

# City of Lodi

## Water Master Plan



August 2012





# Water Master Plan

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# 1. INTRODUCTION

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## 1.1 BACKGROUND

Expansion of the City of Lodi water service is required to serve planned development areas. In 1990, the City of Lodi (City) adopted the “City of Lodi Water Master Plan” for the service area as shown in Figure 1.

On April 7, 2010, the City adopted the General Plan Policy Document that identifies areas to be developed within the City through the year 2030. The General Plan land use information is provided in Figure 2. The 2010 General Plan specifies in Section 3 – Growth Management and Infrastructure, GM-P11, that the City “prepare master plan documents as necessary during the planning period to address the infrastructure needs of existing and projected growth, and to determine appropriate infrastructure provisions for each phase.”

The City’s existing water system consists of twenty-eight groundwater production wells, about 240 miles of distribution pipelines, and two storage reservoirs with a combined storage capacity of 1.1 million gallons (MG). Groundwater is currently the sole source of water supply for the City.

In 2003, the City entered into an agreement with Woodbridge Irrigation District (WID) to purchase up to 6,000 acre-feet per year (AFY) of surface water annually, and a water treatment plant is currently under construction to treat the water for distribution.

The 2012 Water Master Plan will define level of service, present design criteria, analyze service demands, consider alternative facilities plans and present the recommended plan for providing water service to the community.

## 1.2 EXISTING CITY OF LODI WATER MASTER PLAN

The present “City of Lodi Water Master Plan” was prepared in 1990 by Psomas. The master plan analyzed the groundwater pumping and distribution system to provide service to the planning area shown in Figure 1. At that time, groundwater was the sole water source for the City.

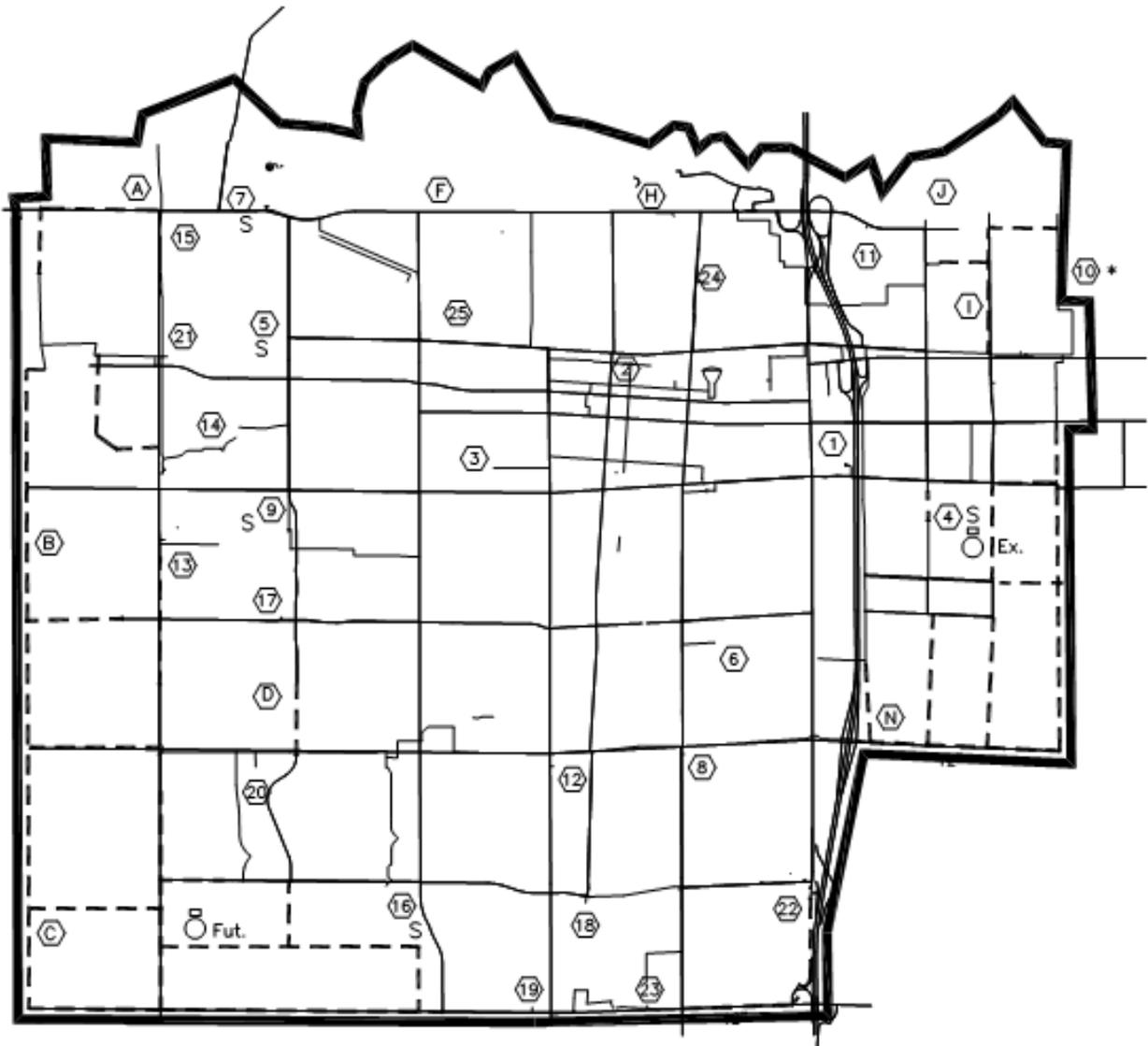
In 1994, the “Water Storage Tank Study” was prepared as a supplemental study to the 1990 Water Master Plan. The study evaluated the use of water storage tanks to reduce the number of future wells and the need to equip both existing and future wells with filters for dibromochloropropane (DBCP).



# CITY OF LODI

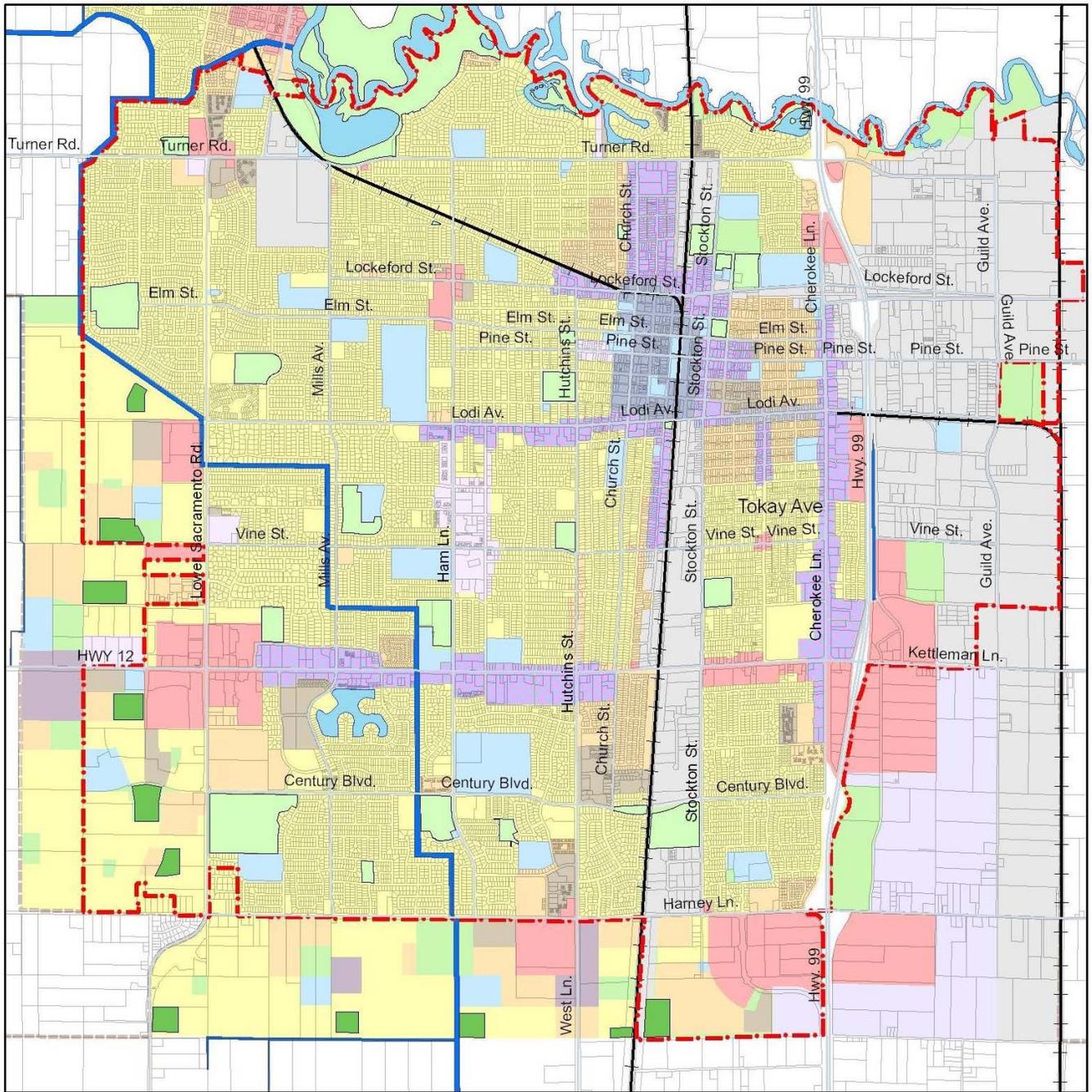
PUBLIC WORKS DEPARTMENT

## FIGURE 1 1990 WATER SYSTEM MASTER PLAN



- Existing 10" and larger water mains
- ⊗ Existing well site \* Out of service
- Proposed well site, approximate location
- - - Future 10" and larger water mains (12" as marked)
- S Standby power
- Ex. ○ Fut. 1MG storage tank & pump station.
- ⌈ 100,000 gal elevated tank
- Service area

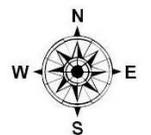
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**Figure 2**  
**2010 General Plan Land Use Diagram**

**Legend**

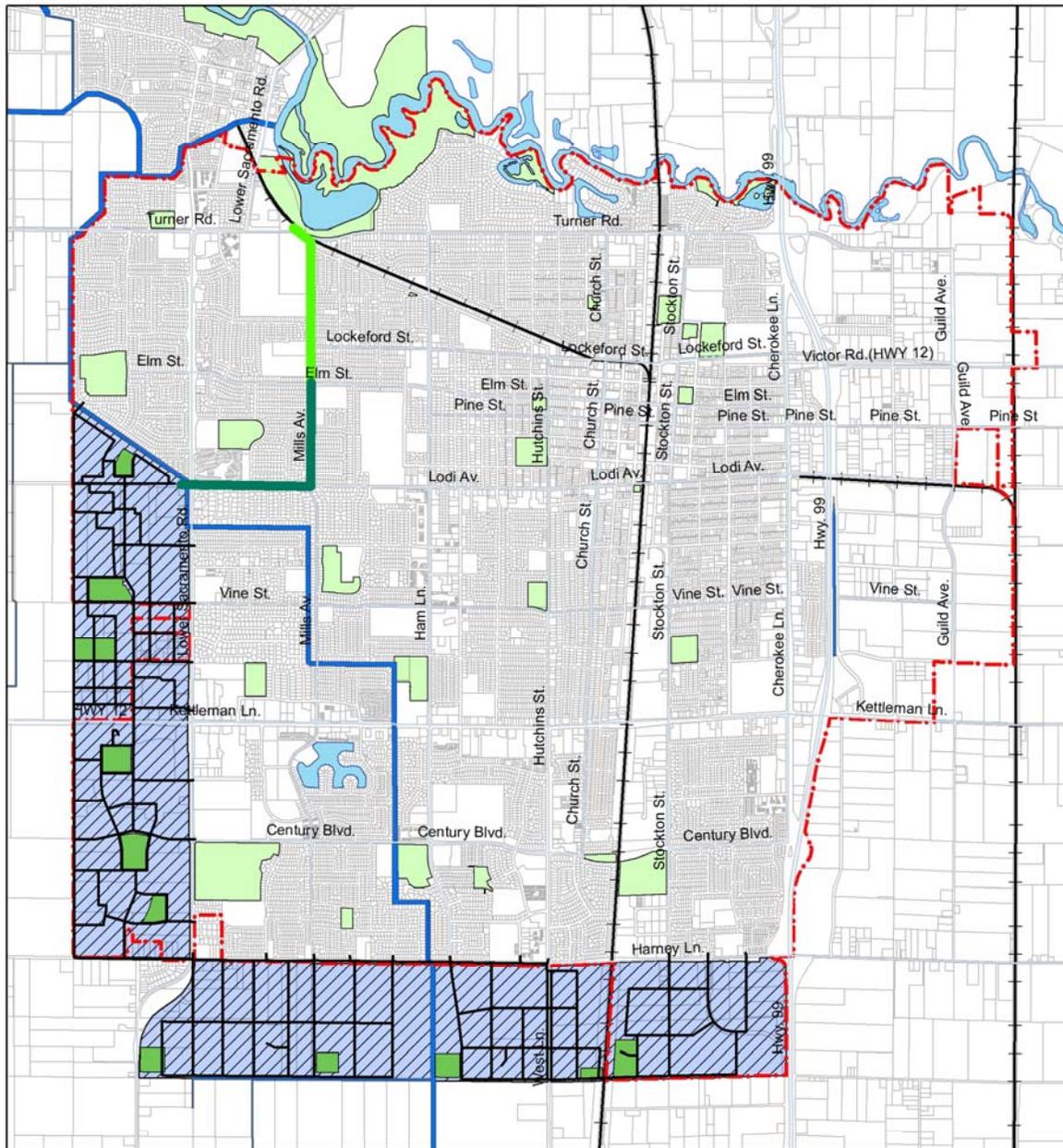
Future Basins	Business Park	Mixed Use Center	Water
City Limits	Commercial	Mixed Use Corridor	
Parcels	Downtown Mixed Use	Office	
Canal	High Density Residential	Open Space	
Parks	Industrial	Public/Quasi-Public	
Railroad	Low Density Residential	Right of Way	
River	Medium Density Residential	Urban Reserve	



1 in = 3,000 ft

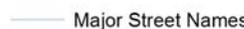
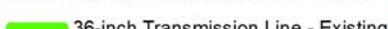
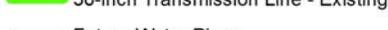
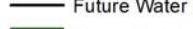
### **1.3 STUDY AREA**

The study area for the 2012 Water Master Plan has been expanded to coincide with the General Plan limits for Phase 1 and 2 adding approximate 920 acres to the service area. The boundary of the 2012 Water Master Plan is shown in Figure 3.



**Figure 3**  
**2012 Water Master Plan**  
**Service Area**

**Legend**

- |  |  |   |
|--|--|---|
|  36-inch Transmission Line - Future   |  Major Street Names |  Parks                  |
|  36-inch Transmission Line - Existing |  City Limits        |  Railroad               |
|  Future Water Pipes                   |  Parcels            |  River                  |
|  Future Basins                        |  Canal              |  Master Plan Boundaries |



1 in = 3,000 ft



## 2. WATER SYSTEM

---

### 2.1 EXISTING FACILITIES

The City currently utilizes groundwater as its sole source of supply. The City's existing water distribution system is a 240 mile grid network of 6, 8, 10, 12 and 14 inch diameter mains, two water storage tanks with a combined storage capacity of 1.1 million gallons and a total of 28 groundwater wells spaced at half-mile intervals throughout the City. The capacity of the wells ranges from 1.2 to 3.0 mgd and the total capacity of the 28 existing wells is 54.8 mgd. Among the 28 existing wells, only 14 wells currently have standby chlorination equipment. The groundwater is normally not chlorinated in the distribution system.

A list of the existing wells and production capacities is provided in Table 1 and the locations are provided in Figure 4. The 28 wells have a combined capacity of 37,910 gpm or 19.9 billion gallons per year.

**Table 1: Groundwater Well Capacity**

<b>Well Number</b>	<b>Well Capacity, gpm</b>	<b>Well Capacity, mgd</b>
<b>1R</b>	1,130	1.6
<b>2</b>	820	1.2
<b>3R</b>	820	1.2
<b>4R<sup>1</sup></b>	1,960	2.8
<b>5</b>	1,180	1.7
<b>6R</b>	1,580	2.3
<b>7</b>	1,160	1.7
<b>8</b>	800	1.2
<b>9</b>	900	1.3
<b>10C</b>	1,300	1.9
<b>11R</b>	1,320	1.9
<b>12</b>	800	1.2
<b>13</b>	1,150	1.7
<b>14</b>	1,670	2.4
<b>15</b>	1,500	2.2
<b>16<sup>1</sup></b>	1,110	1.6
<b>17</b>	1,800	2.6
<b>18<sup>1</sup></b>	1,800	2.6
<b>19</b>	1,110	1.6
<b>20<sup>1</sup></b>	2,070	3.0
<b>21</b>	2,050	3.0
<b>22<sup>1</sup></b>	1,400	2.0
<b>23<sup>1</sup></b>	1,410	2.0
<b>24</b>	1,420	2.0
<b>25</b>	1,580	2.3
<b>26</b>	1,370	2.0
<b>27</b>	1,350 <sup>4</sup>	1.9 <sup>4</sup>
<b>28</b>	<u>1,350</u>	<u>1.9</u>
<b>Total</b>	<b>37,910</b>	<b>54.8</b>

<sup>1</sup>Wells equipped with granular activated carbon filters  
<sup>2</sup> gpm = gallons per minute  
<sup>3</sup> mgd = millions gallons per day  
<sup>4</sup>Estimated capacity

## 2.2 CITY WATER SUPPLY

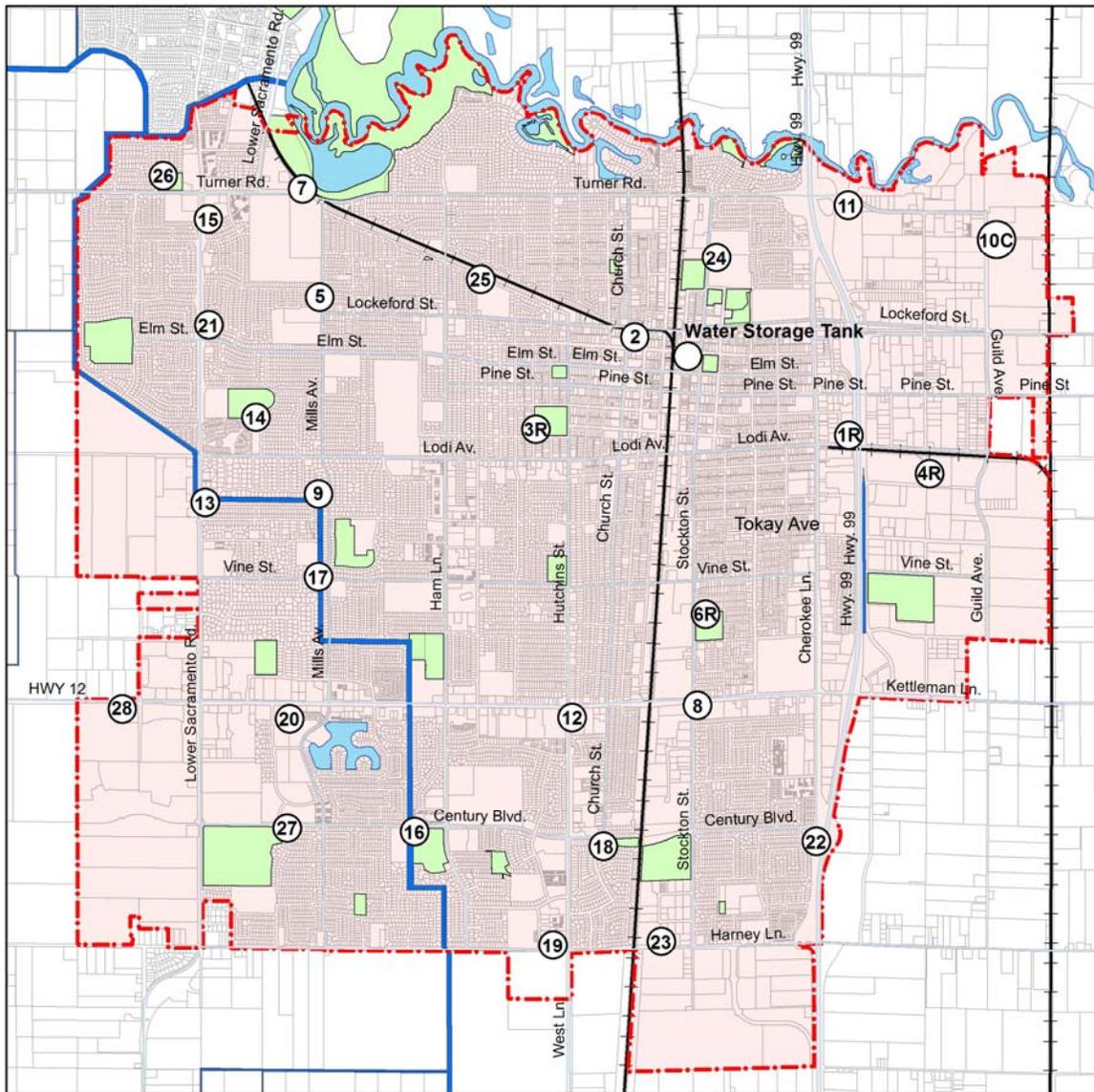
The City currently uses groundwater as its primary source of supply. The continuing decline of groundwater levels in the aquifer underlying the City means that the sustainable annual groundwater supply available to the City is something less than what is currently extracted. The City is participating in the development of policies and

programs, including groundwater recharge and conjunctive use programs, intended to help eliminate the eastern San Joaquin County groundwater basin overdraft condition. Annual well production for the four-year period from 2007 through 2010 ranged from 15,005 AF to 17,171 AF or 4.9 billion gallons to 5.6 billion gallons.

In 2003, the City entered into an agreement with WID to purchase up to 6,000 AFY of surface water, and a water treatment plant is currently under construction to treat the water for distribution. The treatment plant is anticipated to be online in September of 2012. The City has developed a conjunctive water management use of the surface water and groundwater supply. The City will maximize the use of surface water during periods when the water supply is plentiful and will save groundwater for the periods when surface water supplies are short or restricted.

### **2.2.1 GROUNDWATER SUPPLY AND SAFE YIELD**

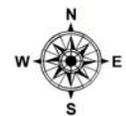
The City plans to maintain its groundwater pumping at a sustainable yield in the future. A safe yield of approximately 15,000 AFY has been estimated for the aquifer serving Lodi based on water balance calculations performed using data primarily from the Eastern San Joaquin Groundwater Management Plan. This safe yield estimate reflects an acreage-based relationship. Therefore, as the City's land area increases, the estimated safe yield of the underlying aquifer will likely increase. The safe yield estimate will be revisited if additional studies are completed revising the safe yield of the basin. The 2010 City of Lodi Urban Water Management Plan (UWMP) has assumed 15,000 AFY or 2.3 acre-feet per acre as the amount of groundwater available during all future (post-2005) years. Although rigorous scientific analyses have not been performed, the City projects that some recharge of the groundwater basin will occur as the amount of groundwater pumped annually decreases. This result, however, is contingent on the cooperative efforts of all groundwater users within the basin, including other cities, agriculture, and private well owners, to reduce groundwater extraction. The City does not expect development of cones of depression, significant changes in direction or amount of groundwater flow, changes in the movement or levels of contaminants, or changes in groundwater salinity and/or total dissolved solids (TDS) concentrations.



**Figure 4**  
**Existing Well Locations**

**Legend**

- # Water Wells & Storage
- Major Street Names
- City Limits
- Parcels
- Canal
- Parks
- Railroad
- River



1 in = 3,000 ft

### **2.2.2 SURFACE WATER SUPPLY**

In 2003, the City entered into a 40 year agreement with the Woodbridge Irrigation District to purchase 6,000 acre-feet per year of Mokelumne River water. On January 16, 2008, the agreement was amended by extending the term of the agreement by 4 years to 2047 and allowing a total of 42,000 acre feet of water to be banked for future use. The banked water is available to the City during wet years and, by averaging the use of banked water over the term of the agreement, the average annual delivery of surface water to the City would be 7,200 acre feet per year or 2.345 billion gallons per year.

A surface water treatment facility is currently under construction to treat the surface water and distribute it to the City's customers. The nominal capacity of the plant is 8 million gallons per day while the peak capacity is 10 million gallons per day.

The City has constructed a 36 inch diameter transmission pipeline beginning at the intersection of North Mills Avenue and West Turner Road. The pipeline extends south along North Mills Avenue to near the intersection with Elm Street, and is connected to the existing distribution pipelines.

### **2.2.3 CONSERVATION**

The City is in the process of installing water meters on all unmetered water services. In 2010, the City reviewed the water use characteristics of about 3,000 metered residential accounts prior to the implementation of new residential metered water rates. That analysis of usage indicated that single family residences used an average of about 22 hundred cubic feet (22 CCF) per month, which is equivalent to nearly 550 gallons per day (gpd).

The City believes that the combination of required water efficient plumbing fixtures, citywide metering, and billing for water on actual usage will result in a reduction in single family water demands to about 500 gpd (about 20 CCF per month or 0.56 AF per year). This is a 10 percent reduction in single family water demand.

## **2.3 LEVEL OF SERVICE STANDARDS**

Development of available vacant land in the study area will affect the City's utility facilities. The City's levels of service standards for the water utility are as follows:

- Average daily demand for residential is 200 gallons per capita per day (gpcd), commercial is 2,750 gallons per acre per day (gpad) and industrial is 2,200 gpad.
- The peaking factor per day is 2.24 and per hour is 3.28.
- The City's standard for minimum pressure is 20 psi at the service point or fire hydrant under the worst case of either maximum daily demand plus fire flow or peak hour demand.

- All improvement, expansion, or increases in capacity to the facilities shall be compatible with the adopted level of service standards.

## **2.4 REGULATORY REQUIREMENTS**

Two federal regulations will impact the operation and structure of the City's water system. First, the introduction of the new surface water supply will require continuous chlorination of the groundwater supplies to State of California regulations stemming from the U.S. Environmental Protection Agency's (USEPA.s) Total Coliform Rule. This rule requires the maintenance of a detectable level of chlorine throughout a distribution system that contains surface water.

Second it is anticipated that the State of California will pass regulatory requirements associated with the USEPA's Ground Water Rule, published in October 2006. The federal regulation requires sanitary surveys of groundwater supplies every 3-5 years, (depending on system performance) and source water monitoring for coliform. California regulations, particularly the Water Works Standards, have not yet been updated to explicitly accommodate the Ground Water Rule. California currently requires sanitary surveys and monthly bacteriological sampling in the distribution system and at all wellheads upstream of chlorination points.

To ensure compliance with these regulations, modifications to the existing distribution system have been made to include chlorination at each groundwater supply and continuous monitoring of chlorine residual at each distribution system entry point.

## **2.5 DESIGN CRITERIA**

Design criteria for the water system are outlined in the City of Lodi Public Improvement Design Standards. Criteria include minimum pipe size, design flow, fire flow, design pressure, minimum cover, horizontal alignment and pipe materials.

Water demands will be estimated as follows:

1. Water Demand Factors are shown in the table below.

**Table 2**

<b>Water System Design Standards Water Demand Factors<sup>1</sup></b>		
<b>Land Use</b>	<b>Units</b>	<b>Water Demand Factor<sup>a</sup> (gpd/unit)</b>
Residential	capita	200
Commercial/Office	acre	2,500
Industrial	acre	1,000

<sup>1</sup> Section 4.200 "Design Flow" from Design Standards

2. Fire Flow Requirements are shown in the table below:

**Table 3**

<b>Water System Design Standards Fire Flow Requirements<sup>1</sup></b>	
<b>Land Use</b>	<b>Fire Flow (gpm)</b>
Low Density Residential	2,000
Medium Density Residential	3,000
High Density Residential	3,000
Commercial, Industrial	4,000

<sup>1</sup> Section 4.200 "Design Flow" from Design Standards

3. The minimum pipe diameter for each land use category is shown in the table below:

**Table 4**

<b>Water System Design Standards Minimum Pipe Diameter<sup>1</sup></b>	
<b>Land Use, Location</b>	<b>Diameter (in.)</b>
Commercial, Industrial	8
School, other Public Use	8
High Density Residential	8
Medium Density Residential	6
Low Density Residential	6
Residential Dead-end Main without Fire Hydrant	4
Unsupported Looped Length Exceeding 800 ft	8

<sup>1</sup> Section 4.300 "Pipe Design" from Design Standards

### **2.5.1 CONVEYANCE FACILITIES**

The distribution system meets the criteria set forth in Section 4.100 of the City of Lodi Design Standards. At the time of development, preparation of detailed Water Master Plans will be a requirement.

1. The system will be designed to meet a minimum residual pressure of 20 psi at the service point or fire hydrant under the worst case of either:
  - Maximum day flows plus fire flow, or;
  - Peak hour flow
2. Calculations for individual developments may assume 4,000 gpm at 45 psi is available at the point of connection to an 8" or larger, looped line.
3. The Hazen-Williams formula should be used to calculate design flow, pressure loss, velocity and pipe diameter relationships. The coefficient of friction, "C" shall be 110 for pipes 6" and smaller, 120 for 8" and 10", and 130 for 12" and larger pipes unless loss at fittings is calculated separately using equivalent length or other approved methods. In such cases, a "C" of 130 may be used.
4. All high points within the systems shall be located at the fire hydrants or permanent blow-offs.
5. The minimum cover on water mains shall be 3 feet, with a desired depth below 5± feet.
6. When crossing a wastewater or storm drain line, clearance of at least 12 inches shall be maintained.

## 3. FUTURE DISTRIBUTION SYSTEM

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### 3.1 MODEL SOFTWARE

The City selected Bentley's WaterCAD V8i software for the water model. The City is using Bentley's SewerCAD and StormCAD software for modeling the City's sewer and storm drainage systems. WaterCAD contains a graphical/GIS interface and has the ability to model maximum daily flows, peak hour flows and fire flows at each junction. The software has the ability to import GIS layers and output files to AutoCAD and GIS.

### 3.2 NEW FACILITIES

The City of Lodi water system will require three new wells south of Harney Lane, a 1.5MG storage tank on Kettleman Lane and transmission lines on Mills Ave. and Lodi Avenue as shown on Figure 5. The locations of the new wells and storage tank is based on the projected peak hour demand deficiencies. A total of 31 wells will be required to meet the City's water demands through the year 2035.

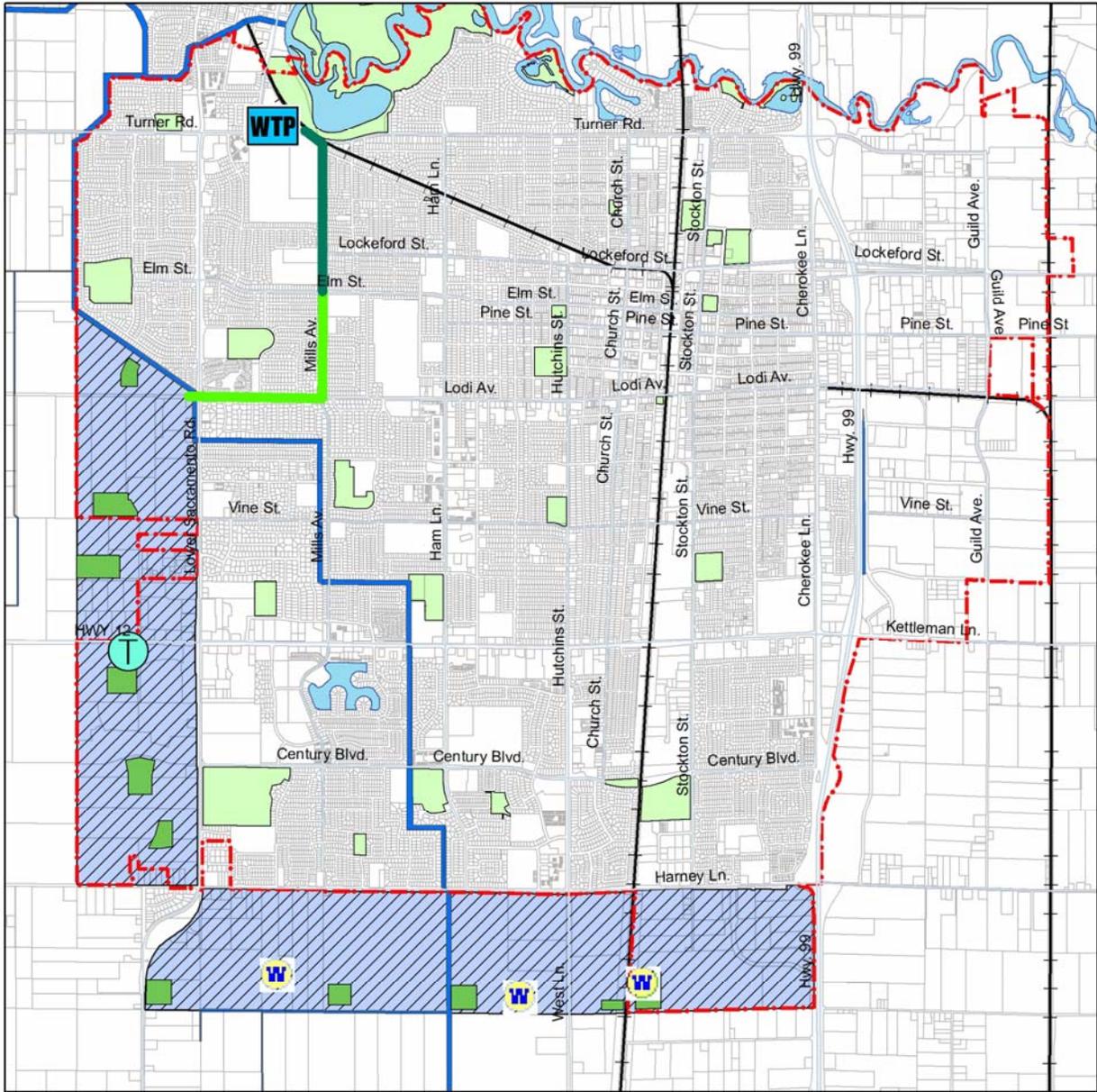
### 3.3 PIPE ALIGNMENT AND SIZING

The proposed water distribution system for the Water Master Plan is shown in Appendices A through D. The layout is based on the General Plan Land Use plan presented in Figure 2. The water distribution system has been skeletonized and only the major water lines (8 inch pipes or larger) are shown. Additional water mains required for interior distribution shall be designed as development progresses in the future.

A water model has been developed for the study area. The average demands for the land use within the study area are assigned to the nearest node of the water distribution system. The model assumes the maximum day demand and the fire flow are tested at each node. The fire flow requirement is 2,000 gpm minimum to 4,000 gpm maximum with a minimum system residual pressure of 20 psi per City Design Standards. The fire flow requirement is the critical test for the distribution system, and the results of the fire flow analysis are shown in the Appendix E.

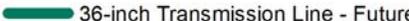
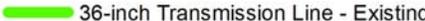
The study area will have twenty-three (23) connections to the City of Lodi's existing water grid. The connection points are assumed to have a system pressure of 45 pounds per square inch (psi) in conformance with City Design Standards. The proposed water wells are assumed to be located near the south boundary of the study area to provide additional system pressure during peak hour and fire flow situations.

The results of the fire flow analysis indicate that the water pipe distribution system shown on Appendix D, E, F and G, consisting of a combination of 8 inch and 10 inch pipe, will satisfy the water demand and fire flow requirements of the study area in conformance with the City's Design Standards. It should be noted that various combinations of 8 inch and 10 inch water pipe systems were modeled and the configuration shown in Appendices A through D provide the best results.



**Figure 5  
Future Well Locations**

**Legend**

- |  |  |   |
|--|--|---|
|  Well Locations                       |  Future Basins      |  Parks                   |
|  Storage Tank - Future                |  Major Street Names |  Railroad               |
|  Surface Water Treatment Plant        |  City Limits        |  River                  |
|  36-inch Transmission Line - Future   |  Parcels            |  Master Plan Boundaries |
|  36-inch Transmission Line - Existing |  Canal              |   |



1 in = 3,000 ft

### **3.4 TRANSMISSION PIPELINE EXTENSION**

As part of the Surface Water Treatment Plant a 36 inch diameter transmission line was installed in North Mills Avenue from West Turner Road to West Lockeford Street. As new development expands westward water demand will increase. The increase in water demand will require the 36 inch diameter transmission pipeline to extend south along North Mills Avenue to West Lodi Avenue then west from the North Mills Avenue and West Lodi Avenue intersection to approximately the western City limits.

### **3.5 FINANCE AND IMPLEMENTATION PLAN**

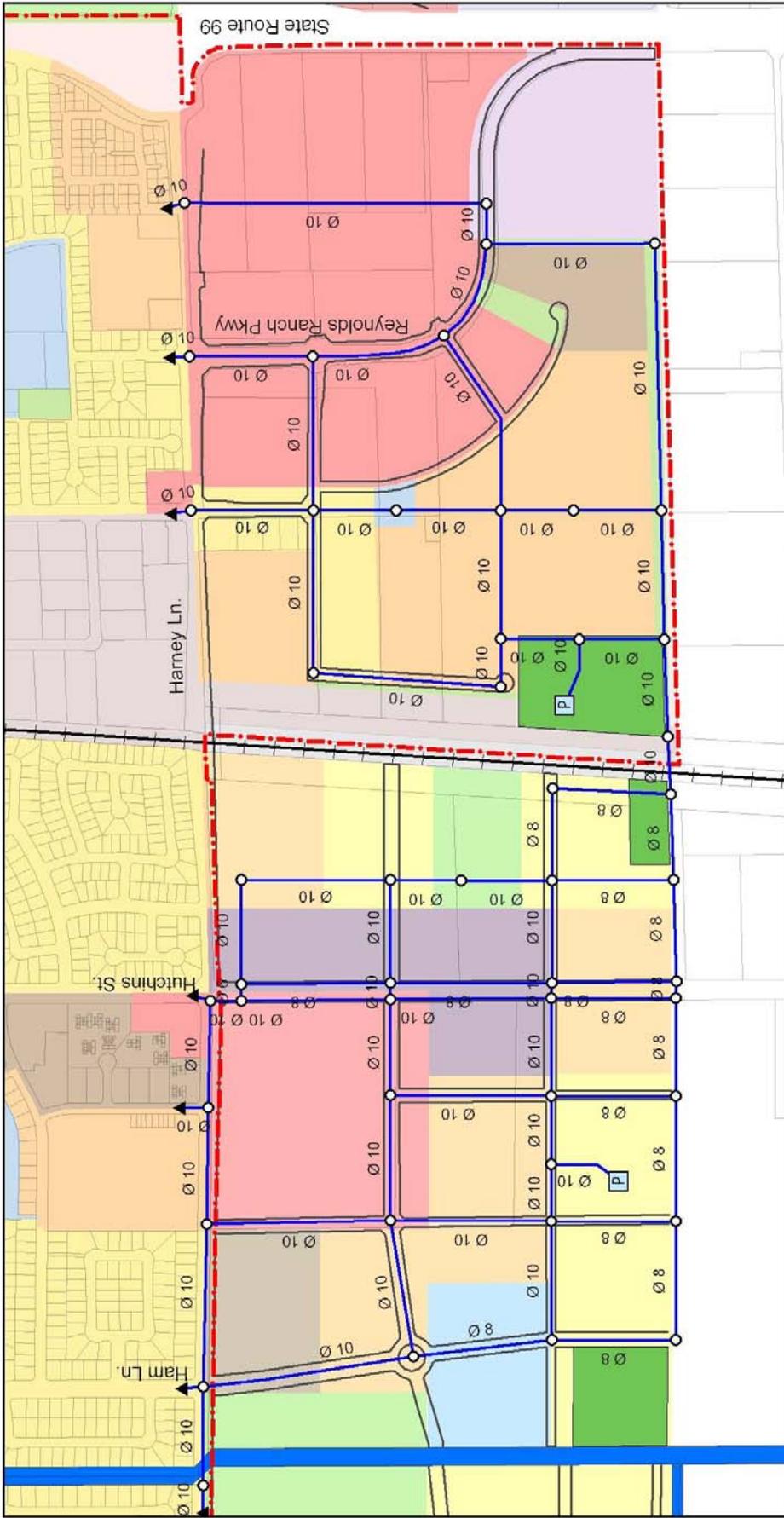
Construction of the Master Plan Facilities will be dependent upon the rate and pattern of development in the study area. The cost and financing of the improvements shall be determined as part of the Impact Mitigation Fee Program that is being adopted concurrently with this report. Financing alternatives include, but are not limited to, developer financing on a pay-as-you-go basis or through a new City-wide development impact fee program.



**Appendix A**

*Water Pipe Layout  
South of Harney Lane  
State Route 99 to WID Canal*





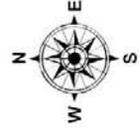
# Water Pipe Layout South of Harney Lane State Route 99 to WID Canal

## Legend

- Future Production Well
- City Connections
- Junctions
- Future Water Pipes
- Future Basins
- City Limits
- Canal
- Railroad
- River

## General Plan - Land Use

- Business Park
- Commercial
- Downtown Mixed Use
- High Density Residential
- Industrial
- Low Density Residential
- Medium Density Residential
- Mixed Use Center
- Mixed Use Corridor
- Office
- Open Space
- Public/Quasi-Public
- Right of Way
- Urban Reserve
- Water



1 in = 800 ft



**Appendix B**

*Water Pipe Layout  
South of Harney Lane  
WID Canal to Lower Sacramento Road*





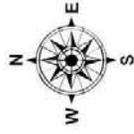
# Water Pipe Layout South of Harney Lane WID Canal to Lower Sacramento Road

## Legend

- Future Production Well
- City Connection
- Junction
- Future Water Pipes
- Future Basins
- City Limits
- Canal
- Railroad
- River

## General Plan - Land Use

- Business Park
- Commercial
- Downtown Mixed Use
- High Density Residential
- Industrial
- Low Density Residential
- Medium Density Residential
- Mixed Use Center
- Mixed Use Corridor
- Office
- Open Space
- Public/Quasi-Public
- Right of Way
- Urban Reserve
- Water



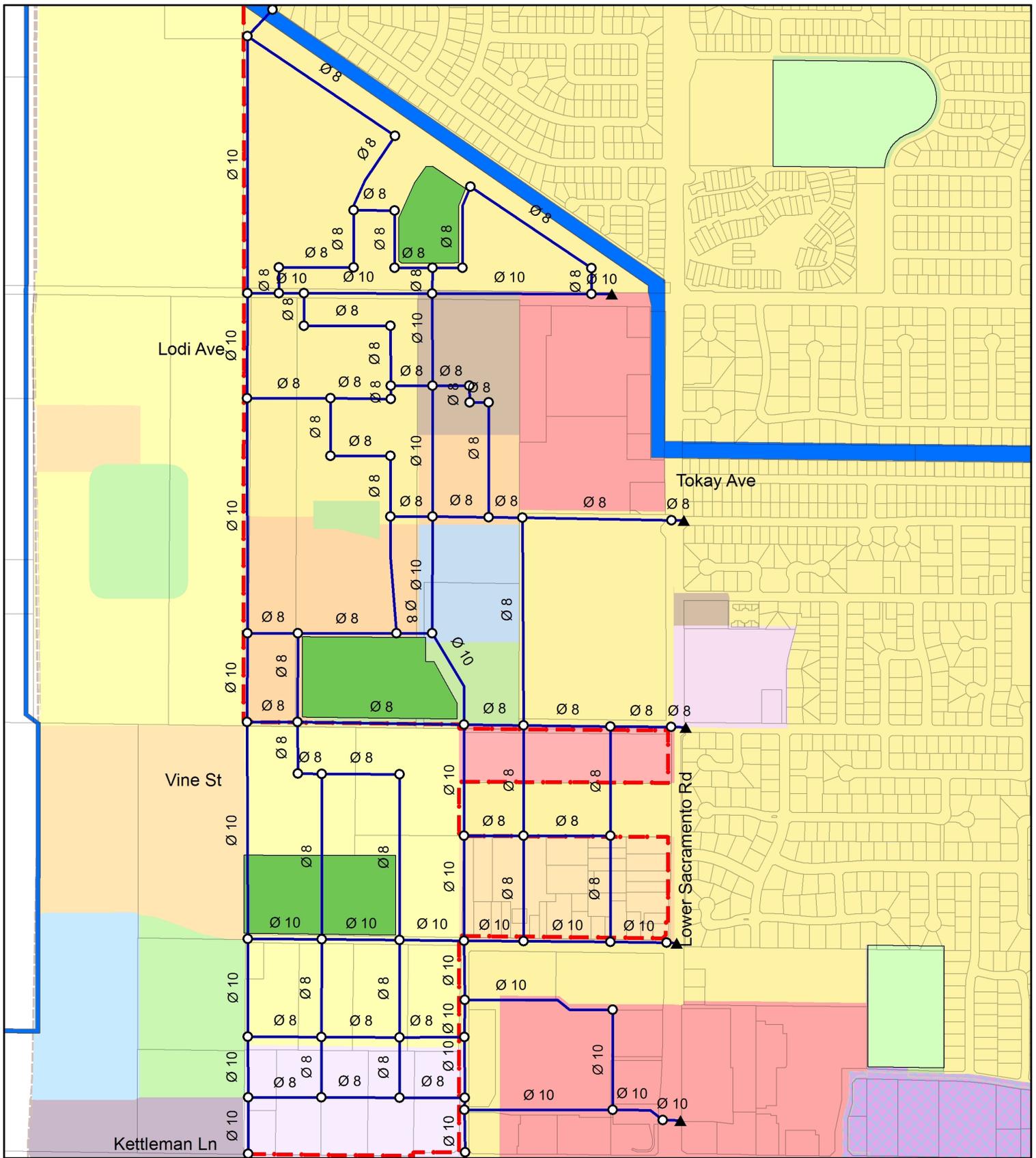
1 in = 901 ft



## **Appendix C**

*Water Pipe Layout  
West of Lower Sacramento Road  
Lodi Avenue to Kettleman Lane*





# Water Pipe Layout

## Lodi Avenue to Kettleman Lane

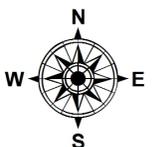
### Legend

- Future Production Well
- ▲ City Connection
- Junction
- Future Water Pipes
- Future Basins

### General Plan - Land Use

- City Limits
- Canal
- Railroad
- River
- Business Park
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- Downtown Mixed Use
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- Mixed Use Center
- Mixed Use Corridor
- Office

- Open Space
- Public/Quasi-Public
- Right of Way
- Urban Reserve
- Water



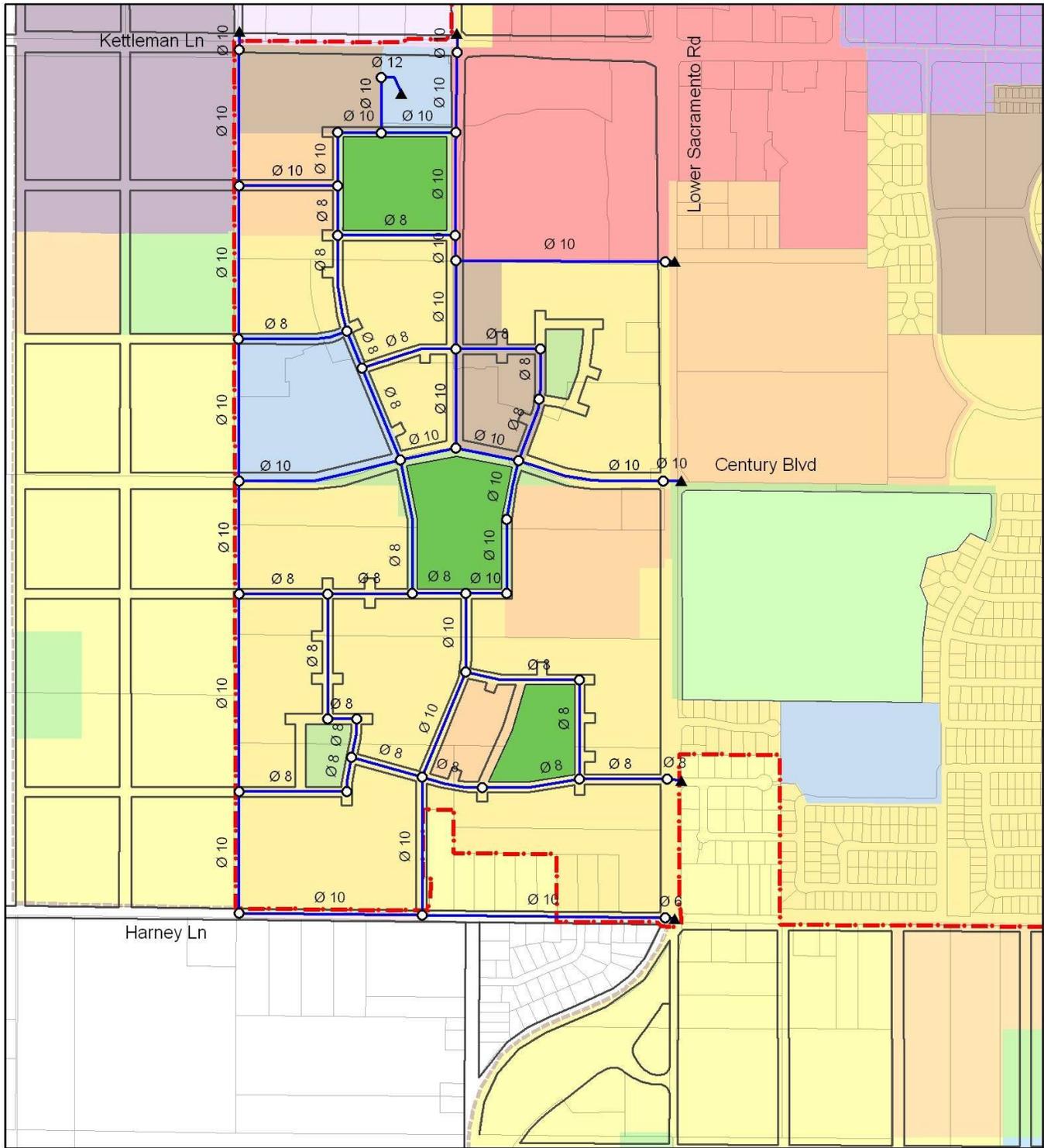
1 in = 800 ft



## **Appendix D**

*Water Pipe Layout  
West of Lower Sacramento Road  
Kettleman Lane to Harney Lane*

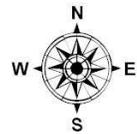




## Water Pipe Layout Kettleman Lane to Harney Lane

### Legend

- |                        |             |                          |                            |                     |
|------------------------|-------------|--------------------------|----------------------------|---------------------|
| Future Production Well | City Limits | Business Park            | Low Density Residential    | Open Space          |
| City Connection        | Canal       | Commercial               | Medium Density Residential | Public/Quasi-Public |
| Junction               | Railroad    | Downtown Mixed Use       | Mixed Use Center           | Right of Way        |
| Future Water Pipes     | River       | High Density Residential | Mixed Use Corridor         | Urban Reserve       |
| Future Basins          |             | Industrial               | Office                     | Water               |



1 in = 800 ft



## **Appendix E**

### *Fire Flow Analysis*



## Fire Flow Report - State Route 99 to WID Canal

Label	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual) (psi)
J-2	TRUE	2000	4000	2094	4094	33.3
J-3	TRUE	2000	4000	2000	4000	32.2
J-5	TRUE	2000	4000	2133	4133	38.3
J-6	TRUE	2000	4000	2118	4118	37.4
J-13	TRUE	2000	4000	2130	4130	32.5
J-14	TRUE	2000	4000	2108	4108	35.5
J-15	TRUE	2000	4000	2095	4095	36.6
J-16	TRUE	2000	4000	2028	4028	30.9
J-17	TRUE	2000	4000	2000	4000	28.2
J-18	TRUE	2000	4000	2079	4079	34
J-19	TRUE	2000	4000	2077	4077	34.7
J-20	TRUE	2000	4000	2068	4068	34.4
J-21	TRUE	2000	4000	2000	4000	25.6
J-22	TRUE	2000	4000	2000	4000	33.7
J-23	TRUE	2000	4000	2037	4037	30.3
J-24	TRUE	2000	4000	2027	4027	27.2
J-25	TRUE	2000	3712	2000	3712	20
J-26	TRUE	2000	4000	2081	4081	32.4
J-27	TRUE	2000	4000	2152	4152	37.2
J-28	TRUE	2000	4000	2077	4077	45
J-29	TRUE	2000	4000	2060	4060	40.9
J-30	TRUE	2000	4000	2043	4043	39.7
J-31	TRUE	2000	4000	2064	4064	37.1
J-32	TRUE	2000	4000	2061	4061	38.2
J-33	TRUE	2000	4000	2024	4024	38.1
J-34	TRUE	2000	4000	2000	4000	38.8
J-35	TRUE	2000	4000	2000	4000	39.8
J-36	TRUE	2000	4000	2063	4063	44.9
J-37	TRUE	2000	4000	2022	4022	31.7
J-38	TRUE	2000	4000	2060	4060	36.7
J-39	TRUE	2000	4000	2069	4069	35.8
J-40	TRUE	2000	4000	2085	4085	30.6
J-41	TRUE	2000	4000	2000	4000	32.9
J-42	TRUE	2000	4000	2042	4042	21.1
J-45	TRUE	2000	4000	2000	4000	41.5

Label	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual) (psi)
J-46	TRUE	2000	4000	2000	4000	45.2
J-48	TRUE	2000	4000	2000	4000	45
J-49	TRUE	2000	4000	2000	4000	45
J-50	TRUE	2000	4000	2000	4000	45
J-51	TRUE	2000	4000	2066	4066	33.9
J-52	TRUE	2000	4000	2094	4094	32.5
J-53	TRUE	2000	4000	2067	4067	44.8
J-55	TRUE	2000	4000	2064	4064	33.7
J-56	TRUE	2000	4000	2017	4017	39.1
J-57	TRUE	2000	4000	2029	4029	38.6
J-58	TRUE	2000	4000	2029	4029	33.7
J-59	TRUE	2000	4000	2026	4026	33.9
J-60	TRUE	2000	4000	2000	4000	35.8
J-63	TRUE	2000	4000	2000	4000	32.3

## Fire Flow Report - WID Canal to Lower Sacramento Road

Label	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual) (psi)
J-66	TRUE	2000	4000	2000	4000	45
J-67	TRUE	2000	4000	2043	4043	45
J-68	TRUE	2000	4000	2047	4047	35.6
J-69	TRUE	2000	4000	2014	4014	29.2
J-70	TRUE	2000	4000	2023	4023	27.4
J-71	TRUE	2000	4000	2035	4035	31.7
J-73	TRUE	2000	4000	2050	4050	37.1
J-74	TRUE	2000	4000	2043	4043	43.3
J-75	TRUE	2000	4000	2053	4053	45
J-76	TRUE	2000	4000	2044	4044	41.6
J-77	TRUE	2000	4000	2024	4024	41.2
J-78	TRUE	2000	4000	2023	4023	39.6
J-79	TRUE	2000	4000	2000	4000	45
J-80	TRUE	2000	4000	2029	4029	38.6
J-81	TRUE	2000	4000	2019	4019	32.6
J-82	TRUE	2000	4000	2019	4020	34
J-83	TRUE	2000	4000	2021	4021	34.9
J-84	TRUE	2000	4000	2023	4024	36.6
J-85	TRUE	2000	4000	2018	4018	34.6
J-86	TRUE	2000	4000	2023	4023	24.1
J-87	TRUE	2000	4000	2009	4009	22.5
J-88	TRUE	2000	4000	2046	4046	37.7
J-89	TRUE	2000	4000	2048	4047	38.4
J-90	TRUE	2000	4000	2072	4072	39.9
J-91	TRUE	2000	4000	2054	4054	38.4
J-94	TRUE	2000	4000	2000	4000	45
J-97	TRUE	2000	4000	2000	4000	45
J-99	TRUE	2000	4000	2000	4000	34.7

## Fire Flow Report - WID Canal to Lower Sacramento Road

Label	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual) (psi)
J-152	TRUE	2000	4000	2000	4000	45
J-153	TRUE	2000	4000	2000	4000	45
J-154	TRUE	2000	4000	2000	4000	41.5
J-155	TRUE	2000	4000	2000	4000	45
J-158	TRUE	2000	4000	2000	4000	39.9
J-159	TRUE	2000	4000	2023	4024	38.2
J-160	TRUE	2000	4000	2000	4000	40.8
J-161	TRUE	2000	4000	2000	4000	45
J-162	TRUE	2000	4000	2000	4000	38.9
J-163	TRUE	2000	4000	2000	4000	39.6
J-164	TRUE	2000	4000	2000	4000	41.7
J-165	TRUE	2000	4000	2000	4000	45
J-166	TRUE	2000	4000	2000	4000	37.2
J-167	TRUE	2000	4000	2000	4000	44.9
J-168	TRUE	2000	4000	2009	4009	38.7
J-169	TRUE	2000	4000	2000	4000	44.9
J-170	TRUE	2000	4000	2000	4000	42.6
J-171	TRUE	2000	4000	2000	4000	41.8
J-172	TRUE	2000	4000	2005	4005	41.2
J-173	TRUE	2000	4000	2000	4000	40.5
J-174	TRUE	2000	3889	2023	3912	20
J-175	TRUE	2000	4000	2039	4039	41.1
J-176	TRUE	2000	4000	2011	4011	39.7
J-177	TRUE	2000	4000	2011	4011	37.6
J-178	TRUE	2000	4000	2028	4028	30.2
J-179	TRUE	2000	4000	2000	4000	37.1
J-180	TRUE	2000	4000	2012	4012	37.9
J-181	TRUE	2000	4000	2043	4043	40.7
J-182	TRUE	2000	4000	2055	4055	41.3
J-183	TRUE	2000	4000	2000	4000	36.5
J-185	TRUE	2000	4000	2010	4010	37.4
J-186	TRUE	2000	4000	2011	4011	39.6
J-187	TRUE	2000	4000	2035	4035	40.4

Label	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual) (psi)
J-188	TRUE	2000	4000	2000	4000	30.5
J-189	TRUE	2000	3755	2000	3755	20
J-190	TRUE	2000	4000	2040	4041	27.9
J-191	TRUE	2000	4000	2000	4000	25
J-192	TRUE	2000	4000	2012	4012	28.2
J-193	TRUE	2000	4000	2005	4005	36.2
J-194	TRUE	2000	4000	2020	4020	34.2
J-195	TRUE	2000	3879	2000	3879	20
J-196	TRUE	2000	4000	2011	4011	28.1
J-197	TRUE	2000	4000	2009	4009	39
J-198	TRUE	2000	4000	2013	4013	34.5
J-199	TRUE	2000	4000	2000	4000	32.3
J-200	TRUE	2000	4000	2000	4000	36.4
J-201	TRUE	2000	4000	2000	4000	24.8
J-202	TRUE	2000	4000	2014	4014	29.4
J-203	TRUE	2000	4000	2000	4000	38.3
J-204	TRUE	2000	4000	2029	4029	33.3
J-205	TRUE	2000	4000	2000	4000	23.3
J-206	TRUE	2000	4000	2012	4012	23.3
J-207	TRUE	2000	4000	2012	4012	32.2
J-208	TRUE	2000	4000	2038	4038	34.9
J-209	TRUE	2000	4000	2000	4000	36.5
J-210	TRUE	2000	4000	2022	4022	34.3
J-211	TRUE	2000	4000	2000	4000	33.9
J-212	TRUE	2000	4000	2000	4000	23.8
J-213	TRUE	2000	4000	2021	4021	31.3
J-214	TRUE	2000	4000	2000	4000	38.8
J-215	TRUE	2000	4000	2027	4027	28.4
J-216	TRUE	2000	4000	2033	4033	25.8
J-217	TRUE	2000	4000	2001	4001	24.1
J-218	TRUE	2000	4000	2028	4028	34.9
J-219	TRUE	2000	4000	2000	4000	39.4
J-220	TRUE	2000	4000	2019	4019	38.4
J-221	TRUE	2000	4000	2018	4018	34.3
J-222	TRUE	2000	4000	2000	4000	43
J-224	TRUE	2000	4000	2000	4000	45
J-225	TRUE	2000	4000	2046	4046	41.2
J-226	TRUE	2000	4000	2000	4000	35.6
J-227	TRUE	2000	4000	2000	4000	41.1

## Fire Flow Report - WID Canal to Lower Sacramento Road

Label	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual) (psi)
J-103	TRUE	2000	4000	2000	4000	44.5
J-104	TRUE	2000	4000	2000	4000	37.1
J-105	TRUE	2000	4000	2000	4000	29.9
J-106	TRUE	2000	4000	2000	4000	37.7
J-109	TRUE	2000	4000	2012	4012	40.2
J-110	TRUE	2000	4000	2049	4049	40.7
J-111	TRUE	2000	4000	2048	4048	36
J-112	TRUE	2000	4000	2004	4004	37.4
J-113	TRUE	2000	4000	2013	4013	36.8
J-114	TRUE	2000	4000	2035	4035	38.4
J-115	TRUE	2000	4000	2061	4061	39.6
J-117	TRUE	2000	4000	2035	4035	40.8
J-118	TRUE	2000	4000	2000	4000	45
J-119	TRUE	2000	4000	2021	4021	34.1
J-120	TRUE	2000	4000	2034	4034	26.5
J-121	TRUE	2000	4000	2031	4031	32.3
J-123	TRUE	2000	4000	2032	4032	30.7
J-124	TRUE	2000	4000	2014	4014	25.9
J-125	TRUE	2000	4000	2009	4009	33.1
J-126	TRUE	2000	4000	2000	4000	35.5
J-127	TRUE	2000	4000	2010	4010	40
J-128	TRUE	2000	4000	2020	4020	38.8
J-129	TRUE	2000	4000	2033	4033	37
J-130	TRUE	2000	4000	2039	4039	41
J-131	TRUE	2000	4000	2009	4009	35.6
J-132	TRUE	2000	4000	2016	4016	40.4
J-133	TRUE	2000	4000	2027	4028	23.2
J-134	TRUE	2000	4000	2020	4020	20.6
J-135	TRUE	2000	4000	2021	4021	30.9
J-136	TRUE	2000	4000	2019	4019	20.2
J-137	TRUE	2000	4000	2008	4008	37.1
J-138	TRUE	2000	4000	2012	4012	35.3
J-139	TRUE	2000	4000	2007	4007	35.7
J-140	TRUE	2000	4000	2063	4063	39.9

Label	Satisfies Fire Flow Constraints?	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Pressure (Calculated Residual) (psi)
J-141	TRUE	2000	4000	2029	4029	24.1
J-142	TRUE	2000	4000	2041	4041	37.1
J-143	TRUE	2000	4000	2000	4000	25.3
J-146	TRUE	2000	4000	2000	4000	45
J-147	TRUE	2000	4000	2000	4000	44.9
J-149	TRUE	2000	4000	2026	4026	25.8
J-150	TRUE	2000	4000	2048	4048	36.7
J-151	TRUE	2000	4000	2000	4000	45
J-152	TRUE	2000	4000	2000	4000	45



**Appendix F**

*2003 Woodbridge Irrigation District Agreement*



# AGREEMENT FOR PURCHASE OF WATER FROM THE WOODBIDGE IRRIGATION DISTRICT BY THE CITY OF LODI

This Agreement is made and entered into between Woodbridge Irrigation District and the City of Lodi, adjoining entities located within the County of San Joaquin, State of California, this 13<sup>th</sup> day of May, 2003.

### Background Recitals.

a. The City of Lodi obtains its municipal water supply from wells located within the City, extracting the water from the underground aquifer, which is replenished in part by flows of the Mokelumne River. Lodi desires to acquire a supplemental surface water supply to avoid being wholly dependent upon the wells and the possible impacts of eventual overdraft of the groundwater supply.

b. Woodbridge Irrigation District (District or WID) is an irrigation district that is organized and existing under Division 11 of the California Water Code (Sections 20,500 et seq). The District is located immediately west of the City of Lodi and immediately north of the City of Stockton. The District diverts water from the Mokelumne River at Woodbridge Dam, located in the NE 1/4 of the SE 1/4 of Section 34, Township 4 N, Range 6 E, MDBM, for irrigation of a net area of 19,370.3 acres within a gross area of 40,441.77 acres and located within Townships 2 N, 3 N, 4 N and 5 N, Ranges 5 E, 6 E and 7 E, MDBM.

c. The District diverts its water supply from the Mokelumne River under pre-1914 appropriative rights for the diversion of water up to 300 cubic feet per second (cfs). The District's pre-1914 rights are overlapped by the District License No. 5945 for the appropriation of 300 cfs per annum from February 1 to October 31 for irrigation use, supplemented by License No. 8214 for the diversion of an additional 114.4 cfs from May 1 to August 31 of each year and from November 1 of each year to January 31 of the succeeding year. The combined rights under the two Licenses together with the District's pre-1914 rights are limited to a maximum diversion of 414.4 cfs.

d. The District, following the East Bay Municipal Utility District's (EBMUD) building of the Pardee and Camanche Reservoirs on the Upper Mokelumne River, entered into Agreements with EBMUD in 1938 after Pardee's completion and again in 1965 after the completion of Camanche, which acknowledged the priority of some of the District rights to the EBMUD rights, and under which agreements EBMUD releases a Regulated Base Supply of water each year from Camanche Reservoir for diversion by the District at Woodbridge Dam for irrigation use.

e. The District's demand for water from the Mokelumne River under its water rights has begun to diminish by reason of the District's water conservation programs, including the conversion of field furrow and flood irrigation methods of application to water applied by drip irrigation and micro-sprinklers, which reduce the amount of applied water for crops. There has also been a reduction in the delivery of irrigation water by reason of the number of irrigated acres being reduced as a result of urbanization of District lands.

f. By reason of the anticipated reductions in water usage within the District, the District has determined that it will have surplus water in certain amounts available under its water entitlements from the Mokelumne River, and the water that would be delivered to the City by this Agreement is surplus to the current needs of the landowners and water users within the District as required by Section 22259 of the Water Code. The District's South Main Canal traverses the westerly portion of the City of Lodi, and the District could deliver water diverted from the Mokelumne River under its water rights to Lodi at a mutually agreeable location along the District Canal System.

g. The water is diverted by the District at Woodbridge Dam, with diversions being facilitated during the irrigation season by the installation of flashboards in the Dam. The flashboards are removed after the end of the irrigation season for Dam maintenance and Dam safety. When the flashboards are in place, water backs up into Lodi Lake and the City's Lodi Park Lake. The Lake is used for fishing, boating and recreational purposes by inhabitants of the City, and its presence during the summer months is an enhancement to the City's Lodi Park Lake. During the periods that the flashboards are not in the Dam, the Lake level is lowered and its utility for fishing, recreation and boating is reduced.

h. Because of its age, it is necessary for the District to replace the existing Woodbridge Diversion Dam in order to provide greater security and protection against dam failure. In doing so, and in reliance on this Agreement, the District intends, subject to any requirements of the Division of Safety of Dams, that the replacement dam structure will be designed and constructed so that water can be impounded behind the dam year round. The estimated cost for replacement of the Dam and appurtenances is approximately \$20,000,000.

i. The City of Lodi desires to contract with the District for the purchase of water from the District for use within the City service area, for which the City will pay on the basis and pursuant to the conditions hereinafter set forth.

**NOW, THEREFORE, WOODBRIDGE IRRIGATION DISTRICT  
(DISTRICT) AND THE CITY OF LODI (CITY) AGREE AS FOLLOWS:**

1. Water to be Made Available to City, and Payment. Beginning in the calendar year which first follows the entry of a final judgment confirming the validity of this Agreement pursuant to Chapter 9 (commencing with Section 860) of Title 10 of Part 2 of the Code of Civil Procedure, and continuing through the term of this Agreement, the District shall make available to the City out of its Regulated Base Supply under its Agreement with EBMUD, 6,000 acre feet per annum under the terms and conditions herein set forth. In consideration thereof, the City will pay the District annually the sum of ONE MILLION TWO HUNDRED THOUSAND DOLLARS (\$1,200,000.) Payments thereon of \$300,000 quarterly are due and payable in advance beginning on the first day of each calendar quarter, commencing on the first day of the calendar year which follows said entry of a final judgment confirming the validity of this Agreement. Said payments shall be made irrespective of whether the City takes the water made available to it under this Agreement and irrespective of whether the District has water available for delivery to the City, provided that the District shall make its best efforts to provide to the City the amounts of water provided for in this Agreement.

Prior to the commencement of the first full calendar year following the entry of said final judgment, i.e., in the year in which the entry of the final judgment occurs, the City shall make quarterly payments to the District of \$300,000 on the first day of each calendar quarter in that year which follows the entry of the final judgment by more than thirty days, in consideration for which one-fourth of 6,000 acre feet of water shall be made available to the City in the that initial year for each calendar quarter for which such payment is made. Any of such water which is not taken by City in that initial year shall be included as a part of the 18,000 acre feet of carryover water which the City may take at a later date as provided for in paragraph 6.a. hereof.

2. Construction of New Dam by Woodbridge. The District has secured the required permits from the Federal and State agencies and the necessary environmental clearances for the construction of a new Woodbridge Dam to replace the existing Dam together with appurtenant facilities, and the District will proceed with construction as soon as is feasible utilizing the revenues to be paid under this Agreement to finance a portion of the costs of the project.

3. Point of Delivery and Time of Delivery. The District agrees to deliver the water to the City at a point or points on the District's Canal at a mutually agreeable location or locations, to be determined at a later date. The water will be delivered during the period from March 1 through October 15. The City shall construct at its sole cost and expense the facilities needed to measure and take delivery of water from the District Canal, and the design, construction and operation thereof shall be approved by the District. The City will be responsible for all costs of operation, repair, maintenance and replacement of such facilities. The measurement facilities shall be recalibrated annually at the City's

expense as requested by the District and the District shall have a continuing right to test the accuracy of such facilities.

a. The City shall provide the District, by January 1 of each year, an estimate of the maximum amount of water anticipated to be needed by the City during each month of that year from March 1 through October 15, which scheduling will be subject to the District's approval. The District will supply such water on said approved monthly schedule pursuant to and as limited by the terms, conditions and limitations of this Agreement; provided that the City shall to the extent that its operations will permit, schedule the taking of as much of its entitlement to water from the District that year prior to July 1 as is feasible, but in any event not less than 3,000 acre feet.

b. At such times as it is possible for the District to deliver water during the remaining months of the year, or to deliver water in excess of 6,000 acre feet during the period from March 1 through October 15, then by mutual agreement of the parties, delivery of such water to the City may be made by the District. The City shall pay the District \$100 per acre foot for any such additional water delivered to the City.

c. The water furnished by the District under this Agreement shall be used or furnished by the City only for domestic, municipal, industrial, irrigation and other beneficial uses.

d. The District further agrees that it will, during the term of this Agreement at the City's request, divert from the Mokelumne River at the District's Woodbridge Dam and wheel and convey through the District's canal system to the City's delivery point(s), any non-District water acquired by or available to the City, subject to the District having available capacity for that purpose and subject to the City paying a per-acre-foot charge in an amount which the District determines to be its costs for such service. The District's cost for such service in year 2003 would be \$20 per acre-foot.

e. Commencing on January 1 of the seventh year following the year in which execution of this Agreement occurs, the amounts payable to the District under paragraph 1, and the amounts payable to the District under subparagraphs 2.b. and 2.d., shall be increased by two percent per year above the amounts payable during the preceding calendar year. In the event that the annual change in the Consumer Price Index (CPI-W, unadjusted U.S. average) published in December of each year by the United States Bureau of Labor Statistics, commencing in December in the year preceding such seventh year, has increased more than two (2) percent above the December Index of the prior year, the increases in the amounts payable in the ensuing year shall be in the percentage of that increase; provided that any such annual increase shall not exceed five percent (5%).

f. The payments by the City to the District under this Agreement shall be deemed to include the payment during the term of the Agreement of all District groundwater recharge fees on parcels within the City of Lodi which are also located within the boundary of the District.

4. Term of Agreement. (a) This Agreement shall be effective from the date of execution hereof, and shall remain in effect for a term of forty (40) years from said date.

(b) Upon receipt by the District of written notice and request for renewal from the City at least two years in advance of the termination of the Agreement, the District agrees to negotiate with the City for a renewal of this Agreement for an additional forty (40) year term, on terms and conditions that are reasonable and equitable and which are satisfactory to the District.

(c) The District agrees that it will not enter into any agreement during the initial term of this Agreement to provide water to others outside of the District except upon terms which provide that such supply shall be subordinate to the City's rights to be furnished water under this Agreement (except as the City may otherwise specifically agree to). The parties may contract for the delivery of additional amounts of water that may become available upon terms mutually agreeable to the parties. The City shall have a first right of refusal to purchase any water which the District agrees during the initial term of this Agreement to provide to any other purchaser, upon the same terms and conditions provided in such other proposed sale of water.

5. City Payments to be Made from City's Water System Revenues. The City shall make payments under this Agreement solely from the Revenues of, and as an operating expense of, the Lodi Municipal Water System. The City hereby pledges the Revenues to the payments required hereunder. Nothing herein shall be construed as prohibiting the City from using any other funds and revenues for purposes of satisfying any provisions of this Agreement. So long as the City is in compliance with all of its obligations hereunder, such pledge shall not prevent its application of Revenues to other operating expenses of the Lodi Municipal Water System or, subject to the payment of such operating expenses, to other lawful purposes, or impair the rights of any recipient of Revenues lawfully so applied.

"Revenues" means "all gross income and revenue received or receivable by the City from the ownership and operation of the Lodi Municipal Water System, which gross income and revenue shall be calculated in accordance with generally accepted accounting principles, including all rates, fees, and charges received by the City for water service and connection and hook-up fees and all other income and revenue howsoever derived by the City from the ownership and operation of or arising from the Lodi Municipal Water System, but excluding in all cases any proceeds or taxes and any refundable deposits made to establish credit,

federal or state grants, or advances or contributions in aid of construction".

"Lodi Municipal Water System" means "the municipal water system of the City existing on the effective date of this Agreement and all additions, betterments, extensions and improvements thereto hereafter acquired or constructed".

6. City Cooperation in District's Funding of Reconstruction of Woodbridge Dam.

The City agrees to cooperate with District in connection with any financing undertaken by District in connection with the reconstruction of the Woodbridge Diversion Dam and to provide to District such certificates, statements and information as District shall reasonably require in connection with such financing, including, without limitation, information relating to the Lodi Municipal Water System and the Revenues, and to provide such information as may be reasonably required in connection with the continuing disclosure undertaking to be entered into by the City pursuant to Rule 15c2-12(b)(5) of the Securities Exchange Commission in connection with the District financing.

7. No Permanent Water Right, and Dry Year Curtailments. The District has determined that the water to be made available annually for delivery to the District pursuant to this Agreement will be surplus to the needs of the District during the term of this Agreement. The parties further agree that no permanent right to the water supplied by the District shall accrue to the City except pursuant to and as limited by the terms of this Agreement.

a. The District agrees that it will deliver up to 6,000 acre feet per annum to the City under this Agreement except to the extent that the District's Regulated Base Supply of 60,000 acre feet under its Agreements with East Bay Municipal Utility District is reduced in dry years by thirty-five (35) percent. In the event of such a reduction, the District may reduce the amount of water to be provided under this Agreement by up to fifty percent (50%). District shall on or about May 1 of each year make a preliminary estimate of whether the City's deliveries may be curtailed that year, and will provide a final estimate of any curtailment on or about July 1. In such event, the City shall only be obligated to take 50% of its estimated delivery before July 1 in that year. There shall be no reduction in the amount of the City's annual payment to the District in such years under paragraph 1.

b. Except for noncompliance with the foregoing provisions of this paragraph, the City shall have no claim for damages or breach arising from the unavailability of surplus water from the District for any cause or condition.

8. Carryover of Entitlements. Unused water may not be carried over by the City

from year to year except that the right to receive water may be "banked," as follows:

a. If during the first three years in which the water is available to the City under this Agreement, the City does not take the water or takes less than the amounts which are available, then the City may carry over and have credit for the water not taken, not to exceed a total of 18,000 acre feet, for later delivery during the initial 40-year term of this Agreement, at such times as the District has extra water available as determined solely by the District. There will be no additional charge for the delivery of such banked water.

b. If after said initial three years delivery of water to the City is curtailed under paragraph 7.a. by reason of a dry year condition or by District's maintenance or other District activities, then the City may carry over and have credit for the amount of such curtailment for later delivery at such time(s) as the District has extra water available as determined by the District. Any City credits for curtailed segments of carryover water shall expire at the end of eight (8) years from the end of the period in which the curtailment for that segment of curtailed water occurred. Such credits for the delivery of curtailed carryover water within said eight-year period may extend beyond the termination of this Agreement. There will be no additional charge for the delivery of such banked water.

c. Except as provided in subparagraph a, no credits shall accrue for water that is available to but is unused by the City.

**9. Water Quality, Temporary Interruptions, and Responsibility for the Water Beyond Point of Delivery.**

a. The water being supplied to the City is raw water diverted from the Mokelumne River, and the character or quality of the water furnished hereunder may vary from time to time. District does not guarantee in any respect the character or quality of the water furnished pursuant to this Agreement, provided that the District shall not apply or use any chemicals within the Canal section used to deliver water to the City that the City determines to be deleterious to the quality of the water for the uses made by the City of such water.

b. It is agreed that there may be, in addition to shortages of water, temporary discontinuance or reduction of water to be furnished for the City as herein provided, for purposes of investigation, inspection, maintenance, repair or replacement as may be necessary of any of the facilities used by the District for furnishing water to the City. The District agrees to provide the City notice of such temporary discontinuance or reduction of water as soon as such information is available to the District.

c. The City shall hold the District harmless from and defend the District from all claims or expenses on account of damage or claim of damage of any nature whatsoever from which there is legal responsibility, including property damage, personal injury or death, arising out of or connected with the delivery, control, carriage, handling, use, or disposal or distribution of water furnished hereunder beyond the point of delivery of water into the City's system from the District's Canal.

10. Right of Termination for Unacceptable Conditions in Validation Judgment. In the event that the court in the validation action enters a judgment validating the Agreement but upon conditions or restrictions which impose upon either party costs, requirements, obligations, or limitations in their performance of the agreement or upon their operations or property interests which in that party's judgment are unacceptable or otherwise not in the best interests of that party, that party shall have the right to terminate this Agreement, and in that event neither party shall have any further liability or obligation to the other party hereunder.

11. Arrearage in Payments. No water shall be furnished to the City during any period in which the City may be in arrears in payment of charges accruing hereunder after the determination on the amount thereof as above provided. Interest on arrearage in payment shall be charged at a rate of 1-1/2% per month and compounded monthly, commencing 45 days after the due date of the payment.

12. Assignment. The provisions of this contract shall apply to and bind the successors and assigns of the respective parties hereto; but no assignment or transfer of this contract or any part thereof or interest therein by the City shall be valid unless and until approved in writing by the District; and no assignment of the obligation to provide or deliver the water shall be assignable by the District without the consent of the City.

13. Fees and Costs. Any fees, costs or expenses, including attorney fees, administrative costs, and consultant fees, incurred by the District to effect the sale of water to the City, together with CEQA and any other regulatory approval, shall be paid by District and City on a 50/50 basis. The City shall not be required to contribute to any fees or costs incurred by District relating to other issues or disputes that may arise in any of said proceedings not directly relating to City's use of District water. District shall provide to City invoices and accountings of said fees and expenses on a regular basis.

14. City Use of District Rights of Way. The District agrees to cooperate with City and to agree to the City's use of any District right of way along the District's Main Canal needed by the City for the conveyance or distribution of water it obtains from the District.

15. CEQA. The parties agree that the District will be Lead Agency for purposes of

compliance with any requirements of the California Environmental Quality Act pertaining to the execution of this Agreement by each party.

16. Entire Agreement. This Agreement contains the full and entire Agreement of the parties and there are no other conditions, either explicit or implied, nor any warranties or promises other than those contained within the written terms of this Agreement.

17. Time of the Essence. Time is of the essence in the performance of this Agreement.

18. Nonwaiver. The failure of either party to enforce or abide by a term or condition of this Agreement shall not constitute a waiver of that term or condition unless a written Agreement is prepared specifically providing for the waiver or forgiveness of that term and such Agreement is executed by each party hereto.

19. Date of Execution. The date of execution of this Agreement is the date of execution by the party last signing the Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this instrument on the 13<sup>th</sup> day of May, 2003.

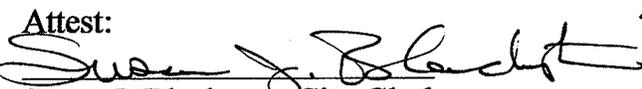
WOODBRIIDGE IRRIGATION DISTRICT

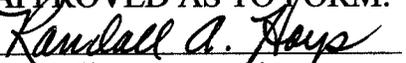
By 

Attest: 

CITY OF LODI, A MUNICIPAL CORPORATION

By   
Susan Hitchcock, Mayor

Attest:   
Susan J. Blackston, City Clerk

APPROVED AS TO FORM:  
  
Randall A. Hays, City Attorney

4/16/03

## CONTINUING DISCLOSURE CERTIFICATE

This Continuing Disclosure Certificate (the "Disclosure Certificate") is executed and delivered by the City of Lodi, California ("Lodi") in connection with the execution and delivery of the \$11,745,000 Woodbridge Irrigation District 2003 Revenue Certificates of Participation (2003 Water System Project) (the "2003 Certificates"). The 2003 Certificates are being executed and delivered pursuant to a Trust Agreement executed and entered into as of October 1, 2003 (the "Trust Agreement") by and among the Woodbridge Irrigation District (the "District"), the Woodbridge Irrigation Public Financing Corporation (the "Corporation") and BNY Western Trust Company (the "Trustee"). Lodi covenants and agrees as follows:

SECTION 1. Purpose of this Disclosure Certificate. This Disclosure Certificate is being executed and delivered by Lodi for the benefit of the Holders and Beneficial Owners of the 2003 Certificates and in order to assist the Participating Underwriter in complying with the Rule.

SECTION 2. Definitions. In addition to the definitions set forth in the Trust Agreement, which apply to any capitalized term used in this Disclosure Certificate unless otherwise defined in this Section, the following capitalized terms shall have the following meanings:

"Annual Report" shall mean any Annual Report provided by Lodi pursuant to, and as described in, Sections 3 and 4 of this Disclosure Certificate.

"Beneficial Owner" shall mean any person which (a) has the power, directly or indirectly, to vote or consent with respect to, or to dispose of ownership of any 2003 Certificates (including persons holding 2003 Certificates through nominees, depositories or other intermediaries), or (b) is treated as the owner of any 2003 Certificates for federal income tax purposes.

"Fiscal Year" shall mean the period beginning on July 1 of each year and ending on the next succeeding June 30, or any twelve-month or fifty-two week period hereafter selected by Lodi, with notice of such selection or change in fiscal year to be provided as set forth herein.

"Holder" shall mean a registered owner of the 2003 Certificates.

"Listed Events" shall mean any of the events listed in Section 5(a) of this Disclosure Certificate.

"National Repository" shall mean any Nationally Recognized Municipal Securities Information Repository for purposes of the Rule. The internet address listing the National Repositories is set forth on Exhibit A.

"Participating Underwriter" shall mean any of the original underwriters of the 2003 Certificates required to comply with the Rule in connection with offering of the 2003 Certificates.

"Repository" shall mean each National Repository and each State Repository, if any.

"Rule" shall mean Rule 15c2-12(b)(5) adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

"State" shall mean the State of California.

“State Repository” shall mean any public or private repository or entity designated by the State as a state repository for the purpose of the Rule and recognized as such by the Securities and Exchange Commission. As of the date of this Disclosure Certificate, there is no State Repository.

SECTION 3. Provision of Annual Reports.

(a) Lodi shall, or shall cause the Dissemination Agent to, not later than 210 days following the end of each Fiscal Year, commencing with the report for the 2002-03 Fiscal Year, provide to each Repository an Annual Report which is consistent with the requirements of Section 4 of this Disclosure Certificate. The Annual Report may be submitted as a single document or as separate documents comprising a package, and cross-reference other information as provided in Section 4 of this Disclosure Certificate; provided that Lodi’s audited financial statements may be submitted separately from the balance of the Annual Report and later than the date required above for the filing of the Annual Report if they are not available by that date. If the Fiscal Year changes for Lodi, Lodi shall give notice of such change in the manner provided under Section 5 hereof.

(b) If Lodi is unable to provide to each Repository an Annual Report by the date required in subsection (a), Lodi shall send to each Repository a notice in substantially the form attached as Exhibit B.

SECTION 4. Content of Annual Reports. Lodi’s Annual Report shall contain or incorporate by reference the following:

(i) The audited financial statements of the Lodi Municipal Water System for the most recently completed Fiscal Year, prepared in accordance with generally accepted accounting principles for governmental enterprises as prescribed from time to time by any regulatory body with jurisdiction over Lodi and by the Governmental Accounting Standards Board;

(ii) Updated information comparable to the information in the chart entitled “Lodi Municipal Water System Water System Statistics” as it appears on page 35 of the Official Statement, dated October 8, 2003, relating to the 2003 Certificates (the “Official Statement”);

(iii) Updated information comparable to the information in the chart entitled “Lodi Municipal Water System Total Production” as it appears on page 36 of the Official Statement;

(iv) Updated information comparable to the information in the chart entitled “Lodi Municipal Water System Ten Largest Customers by Revenues and Percentage of Total Water Sales Revenues” as it appears on page 37 of the Official Statement, to the extent not deemed proprietary information by Lodi;

(v) Updated information comparable to the information in the chart entitled “Lodi Municipal Water System Number of Commercial/Industrial/Municipal and Residential Accounts and Percent of Water Sales Revenues” as it appears on page 37 of the Official Statement;

(vi) Updated information comparable to the information in the chart entitled “Lodi Municipal Water System Per Capita Water Use,” as it appears on page 38 of the Official Statement; and

(vii) Updated information for the most recently completed Fiscal Year comparable to the information in the chart entitled “Lodi Municipal Water System Summary of Historical Operating Results,” as it appears on page 42 of the Official Statement.

Any or all of the items listed above may be included by specific reference to other documents, including official statements of debt issues of Lodi or public entities related thereto, which have been submitted to each of the Repositories or the Securities and Exchange Commission. If the document included by reference is a final official statement, it must be available from the Municipal Securities Rulemaking Board. Lodi shall clearly identify each such other document so included by reference.

SECTION 5. Termination of Obligation. The obligations of Lodi under this Disclosure Certificate shall terminate upon the legal defeasance, prior prepayment or payment in full of all of the 2003 Certificates.

SECTION 6. Amendment; Waiver. Notwithstanding any other provision of this Disclosure Certificate, Lodi may amend this Disclosure Certificate, and any provision of this Disclosure Certificate may be waived, provided that, in the opinion of nationally recognized bond counsel, such amendment or waiver is permitted by the Rule.

SECTION 7. Additional Information. Nothing in this Disclosure Certificate shall be deemed to prevent Lodi from disseminating any other information, using the means of dissemination set forth in this Disclosure Certificate or any other means of communication, or including any other information in any Annual Report, in addition to that which is required by this Disclosure Certificate. If Lodi chooses to include any information in any Annual Report in addition to that which is specifically required by this Disclosure Certificate, Lodi shall have no obligation under this Disclosure Certificate to update such information or include it in any future Annual Report.

SECTION 8. Default. In the event of a failure of Lodi to comply with any provision of this Disclosure Certificate, any Owner or Beneficial Owner of the 2003 Certificates may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause Lodi to comply with its obligations under this Disclosure Certificate. The sole remedy under this Disclosure Certificate in the event of any failure of Lodi to comply with this Disclosure Certificate shall be an action to compel performance.

SECTION 9. Beneficiaries. This Disclosure Certificate shall inure solely to the benefit of the District, Lodi, the Participating Underwriter and Holders and Beneficial Owners from time to time of the 2003 Certificates, and shall create no rights in any other person or entity.

Dated: October 15, 2003

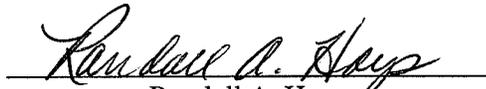
CITY OF LODI

By: \_\_\_\_\_



H. Dixon Flynn  
City Manager

APPROVED AS TO FORM:



Randall A. Hays  
City Attorney

ATTEST:



SUSAN J. BLACKSTON  
City Clerk

## **EXHIBIT A**

An updated list of Nationally Recognized Municipal Securities Information Repositories approved by the Securities and Exchange Commission may be found at the following internet address:  
<http://www.sec.gov/consumer/NRMSIR.htm>

**EXHIBIT B**

**NOTICE TO REPOSITORIES OF FAILURE TO FILE ANNUAL REPORT**

Name of Issuer: WOODBRIDGE IRRIGATION DISTRICT

Name of Issue: 2003 REVENUE CERTIFICATES OF PARTICIPATION  
(2003 WATER SYSTEM PROJECT)

Date of Issuance: OCTOBER 15, 2003

NOTICE IS HEREBY GIVEN that the City of Lodi, California ("Lodi") has not provided an Annual Report with respect to the above-named 2003 Certificates as required by the Continuing Disclosure Certificate delivered pursuant to that certain Agreement for Purchase of Water from the Woodbridge Irrigation District by the City of Lodi, dated May 13, 2003. Lodi anticipates that the Annual Report will be filed by \_\_\_\_\_.

Dated: \_\_\_\_\_

CITY OF LODI

By \_\_\_\_\_

**FIRST AMENDMENT TO AGREEMENT**  
**FOR PURCHASE OF WATER FROM WOODBRIDGE**  
**IRRIGATION DISTRICT BY CITY OF LODI**

This First Amendment to the May 13, 2003 Agreement for Purchase of Water from the Woodbridge Irrigation District by the City of Lodi is entered into by the parties this 17<sup>th</sup> day of JANUARY, 2008.

WHEREAS, the parties entered into an Agreement for Purchase of Water from the Woodbridge Irrigation District by the City of Lodi on May 13, 2003 ("2003 Agreement") providing that Woodbridge Irrigation District (District) would provide 6,000 acre feet of water per year to the City of Lodi (City), subject to dry year curtailments and the City's ability to take the water, under the terms set forth in the 2003 Agreement, for a period of forty (40) years (until May 13, 2043); and

WHEREAS, Section 8.a of the 2003 Agreement allowed the City to bank up to 18,000 acre feet of unused water during the initial three years under the 2003 Agreement, to allow the City time to develop its plans for utilization of such water; and

WHEREAS, the City has taken more time than anticipated to study alternative methods of using the water provided by the District, including groundwater recharge or by direct use after treatment, and consistent with the District's recommendation, the City has determined that its preferred alternative is to construct treatment works and deliver the treated water to the City's customers, but the City has not yet finalized its plans for utilizing the 6,000 acre-feet of water per year made available under the 2003 Agreement; and

WHEREAS, City expects to commence using the water purchased under the 2003 Agreement within the next four years, and the City has requested that the term of the 2003 Agreement for the purchase of the water from the District be extended for approximately four years, to October 15, 2047, and that it also be allowed until October 15, 2047 to bank any unused water under the Agreement for later usage; and

WHEREAS, the District is also currently negotiating an agreement with the City of Stockton for the sale of surplus water of the District to Stockton, and it is necessary to make some changes to the District's 2003 Agreement with Lodi so that the contract rights to the two Cities will not be in conflict with each other;

**NOW, THEREFORE, THE CITY OF LODI AND THE WOODBRIDGE  
IRRIGATION DISTRICT AGREE AS FOLLOWS:**

1. The final sentence of Section 1 of the 2003 Agreement is amended to read as follows:

Any of such water which is not taken by the City in that initial year shall be included as a part of the 18,000 acre feet of carryover water which the City may

take at a later date as provided for in paragraph 6-a- 8 hereof.

2. The first sentence of Section 3 is amended to read as follows:

The District agrees to deliver the water to the City at the location of the District's new fish screen at the Main Canal Intake Headworks at 18750 North Lower Sacramento Road, Woodbridge, and also at any a-mutually agreeable location or locations on the District's Canal that may to be determined at a later date.

3. Subsection b of Section 3 is amended to read as follows:

b. At such times as it is possible for the District to deliver water during the remaining months of the year, or to deliver water in excess of 6,000 acre feet during the period from March 1 through October 15, then by mutual agreement of the parties, delivery of such water to the City may be made by the District. The City shall pay the District \$100 per acre foot for any such additional water delivered to the City. The determination of whether any such water is available for delivery shall be made solely by the District. In the event that both the City of Lodi and the City of Stockton request any such available water during the same period(s) that the water can be delivered, the water shall be apportioned between them if necessary in the manner and times that they shall agree upon. In the event they do not agree, such water shall be apportioned between them by the District in the ratio of 50/50, or one-half to each; provided that, if such apportionment would result in either party losing any deficiency curtailment water banked to the credit of that party because of non-use within the required eight-year period under Section 8.b., that party shall have a first right to such portion of the available water that will avoid such loss.

4. Sections 4(a) and 4(b) of the 2003 Agreement ("Term of Agreement") are amended to read as follows:

4.(a) This Agreement shall be effective from the date of execution hereof, and shall remain in effect for a term of forty (40) years from said date until October 15, 2047, unless extended. Payment by the City for the water made available by the District during the four-year extension under this Amendment, i.e., until October 15, 2047, will continue to be on the same terms as provided in Section 1 of the 2003 Agreement, to wit, the basic payment of \$1,200,000 per year as escalated annually commencing on January 1, 2010, as provided in Section 3.e of the 2003 Agreement.

4.(b) Upon receipt by the District of a written notice and request for renewal from the City at least two years in advance of the termination of the Agreement, the District agrees to negotiate with the City for a renewal of renew this Agreement for an additional forty (40) year term, on terms and conditions that are reasonable and equitable, and which are satisfactory to the District., provided that the price for the water upon renewal will be at the then fair market value of the

water, but not less than the price being paid by Lodi under the 2003 Agreement (said new price to also be adjusted thereafter in accordance with the CPI formula in the existing Agreement).

5. A new Section 4.1 is added to the 2003 Agreement as follows:

4.1. Right to Purchase Additional Water. The City shall have the further right during the initial term of this Agreement to buy up to an additional 6,000 acre-feet of water from the District based upon the annexation of additional lands within the District to the City of Lodi after the completion and commencement of operation of the City's new Water Treatment Plant, and which as a result of such annexation will be taken out of agricultural production, as follows. For each acre of land so annexed after such date which is now zoned agricultural and which has been irrigated with District water:

- and for which a tentative subdivision map is approved for such acreage for use other than agriculture,
- and which is to be served a water supply by the City of Lodi's utility water system.

the City will be entitled to purchase an additional 3.0 acre-feet of water per such acre from the District, on the same terms and subject to the same conditions herein applicable to the 6,000 acre-feet under this Agreement.

6. Section 7.a. of the 2003 Agreement is amended to read as follows:

a. The District agrees that it will deliver up to 6,000 acre feet per annum to the City under this Agreement except to the extent that the District's Regulated Base Supply of 60,000 acre feet under its Agreements with East Bay Municipal Utility District is reduced in dry years by thirty-five (35) percent. In the event of such a reduction, the District may reduce the amount of water to be provided under this Agreement by up to fifty percent (50%). District shall on or about May 1 of each year make a preliminary estimate of whether the City's deliveries may be curtailed that year, and will provide a final estimate of any curtailment on or about July 1. In such event, the City shall only be obligated to take ~~50%~~ 35% of its estimated delivery before July 1 in that year. There shall be no reduction in the amount of the City's annual payment to the District in such years under paragraph 1.

7. A new Section 7.1 is added to the 2003 Agreement, as follows:

Section 7.1. Lodi acknowledges that District is negotiating with the City of Stockton to sell a base supply of approximately 6,500 of water to the City of Stockton, at a price per acre-foot which is approximately the same price as provided in the District's May 13, 2003 Agreement with Lodi. The delivery of the 6,500 acre-feet of water to Stockton shall be subordinate to Lodi's right to receive its 6,000 acre-feet of water, provided that:

- a. Lodi waives and will not exercise, under the last sentence of paragraph 4(c) of the 2003 Agreement, its right of first refusal to purchase the 6,500 acre-feet of water being sold to Stockton; that
- b. The delivery of the 6,500 acre-feet of water to Stockton, and Stockton's right to purchase additional water based upon the future annexation of agricultural lands within the District to Stockton, shall take precedence over Lodi's rights to purchase additional water under paragraph 3.b; and
- c. Lodi's right to receive banked water under paragraph 8 of the 2003 Agreement will be on a parity with the right of Stockton to receive banked water under Stockton's agreement with Woodbridge, i.e., in the event both Cities want to withdraw more banked water than is available that year, such water will be allocated one-half to each unless they agree on another allocation, as provided in the new subsection c added to paragraph 8.

8. Section 8 is amended as follows:

8. Carryover of Entitlements. Unused water may not be carried over by the City from year to year except that the right to receive water may be "banked" as follows:

- a. If during the first three years in which the water is available to the City under this Agreement period from May 13, 2003 to October 15, 2010, the City does not take the water which is available to the City under this Agreement or takes less than the amounts which are available, then the City may carry over and have credit for such water not taken during that period, not to exceed a total of 18,000 acre-feet, 6,000 acre feet per year or a total of 42,000 acre feet, for later delivery during the 40-year remaining term of this Agreement, i.e., until October 15, 2047, at such times as the City requests delivery of the water and the District has extra water available as determined solely by the District. There will be no additional charge for the delivery of such banked water.
- b. If after ~~said initial three years, October 15, 2010~~, delivery of water to the City is curtailed under paragraph 7.a. by reason of a dry year condition or by District's maintenance or other District activities, then the City may carry over and have credit for the amount of such curtailment for later delivery at such time(s) as the City requests delivery of the water and the District has extra water available as determined solely by the District. Any City credits for curtailed segments of carryover water shall expire at the end of eight (8) years from the end of the period in which the curtailment for that segment of curtailed water occurred. Such credits for delivery of curtailed carryover water within said eight-year period may extend beyond the termination of this Agreement on October 15, 2047. There will be no additional charge for delivery of such banked water.
- c. The determination of whether any such banked water or curtailment water is available for delivery shall be made solely by the District. In the event that both

the City and the City of Stockton request such water during the same period(s) that water is available for delivery, the water shall be apportioned between them if necessary in the manner and times that they shall agree upon. In the event they do not agree, such water shall be apportioned between them by the District in the ratio of 50/50 or one-half to Lodi and one-half to Stockton.; provided that, if such apportionment would result in either party losing any deficiency curtailment water banked to the credit of that party because of non-use within the required eight-year period under Section 8.b., that party shall have a first right to such portion of the available water that will avoid such loss.

e. d. Except as provided in subparagraph a, no credits shall accrue for water that is available to but is unused by the city.,

9. Section 14 of the 2003 Agreement is amended to read as follows:

14. City Use of District Rights of Way. The District agrees to cooperate with City and to agree to the City's use of any District right of way along the District's Main Canal needed by the City for the conveyance or distribution of water it obtains from the District, provided that such use does not interfere with District's use of its right of way and that District's right of way permits such use by City. The District agrees that City may continue any such use of the right of way established during the term of this Agreement after the term of this Agreement expires.

10. Section 14.a. is added to the 2003 Agreement as follows:

14.a. District Installation of Quality Control Structures on City's Storm Water Discharge Locations. Under the City's October 20, 1993 Storm Drainage Discharge Agreement with the District, City has the right to discharge into District canals, waters collected by the City's storm drainage system (excluding industrial waste and sewage effluent), under the terms and conditions set forth in said Agreement. District shall be entitled at its option to construct or install from time to time at convenient locations on the City's property at or near any of the City's stormwater discharge points into the District's canal system, and to operate and maintain, at the District's cost, filtration/sedimentation structures or other water quality control or improvement devices at said point(s), subject to the City's prior approval of the plans and specifications for such installations, which approval shall not be unreasonably withheld. Nothing herein shall alter City's obligations under said Agreement with respect to the quality of the storm waters and storm drainage into the District's Canals, and all provisions thereof shall continue in full force and effect.

10-11. All terms and provisions of the 2003 Agreement remain in full force and effect, except as they are expressly amended or modified by this First Amendment to Agreement.

17<sup>th</sup> IN WITNESS WHEREOF, the parties hereto have executed this instrument on the  
day of JANUARY, 2008.

WOODBIDGE IRRIGATION DISTRICT

Attest:

By

\_\_\_\_\_

CITY OF LODI, A MUNICIPAL  
CORPORATION

Attest:

Randi Johl, City Clerk

By   
Joanne Mounce, Mayor

APPROVED AS TO FORM:

Stephen Schwabauer, City Attorney

866109.1

**SECOND AMENDMENT TO 2003 AGREEMENT FOR PURCHASE OF WATER  
FROM WOODBRIDGE IRRIGATION DISTRICT BY CITY OF LODI,  
TO PERMIT LODI TO SELL PORTION OF ITS BANKED WATER**

This Second Amendment to the 2003 Agreement is entered into between the City of Lodi (City) and the Woodbridge Irrigation District (District) this 9<sup>th</sup> day of April, 2009.

**Recitals**

A. On May 13, 2003, City entered into a 40-year Agreement with District for the City's purchase of water from District entitled "Agreement for Purchase of Water from the Woodbridge Irrigation District by the City of Lodi" (and hereinafter referred to as the 2003 Agreement). The Agreement provided for the City's purchase of a base supply of 6,000 acre-feet per annum (plus additional amounts on specified conditions), for a payment commencing at \$200 per acre-foot or \$1,200,000 annually for the base supply, subject to later annual price adjustments, the water to be delivered to City from March 1 through October 15. Under the Agreement, the water must be used within City's service area, and City can not assign or transfer the right to the water without the consent of the District.

B. The 2003 Agreement provides for annual payments to District whether or not the water is used by City. Payments of \$300,000 quarterly by City to District under the Agreement commenced on October 1, 2003. The water must be treated by the City. Plans for treatment and use of the water from the District have been delayed. City is preparing to enter a contract with the firm of HDR, Inc. in an amount of \$2.9 million dollars for the complete design, to a level ready for bidding of construction, of new treatment plant works, which would treat the water delivered by District for use by the City customers. No District water has been taken or used to date by the City under the 2003 Agreement.

C. Paragraph 8 of the 2003 Agreement provides that City can carry over and have credit for unused water during the initial three years of the agreement, of up to 18,000 acre-feet, referred to as "banked water" in the Agreement, for later delivery to City in subsequent years in which District has water available for such deliveries.

D. On January 17, 2008, the parties entered into a First Amendment to the 2003 Agreement, which, among other things, extended the 40-year term of the 2003 Agreement, an additional four years and five months, and which also extended City's right to carry over and bank an additional 24,000 acre-feet of water that was unused by the City up to October 15, 2010, thus giving City a right to bank a combined total of 42,000 acre-feet.

E. This Second Amendment to the 2003 Agreement is intended to provide District's consent to City, working with the District's Manager, to pursue agreements to sell up to 18,000 acre-feet of City's first three years of banked water to others.

**NOW, THEREFORE, WOODBRIDGE IRRIGATION DISTRICT AND THE CITY OF LODI AGREE AS FOLLOWS:**

1. The City may pursue, working with the District's Manager, a sale agreement or agreements with others for their purchase during the years 2009, 2010 and 2011, of up to 6,000 acre-feet of water per year banked by the City, for a total of 18,000 acre-feet of banked water. Any resulting agreement shall be subject to the District's approval and the District shall be a party to such Agreement. Any such Agreement for the sale of 6,000 acre-feet shall be negotiated only if in the year of sale District's Regulated Base Supply entitlement under District's Agreement with EBMUD is a full 60,000 acre-feet, and provided further that District is able to make the water to be transferred available from its Regulated Base Supply for delivery in the year of sale, as solely determined by District. If District's Regulated Base Supply is less than 60,000 acre-feet in any such year, City may pursue the sale of not more than one-half of 6,000 acre-feet in such year subject to the same terms and conditions of availability. District will be unable to finally determine whether District's Regulated Base Supply is less than 60,000 acre-feet until July 1 of each year. District shall have no responsibility or obligation to City if District cannot or does not make such water available for transfer, or if any such transfer fails for any reason beyond the control of District.

2. The sale price payable to Lodi shall be not less than \$200 per acre-foot, plus in year 2011 the inflator factor which commences in the year 2011 under that year in the 2003 Agreement. City shall pay to District (in advance if requested by District), all costs and expenses (legal, engineering or otherwise), incurred or estimated by District to be incurred, in assisting and/or implementing the sale by City.

3. District shall not be obligated to approve any sales that impose or potentially imposes any conditions upon District's water rights or requirements upon District that are unsatisfactory to District.

4. City agrees that the City's proceeds of any such sale shall be used solely for the planning, design and/or construction of its planned treatment plant facilities or to reimburse other City funds used for such purposes.

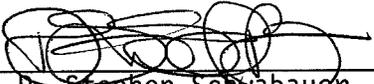
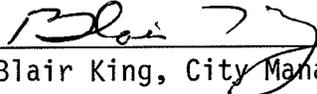
5. City acknowledges the value and benefit to it of the District approving such sales of water by the City pursuant to this Agreement, in that District itself could otherwise undertake for its own benefit to sell directly any surplus water it may have available during the next three years. Nothing herein shall prevent or preclude District also selling any surplus water that it has available in any such year above the amount sold by City, or from selling any surplus District water if City fails to sell such water, or if City sells less than 6,000 acre-feet, from selling any surplus water above the amount of water sold by City.

6. This Agreement does not authorize or establish a precedent for District's approval of any future sale by City of any banked water it may have under its 2003

Agreement with District, either beyond year 2011 or beyond 18,000 acre-feet, and nothing herein shall be construed to indicate that District will authorize or consent to any future sale of such water.

7. The recitals herein are general background descriptions, but each and every provision in the prior 2003 Agreement and the 2008 First Amendment to Agreement between the parties, remains in full force and effect according to their terms, except as herein expressly modified.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement effective on the day and year above set forth.

<p>Attest:</p>  <p>_____ Anders Christensen, Secretary</p>	<p>WOODBIDGE IRRIGATION DISTRICT</p> <p>By  _____ William Stokes, President</p>
<p>Attest:</p>  <p>_____ Randi Johl, City Clerk</p> <p>APPROVED AS TO FORM:</p>  <p>_____ D. Stephen Schwabauer, _____ , City Attorney</p>	<p>CITY OF LODI, A MUNICIPAL CORPORATION</p> <p>By  _____ Blair King, City Manager, <del>Mayer</del></p>

4-8-09