

## **Overview: Tulare Lake Basin Disadvantaged Communities Study**

### **Background:**

Disadvantaged communities (DACs) in the Tulare Lake Basin region face widespread drinking water and wastewater challenges. In many cases local Counties and Integrated Regional Water Management (IRWM) planning groups have been unable to help DACs within their planning areas to address these challenges. This Study will investigate and develop solutions for DACs that can be integrated into IRWM planning efforts for the Tulare Lake Basin region.

The California Department of Water Resources awarded \$2 million to the County of Tulare to develop a plan for regional water and wastewater solutions for DACs in the Tulare Lake basin, including areas in Fresno, Kern, Kings and Tulare Counties. The solutions must provide safe, clean and affordable potable water supplies and effective and affordable wastewater treatment and disposal options. They must also address long-term sustainability for operation, management and financing these services. The Study will look at a variety of different types of joint and shared solutions, recognizing that there is not a one-size-fits-all solution.

### **Selection of the Stakeholder Oversight Advisory Committee (SOAC)**

The Stakeholder Oversight Advisory Committee was appointed to reflect the regional and socio-economic diversity of the Tulare Lake Basin. Voting members include one Board of Supervisor from each County in the Basin, and two representatives (generally one consumer and one local water board member) of disadvantaged communities from each county. In addition, there are representatives from four funding and regulatory agencies, and four non-profit organizations (including universities, technical assistance organizations, and foundations).

### **Responsibilities:**

Oversee implementation of the Tulare Lake Basin Disadvantaged Community Water Study

- Determine priorities in the region
- Develop criteria for evaluating projects
- Select individual pilot projects and/ or studies
- Approve final report recommendations

All meetings are open to the public and public participation is greatly encouraged. The goal of the meetings is to ensure Pilot Projects and/ or Studies represent region-wide issues and solution-modeling that the entire region will benefit from.

This project is financed under the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006, administered by State of California, Department of Water Resources.

### **Pilot Project Selection Process**

In order to develop pilots, the consulting team needed to:

1. Identify all DACS in region: using DPH data and other sources

2. Compile information (drinking water, population served, wastewater, demographics, etc) on these DACs: using DPH data and other sources—this is the “TLB Database”
3. Facilitate SOAC meetings to develop a “List of Common Problems” that describes the primary challenges disadvantaged communities face in the region (as approved by the SOAC), and then prioritize that list to develop a list of “Priority Issues” to focus on for this study.
4. Utilizing the database and the list of common problems + priority issues, the consulting team identified current “state of drinking water and wastewater problems” in the region that can be identified using existing data. Additional data needs were also identified.
5. Facilitate SOAC meetings and solicit consultant input to generate a list of potential joint or regional solutions to the priority issues that should be evaluated through the study, as well as guidelines from the SOAC on what potential solutions should be evaluated on (e.g., community support, affordability, sustainability, etc.).
6. The SOAC approved moving forward with four pilot project/study topics, which will be developed over the next year.

### **Priority Issues:**

1. Lack of Funding to Offset Increasingly Expensive Operations and Maintenance Costs in Large Part to Lack of Economies of Scale - *Small systems serving primarily low-income households and remote locations cannot keep rates affordable and still generate enough revenue to run the system safely over the long term; Lack of funding resources to operate and maintain water or wastewater systems at affordable levels and lack of funding for planning and replacement of infrastructure as it ages.*
2. Lack of Technical, Managerial and Financial (TMF) Capacity by Water and Wastewater Providers-*Lack of adequately trained technical, legal, financial, and managerial professionals, as well as inadequate training and ongoing education and assistance for existing water and wastewater providers; complete lack of institutional capacity for areas without a provider; lack of knowledge of available training, assistance, and educational support to support local employment in these sectors*
3. Poor Water Quality - *Existing contamination of drinking water source (acute and chronic contaminants), increasing groundwater pollution, new and emerging contaminants, problems with secondary contaminants (i.e. taste, color, smell, etc.), and health impacts.*
4. Inadequate or Unaffordable Funding or Funding Constraints to Make Improvements-- *Lack of affordable or accessible funding for system improvements; Inadequate funding to make successful grant applications to get infrastructure improvements (i.e. lack of funding for grantwriters, preliminary engineering, etc.); funding isn't always getting to the communities that need it most*
5. Lack of Informed, Empowered, or Engaged Residents--*Residents lack good information, or do not feel that they have the power or ability to change their situation, or are not engaged in decision-making processes that impact local water or wastewater service, including inadequate or confusing information about water quality and what is safe drinking water, lack of information to residents on grant opportunities available to the community, knowledge about health impacts*

**Potential solutions to be analyzed through pilot projects / studies** [Underlined part describes the 4 Main Pilot Types, bullets describe types of specific solutions to be addressed]:

1. Management/Non-Infrastructure Solutions To Reduce Costs And Improve Efficiency
  - Personnel / Service / Purchasing Pools (i.e. lab, residual disposal, technical services, financial services, legal services, etc.)
2. Technical Solutions To Improve Efficiency/Reduce Operation & Maintenance
  - Separating potable water from other public water system uses (i.e. dual systems: in-home versus Irrigation or fire flow water)
  - Residual handling and management (on-site and off-site handling, all materials)
  - Water/energy efficiency technology
  - Less expensive water treatment technology & blending
  - Nitrate biological treatment
3. New Source Development
  - Physical Consolidation – Both water and waste water facilities
  - Exchanges/contracting for surface water or other source
  - Regional Drinking Water (or Wastewater?) Treatment Plant
4. Individual Household Treatment / Interim Solutions
  - Well Improvements– resealing, deepening or replacing wells.
  - POE (appropriate for a water systems or for individual wells)
  - POU (appropriate for individual wells, difficult for a system to be required to monitor items within the home)
  - Community Septic Systems (i.e. community leach field, cluster systems, package plants, etc.)
  - Advanced Septic System

**Potential components *to be developed through each pilot project / study*:**

1. Policy Recommendations
2. Implementation Roadmap including:
  - List of promising solutions for each unincorporated DAC in the TLB
  - Leadership development recommendations
  - Financing and governance recommendations
7. Stakeholder Facilitation Tools and Lessons Learned
8. Community-friendly guidebook

**Each Pilot Project / Study will do the following:**

### **1. Describe problem**

\*describe frequency and occurrence of different community settings in order to identify where potential solutions can be implemented (Think of it like a menu of solutions, that then get applied to where we know there is a menu of problems)

- identify community settings appropriate for each potential solution; identify all individual communities that fit those settings;

## **2. Describe solutions**

\*detailed engineering, legal, technical analysis of feasibility

## **3. Explore application of solutions at the grassroots level**

\*Develop stakeholder review team from at least one community on this list for each setting.

- Recruit representatives from communities for Community Review Team.
- Help individual communities “try on the dress” / “test drive”
- Make recommendations around implementation

## **4. Develop policy recommendations**

- Identify policy problems and barriers to implementation of solutions
- Identify potential policy solutions
- Flesh Out Priority Policy Recommendations

All documents for the Tulare Lake Basin DAC Study can be found at:

[http://www.co.tulare.ca.us/government/county\\_office/disadvantaged\\_communities/documents.asp](http://www.co.tulare.ca.us/government/county_office/disadvantaged_communities/documents.asp)

For questions regarding the project or to get on the mailing list, you can contact Laurel Firestone at [laurel.firestone@communitywatercenter.org](mailto:laurel.firestone@communitywatercenter.org)

Table 1. Population-based Water System statistics for counties in the Tulare Lake Basin. Disadvantaged status<sup>1</sup> indicated by county and entire basin.

County Populations (2010), <sup>2</sup>		County	Total Population Living in Study Communities	Average Annual 1.5% of MHI	PHYSICAL VULNERABILITY		WATER QUALITY		Population Communities without CDPH Number
					Population of Communities Reporting the Number of Active Sources	% of Population Reporting with only One Active Source	Population of Communities Reporting Water Sampling Data	% of Population Reporting with Water Sampling Data that Exceeded some MCL <sup>3</sup>	
<b>Total in County</b>	<b>940,220</b>	<b>Fresno</b>	<b>38,430</b>	<b>\$ 663</b>	<b>26,706</b>	<b>23%</b>	<b>22,890</b>	<b>44%</b>	<b>9418</b>
Unincorporated	168,184	DAC	15,776	\$ 579	10,849	17%	9,744	65%	4420
Total in Basin	927,701	SDAC	5,979	\$ 455	4,909	52%	2,839	18%	631
Unincorp in Basin	163,284	Non-DAC	16,675	\$ 894	10,948	15%	10,307	30%	4367
Uninc Basin minus Islands	137,284								
<b>Total in County</b>	<b>846,883</b>	<b>Kern</b>	<b>185,063</b>	<b>\$ 631</b>	<b>164,228</b>	<b>9%</b>	<b>163,941</b>	<b>81%</b>	<b>16290</b>
Unincorporated	301,225	DAC	97,468	\$ 650	90,459	2%	90,452	94%	6672
Total in Basin	775,102	SDAC	59,316	\$ 446	45,883	1%	45,761	82%	9548
Unincorp in Basin	270,100	Non-DAC	28,279	\$ 958	27,886	45%	27,728	42%	70
Uninc Basin minus Islands	231,100								
<b>Total in County</b>	<b>153,365</b>	<b>Kings</b>	<b>13,418</b>	<b>\$ 566</b>	<b>12,806</b>	<b>38%</b>	<b>8,236</b>	<b>94%</b>	<b>462</b>
Unincorporated	34,332	DAC	9,571	\$ 603	9,199	52%	4,629	97%	372
Total in Basin	153,365	SDAC	3,697	\$ 457	3,547	0%	3,547	92%	0
Unincorp in Basin	34,332	Non-DAC	150	\$ 906	60	100%	60	0%	90
Uninc Basin minus Islands	34,332								
<b>Total in County</b>	<b>446,837</b>	<b>Tulare</b>	<b>105,601</b>	<b>\$ 537</b>	<b>67,228</b>	<b>13%</b>	<b>60,966</b>	<b>48%</b>	<b>27160</b>
Unincorporated	143,806	DAC	30,656	\$ 587	10,874	12%	10,462	58%	18323
Total in Basin	446,837	SDAC	61,916	\$ 453	47,611	13%	43,336	42%	6952
Unincorp in Basin	143,806	Non-DAC	13,029	\$ 893	8,743	17%	7,168	69%	1885
Uninc Basin minus Islands	143,806								
<b>Four County Total</b>	<b>2,387,305</b>	<b>Totals for Basin</b>	<b>342,512</b>	<b>\$ 603</b>	<b>270,968</b>	<b>13%</b>	<b>256,033</b>	<b>71%</b>	<b>53330</b>
Unincorporated	647,547	DAC	153,471	\$ 627	121,381	8%	115,287	88%	29787
Total in Basin	2,303,005	SDAC	130,908	\$ 450	101,950	9%	95,483	62%	17131
Unincorp in Basin	611,522	Non-DAC	58,133	\$ 925	47,637	33%	45,263	43%	6412
Uninc Basin minus Islands	546,522								

<sup>1</sup> Non-DACs include: Non Disadvantaged Communities with Median Household Income over 80% of State Median Household Income (MHI). In addition, this category includes schools (n=4), and unclassified systems (n=4). DAC defined as Disadvantaged Community with MHI between 60- 80% of State MHI. SDAC defined as

Severely Disadvantaged Community with MHI less than 60% of State MHI.

<sup>2</sup> Not all of each county is in the basin. Figures based on Department of Finance information (2011)

<sup>3</sup> Exceedance of an MCL was determined by whether any active source for a given system had at least 2 samples exceeding the maximum contaminant level (MCL) for the following contaminants: nitrate, arsenic, uranium, DBCP, perchlorate, fluoride (application of DWR 2012 methodology). Total coliform was not included in this calculation because there is no DPH water sampling data available. Instead, PICME data was used to count violations of TCR Rule, but percentage of exceedance was low, so is not included in this table.

Tabla 1. Estadísticas por población en condados del Tulare Lake Basin. Estatus de bajos recursos<sup>1</sup> indicado por condado y la zona total de la cuenca.

Poblacion del Condado (2011). <sup>2</sup>	Condado	Total de la poblacion que vive en la comunidad del estudio	Promedio del 1.5% del ingreso mediano	VULNERABILIDAD FISCA		CALIDAD DE AGUA		Poblacion en Comunidades Sin Numero de Identificacion del Depto De Salud (CDPH)
				Poblacion de la Comunidad que proporciono informacion sobre Numero de Fuentes de Agua	% de la Poblacion que proporciono informacion con solo una fuente de agua	Poblacion de la Comunidad Que proporciono informacion sobre los datos y las muestras del agua	% de la Poblacion que proporciono los datos y muestra del agua que sobre pasaron el Limite Legal (MCL, por sus siglas en ingles <sup>3</sup> )	
<b>Total en Condado</b>	<b>Fresno</b>	<b>38,430</b>	<b>\$ 663</b>	<b>26,706</b>	<b>23%</b>	<b>22,890</b>	<b>44%</b>	<b>9418</b>
Comunidades No-Incorporada	DAC	15,776	\$ 579	10,849	17%	9,744	65%	4420
Total en Cuenca	SDAC	5,979	\$ 455	4,909	52%	2,839	18%	631
Comunidades No-Incorporadas en la Cuenca	Non-DAC	16,675	\$ 894	10,948	15%	10,307	30%	4367
Comunidades no incorporadas restando "islas"		137,284						
<b>Total en Condado</b>	<b>Kern</b>	<b>185,063</b>	<b>\$ 631</b>	<b>164,228</b>	<b>9%</b>	<b>163,941</b>	<b>81%</b>	<b>16290</b>
Comunidades No-Incorporada	DAC	97,468	\$ 650	90,459	2%	90,452	94%	6672
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Comunidades No-Incorporadas en la Cuenca	Non-DAC	28,279	\$ 958	27,886	45%	27,728	42%	70
Comunidades no incorporadas restando "islas"		231,100						
<b>Total en Condado</b>	<b>Kings</b>	<b>13,418</b>	<b>\$ 566</b>	<b>12,806</b>	<b>38%</b>	<b>8,236</b>	<b>94%</b>	<b>462</b>
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Comunidades no incorporadas restando "islas"		34,332						
<b>Total en Condado</b>	<b>Tulare</b>	<b>105,601</b>	<b>\$ 537</b>	<b>67,228</b>	<b>13%</b>	<b>60,966</b>	<b>48%</b>	<b>27160</b>
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Total en Cuenca	SDAC	61,916	\$ 453	47,611	13%	43,336	42%	6952
Comunidades No-Incorporadas en la Cuenca	Non-DAC	13,029	\$ 893	8,743	17%	7,168	69%	1885
Comunidades no incorporadas restando "islas"		143,806						
<b>Total en los 4 Condados</b>	<b>Totals for Basin</b>	<b>342,512</b>	<b>\$ 603</b>	<b>270,968</b>	<b>13%</b>	<b>256,033</b>	<b>71%</b>	<b>53330</b>
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Comunidades no incorporadas restando "islas"		546,522						

<sup>1</sup> Comunidades que no son de bajos recursos (Non-DACs, por sus siglas en ingles): Non-DACs con Ingreso Mediano (MHI, por sus siglas en ingles) mas de 80% del nivel de MHI en el estado. Esta categoria tambien incluye colegios (n=4), y sistemas sin clasificacion (n=4). Una comunidad de bajos recursos (DAC, por sus siglas en ingles) DAC con MHI entre 60-80% del MHI del estado. Comunidades Severamente de Bajos recursos (SDACs, por siglas en ingles) SDACs es definido como una Comunidad Severamente de Bajos Recursos con el ingreso MHI menos de 60% del MHI del estado.

<sup>2</sup> No todo el condado figura dentro del Tulare Lake Basin. Los numeros vienen del Departamento de Finanza (2011)

<sup>3</sup> El hecho de sobre pasar un "MCL" (nivel maximo legal de contaminacion) fue determinado si cualquier fuente activa de agua en un sustema tenia por lo menos 2 muestras de agua que sobre pasaron el MCL para ese contaminante durante el periodo de 2008-2010 para los siguientes contaminantes: nitrato, arsenico, uranio,

Table 2. Community-based Water System statistics for counties in the Tulare Lake Basin. Disadvantaged status<sup>1</sup> indicated by county and entire basin.

County	Total Number of Unincorporated Communities in Study Area	Average Annual 1.5% of MHI	PHYSICAL VULNERABILITY		WATER QUALITY		Number of Communities without CDPH Number
			Number of Communities Reporting the Number of Active Sources	% of Communities Reporting with Only One Active Source	Number of Communities Reporting Water Sampling Data	% of Communities Reporting with Water Sampling Data that Exceeded some MCL <sup>3</sup>	
<b>Fresno</b>	<b>158</b>	<b>\$ 659</b>	<b>93</b>	<b>58%</b>	<b>62</b>	<b>21%</b>	<b>41</b>
DAC	52	\$ 586	25	56%	18	22%	20
SDAC	58	\$ 478	33	67%	15	33%	15
Non-DAC	48	\$ 971	35	51%	29	14%	6
<b>Kern</b>	<b>182</b>	<b>\$ 714</b>	<b>121</b>	<b>45%</b>	<b>116</b>	<b>41%</b>	<b>44</b>
DAC	54	\$ 642	30	37%	29	48%	18
SDAC	65	\$ 433	37	19%	35	34%	21
Non-DAC	63	\$ 1,072	54	67%	52	42%	5
<b>Kings</b>	<b>14</b>	<b>\$ 649</b>	<b>9</b>	<b>44%</b>	<b>8</b>	<b>63%</b>	<b>4</b>
DAC	8	\$ 640	5	60%	4	75%	3
SDAC	4	\$ 529	3	0%	3	67%	0
Non-DAC	2	\$ 924	1	100%	1	0%	1
<b>Tulare</b>	<b>179</b>	<b>\$ 632</b>	<b>107</b>	<b>45%</b>	<b>88</b>	<b>36%</b>	<b>39</b>
DAC	50	\$ 572	28	50%	23	39%	14
SDAC	79	\$ 480	51	45%	42	33%	17
Non-DAC	50	\$ 939	28	39%	23	39%	8
<b>Totals for Basin</b>	<b>533</b>	<b>\$ 669</b>	<b>330</b>	<b>48%</b>	<b>274</b>	<b>36%</b>	<b>128</b>
DAC	164	\$ 603	88	48%	74	41%	55
SDAC	206	\$ 466	124	42%	95	35%	53
Non-DAC	163	\$ 999	118	56%	105	33%	20

1 Non-DACs include: Non Disadvantaged Communities with Median Household Income over 80% of State Median Household Income (MHI). In addition, this category includes schools (n=4), and unclassified systems (n=4). DAC defined as Disadvantaged Community with MHI between 60- 80% of State MHI. SDAC defined as Severely Disadvantaged Community with MHI less than 60% of State MHI.

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Condado	Total de numero de comunidades	Promedio del 1.5% del ingreso mediano (MHI, por sus siglas en Ingles)	VULNERABILIDAD FISCA		CALIDAD DE AGUA		Numero de Comunidades Sin Numero de Identificacion del Depto De Salud (CDPH)
			Numero de comunidades que proporciono informacion sobre Numero de Fuentes de agua	Numero de comunidades que proporciono informacion sobre solo una fuente de agua	Numero da comunidades Que proporciono informacion sobre los datos de muestreo de agua	Numero da comunidades los datos y muestra del agua que sobre pasaron el Limite Legal (MCL, por sus siglas en ingles <sup>3</sup> )	
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SDAC	206	\$ 466	124	42%	95	35%	53
Non-DAC	163	\$ 999	118	56%	105	33%	20

<sup>1</sup> Comuidades que no son de bajos recursos (Non-DACs, por sus siglas en ingles): Non-DACs con Ingreso Mediano (MHI, por sus siglas en ingles) mas de 80% del nivel de MHI en el estado. Esta categoria tambien incluye colegios (n=4), y sistemas sin clasificacion (n=4). Una comunidad de bajos recursos (DAC, por sus siglas en ingles) DAC con MHI entre 60-80% del MHI del estado. Comunidades Severamente de Bajos recursos (SDACs, por siglas en ingles) SDACs es definido como una Comunidad Severamente de Bajos Recursos con el ingreso MHI menos de 60% del MHI del estado.



Table 3. Population-based Wastewater system statistics for counties in the Tulare Lake Basin. Disadvantaged status<sup>1</sup> indicated by county and entire basin.

County	Total Population Living in Study Communities	Average Annual 1.5% of MHI	PLANT CAPACITY (How Much a Wastewater Facility Can Treat)		POTENTIAL FOR EXCESSIVE INFILTRATION (Are per capita wastewater flows too high)		WASTEWATER VIOLATIONS (Violations could be for lack of reporting, upsets at a plant, etc)		Population in Communities Without Wastewater Treatment and Collection systems
			Population of Communities Reporting Flow Information at Wastewater Plant	% of Population Reporting Flows Over Permitted Capacity (vol/day is higher than capacity) at Wastewater Plant	Population of Communities Reporting Flow Information at Wastewater Plant	% of Population Reporting High Per Capita Wastewater Flow Indicating Potential for Infiltration (More water may be entering system than desired)	Population of Communities With Violation Reporting Data	% of Population in Communities With 30 or More Violations In Three Years (2006-2008)	
<b>Fresno</b>	<b>38,430</b>	<b>\$ 663</b>	<b>13,408</b>	<b>9%</b>	<b>13,408</b>	<b>16%</b>	<b>13,408</b>	<b>5%</b>	<b>20717</b>
DAC	15,776	\$ 579	8,673	5%	8,673	21%	8,673	25%	7117
SDAC	5,979	\$ 455	1,109	68%	1,109	32%	1,109	21%	3677
Non-DAC	16,675	\$ 894	3,626	0%	3,626	0%	3,626	0%	9923
<b>Kern</b>	<b>185,063</b>	<b>\$ 631</b>	<b>52,596</b>	<b>41%</b>	<b>52,596</b>	<b>15%</b>	<b>45,146</b>	<b>41%</b>	<b>77045</b>
DAC	97,468	\$ 650	2,491	0%	2,491	0%	2,541	33%	43977
SDAC	59,316	\$ 446	30,337	46%	30,337	0%	30,337	46%	24557
Non-DAC	28,279	\$ 958	19,768	38%	19,768	39%	12,268	36%	8511
<b>Kings</b>	<b>13,418</b>	<b>\$ 566</b>	<b>5,954</b>	<b>0%</b>	<b>5,954</b>	<b>0%</b>	<b>5,954</b>	<b>54%</b>	<b>1144</b>
DAC	9,571	\$ 603	4,454	0%	4,454	0%	4,454	50%	547
SDAC	3,697	\$ 457	1,500	0%	1,500	0%	1,500	0%	447
Non-DAC	150	\$ 906	-	0%	-	0%	-	0%	150
<b>Tulare</b>	<b>105,601</b>	<b>\$ 537</b>	<b>37,010</b>	<b>7%</b>	<b>37,010</b>	<b>43%</b>	<b>26,927</b>	<b>13%</b>	<b>42397</b>
DAC	30,656	\$ 587	7,445	0%	7,445	1%	7,445	20%	21071
SDAC	61,916	\$ 453	28,590	9%	28,590	55%	19,182	18%	13013
Non-DAC	13,029	\$ 893	975	0%	975	0%	300	0%	8313
<b>Totals for Basin</b>	<b>342,512</b>	<b>\$ 603</b>	<b>108,968</b>	<b>23%</b>	<b>108,968</b>	<b>24%</b>	<b>91,435</b>	<b>31%</b>	<b>141303</b>
DAC	153,471	\$ 627	23,063	2%	23,063	8%	23,113	29%	72712
SDAC	130,908	\$ 450	61,536	28%	61,536	26%	52,128	34%	41694
Non-DAC	58,133	\$ 925	24,369	31%	24,369	32%	16,194	27%	26897

<sup>1</sup> Non-DACs include: Non Disadvantaged Communities with Median Household Income over 80% of State Median Household Income (MHI). In addition, this category includes schools (n=4), and unclassified systems

(n=4). DAC defined as Disadvantaged Community with MHI between 60- 80% of State MHI. SDAC defined as Severely Disadvantaged Community with MHI less than 60% of State MHI.

Table 3. Estadísticas sobre la población y aguas servidas en condados del Tulare Lake Basin. Disadvantaged status<sup>1</sup> indicated by county and entire basin.

Condado	Total de la Población Viviendo en Comunidades en la Zona del Estudio	Promedio Anual de 1.5% del Ingreso Mediano Por Familia (MHI)	CAPACIDAD DE LA PLANTA (Que Volumen de Aguas Negras Se Pueden Procesar)		POTENCIAL DE INFILTRACION EXCESIVA (Son los flujos de aguas negras muy altos?)		VIOLACIONES DE AGUAS NEGRAS (Las violaciones podrían ser por falta de reportar, dificultades en la planta, etc)		Población en Comunidades Sin Servicio de Tratamiento de Aguas Negras y Captadores de Aguas
			Población de Comunidades Reportando Información Sobre el Flujo en la Planta de Tratamiento	% de Población Reportando Flujos Sobre la Capacidad Permitida (vol/día es mas alto que la capacidad) en la Planta de Tratamiento	Población de Comunidades Reportando Información Sobre el Flujo en la Planta de Tratamiento	% de Población Reportando Altos Niveles de Flujos de Aguas Negras Por Cabeza Esto Indica Potencial de Infiltración Excesiva (Mas agua podría estar entrando a la planta)	Población de Comunidades Con Información Sobre Violaciones de aguas negras	% de la población de comunidades Con mas de 30 Violaciones En los últimos 3 años (2006-2008)	
<b>Fresno</b>	<b>38,430</b>	<b>\$ 663</b>	<b>13,408</b>	<b>9%</b>	<b>13,408</b>	<b>16%</b>	<b>13,408</b>	<b>5%</b>	<b>20717</b>
DAC	15,776	\$ 579	8,673	5%	8,673	21%	8,673	25%	7117
SDAC	5,979	\$ 455	1,109	68%	1,109	32%	1,109	21%	3677
Non-DAC	16,675	\$ 894	3,626	0%	3,626	0%	3,626	0%	9923
<b>Kern</b>	<b>185,063</b>	<b>\$ 631</b>	<b>52,596</b>	<b>41%</b>	<b>52,596</b>	<b>15%</b>	<b>45,146</b>	<b>41%</b>	<b>77045</b>
DAC	97,468	\$ 650	2,491	0%	2,491	0%	2,541	33%	43977
SDAC	59,316	\$ 446	30,337	46%	30,337	0%	30,337	46%	24557
Non-DAC	28,279	\$ 958	19,768	38%	19,768	39%	12,268	36%	8511
<b>Kings</b>	<b>13,418</b>	<b>\$ 566</b>	<b>5,954</b>	<b>0%</b>	<b>5,954</b>	<b>0%</b>	<b>5,954</b>	<b>54%</b>	<b>1144</b>
DAC	9,571	\$ 603	4,454	0%	4,454	0%	4,454	50%	547
SDAC	3,697	\$ 457	1,500	0%	1,500	0%	1,500	0%	447
Non-DAC	150	\$ 906	-	0%	-	0%	-	0%	150
<b>Tulare</b>	<b>105,601</b>	<b>\$ 537</b>	<b>37,010</b>	<b>7%</b>	<b>37,010</b>	<b>43%</b>	<b>26,927</b>	<b>13%</b>	<b>42397</b>
DAC	30,656	\$ 587	7,445	0%	7,445	1%	7,445	20%	21071
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Non-DAC	13,029	\$ 893	975	0%	975	0%	300	0%	8313
<b>Totals for Basin</b>	<b>342,512</b>	<b>\$ 603</b>	<b>108,968</b>	<b>23%</b>	<b>108,968</b>	<b>24%</b>	<b>91,435</b>	<b>31%</b>	<b>141303</b>
DAC	153,471	\$ 627	23,063	2%	23,063	8%	23,113	29%	72712
SDAC	130,908	\$ 450	61,536	28%	61,536	26%	52,128	34%	41694
Non-DAC	58,133	\$ 925	24,369	31%	24,369	32%	16,194	27%	26897

1 Comunidades que no son de bajos recursos (Non-DACs, por sus siglas en inglés): Non-DACs con Ingreso Mediano (MHI, por sus siglas en inglés) mas de 80% del nivel de MHI en el estado. Esta categoría también incluye colegios (n=4), y sistemas sin clasificación (n=4). Una comunidad de bajos recursos (DAC, por sus siglas en inglés) DAC con MHI entre 60-80% del MHI del estado. Comunidades Severamente de Bajos recursos (SDACs, por siglas en inglés) SDACs es definido como una Comunidad Severamente de Bajos Recursos con el ingreso MHI menos de 60% del MHI del estado.

Table 4. Community-based Wastewater System statistics for counties in the Tulare Lake Basin. Disadvantaged status<sup>1</sup> indicated by county and entire basin.

County	Total Number of Unincorporated Communities in Study Area	Average Annual 1.5% of MHI	PLANT CAPACITY (How Much a Wastewater Facility Can Treat)		POTENTIAL FOR EXCESSIVE INFILTRATION (Are per capita wastewater flows too high)		WASTEWATER VIOLATIONS (Violations could be for lack of reporting, upsets at a plant, etc)		Number of Communities Without Wastewater Treatment and Collection systems
			Number of Communities Reporting Flow Information at Wastewater Plant	% of Communities Reporting Flows Over Permitted Capacity (vol/day is higher than capacity) at Wastewater Plant	Number of Communities Reporting Flow Information at Wastewater Plant	% of Communities Reporting High Per Capita Wastewater Flow Indicating Potential for Infiltration (More water may be entering system than desired)	Number of Communities With Violation Reporting Data	% of Communities With 30 or More Violations In Three Years (2006-2008)	
<b>Fresno</b>	<b>158</b>	<b>\$ 659</b>	<b>16</b>	<b>13%</b>	<b>16</b>	<b>25%</b>	<b>16</b>	<b>19%</b>	<b>126</b>
DAC	52	\$ 586	8	13%	8	25%	8	25%	40
SDAC	58	\$ 478	3	33%	3	67%	3	33%	50
Non-DAC	48	\$ 971	5	0%	5	0%	5	0%	36
<b>Kern</b>	<b>182</b>	<b>\$ 714</b>	<b>11</b>	<b>18%</b>	<b>11</b>	<b>27%</b>	<b>11</b>	<b>36%</b>	<b>165</b>
DAC	54	\$ 642	2	0%	2	0%	3	33%	47
SDAC	65	\$ 433	4	25%	4	0%	4	25%	60
Non-DAC	63	\$ 1,072	5	20%	5	60%	4	50%	58
<b>Kings</b>	<b>14</b>	<b>\$ 649</b>	<b>3</b>	<b>0%</b>	<b>3</b>	<b>0%</b>	<b>3</b>	<b>33%</b>	<b>9</b>
DAC	8	\$ 640	2	0%	2	0%	2	50%	5
SDAC	4	\$ 529	1	0%	1	0%	1	0%	2
Non-DAC	2	\$ 924	0	0%	0	0%	0	0%	2
<b>Tulare</b>	<b>179</b>	<b>\$ 632</b>	<b>107</b>	<b>45%</b>	<b>88</b>	<b>36%</b>	<b>39</b>	<b>0%</b>	<b>135</b>
DAC	50	\$ 572	28	50%	23	39%	14	0%	38
SDAC	79	\$ 480	51	45%	42	33%	17	0%	55
Non-DAC	50	\$ 939	28	39%	23	39%	8	0%	42
<b>Totals for Basin</b>	<b>533</b>	<b>\$ 669</b>	<b>137</b>	<b>38%</b>	<b>118</b>	<b>33%</b>	<b>69</b>	<b>12%</b>	<b>435</b>
DAC	164	\$ 603	40	38%	35	31%	27	15%	130
SDAC	206	\$ 466	59	42%	50	32%	25	8%	167
Non-DAC	163	\$ 999	38	32%	33	36%	17	12%	138

<sup>1</sup> Non-DACs include: Non Disadvantaged Communities with Median Household Income over 80% of State Median Household Income (MHI). In addition, this category includes schools (n=4), and unclassified systems

(n=4). DAC defined as Disadvantaged Community with MHI between 60- 80% of State MHI. SDAC defined as Severely Disadvantaged Community with MHI less than 60% of State MHI.

Table 4. Estadísticas sobre las comunidades en el Tulare Lake Basin. Disadvantaged status<sup>1</sup> indicated by county and entire basin. Footnote 1.

Condado	Total de la Población Viviendo en Comunidades en la Zona de Estudio	Promedio Anual de 1.5% del Ingreso Mediano Por Familia (MHI)	CAPACIDAD DE LA PLANTA (Que Volumen de Aguas Servidas Se Pueden Procesar)		POTENCIAL DE INFILTRACION EXCESIVA (Son los flujos de aguas servidas por cabeza muy altos?)		VIOLACIONES DE AGUAS NEGRAS (Las violaciones podrían ser por falta de reportar, dificultades en la planta, etc)		Numero de Comunidades Sin Servicio de Tratamiento de Aguas Negras y Captadores de Aguas
			Numero de Comunidades Reportando Informacion Sobre el Flujo en la Planta de Tratamiento	% de Comunidades Reportando Flujos Sobre la Capacidad Permitida (vol/dia es mas alto que la capacidad) en la Planta de Tratamiento	Numero de Comunidades Reportando Informacion Sobre el Flujo en la Planta de Tratamiento	% de Comunidades Reportando Altos Niveles de Flujos de Aguas Servidas Por Cabeza Esto Indica Potencial de Infiltracion Excesiva (Mas agua podría estar entrando a la planta)	Numero de Comunidades Con Informacion Sobre Violaciones de aguas servidas	% de Comunidades Con mas de 30 Violaciones En los ultimos 3 años (2006-2008)	
<b>Fresno</b>	<b>158</b>	<b>\$ 659</b>	<b>16</b>	<b>13%</b>	<b>16</b>	<b>25%</b>	<b>16</b>	<b>19%</b>	<b>126</b>
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