Total</b>	<b>\$114,409</b>	<b>1885</b>

### *Projected Budget for Next Year*

<b>Year</b> <u>          FY 11-12          </u>	<b>Projected Expenditures</b>	
<b>Foundational BMP Name</b>	<b>(not including staff hours)</b>	<b>Staff Hours</b>
Conservation Coordinator	\$ 61,000	1020
Water Loss Control	\$ 23,000	560
Public Information Programs	\$ 9,000	210
School Education Program	\$ 1,000	50
<b>Programmatic BMP Name</b>		
Washing Machine Rebates	\$ 10,000	10
ULFT Rebates	\$ 10,000	10
Residential Water Audits	\$ 0	52
Residential Retrofit	\$ 3,000	52
Landscape Water Audits	<u>\$ 0</u>	<u>52</u>
<b>Total</b>	<b>\$117,000</b>	<b>2016</b>

### *Projected Budget for 3<sup>rd</sup> Year*

<b>Year</b> <u>          FY 12-13          </u>	<b>Projected Expenditures</b>	
<b>Foundational BMP Name</b>	<b>(not including staff hours)</b>	<b>Staff Hours</b>
Conservation Coordinator	\$ 64,000	1020
Water Loss Control	\$ 23,000	560
Public Information Programs	\$ 9,000	210
School Education Program	\$ 1,000	50
<b>Programmatic BMP Name</b>		
Washing Machine Rebates	\$ 10,000	10
ULFT Rebates	\$ 10,000	10
Residential Water Audits	\$ 0	52
Residential Retrofit	\$ 3,000	52
Landscape Water Audits	<u>\$ 0</u>	<u>52</u>
<b>Total</b>	<b>\$120,000</b>	<b>2016</b>