



**RESOURCE  
MANAGEMENT AGENCY  
COUNTY OF TULARE  
AGENDA ITEM**

**BOARD OF SUPERVISORS**

ALLEN ISHIDA  
District One

PETE VANDER POEL  
District Two

PHILLIP A. COX  
District Three

J. STEVEN WORTHLEY  
District Four

MIKE ENNIS  
District Five

**AGENDA DATE:** September 17, 2013

Public Hearing Required	Yes	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>
Scheduled Public Hearing w/Clerk	Yes	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>
Published Notice Required	Yes	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>
Advertised Published Notice	Yes	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>
Meet & Confer Required	Yes	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>
Electronic file(s) has been sent	Yes	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
Budget Transfer (Aud 308) attached	Yes	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
Personnel Resolution attached	Yes	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>
Agreements are attached and signature line for Chairman is marked with tab(s)/flag(s)	Yes	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>

CONTACT PERSON: Celeste Perez PHONE: (559) 624-7010

**SUBJECT:** Presentation by the Resource Management Agency and authorization of study on the Traver wastewater treatment facilities

**REQUEST(S):**  
That the Board of Supervisors:

1. Receive a presentation by the Resource Management Agency to inform and seek direction on the Traver wastewater treatment facilities and its capacity.
2. Authorize Resource Management Agency to prepare an update of the Traver Sewer and Wastewater Treatment Study of February, 2005 prepared by Provost & Pritchard Engineering Group, Inc., and increase the Traver Fund (Z80) budget by \$18,000 for the study.
3. Authorize Resource Management Agency to research and develop an appropriate fee schedule for new residential and commercial sewer connections.
4. Authorize the Tulare County Auditor to make budget adjustments, as summarized on the attached AUD 308 Budget Adjustment Form transfers (4/5ths vote required).

**SUMMARY:**  
Economic opportunities for the Traver community require consideration of the limitations of the Traver Waste Water Treatment Facility (WWTF.) A regulatory and technical assessment of the WWTF is provided in Attachment D. This summary is provided to describe the economic opportunity and to seek direction from the Board regarding new connections and the associated need to plan for future expansion of the WWTF to accommodate new developments.

The near term economic development is related to four prospective projects:

- A warehouse;



**SUBJECT:** Presentation by the Resource Management Agency and authorization of study on the Traver wastewater treatment facilities.

**DATE:** September 17, 2013

Attachment(s)

Attachment A – Location Map

Attachment B – Traver Zone of Benefit Boundary Map, and locations of WWTF, standbys, vacancies, will serve properties, and anticipated additional connections.

Attachment C – 11 Single Family Homes, Vesting Tentative Map

Attachment D – Assessment of the Traver WWTF

**BEFORE THE BOARD OF SUPERVISORS  
COUNTY OF TULARE, STATE OF CALIFORNIA**

IN THE MATTER OF PRESENTATION BY )  
THE RESOURCE MANAGEMENT AGENCY ) Resolution No. \_\_\_\_\_  
AND AUTHORIZATION OF STUDY ON THE ) Agreement No. \_\_\_\_\_  
TRAVER WASTEWATER SEWER AND )  
TREATMENT FACILITIES )

UPON MOTION OF SUPERVISOR \_\_\_\_\_, SECONDED BY  
SUPERVISOR \_\_\_\_\_, THE FOLLOWING WAS ADOPTED BY THE BOARD  
OF SUPERVISORS, AT AN OFFICIAL MEETING HELD \_\_\_\_\_, BY THE  
FOLLOWING VOTE:

AYES:  
NOES:  
ABSTAIN:  
ABSENT:

ATTEST: JEAN M. ROUSSEAU  
COUNTY ADMINISTRATIVE OFFICER/  
CLERK, BOARD OF SUPERVISORS

BY: \_\_\_\_\_  
Deputy Clerk

\* \* \* \* \*

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2. Authorized Resource Management Agency to prepare an update of the Traver Sewer and Wastewater Treatment Study of February, 2005 prepared by Provost & Pritchard Engineering Group, Inc., and increase the Traver Fund (Z80) budget by \$18,000 for the study.
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4. Authorized the Tulare County Auditor to make budget adjustments, as summarized on the attached AUD 308 Budget Adjustment Form transfers (4/5ths vote required).

**County of Tulare Budget Adjustment Form**

			03/14		2014
Date	Doc ID	APRD fm fm fy fy		Budget FY/yy	

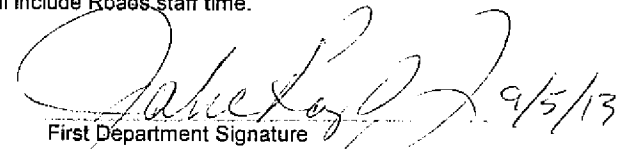
Resource Mangement Agency			Sophia Almanza 624-7030		
Agency Name			Contact Person	Phone	Ext

Action* * A,C,D	Fund	Dept	Unit	APPR #	Object	Rev	LEVEL 1 Finish Here	Current Amount	Revised Amount	Inc / Dec Amt
C	Z80	Z80		Z80SSUP			LEVEL 1 Finish Here	57,016	67,016	10,000
C	Z80	Z80		Z80INTRA			Appropriation Totals	21,727	29,727	8,000
							This level may not balance due to revenue lines posted in level 2 below.			-
<b>Appropriations Total</b>								<b>78,743</b>	<b>96,743</b>	<b>18,000</b>
Action* * A,C,D	Fund	Dept	Unit	Appr #	Object	Rev	LEVEL 2 Start Here	Current Amt	Revised Amount	Inc / Dec Amt
C	Z80	Z80	2000	Z80SSUP	7043		LEVEL 2 Start Here	-	10,000	10,000
C	Z80	Z80	2000	Z80INTRA	9327		Line Totals	7,010	15,010	8,000
C	014	225	2300			9427		2,144,050	2,152,050	(8,000)

**Each fund must balance** Total Inc/Dec must be zero \$ 2,151,060 \$ 2,177,060 \$ 10,000

Reason for Adjustment (To Avoid Correspondence, State Reason in Detail) Perform a SMART BUDGET ROLL-UP before VALIDATING.

To increase CSA# 1 ZOB Traver budget (Z80) in the amount of \$18,000 for the waste water treatment facility (WWTF) study. Study will include Roads staff time.


9/5/13  
 First Department Signature Second Department Signature

<p><b>Auditor and CAO Use Only</b></p> <p>Checked By: _____</p> <p>County Executive Office Action: No. _____ Date: _____</p> <p>( ) Approved ( ) Disapproved</p> <p>By: _____</p> <p>Board of Supervisors Action: No. _____ Date: _____</p>	<p><b>Auditor Use Only</b></p> <p>Entered By: _____</p> <p>Date: _____</p> <p>Distribution: 1: BOS/CAO/Auditor</p>
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**\*\* Action Codes: A=Add, C=Change, D=Deactivate**

\* Whenever a 33XX account budget is adjusted, a corresponding 67XX account revenue budget must be adjusted in the billing agency.

\* Whenever a 35XX account budget is adjusted, a corresponding 68XX account revenue budget must be adjusted in the billing agency.

\* Whenever a 36XX account budget is adjusted, a corresponding 39XX account revenue budget must be adjusted in the billing agency.

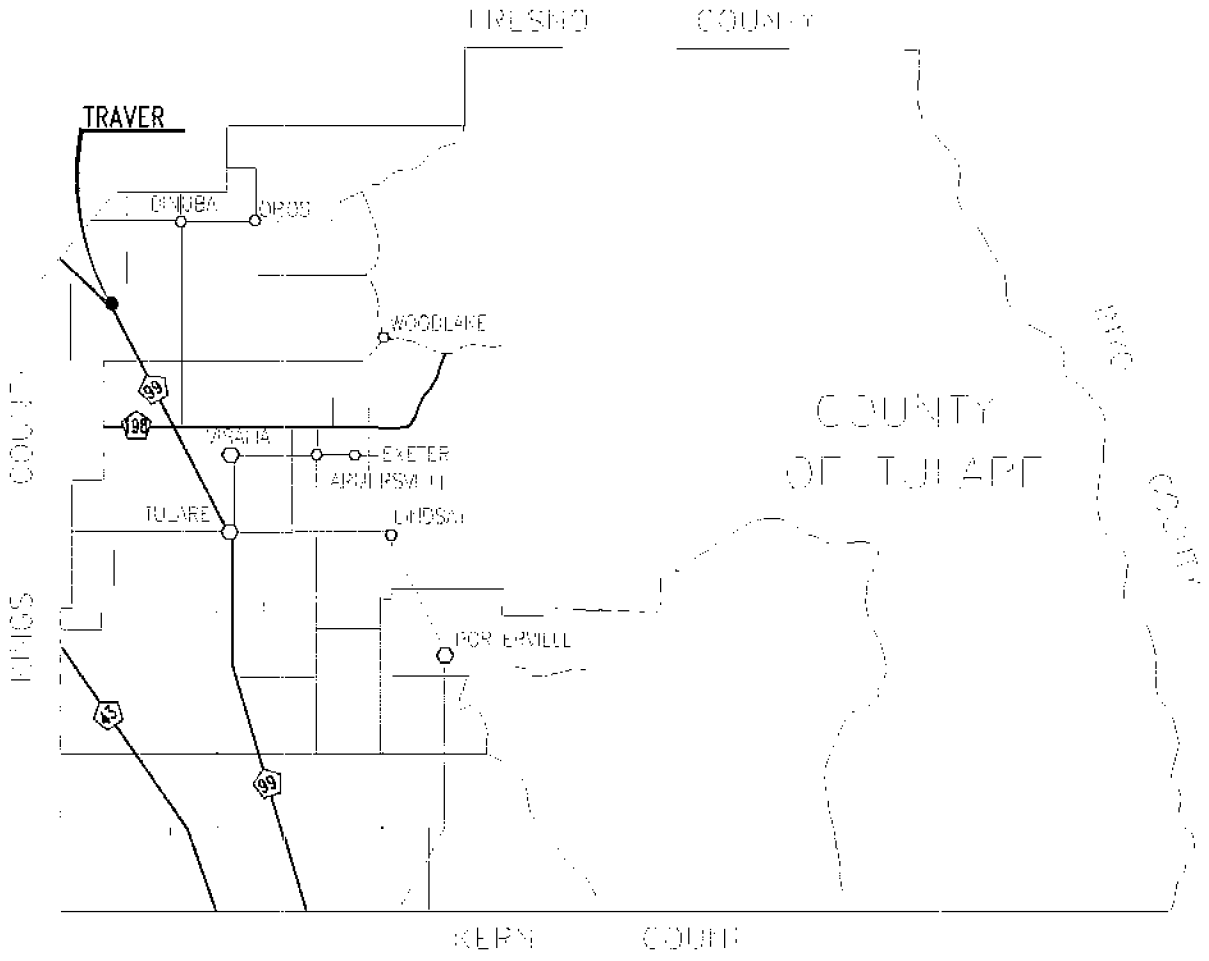
Attachment A

TRAVER WASTEWATER TREATMENT FACILITY LOCATION MAP

COUNTY OF TULARE

TRAVER

WASTEWATER TREATMENT FACILITY



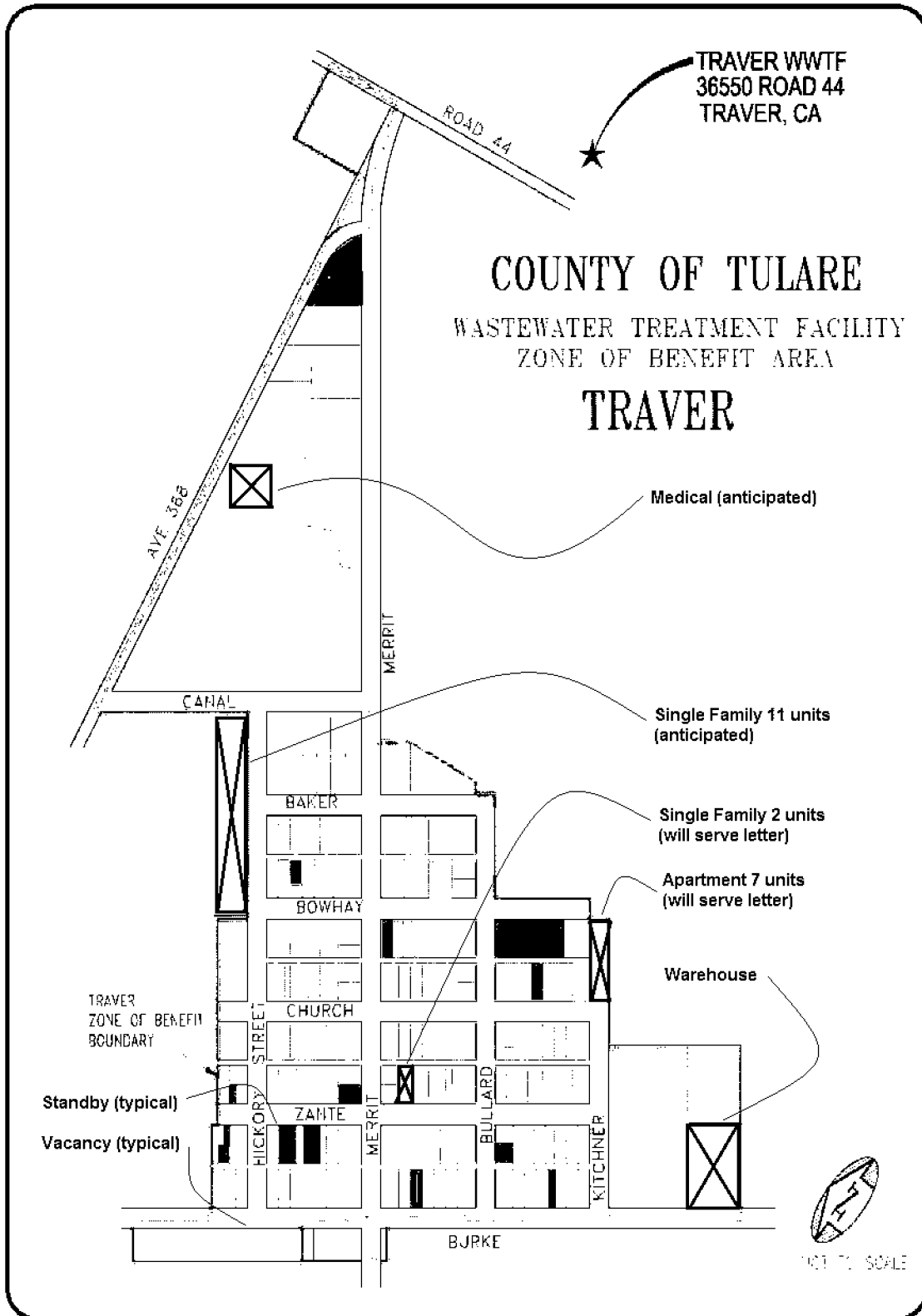
SITE LOCATION MAP



NOT TO SCALE

**Attachment B**

**TRAVER ZONE OF BENEFIT BOUNDARY MAP**



# VESTING TENTATIVE MAP

Being a portion of Parcel 1 of Parcel Map No. 174, Rec. in Bk. 2 of Parcel Maps of Page 177, which is shown in a portion of the N. 1/2 of the N. 1/2 of Section 15, Township 17° South, Range 22° East, Mount Diablo Base & Meridian, in the County of Inland, State of California.

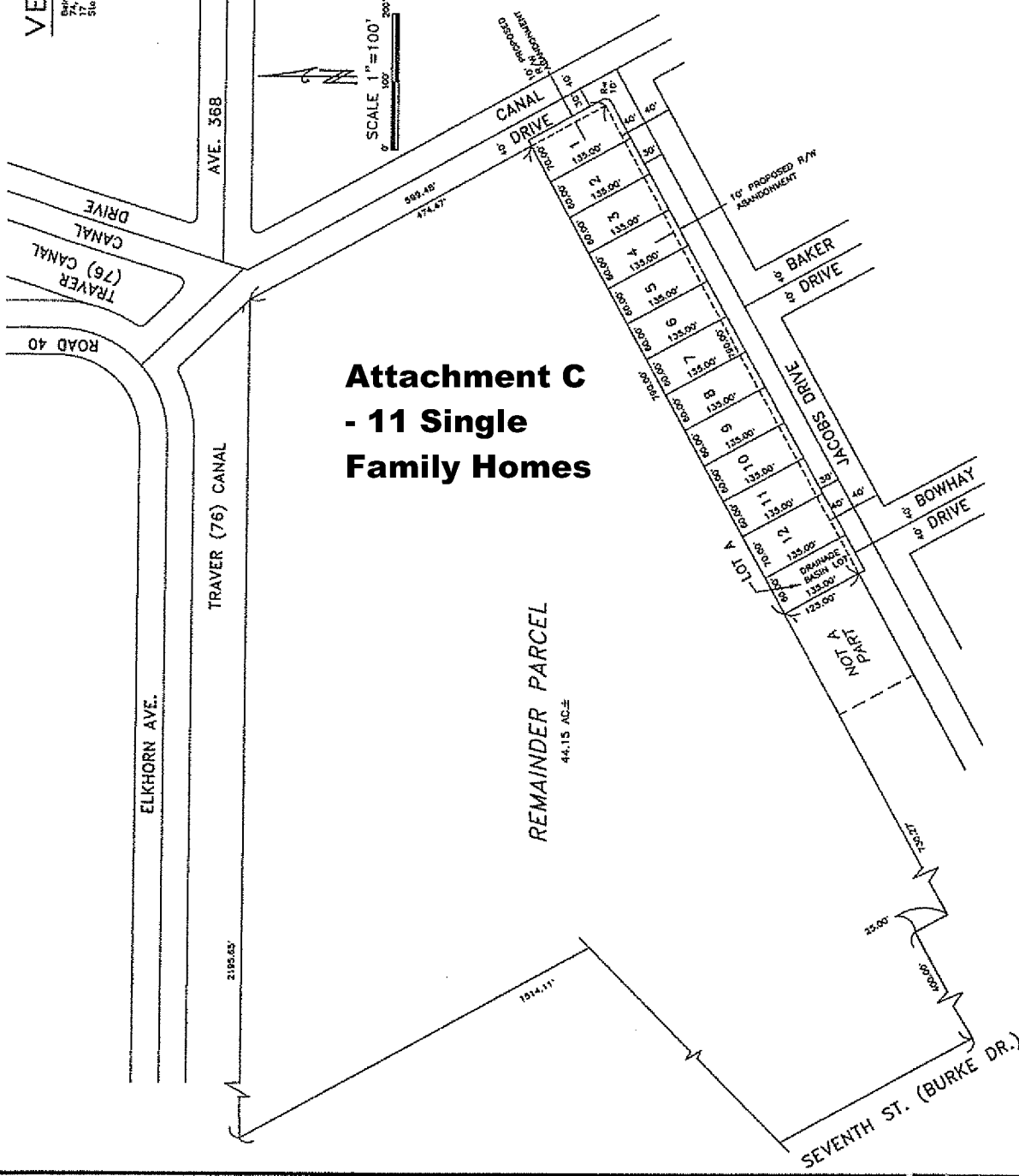
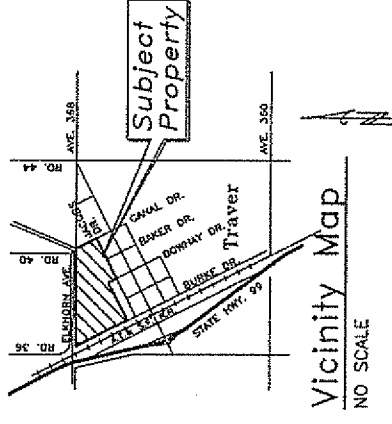
REV. 12/27/1999  
REV. 5/28/1999

**OWNERS:**  
HUCKABAY, JOHNSTON, MERLO & NEWTON  
41616 Rd. 84  
Dinuba, CA 93618

**DEVELOPER:**  
Self Help Enterprises,  
A California Nonprofit Corporation  
P.O. Box 351  
Visalia, California

**SURVEYOR:**  
FORESTER, WEBER & ASSOCIATES  
1620 W. Mineral King Ave., Suite 8  
Visalia, California 93203  
(209) 733-0102

- NOTES:**
- (1) ALL STREET CURVES SHALL BE LARGER THAN 100 FEET.
  - (2) NO PROPOSED PUBLIC AREAS OTHER THAN STREETS.
  - (3) THE LAND IS VACANT.
  - (4) THE PROPOSED LOTS ARE TO BE USED FOR SINGLE-FAMILY RESIDENTIAL PURPOSES.
  - (5) AREAS OF 100-YEAR FLOOD RISK MUST BE IDENTIFIED AND FLOOD HAZARD FACTORS NOT DEEMED.
- WATER BY: TRAVER COMMUNITY SERVICES DISTRICT  
SEWER BY: TRAVER COMMUNITY SERVICES DISTRICT  
SOLID WASTE: PRIVATE DISPOSAL  
E.100 20'±. MAX. LOTS  
APN: 44-204-15





## Attachment D

An assessment of the capacity of the Traver Wastewater Treatment and Disposal Facility (WWTF) was provided with respect to the existing and prospective connections to the WWTF. Sewer service for the Traver Zone of Benefit is provided by the WWTF.

### Regulatory Overview

The California Regional Water Quality Control Board, Central Valley Region (Water Board), Order No. 88-098, dated June 24, 1988, specified waste discharge requirements (WDR) and the monitoring and reporting program for the WWTF.

The Water Board adopted statewide general WDRs, Order No. 2006-003, dated May 2, 2006, for all sanitary sewer collection systems. This Order requires that each operator of a publicly-owned collection system develop and implement a system specific Sanitary Sewer Management Plan (SSMP). The Board of Supervisors Resolution No. 2010-0604 approved the Sewer System Management Plan (SSMP) on July 20, 2010. The SSMP covers the design, management, operation and maintenance of the WWTF. Operation and maintenance of the facilities is contracted under Tulare County Agreement No. 7146 with Water Dynamics, Inc. Management of the facilities is administered by the Public Works branch.

### WWTF Capacity

Regarding the capacity of the WWTF, the Water Board's Order No. 88-098 limits the 30-day average daily dry weather discharge flow to 0.089 million gallons, or 89,000 gallons per day (gpd.) Ensuring adequate capacity for waste discharges is regulated under California Code of Regulations, Title 23. Waters, Division 3. Water Board, Chapter 9. Waste Discharge Reports and Requirements, Article 2. Waste Discharge Requirements for Discharges Other Than From Point Sources to Navigable Waters, Section 2232. Ensuring Adequate Capacity. Provision (a) of this Section states, in part, "Whenever a regional board finds that a publicly owned wastewater treatment plant will reach capacity within four years, the board shall notify the discharger." A notification would require the discharger to submit a technical report within 120 days to address the capacity problem. Another criteria the Water Board reportedly uses is the "80%" of the average daily flow value, which applied to the WWTF capacity of 89,000 gpd is 71,200 gpd.

The regulations require actions by the discharger to anticipate and plan for expansion of the sewer and treatment facilities before exceeding the limit on discharge flow.

### Traver Zone of Benefit Sewer Service

The Traver Zone of Benefit of Tulare County Service Area No. 1 was formed by Board Resolution 89-0226 on February 28, 1989 to provide extended services, including but not limited to sewer service. The Board subsequently adjusted the service area boundaries of the Traver Zone of Benefit by Resolution 93-1297 on November 23, 1993.

The service boundaries were adjusted by the Zone of Benefit Map and Zone of Benefit Legal Description.

The fee for a new sewer connection is \$500 for the Traver Zone of Benefit which was established by Resolution No. 93-1247.

Traver is a disadvantaged community having a population of 713, 164 households, and 184 housing units, according to the 2010 Census. The billings for sewer service include 178 connections, 13 standbys, and 11 vacancies for a total number of 202 connections. The daily dry weather average flows for years 2010, 2011 and 2012 were, respectively, 58,129 gpd, 60,506 gpd and 54,245 gpd. These flows are less than the aforementioned 80% capacity of 71,200 gpd but do not account for additional flow that would be generated by standbys and vacancies.

Presently, there are commitments to provide sewer service for 13 standbys and 11 vacancies. The average daily flow from a connection is assumed to be 324 gpd, based on the average of the average daily flows for years 2010, 2011 and 2012 for 178 connections. The flow that would be added from standbys and vacancies, if all 24 connections contributed to the flow, is estimated in the table below.

Table: Estimated wastewater flows for standbys and vacancies

Use	No. of Units	GPD/Unit	Total GPD
Standbys	13	324	4212
Vacancies	11	324	3564
		Estimated Total GPD	7776

Notes: GDP = gallons per day

The anticipated additional connections to the WWTF are described as follows:

Two "will serve" letters were issued on July 17, 2013, one for seven (7) connections for an apartment complex and the other letter for two (2) single family connections, both letters having an expiration date of January 17, 2014. The two properties are within the Zone of Benefit boundaries.

In addition, the Economic Development Office of the Resource Management Agency Planning Branch is aware of three projects as described below:

- A company is in the process of purchasing a school property, located within the boundary of the Zone of Benefit. It is anticipated the company will request a "will serve" letter in October for hook up to the WWTF. The operations would fall into the category of a "dry business", having a 5,000 square foot warehouse for distribution of irrigation components. Of the company's 15 employees, no more than 6 will be working on-site on a regular schedule.
- Medical clinic: Three different providers have expressed interest in constructing a medical clinic on the school campus. Such a clinic could provide up to 20 new jobs. The site is within the Zone of Benefit.
- Self-Help Enterprises: This organization has proposed a single family housing project of eleven (11) homes that would be built adjacent to the Traver Joint

Elementary School District. The homes would have between 1205 to 1360 square feet with floor plans for three to four bedrooms and two baths. The project borders the Zone of Benefit and will require a resolution by the Board of Supervisors to adjust the boundary to include the properties in order to be provided with sewer service. The attached map which shows 12 lots and drainage basin will be revised to show 11 lots.

The locations of these prospective projects are shown on Attachment B.

The estimated flows for the above projects are shown in the following table:

Table: Estimated wastewater flows for anticipated additional connections

Use	No. of Units	GPD/Unit	Total GPD
Apartment	7	324	2268
Single family home	2	324	648
Warehouse	5	25	125
Medical	2 + 18	250 + 20	860
Single family home	11	324	3564
		Estimated Total GPD	7465

Notes:

GDP = gpd

Warehouse size is 5,000 square feet

Medical - 250 gpd/practitioner + 20 gdp/staff

It is assumed the Water Board's threshold to require a plan to address a capacity issue is 71,200 gpd (80% of WDR capacity limit of 89,000 gpd.) The flow data from the three prior years (2010, 2011 and 2012) and estimated flows for committed and anticipated connections were analyzed with respect to this threshold. The average of the average daily gpd for the three years is 57,627 gpd, which for the 178 existing connections produces a flow per unit of 324 gpd. This unit value was applied to all residential units. Using estimated values from the table above for standbys and vacancies, and the table above for anticipated additional connections, the table below shows estimated flows as they relate to the WDR capacity limit.

Use	No. of Units	GPD/Unit	Total GPD	Comment
Existing connections	178	324	57,627	average of average daily flows for 2010, 11 and 12
13 Standbys + 11 Vacancies	24	324	7,776	committed sewer service not contributing flows
Anticipated connections			7,465	anticipated additional flows
		<b>Total GPD</b>	<b>72,868</b>	all flows: existing, committed and anticipated
		WDR limit	89,000	capacity limit
		% of WDR limit	82%	assumes all connections contribute flow
		WDR limit	65,092	flow for existing + anticipated additions only
		% of WDR limit	73%	flow for existing + anticipated additions only

Note: GPD = gallons per day

The flows for existing connections, standbys, vacancies, and anticipated additional connections, together, would exceed the 80% limit on capacity. The 80% threshold would not be exceeded if the equivalent of 7 units were excluded.

Other factors which may affect the capacity limit:

A peaking factor is the ratio of the maximum flow to the average daily flow. It is used primarily to estimate the maximum flow in wet weather conditions. The peaking factor for flows in this informational presentation were calculated using the empirical formula developed by the City of Visalia. A peaking factor was calculated to be 2.47 for an average daily flow of 71,200 gpd and a peaking factor of 3.02 was calculated for an average daily flow allowed under the WDR of 89,000 gpd, which factors produce peak flows of 176,192 gpd and 215,380 gpd, respectively. Neither of these peak flows exceed the capacity of the 8 inch sewer trunk line flowing half full at the constructed grade, which was calculated to be 0.56 cubic feet per second, or 361,900 gpd.

Generally, the WWTF operates effectively, in compliance with WDRs, and has not experienced any serious mechanical malfunctions. There is a need to upgrade two aeration motors. The two lift pumps and grinder are in good condition as are the controls. The sewer system is hydro-flushed annually. There has never been a sanitary sewer overflow (SSO.)

The addition of flows from the standbys, vacancies, and the anticipated additional connections will place additional strain on the system with a resulting increase in the costs of operation and maintenance and higher probability of a mechanical malfunction. The WWTF processes discharges from primarily residential uses. Industrial, commercial and medical clinic uses may produce discharges containing constituents that are more difficult to treat and comply with WDR requirements.

### Conclusion

The estimates of flow and capacity in the analysis above are based on reasonable assumptions. However, the assumptions require choosing values that are highly sensitive to relatively small changes. For example, if the residential unit daily discharge is assumed to be 370 gpd rather than that 324 gpd used for the above analysis, the 80% threshold would be reached if the 13 standbys were added to the 178 connections currently contributing flow to the WWTF; and, 93% of WWTF capacity would be reached if the standbys, vacancies, and anticipated connections were added to the flow. Likewise, the peaking factor, the maximum flow the 8" sewer trunk line can convey, and maximum flows the WWTF can actually process in compliance with the WDRs, are each based on assumptions that if changed can significantly affect the number of connections to the system.

Notwithstanding the affect small changes to the assumptions have, the capacity of the WWTF is at or very near the point that a technical report could be required by the Water

Board. The requested authorization to update the Traver Sewer and Wastewater Treatment Study of February, 2005 will satisfy this requirement.

The Sewer Collection and Wastewater Treatment Study prepared by Provost & Pritchard Group, Inc., February, 2005; the Traver Wastewater Treatment Facility Sewer System Management Plan (SSMP), June, 2010; and the Report on Evaluation of the Traver Wastewater System, June, 2010 provide detailed information, recommendations, and estimated costs as a basis to begin the planning process to identify the upgrades and expansion options for the WWTF. It is recommended that the planning process begin and resources and funding be provided to proceed with preparation of a plan.

The anticipated additional connections to the system can be accommodated subject to a recognition that the WWTF will be operated at or near capacity and the costs to operate and maintain of the WWTF will increase as will the risk, and that this choice to add connections is predicated on proceeding with a plan that will ensure adequate capacity.

The requested authorization to study to the connection fee established by Resolution No. 93-1247 will address funding of capital improvements and maintenance of the WWTF to achieve the goal to be self-sufficient and reduce or eliminate subsidies from other County funds.