

AGENDA

TEHACHAPI CITY COUNCIL REGULAR MEETING, TEHACHAPI REDEVELOPMENT SUCCESSOR AGENCY REGULAR MEETING, TEHACHAPI PUBLIC FINANCING AUTHORITY REGULAR MEETING, AND TEHACHAPI CITY FINANCING CORPORATION REGULAR MEETING

**Beekay Theatre
110 South Green Street
Monday, November 19, 2012 - 6:00 P.M.**

Persons desiring disability-related accommodations should contact the City Clerk no later than ten days prior to the need for the accommodation. A copy of any writing that is a public record relating to an open session of this meeting is available at City Hall, 115 South Robinson Street, Tehachapi, California.

CALL TO ORDER

ROLL CALL

INVOCATION

Participation in the invocation is strictly voluntary. Each City Councilmember, city employee, and each person in attendance may participate or not participate as he or she chooses.

PLEDGE TO FLAG

CONSENT AGENDA/OPPORTUNITY FOR PUBLIC COMMENT

All items listed with an asterisk (*) are considered to be routine and non-controversial by city staff. Consent items will be considered first and may be approved by one motion if no member of the council or audience wishes to comment or ask questions. If comment or discussion is desired by anyone, the item will be removed from the consent agenda and will be considered in listed sequence with an opportunity for any member of the public to address the city council concerning the item before action is taken. Staff recommendations are shown in caps. Please turn all cellular phones off during the meeting.

AUDIENCE ORAL AND WRITTEN COMMUNICATIONS

The City Council welcomes public comments on any items within the subject matter jurisdiction of the Council. We respectfully request that this public forum be utilized in a positive and constructive manner. Persons addressing the Council should first state their name and area of residence, the matter of City business to be discussed, and the organization or persons represented, if any. To ensure accuracy in the minutes, please fill out a speaker's card at the podium. Comments directed to an item on the agenda should be made at the time the item is called for discussion by the Mayor. Questions on non-agenda items directed to the Council or staff should be first submitted to the City Clerk in written form no later than 12:00 p.m. on the Wednesday preceding the Council meeting; otherwise response to the question may be carried over to the next City Council meeting. No action can be taken by the Council on matters not listed on the agenda except in certain specified circumstances. The Council reserves the right to limit the speaking time of individual speakers and the time allotted for public presentations.

**TEHACHAPI CITY COUNCIL REGULAR MEETING,
TEHACHAPI REDEVELOPMENT SUCCESSOR AGENCY REGULAR MEETING,
TEHACHAPI PUBLIC FINANCING AUTHORITY REGULAR MEETING, AND
TEHACHAPI CITY FINANCING CORPORATION REGULAR MEETING
MONDAY, NOVEMBER 19, 2012 - 6:00 P.M. - PG. 2**

1. General public comments regarding matters not listed as an agenda item.

CITY CLERK REPORTS

Tehachapi City Council Unassigned Res. No. 32-12
Tehachapi City Council Unassigned Ord. No. 12-02-710
Tehachapi Redevelopment Successor Agency Unassigned Res. No. 06-12
Tehachapi Public Financing Authority Unassigned Res. No. 01-12

- *2. **ALL ORDINANCES SCHEDULED FOR INTRODUCTION OR ADOPTION AT THIS MEETING SHALL BE READ BY TITLE ONLY**
- *3. Minutes for the Tehachapi City Council, Tehachapi Redevelopment Successor Agency, Tehachapi Public Financing Authority, and the Tehachapi City Financing Corporation regular meeting on November 5, 2012 - **APPROVE AND FILE**

FINANCE DIRECTOR REPORTS

- *4. Disbursements, bills, and claims for October 29, 2012 through November 14, 2012 – **AUTHORIZE PAYMENTS**
5. On March 8, 2011 the Tehachapi Redevelopment Agency transferred title of the parking lot facility located on Robinson Street and 'F' Street to the City of Tehachapi. In order to comply with State regulations and to remove any cloud on this transfer, the Tehachapi Redevelopment Successor Agency needs to adopt a resolution authorizing the transfer and the Tehachapi City Council needs to adopt a resolution accepting the property – **ADOPT A RESOLUTION OF THE SUCCESSOR AGENCY AUTHORIZING TRANSFER OF THE PROPERTY; ADOPT A RESOLUTION OF THE CITY COUNCIL AUTHORIZING ACCEPTANCE OF THE PROPERTY**
6. Health and Safety Code Section 34176(a) authorizes a city that created a redevelopment agency to elect to retain the housing assets and functions previously performed by the redevelopment agency - **ADOPT A RESOLUTION ELECTING FOR THE CITY TO RETAIN THE HOUSING ASSETS AND FUNCTIONS PREVIOUSLY PERFORMED BY THE REDEVELOPMENT AGENCY AND ACCEPTING THE TRANSFER OF ALL RIGHTS, POWERS, DUTIES, OBLIGATIONS AND ASSETS ASSOCIATED WITH THE HOUSING ACTIVITIES OF THE REDEVELOPMENT AGENCY**
7. Through a contract with Kern Council of Government a Transportation Development Plan has been completed for the existing Dial-A-Ride transit service provided by the City by TPG Consulting – **ACCEPT THE TRANSIT DEVELOPMENT PLAN AND DIRECT STAFF TO IMPLEMENT THE RECOMMENDATIONS MADE BY TPG CONSULTING, INC. AS STAFF DEEMS APPROPRIATE**

AIRPORT MANAGER REPORTS

- *8. Noncommercial Hangar ground lease between the City of Tehachapi and Kenneth Hetge and/or Della Dusel-Hetge Hangar 05W – **APPROVE NONCOMMERCIAL HANGAR GROUND LEASE BETWEEN THE CITY OF TEHACHAPI AND KENNETH HETGE AND/OR DELLA DUSEL-HETGE FOR HANGAR 05W**

**TEHACHAPI CITY COUNCIL REGULAR MEETING,
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MONDAY, NOVEMBER 19, 2012 - 6:00 P.M. - PG. 3**

PUBLIC WORKS DIRECTOR REPORTS

9. Southern California Edison is asking municipalities to enter into an agreement with them concerning use of their poles to place signage – **APPROVE AND AUTHORIZE THE MAYOR TO SIGN THE AGREEMENT WITH SOUTHERN CALIFORNIA EDISON**

COMMUNITY DEVELOPMENT DIRECTOR REPORTS

10. Through a partnership with the Kern Council of Governments, the City received grant funding from Southern California Edison to prepare an Energy Action Plan (EAP) for the City of Tehachapi. The EAP is a requirement of Assembly Bill 32 (AB 32) “The Green House Gas Initiative” and will be a precursor to the City’s Climate Action Plan also a requirement of AB 32 – **ADOPT THE CITY OF TEHACHAPI ENERGY ACTION PLAN**

ASSISTANT CITY MANAGER REPORTS

11. Introduce Freedom Plaza Project and accept donation from Lehigh Southwest Cement Company for said project – **PRESENTATION OF PROJECT AND DONATION FROM LEHIGH SOUTHWEST CEMENT COMPANY**

CITY MANAGER REPORTS

12. Report to Council regarding current activities and programs – **VERBAL REPORT**

COUNCILMEMBER ANNOUNCEMENTS OR REPORTS

On their own initiative, a Councilmember may ask a question for clarification, make a brief announcement, provide a reference to staff or other resources for factual information, take action to have staff place a matter of business on a future agenda, request staff to report back at a subsequent meeting concerning any matter, or make a brief report on his or her own activities. (Per Gov’t. Code §54954.2(a))

CLOSED SESSION

1. Conference with legal counsel regarding claim filed by the Broome Family Trust per Government Code Section 54956.9(b)
2. Public Employment - City Manager Evaluation per Government Code Section 54957

ADJOURNMENT

MINUTES

TEHACHAPI CITY COUNCIL REGULAR MEETING, TEHACHAPI REDEVELOPMENT SUCCESSOR AGENCY REGULAR MEETING, TEHACHAPI PUBLIC FINANCING AUTHORITY REGULAR MEETING, AND TEHACHAPI CITY FINANCING CORPORATION REGULAR MEETING

BeeKay Theatre
110 South Green Street

Monday, November 5, 2012 – 6:00 P.M.

NOTE: Sm, Gr, Wi, Ni and Va are abbreviations for Council Members Smith, Grimes, Wiggins, Nixon and Vachon, respectively. For example, Gr/Sm denotes Council Member Grimes made the motion and Council Member Smith seconded it. The abbreviation Ab means absent, Abd abstained, Ns noes, and NAT no action taken.

ACTION TAKEN

CALL TO ORDER

Meeting called to order by Mayor Grimes at 6:00 p.m.

ROLL CALL

Roll call by City Clerk Denise Jones.

Present: Mayor Grimes, Mayor Pro-Tem Smith, Councilmembers,
Wiggins, Nixon and Vachon

Absent: None

INVOCATION

By Barry Galloway of The Tehachapi Mountain Vineyard Church

PLEDGE TO THE FLAG

Led by Councilmember Vachon

CONSENT AGENDA

Approved consent agenda subject to removal of item *5 by Henry Schaeffer.

Approved Consent Agenda
Subject To Removal Of Item
*5
Sm/Ni Ayes All

AUDIENCE ORAL COMMUNICATIONS

1. No public comments were received

CITY CLERK REPORTS

- *2. **ALL ORDINANCES SCHEDULED FOR INTRODUCTION OR ADOPTION AT THIS MEETING SHALL BE READ BY TITLE ONLY.**
- *3. Minutes for the Tehachapi City Council, Tehachapi Redevelopment Successor Agency, Tehachapi Public Financing Authority, and the Tehachapi City Financing Corporation regular meeting on October 15, 2012 - **APPROVED AND FILED.**
- *4. The Greater Tehachapi Chamber of Commerce has submitted a special use application for their 12th Annual Christmas Parade. The event will be on December 1, 2012 from 5:30 p.m. until 6:30 p.m. and they are requesting street closures – **APPROVED THE SPECIAL USE APPLICATION FOR THE GREATER TEHACHAPI CHAMBER OF COMMERCE CHRISTMAS PARADE AND ASSOCIATED STREET CLOSURES, SUBJECT TO CITY CONDITIONS**

All Ord. Read By Title Only
Sm/Ni Ayes All

Approved & Filed
Sm/Ni Ayes All

Approved The Special Use Application For The Greater Tehachapi Chamber Of Commerce Christmas Parade And Associated Street Closures, Subject To City Conditions
Sm/Ni Ayes All

FINANCE DIRECTOR REPORTS

- *5. Disbursements, bills, and claims for October 15, 2012, through October 24, 2012 – **THIS ITEM WAS REMOVED FROM THE CONSENT AGENDA BY HENRY SCHAEFFER TO ASK ABOUT THE 4” BUCKLES, THE GOLF SHIRTS AND WHAT GG STANDS FOR; AUTHORIZED PAYMENTS.**
- *6. City of Tehachapi Treasurer’s Report through September 2012 – **RECEIVED REPORT.**

Authorized Payments
Wi/Va Ayes All

Received Report
Sm/Ni Ayes All

PUBLIC WORKS DIRECTOR REPORTS

- 7. The City of Tehachapi owns the building at 500 East F Street. Over the past three years, necessary improvements and repairs have been done to bring this building back into shape. This task is to replace the worn out linoleum and carpet – **CITY MANGER GREG GARRETT GAVE REPORT; COUNCILMEMBER WIGGINS REPORTED THAT THE SENIORS ARE SO HAPPY WITH THESE IMPROVEMENTS AND THAT THE SENIORS DO A LOT OF WORTHWHILE PROJECTS; COUNCILMEMBER SMITH ASKED ABOUT A PRICE PREFERENCE FOR LOCAL VENDORS; AWARDED BID TO REPLACE LINOLEUM AND CARPET TO MOSES/MASTER CARPET IN THE AMOUNT OF \$16,243.24.**

Awarded Bid To Replace Linoleum Carpet To Moses/Master Carpet In The Amount Of \$16,243.24.
Sm/Ni Ayes All

CITY ENGINEER REPORTS

8. The City entered into a contract with W.M. Lyles for the Wastewater Treatment Plant Upgrade. Staff has determined that all contract items have been completed – **CITY ENGINEER JAY SCHLOSSER GAVE REPORT; COUNCILMEMBER SMITH ASKED WHAT OUR CAPACITY IS NOW; MAYOR GRIMES ASKED ABOUT A RIBBON CUTTING CEREMONY; APPROVED THE NOTICE OF COMPLETION FOR THE WASTEWATER TREATMENT PLANT UPGRADE AND DIRECT STAFF TO RECORD THE SAME**

Approved The Notice Of Completion For The Wastewater Treatment Plant Upgrade & Direct Staff To Record The Same
Wi/Sm Ayes All

CITY MANAGER REPORTS

9. Report to Council regarding current activities and programs – **VERBAL REPORT.**

Gave Report

COUNCIL MEMBER ANNOUNCEMENTS OR REPORTS

1. Councilmember Smith asked about putting in fiber optics on 'C' Street while it is being improved.
2. Councilmember Vachon attended a career technical education meeting at high school and commented on the outstanding decorating job by Main Street at the Starlight Ball.
3. Councilmember Nixon thanked Gaston and Police Department for their work on Trunk or Treat.
4. Mayor Grimes commented on half time ceremonies at the Friday night high school football game honoring Terry Edwards.

CLOSED SESSION

1. Conference with real property negotiator (City Manager) regarding first right of refusal of Airport property described as Hangar 5W, per Government Code Section 54956.8

Waive The City's Right Of First Refusal To Purchase Hangar 5W From Kevin Judy
Gr/Wi Ayes All

ADJOURNMENT

The City Council/Boards adjourned at 6:45 p.m. to a Tehachapi City Council, Tehachapi Redevelopment Successor Agency, Tehachapi Public Financing Authority and Tehachapi City Financing Corporation Regular Meeting to be held on Monday, November 19, 2012, at 6:00 p.m.

DENISE JONES, CMC
City Clerk, City of Tehachapi

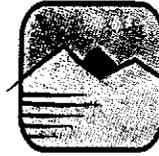
Approved this 19th day
Of November, 2012.

ED GRIMES
Mayor, City of Tehachapi

Accounts Payable

Checks by Date - Detail By Check Date

User: delphina
 Printed: 11/14/2012 - 9:36 AM



CITY OF
TEHACHAPI
 CALIFORNIA

		Check Amount
Check No:	0 Check Date:	
Vendor:	0015 211 Praxair Distribution Inc.	
44338199	PW/acetylene	119.55
		<hr/>
Check No:	0 Check Date:	119.55
Vendor:	0020 American Water Works Association	
0000658485	Wtr/unidirectional flushing DVD	205.50
		<hr/>
		205.50
Check No:	0 Check Date:	
Vendor:	0027 Atco International	
IO358360	Swr/foamacide	177.61
IO358360 UT	Swr/Use Tax	-12.01
		<hr/>
		165.60
Check No:	0 Check Date:	
Vendor:	0030 The Bakersfield Californian	
111712	GG/subscription renewal	155.88
		<hr/>
		155.88
Check No:	0 Check Date:	
Vendor:	0035 BC Laboratories, Inc.	
B131277	Wtr/samples/Oakwood/Brentwood/Tanglewood/	50.00
B131277 2	Wtr/samples/Oakwood/Brentwood/Tanglewood/	36.00
B131578	Swr/sampls/WWTP Headworks	255.00
B131750 1	Wtr/samples/Hayes/Fair Oak dr/Wahlstrom Well	50.00
B131750 2	Wtr/samples/Hayes/Fair Oak dr/Wahlstrom Well	36.00
B131914	Wtr/samples/Dennison-Mojave Wells	30.00
B132242	Swr/sampls/WWTP Headworks	255.00
B132332	Wtr/samples/West D-Highline Resv/Minton Wel	50.00
B132332 2	Wtr/samples/West D-Highline Resv/Minton Wel	36.00
B132610	Wtr/samples/Dennison-Mojave Wells	30.00
		<hr/>
		828.00
Check No:	0 Check Date:	
Vendor:	0061 BSK Associates	
0063758	Swr\2nd Qtr 2012 Monitoring	4,000.00
0063762	PD\Phase I ESA - 200 W C St	2,900.00
0065127	Teh Blvd St Improvement IV/construction testin	832.00
		<hr/>
		7,732.00
Check No:	0 Check Date:	
Vendor:	0218 Jim's Supply Company, Inc.	
537622	WWTP/chance anchor	94.38
		<hr/>
		94.38

Check No:	0	Check Date:		
Vendor:	0223	Kern County Auditors Office		
08012012		Parking Citation revenue/Aug 2012		44.00
				<hr/>
				44.00
Check No:	0	Check Date:		
Vendor:	0241	Kern Bros. Trucking, Inc.		
61743		Wtr/k-60		616.69
61744		Wtr/k-60		1,179.76
				<hr/>
				1,796.45
Check No:	0	Check Date:		
Vendor:	0260	Liebert Cassidy Whitmore		
157029		PD/legal services		156.00
157030		PD/legal services		480.00
				<hr/>
				636.00
Check No:	0	Check Date:		
Vendor:	0263	Lebeau, Thelen, LLP		
1		GG\Legal Svcs re Broome Family Trust		9,462.00
17		GG\Legal Svcs re Walmart CEQA Litigation		9,576.00
2		CD\Legal Svcs re Teh Rail Imp Project		4,187.98
2-1		GG\Legal Svcs re Quiet Title		380.00
47		Legal Svcs re Teh Funding LLC v City		9.40
				<hr/>
				23,615.38
Check No:	0	Check Date:		
Vendor:	0300	Mission Linen & Uniform Service		
140127090		PW/twl cntr/disp/hndcl/jacket/cov twl		77.63
140128327		PW/twl cntr/disp/hndcl/jacket/cov twl		81.99
140129606		PW/twl cntr/disp/hndcl/jacket/cov twl		77.63
140130903		PW/cover-fender-auto/hndcl/jacket cov twl		81.99
140130904		Swr/dust mop/mats		31.90
				<hr/>
				351.14
Check No:	0	Check Date:		
Vendor:	0304	Mojave Sanitation		
2077809		A/3 yrd delivery/removal/recy-billing-gate fees		146.96
2087140		Davis Street Sidewalks/trailer/construction mater		1,694.85
2087158		PW/800 Enterprise Way/rolloff service/gate-recy		440.33
2087164		PW/rolloff service/KC recy-gate fees/scale over		986.43
2088448		PD/rolloff service/kc gate & recycling fee		2,181.86
				<hr/>
				5,450.43
Check No:	0	Check Date:		
Vendor:	0362	RSI Petroleum Products		
0256245		PW\fuel		969.46
0256464		PW\fuel		1,071.16
0256678		PW\fuel		1,038.61
0256884		PW\fuel		678.90
0257130		PW\fuel		3,609.99
				<hr/>
				7,368.12
Check No:	0	Check Date:		
Vendor:	0404	State Controller's Office		
0022284		Strts\Annual Street Report 10/11 FY		2,210.20

			Check Amount
			2,210.20
Check No:	0	Check Date:	
Vendor:	0428	Tehachapi Flower Shop	
9762		GG/floral arrangement	69.71
			69.71
Check No:	0	Check Date:	
Vendor:	0431	Tehachapi News	
12936660		GG\Asst Eng ad	110.00
12967123		City Clerk\Ordinance 12-01-709	100.00
			210.00
Check No:	0	Check Date:	
Vendor:	0441	Vulcan Materials Company	
177657		Davis Street Sidewalks\concrete	188.47
177658		Davis Street Sidewalks\concrete	1,022.02
179342		Davis Street Sidewalks\concrete	965.98
190505		Davis Street Sidewalks\concrete	267.96
			2,444.43
Check No:	0	Check Date:	
Vendor:	0476	WITTS Everything for the Office	
124621-1		GG\pouch pencils binders	16.35
124736-0		GG\dish cleaner soap copy paper	77.75
124795-0		GG\pocket files bulletin bar board bowls	145.21
124819-0		CD\ink cartridge	91.03
124872-0		PD\supplies	341.25
124878-0		GG\adhesive ink refill labels paper	92.40
124883-0		GG\folders	31.52
124946-0		CD\ink cartridge	79.34
C 124331-0		GG\Credit - pocket zipper binder	-12.08
			862.77
Check No:	0	Check Date:	
Vendor:	0478	Zee Medical Service	
614896		Constr\medical supplies	50.03
614896-1		Landscape\medical supplies	50.03
614897		Swr\medical supplies	107.63
614898		PW\medical supplies	56.20
			263.89
Check No:	0	Check Date:	
Vendor:	0485	McMaster-Carr Supply Company	
38296997		Strts\stainless steel barbed hose fitting	56.59
			56.59
Check No:	0	Check Date:	
Vendor:	0498	Interstate Battery System	
22238798		PW/two batteries	222.97
			222.97
Check No:	0	Check Date:	
Vendor:	0503	Coastline Equipment	
101797		Constr\Backhoe tooth	37.50
			37.50

Check No:	0	Check Date:		
Vendor:	0525	All American Tire & Service Center LLC.		
34802 1		Cnstrc/tires/nount & dsimount/FET		818.93
34802 2		Pw/tires/nount & dsimount/FET		818.93
34802 3		Wtr/tires/nount & dsimount/FET		818.93
				<hr/>
				2,456.79
Check No:	0	Check Date:		
Vendor:	0543	BSE Rents		
555719		PW/compactor rammer		64.30
				<hr/>
				64.30
Check No:	0	Check Date:		
Vendor:	0612	Old Towne Nursery		
210948		GG/flowering plum		155.49
				<hr/>
				155.49
Check No:	0	Check Date:		
Vendor:	0689	Pioneer True Value Home Center		
61485		LLD\1 yrd concrete w/rental deposit		239.43
61490		LLD\rental deposit-return		-100.00
61516		Wtr\1 yrd concrete w/rental deposit		239.43
61518		Wtr\rental deposit-return		-100.00
				<hr/>
				278.86
Check No:	0	Check Date:		
Vendor:	1032	Jack Davenport Sweeping Services, Inc.		
93165		Strts\Sept Broom sweeping service		8,640.00
				<hr/>
				8,640.00
Check No:	0	Check Date:		
Vendor:	1055	Mercury Graphics		
4247		GG\old logo window envelopes		126.56
				<hr/>
				126.56
Check No:	0	Check Date:		
Vendor:	1061	USDA Rural Development		
11052012		Wtr\Case #04-015-0956000801 Loan #01		3,460.50
11052012-1		Swr\Case #04-015-0956000801 Loan #03		1,905.75
				<hr/>
				5,366.25
Check No:	0	Check Date:		
Vendor:	1071	Main Street Tehachapi, Inc.		
103012		GG\Starlight Ball 6 tickets @ \$75.00 ea		450.00
				<hr/>
				450.00
Check No:	0	Check Date:		
Vendor:	1285	CA Dept of Corrections and Rehabilitation		
1800167797		Landscape\CCI crew		418.37
1800167797-1		Swr\CCI crew		7,530.75
				<hr/>
				7,949.12
Check No:	0	Check Date:		
Vendor:	1286	M&M's Sports Uniforms & Embroidery		
27142		GG\plastic plate/engraving		17.05
27143		GG\desk plates/plastic plate/engraving		143.72
27179		GG\embroidery		11.26

		Check Amount
Check No:	0 Check Date:	172.03
Vendor:	1321 Culligan Water Conditioning	
110112	PD/ACD rental	58.00
		58.00
Check No:	0 Check Date:	
Vendor:	1354 The Kiplinger Letter	
2013	CD/renewal/DJames	99.00
		99.00
Check No:	0 Check Date:	
Vendor:	1430 Sully & Sons Hydraulics, Inc.	
0077205-IN	Strts\parts	49.49
		49.49
Check No:	0 Check Date:	
Vendor:	1441 Grainger	
9943901844	Lndscp/mosquito dunks	171.60
9949132915	Lndscp/mosquito dunks	274.56
9950299678	Lndscp/mosquito dunks	308.88
		755.04
Check No:	0 Check Date:	
Vendor:	1442 FLEX ONE AFLAC	
539148	GG/FSA fee	50.00
		50.00
Check No:	0 Check Date:	
Vendor:	1469 Kern County Auditor-Controller-County Clerk	
110112	GG/CEQA Notice of exemption/Curry strt sidew	50.00
		50.00
Check No:	0 Check Date:	
Vendor:	1502 Applied Technology Group, Inc.	
201711 FC	PD\Finance Charge on Inv #201711	1.76
		1.76
Check No:	0 Check Date:	
Vendor:	1505 Benz Construction Services	
2085497	PW/toilet srvc/rental	55.00
		55.00
Check No:	0 Check Date:	
Vendor:	1506 San Joaquin Safety Shoes	
58999	Cnstre/annual safety shoes/DArtzer	188.75
		188.75
Check No:	0 Check Date:	
Vendor:	1674 Springbrook National Users Group Inc.	
10242012	Fin\Annual Renewal 1/2013 - 12/2013	175.00
		175.00
Check No:	0 Check Date:	
Vendor:	1681 OfficeMax Incorporated	
813623	PD/toner	438.32

Check No:	Check Date:	Check Amount
	0	438.32
Vendor: 10182012	1695 Applegate Garden Florist GG\Flowers - Lisa Gilbert	91.15
Check No:	0	91.15
Vendor: 11366	1729 Alpha Landscape Maintenance Landscape/24" box tree	325.00
11367	Strts/6-15 glin trees installed/frnt of Post Office	132.00
11368	Landscape/1-15 glin tree/10-5 glin plants/installed/f	497.00
11386 1	City Offices	45.38
11386 10	Strts/South Curry	207.93
11386 11	LLD/Heritage Oak	787.98
11386 12	LLD/KB tract/Dennison	3,293.96
11386 13	LLD/street trees	113.10
11386 14	LLD/Dennison street	658.10
11386 15	LLD/Clear View	294.12
11386 16	GG/Pioneer Park	506.04
11386 17	GG/Old Town planters	71.32
11386 18	LLD/Mill street cottages	22.49
11386 19	GG/Old fire house on Pinon	109.63
11386 2	Market Place	201.79
11386 20	GG/Robinson Park	461.02
11386 21	GG/Taco sandwich & Wall	25.68
11386 22	GG/Senior center	95.95
11386 23	Depot/Railroad Depot	116.44
11386 24	GG/Robinson parking lot	22.85
11386 25	LLD/Red Barn	80.59
11386 3	Strts/Mill street Islands	392.38
11386 4	Strts/Capitol Hills South Island	246.63
11386 5	LLD/Manzanita Park	693.93
11386 6	LLD/KB tract/Highland LMD	468.03
11386 7	LLD/Alta tract/Warrior Park	4,082.07
11386 8	LLD/Alta Parkway lawns	160.38
11386 9	LLD/all planters/Highline & tract perimeters sub	1,433.48
11387 1	GG/Market Place/Union Pacific	1.00
11387 10	LLD/Heritage Oaks	12.32
11387 11	LLD/KB/Dennison	33.73
11387 12	Strts/Dennison	3.04
11387 13	LLD/Clear View	1.00
11387 14	GG/Pioneer Park	3.70
11387 15	GG/Old Towne planter	1.00
11387 16	LLD/Mill strtt cottages	0.62
11387 17	GG/Old fire house on Pinon	1.00
11387 18	GG/Robinson Park	1.00
11387 19	GG/Taco sandwich	1.24
11387 2	Strt/Mill street island	3.70
11387 20	GG/Senior center	1.24
11387 21	GG/Railroad Depot	2.47
11387 22	GG/Robinson parking lot	0.62
11387 3	Strt/Capitol Hills	2.47
11387 4	LLD/Manzanita Park	3.70
11387 5	LLD/KB tract/Highland	3.70
11387 6	LLD/Alta tract/Warrior Park	28.34
11387 7	LLD/Alta Parkway lawns	2.47
11387 8	LLD/Alta planters/Highline&tract	12.32

11387 9	Strts/South Curry		2.50
			<hr/>
			15,668.45
Check No:	0	Check Date:	
Vendor:	1801	HD Supply Waterworks, LTD	
5584602		Wtr/G5 conc traffice valve bos/lid	425.49
5587617		Wtr/cplg/pvc restraint/gate valve	728.55
5597835		Wtr/mhose adapter	59.25
5633770		Wtr/G-5c lid water	185.33
5650847		Wtr/mhose adapter	-38.39
5651312		Wtr/mipt hyd adpt/pvc pipe	246.21
			<hr/>
			1,606.44
Check No:	0	Check Date:	
Vendor:	1843	The Bank of New York Mellon Trust Company,]	
11072012		RDA 2005	304,780.00
11072012-1		RDA 2005	76,195.00
11072012-2		RDA 2007	314,633.00
11072012-3		RDA 2007	78,658.25
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			774,266.25
Check No:	0	Check Date:	
Vendor:	1866	Bear Valley CSD	
11012012		PD/Dispatch service	33,697.09
12-09-0001 RI		PD/swat call out	27.15
			<hr/>
			33,724.24
Check No:	0	Check Date:	
Vendor:	1947	Tehachapi Lawn and Garden	
0077		Wtr\coil assy ignition for Honda HD30500	61.89
10232012		PW\air filter for Kawisaki 35 trimmer	57.88
1129		Constr\Oregon Saw Chains Echo bar oil	67.54
			<hr/>
			187.31
Check No:	0	Check Date:	
Vendor:	2111	Swift Napa Auto Parts	
737628		PD\battery wires switch sewer hose kit	277.47
752786		PW\u-joint	58.97
754335		A/air tank 5 gal	58.98
754504		A/tape	208.07
757313		PW\molton 25 diat earth	12.85
758039		PW\fuses	11.23
758063		Constr\battery charger	77.21
758656		PW\air & oil filters water pump thermostat htr h	242.81
758664		PW\Credit - air filer	-23.58
758727		PW\fan clutch	75.60
758732		PW\air filter	70.75
759465		PW\wiper blades	236.83
759466		PW\sensa-trac lt truck	102.94
			<hr/>
			1,410.13
Check No:	0	Check Date:	
Vendor:	2147	Coffee Break Service, Inc.	
184610		GG/coffee/supplies	185.47
			<hr/>
			185.47
Check No:	0	Check Date:	

Vendor:	2236 Pacific West Sound, Inc.	
16688	GG\JBL STX812M sound system	6,385.48
		<hr/>
		6,385.48
Check No:	0 Check Date:	
Vendor:	2243 The Bank of New York Mellon	
252-1664496 1	Wtr/water & sewer revenue refunding bonds seri	280.00
252-1664496 2	Swr/water & sewer revenue refunding bonds seri	1,720.00
		<hr/>
		2,000.00
Check No:	0 Check Date:	
Vendor:	2459 CSG Systems, Inc.	
717321 1	GG/inserting fee	41.30
717321 2	GG/laser imaging/printing City Newsletter	210.00
717321 3	Rfs/postage	201.64
717321 4	Wtr/postage	504.13
717321 5	Swr/postage	302.48
717321 6	Rfs/printing	107.24
717321 7	Wtr/printing	268.13
717321 8	Swr/printing	160.88
		<hr/>
		1,795.80
Check No:	0 Check Date:	
Vendor:	2592 SWRCB Fees	
WD-0082040	Swr\Annual Permit Fee - Index #177965	1,521.00
WD-0085129	Swr\Annual Permit Fee - Index #181054	18,087.00
		<hr/>
		19,608.00
Check No:	0 Check Date:	
Vendor:	2802 Keven Wyatt Empey	
033609	PD/cold drinks/SIT Ops	11.63
102612	PD/meals/SIT Ops	55.76
		<hr/>
		67.39
Check No:	0 Check Date:	
Vendor:	2803 Jason Dunham	
110712	PD/reimbursement/meals allowance/comm vehic	81.24
		<hr/>
		81.24
Check No:	0 Check Date:	
Vendor:	2892 Mountain Maintenance Group, Inc.	
4499	WWTP/cleaning/Enterprise Way	1,129.80
4501	GG\cleaning 10/29 30 31 11/1 5 6 7 & 8	480.00
4501-1	PD\cleaning 10/28 29 30 31 11/1 4 5 6 7 & 8	600.00
4502	Air\cleaning 11/1 & 8	100.00
4503	Depot\cleaning 10/25 26 27 28 29 11/1 2 3 4 5 7	750.00
4504	WWTP\cleaning 10/30 11/1 6 & 8	340.00
		<hr/>
		3,399.80
Check No:	0 Check Date:	
Vendor:	2902 Sim Sanitation, Inc	
23926	Air\monthly std unit & handicap rental	82.00
		<hr/>
		82.00
Check No:	0 Check Date:	
Vendor:	2914 CivicPlus	
102567	GG/monthly fee for hosting & support/Decembe	648.93

			Check Amount
Check No:	0	Check Date:	648.93
Vendor:	2960	A-1 Air Conditioning & Heating	
8072		WWTP/installed rood mntd exhaust system	4,460.00
			4,460.00
Check No:	0	Check Date:	
Vendor:	2978	Andy Gump, Inc	
INV124517		Sump Maint\chain link fence rental	88.80
			88.80
Check No:	0	Check Date:	
Vendor:	2979	Nick Smirnoff	
102212		City web-page publicity photos	850.00
			850.00
Check No:	0	Check Date:	
Vendor:	2989	My Fleet Center.com	
648099		PD\oil change	36.98
			36.98
Check No:	0	Check Date:	
Vendor:	2994	Richards, Watson & Gershon	
186055		GG\legal svcs re AB X1 26 advice	812.50
			812.50
Check No:	0	Check Date:	
Vendor:	3000	Sail Thru Car Wash	
09302012		PW\car washes 7/1/12 - 9/30/12	30.00
			30.00
Check No:	0	Check Date:	
Vendor:	3004	Motor City Auto Center	
PNCS610309		Wtr\overdrive switch\steering & brake hydr assis	393.26
			393.26
Check No:	0	Check Date:	
Vendor:	3026	Centro Print Solutions	
198425		GG/2012 W2's & 1099 Misc Forms	115.64
			115.64
Check No:	0	Check Date:	
Vendor:	3051	Tehachapi Transmissions, Inc.	
3913		PD\Oil filter & motor oil	43.20
3916		PD\Oil filter & motor oil wiper blade	69.75
			112.95
Check No:	0	Check Date:	
Vendor:	3066	AECOM Technical Services, Inc.	
37283125		PD\schematic design/development	57,465.85
37283389		WWTP improvements prjct	28,012.37
37283654		Tret 6216 construction admin	9,926.87
37283655		East Teh lift station study	2,183.64
37283667		Teh Blvd Imprv-Phase IV	20,891.44
37283774		GG/General services	3,848.34
37283774 3		PD/Police Station prjct/design survey	5,109.50

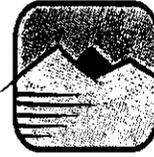
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37285013	CD/2012 Development Observation/The Barn Cl	2,730.33
		<hr/> 130,168.34
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Vendor:	3068 Galls an Aramark Company	
124211	PD\Dyna Med blk nitrile exam gloves	67.78
130562	PD\Dyna Med blk nitrile exam gloves	33.89
133518	PD\Dyna Med blk nitrile exam gloves	33.92
		<hr/> 135.59
Check No:	0 Check Date:	
Vendor:	3083 Hub International	
102312	Special Event Insurance/Deposit Refund	9.20
		<hr/> 9.20
Check No:	0 Check Date:	
Vendor:	3088 All Valley Towing II	
5212	GG/towing/storage/lien fee/mail	1,055.00
5213	GG/towing/storage/lien fee/mail	1,055.00
5383	PD/towing	180.00
5384	PD/towing	180.00
5406	PD/towing/storage	370.00
5454	PD/towing	90.00
5497	PD/towing/storage/lien fee	635.00
5550	PD/towing/add'l towing/storage	750.00
		<hr/> 4,315.00
Check No:	0 Check Date:	
Vendor:	3093 Kern County Animal Control	
101712	GG/Qtrly July 01-Aug 17 2012 and Aug 18-Sept	7,576.04
		<hr/> 7,576.04
Check No:	0 Check Date:	
Vendor:	3173 Soto Tire & Wheels	
10152012	PD/new tire for TE23	165.00
		<hr/> 165.00
Check No:	0 Check Date:	
Vendor:	3281 Statewide Safety & Signs, Inc.	
2016/12	Strts\School signs	434.36
514/D	Strts\type I glass beads 55lb	243.78
		<hr/> 678.14
Check No:	0 Check Date:	
Vendor:	3348 Sirchie Finger Print Laboratories	
0098796	PD/tape evidence red	175.53
		<hr/> 175.53
Check No:	0 Check Date:	
Vendor:	3370 Information Technology Services	
3314	PD/CJIS access license fees/July/Aug/Sept 2012	210.00
		<hr/> 210.00
Check No:	0 Check Date:	
Vendor:	3373 Green Energy Maintenance Corporation	
AMC-800	Swr\Wind Direction Vane stitches for controllers	286.59

			Check Amount
Check No:	0	Check Date:	286.59
Vendor:	3437	Tehachapi Lifestyle Magazine	
1711		GG\inside front cover 1/3 page display ad	1,550.00
			1,550.00
Check No:	0	Check Date:	
Vendor:	3528	Grace Benedict	
103012		GG/gift card reimbursement	30.00
			30.00
Check No:	0	Check Date:	
Vendor:	3529	Momar Incorporated	
A92347		PW\dielectric sealing tape	66.29
			66.29
Check No:	0	Check Date:	
Vendor:	3530	Tony Perez Associates	
11012012		CD\Tehachapi Sr Apts appl review svcs	420.00
			420.00
Check No:	0	Check Date:	
Vendor:	3531	Smith Structural Group, LLP	
11457		GG\FOTD Train Order Board Signal project	640.99
			640.99
Date Totals:			1,097,055.17
Report Total:			1,097,055.17

Accounts Payable

Checks by Date - Detail By Check Date

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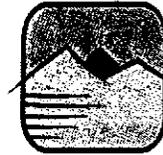
CITY OF
TEHACHAPI
CALIFORNIA

			Check Amount
Check No:	36872	Check Date: 10/29/2012	
Vendor:	0620	Mountain Gardens Nursery	
102912WWTP		New Treatment Plant/softscape/plants	14,063.58
			<hr/>
			14,063.58
			<hr/>
Date Totals:			14,063.58
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Report Total:			14,063.58
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Accounts Payable

Checks by Date - Detail By Check Date

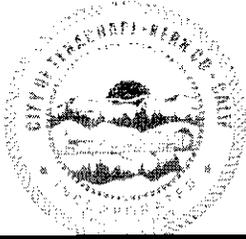
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CITY OF
TEHACHAPI
 CALIFORNIA

			Check Amount
Check No:	36940	Check Date: 11/07/2012	
Vendor:	2893	Cardmember Service	
340978075		Swr/buss fuse/time delay/fuse	248.16
340978075		Swr/time delay/fuse	371.06
3966		Special supplies/kitchen supplies	64.37
404081443		Special supplies/unger industrial nabber	192.79
54880		Swr/o/r tube	25.90
9380944		Special supplies/exam gloves	74.24
			976.52
Check No:	36941	Check Date: 11/07/2012	
Vendor:	0373	Thomas F. Schroeter, Attorney @ Law	
102312 2 RI		PERSM1 2% Member Contribution 10-31-2012	-86.25
102312 3 RI		A/legal services extra/Sept. 25 thru Oct. 23, 2012	420.00
102312 4 RI		Swr/legal services extra/Sept. 25 thru Oct. 23, 2012	96.00
102312 5 RI		Successor Agency Expense/Sept. 25 thru Oct. 23, 2012	120.00
102312 RI		GG/legal services/Sept.25 thru Oct. 23 2012	3,810.00
			4,359.75
Check No:	36942	Check Date: 11/07/2012	
Vendor:	2940	U.S. Bank Corporate Payment System	
002604		GG/meals/EOC training	45.49
013923		GG/ppr napkins/tumblers/soda/cookie tray	51.47
014627		Wtr/penguin sno seal	16.06
039419		GG/meal/lunch meeting/TVRPD	36.68
042903		CD/floral arrangement	24.65
048167468		Wtr/float valve assy/fireight	35.25
049404		GG/meals/WWtr mtng	52.07
049799 1		CD/recordation of envrimental/Motel 6	50.00
049799 2		Deposit/recordation of envrimental/Motel 6	2,101.50
084944		GG/emergency mgnt training	38.95
090235		A/meals/FAA mtng	2.15
090496		GG/meals	30.02
092612		PW/work gloves/revolving lights/clec tape	2,458.31
092965		GG/meals/Council & Marine one/mtng	179.74
100038001		Flag pole/Warrior Park	1,971.30
1003		A/Mountain Valley Airport	29.23
100312		GG/meals/special event summit	80.00
100412		CC/annual membership fee/AWhitmore	85.00
100812		F/GFO	180.00
101712		PD/NIMCO Inc/Credit refund	-200.00
110636621		GG/Canon passport photo printer	85.79
1510324		PD/dbl duty jacket/shirts/pants	891.09
1724755725		A/meals/FAA mtng	35.00
2004063091078		GG/Dell OptiPlex 790	628.81
2013		PD/membership dues renewal	2,000.00
205443		GG/power ac adapter/charger	35.09
24828		Wtr/car wash	8.00

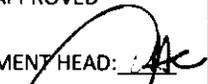
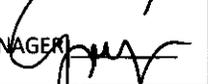
32507	GG/meeting room A/special event summit	175.00
343077	PW/reglaze broken window/glass	118.00
3482456271	PD/lodging/JDunham	280.98
434750	PD/bracelets/pencils/Drug Free promo	926.08
456650	PW/slime for all tubeless/tire sealant	64.33
464	PD/workshop	150.00
5426952	PD/NASRO	40.00
548811	Swr/maobil shc 632	508.58
7114412 1	Wtr/3 safety.BLR.com/108 weeks	661.85
7114412 2	Swr/3 safety.BLR.com/108 weeks	567.30
7114412 3	Cnstrc/3 safety.BLR.com/108 weeks	94.55
7114412 4	Lndscp/3 safety.BLR.com/108 weeks	94.55
7114412 5	PW/3 safety.BLR.com/108 weeks	189.10
7114412 6	GG/3 safety.BLR.com/108 weeks	94.55
7114412 7	F/3 safety.BLR.com/108 weeks	94.55
7114412 8	CD/3 safety.BLR.com/108 weeks	94.55
80000031	GG/floral arrangement/sympathy	71.75
		15,177.37
	Date Totals:	20,513.64
		20,513.64
	Report Total:	20,513.64



COUNCIL REPORTS

AGENDA SECTION: FINANCE

MEETING DATE: NOVEMBER 19, 2012

APPROVED
DEPARTMENT HEAD: 
CITY MANAGER: 

**TO: HONORABLE MAYOR GRIMES AND COUNCIL MEMBERS and
CHAIR AND MEMBERS OF THE SUCCESSOR AGENCY TO THE TEHACHAPI
REDEVELOPMENT AGENCY**

FROM: HANNAH CHUNG, FINANCE DIRECTOR

DATE: NOVEMBER 13, 2012

SUBJECT: TRANSFER OF PROPERTY IN USE FOR GOVERNMENTAL PURPOSE

BACKGROUND

Upon dissolution of the Tehachapi Redevelopment Agency on February 1, 2012 pursuant to AB X1 26, the Successor Agency to the Tehachapi Redevelopment Agency (the "Successor Agency") was constituted and all assets, properties, contracts, leases, books and records, buildings, and equipment of the former Tehachapi Redevelopment Agency (the "Agency") were transferred to the control of the Successor Agency by operation of law.

Health and Safety Code Section 34167.5 requires the State Controller to determine whether an asset transfer occurred after January 1, 2011, between the City of Tehachapi (the "City") and the Agency and to order the assets to be returned to the Successor Agency. However, Health and Safety Code Section 34181(a) authorizes the Oversight Board of the Successor Agency to the Tehachapi Redevelopment Agency ("Oversight Board") to direct the Successor Agency to transfer properties funded by tax increment revenues of the dissolved Agency that were constructed and used for a governmental purpose to the appropriate public jurisdiction.

The Agency adopted Resolution No. 02-11 on March 8, 2011 transferring title of the parking lot facility located at the northeast corner of Robinson Street and "F" Street to the City, also known as Assessor Parcel No. 040-200-10 (the "Property"). The Property was and continues to be used for the governmental purpose of providing parking in the downtown area of the City for its residents, businesses and taxpayers of the City.

Health and Safety Code Section 34167.5 created uncertainty about the transfer of the Property from the former Agency to the City. On November 13, 2012, the Oversight Board adopted Resolution No. OB 03-12 directing the Successor Agency to execute and deliver a Quitclaim Deed to the City for the Property to remove any cloud on the City's fee title to the Property pursuant to its powers granted by Health and Safety Code Section 34181(a). The proposed resolutions provide for the transfer and acceptance of the Property.

FINANCIAL IMPACT

The booked purchase price including the land and improvements is \$303,703.

RECOMMENDATION

Adopt resolutions:

1. Resolution of the Successor Agency authorizing transfer of the Property
2. Resolution of the City Council authorizing acceptance of the Property

RESOLUTION NO. 06-12

A RESOLUTION OF THE SUCCESSOR AGENCY TO THE TEHACHAPI REDEVELOPMENT AGENCY REGARDING THE TRANSFER OF CERTAIN PROPERTY TO THE CITY OF TEHACHAPI FOR GOVERNMENTAL PURPOSES AND DIRECTING THE SUCCESSOR AGENCY TO THE TEHACHAPI REDEVELOPMENT AGENCY TO EXECUTE A QUITCLAIM DEED WITH RESPECT TO SUCH PROPERTY

RECITALS:

A. Pursuant to Health and Safety Code Section 34175(b) and the California Supreme Court's decision in *California Redevelopment Association, et al. v. Ana Matosantos, et al.* (53 Cal.4th 231(2011)), on February 1, 2012, all assets, properties, contracts, leases, books and records, buildings, and equipment of the former Tehachapi Redevelopment Agency (the "Agency") transferred to the control of the Successor Agency to the Tehachapi Redevelopment Agency (the "Successor Agency") by operation of law.

B. Health and Safety Code Section 34167.5 requires the State Controller to determine whether an asset transfer occurred after January 1, 2011, between the City of Tehachapi (the "City") and the Agency and order the assets to be returned to the Successor Agency.

C. Health and Safety Code Section 34181(a) authorizes the Oversight Board of the Successor Agency to the Tehachapi Redevelopment Agency ("Oversight Board") to direct the Successor Agency to transfer properties funded by tax increment revenues of the dissolved Agency that were constructed and used for a governmental purpose to the appropriate public jurisdiction.

D. The Agency adopted its Resolution No. 02-11 on March 8, 2011 thereby transferring from the Agency to the City title of the parking lot facility located at the northeast corner of Robinson Street and "F" Street, also known as Assessor Parcel No. 040-200-10 (the "Property").

E. The Property was being used and continues to be used for the governmental purpose of providing parking in the downtown area of the City for the residents, businesses and taxpayers of the City.

F. On November 13, 2012, the Oversight Board adopted Resolution No. OB 03-12 directing the Successor Agency to execute and deliver a quitclaim deed to the City for the

Property to remove any cloud on the City's fee title to the Property pursuant to the Oversight Board's powers granted by Health and Safety Code Section 34181(a).

NOW, THEREFORE, THE BOARD OF THE SUCCESSOR AGENCY TO THE TEHACHAPI REDEVELOPMENT AGENCY HEREBY FINDS, DETERMINES, RESOLVES, AND ORDERS AS FOLLOWS:

Section 1. The above recitals are true and correct and are a substantive part of this Resolution.

Section 2. This Resolution is adopted pursuant to Health and Safety Code Section 34177(e).

Section 3. The Board hereby authorizes and directs the Chair to execute and deliver a quitclaim deed to the City for the Property in order to remove any cloud on the City's fee title to the Property.

Section 4. The staff and the Board of the Successor Agency are hereby authorized and directed, jointly and severally, to execute and record such documents and instruments and to do any and all other things which they may deem necessary or advisable to effectuate this Resolution.

PASSED, APPROVED AND ADOPTED by the Tehachapi Redevelopment Successor Agency at a regular meeting this 19th day of November, 2012.

AYES: _____

NOES: _____

ABSENT: _____

ABSTAIN: _____

ED GRIMES, Chairman
Tehachapi Redevelopment Successor Agency

ATTEST:

DENISE JONES, CMC
Secretary
Tehachapi Redevelopment Successor Agency

I hereby certify that the foregoing resolution was duly and regularly adopted by the governing body for the successor agency to the Tehachapi Redevelopment Agency at a regular meeting thereof held on November 19, 2012.

DENISE JONES, CMC
Secretary
Tehachapi Redevelopment Successor Agency

RESOLUTION NO. _____

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF
TEHACHAPI ACCEPTING THE TRANSFER OF CERTAIN PROPERTY**

RECITALS:

A. Pursuant to Health and Safety Code Section 34175(b) and the California Supreme Court's decision in *California Redevelopment Association, et al. v. Ana Matosantos, et al.* (53 Cal.4th 231(2011)), on February 1, 2012, all assets, properties, contracts, leases, books and records, buildings, and equipment of the former Tehachapi Redevelopment Agency (the "Agency") transferred to the control of the Successor Agency to the Tehachapi Redevelopment Agency (the "Successor Agency") by operation of law.

B. Health and Safety Code Section 34167.5 requires the State Controller to determine whether an asset transfer occurred after January 1, 2011, between the City of Tehachapi (the "City") and the Agency and order the assets to be returned to the Successor Agency.

C. Health and Safety Code Section 34181(a) authorizes the Oversight Board of the Successor Agency to the Tehachapi Redevelopment Agency ("Oversight Board") to direct the Successor Agency to transfer properties funded by tax increment revenues of the dissolved Agency that were constructed and used for a governmental purpose to the appropriate public jurisdiction.

D. The Agency adopted its Resolution No. 02-11 on March 8, 2011 thereby transferring from the Agency to the City title of the parking lot facility located at the northeast corner of Robinson Street and "F" Street, also known as Assessor Parcel No. 040-200-10 (the "Property").

E. The Property was being used and continues to be used for the governmental purpose of providing parking in the downtown area of the City for the residents, businesses and taxpayers of the City.

F. On November 13, 2012, the Oversight Board adopted Resolution No. OB 03-12 directing the Successor Agency to execute and deliver a quitclaim deed to the City for the Property to remove any cloud on the City's fee title to the Property pursuant to the Oversight Board's powers granted by Health and Safety Code Section 34181(a).

G. On November 19, 2012, the Board of the Tehachapi Redevelopment Successor Agency adopted Resolution No. 06-12 authorizing and directing the Chair to execute and deliver a quitclaim deed to the City for the Property in order to remove any cloud on the City's fee title to the Property

H. The City Council desires to accept the transfer of the Property.

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF TEHACHAPI
HEREBY FINDS, DETERMINES, RESOLVES, AND ORDERS AS FOLLOWS:**

Section 1. The above recitals are true and correct and are a substantive part of this Resolution.

Section 2. The City Council hereby accepts the transfer of the Property and authorizes and directs the Mayor to execute and cause to be recorded an appropriate certificate of acceptance with respect to the Property.

Section 3. The officers and staff of the City are hereby authorized and directed, jointly and severally, to execute and record such documents and instruments and to do any and all things which they may deem necessary or advisable to effectuate this Resolution.

PASSED, APPROVED AND ADOPTED by the City Council of the City of Tehachapi at a regular meeting this 19th day of November, 2012.

AYES: _____

NOES: _____

ABSENT: _____

ABSTAIN: _____

ED GRIMES, Mayor
City of Tehachapi, California

ATTEST:

DENISE JONES, CMC
City Clerk
City of Tehachapi, California

I hereby certify that the foregoing resolution was duly and regularly adopted by the City Council of the City of Tehachapi at a regular meeting thereof held on November 19, 2012.

DENISE JONES, CMC
City Clerk
City of Tehachapi, California



COUNCIL REPORTS

AGENDA SECTION: FINANCE

MEETING DATE: NOVEMBER 19, 2012

APPROVED
DEPARTMENT HEAD: <i>[Signature]</i>
CITY MANAGER: <i>[Signature]</i>

TO: HONORABLE MAYOR GRIMES AND COUNCIL MEMBERS

FROM: HANNAH CHUNG, FINANCE DIRECTOR

DATE: NOVEMBER 14, 2012

SUBJECT: ELECTING TO BE LOW AND MODERATE INCOME HOUSING FUND SUCCESSOR AGENCY

BACKGROUND

Health and Safety Code Section 34176(a) authorizes a city that created a redevelopment agency to elect to retain the housing assets and functions previously performed by the redevelopment agency. If a city elects to retain the authority to perform housing functions previously performed by the redevelopment agency, Section 34176(a) provides that all rights, powers, duties, obligations, and housing assets, as defined in subdivision (e), excluding any amounts on deposit in the Low and Moderate Income Housing Fund (LMIHF) and enforceable obligations retained by the successor agency, shall be transferred to the city.

Health and Safety 34176(c) provides that the entity that assumes the housing functions formerly performed by the redevelopment agency and receives the transferred housing assets may enforce affordability covenants and perform related activities pursuant to applicable provisions of the Redevelopment Law, including, but not limited to, Health and Safety Code Section 33418.

FISCAL IMPACT:

None.

RECOMMENDATION

ADOPT A RESOLUTION ELECTING FOR THE CITY TO RETAIN THE HOUSING ASSETS AND FUNCTIONS PREVIOUSLY PERFORMED BY THE REDEVELOPMENT AGENCY AND ACCEPTING THE TRANSFER OF ALL RIGHTS, POWERS, DUTIES, OBLIGATIONS AND ASSETS ASSOCIATED WITH THE HOUSING ACTIVITIES OF THE REDEVELOPMENT AGENCY.

RESOLUTION NO. _____

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF
TEHACHAPI MAKING AN ELECTION IN CONNECTION WITH
HOUSING ASSETS AND FUNCTIONS UNDER PART 1.85 OF DIVISION
24 OF THE CALIFORNIA HEALTH AND SAFETY CODE AND
TAKING CERTAIN ACTIONS IN CONNECTION THEREWITH**

RECITALS:

A. Pursuant to Health and Safety Code Section 34175(b) and the California Supreme Court's decision in *California Redevelopment Association, et al. v. Ana Matosantos, et al.* (53 Cal. 4th 231(2011)), on February 1, 2012, all assets, properties, contracts, leases, books and records, buildings, and equipment of the former Tehachapi Redevelopment Agency (the "Agency") transferred to the control of the Successor Agency to the Tehachapi Redevelopment Agency by operation of law.

B. Health and Safety Code Section 34176(a) authorizes a city that created a redevelopment agency to elect to retain the housing assets and functions previously performed by the Agency. Pursuant to Section 34176(a), if a city elects to retain the authority to perform housing functions previously performed by the redevelopment agency, all rights, powers, duties, obligations, and housing assets, as defined in Subdivision (e), excluding any amounts on deposit in the Low and Moderate Income Housing Fund and enforceable obligations retained by the successor agency, shall be transferred to the city.

C. Health and Safety 34176(c) provides that the entity that assumes the housing functions formerly performed by the redevelopment agency and receives the transferred housing assets may enforce affordability covenants and perform related activities pursuant to applicable provisions of the Redevelopment Law, including, but not limited to, Health and Safety Code Section 33418.

D. The City Council desires to adopt this resolution in connection with the housing assets and functions previously performed by the Agency.

**NOW, THEREFORE, THE CITY COUNCIL HEREBY FINDS, DETERMINES,
RESOLVES, AND ORDERS AS FOLLOWS:**

Section 1. The above recitals are true and correct and are a substantive part of this Resolution.

Section 2. This Resolution is adopted pursuant to Health and Safety Code Section 34176.

Section 3. Pursuant to Health and Safety Code Section 34176(a), the City Council hereby elects for the City to retain the housing assets, as allowed by law, and functions

previously performed by the Redevelopment Agency and hereby accepts the transfer of all rights, powers, duties, obligations and housing assets, as defined in subdivision (e), associated with the housing activities of the Agency.

Section 4. The officers and staff of the City are hereby authorized and directed, jointly and severally, to make all notifications of the Council's election, as set forth in Section 3 hereof, as deemed necessary or advisable and to execute all documents and take all actions which they may deem necessary or advisable to effectuate this Resolution, and any such actions previously taken by such officers and staff are hereby ratified and confirmed.

Section 5. This Resolution has been reviewed with respect to applicability of the California Environmental Quality Act ("CEQA"), the State CEQA Guidelines (California Code of Regulations, Title 14, Sections 15000 *et seq.*, hereafter the "Guidelines"), and the City's environmental guidelines. The City Council has determined that this Resolution is not a "project" for purposes of CEQA, as that term is defined by Guidelines Section 15378, because this Resolution is an organizational or administrative activity that will not result in a direct or indirect physical change in the environment. (Guidelines Section 15378(b) (5)).

Section 6. This Resolution shall take effect immediately upon its adoption.

PASSED, APPROVED AND ADOPTED by the City Council of the City of Tehachapi at a regular meeting this 19th day of November, 2012.

AYES: _____
NOES: _____
ABSENT: _____
ABSTAIN: _____

ED GRIMES, Mayor
City of Tehachapi, California

ATTEST:

DENISE JONES, CMC
City Clerk
City of Tehachapi, California

I hereby certify that the foregoing resolution was duly and regularly adopted by the City Council of the City of Tehachapi at a regular meeting thereof held on November 19, 2012.

DENISE JONES, CMC
City Clerk
City of Tehachapi, California



COUNCIL REPORTS

AGENDA SECTION: FINANCE

MEETING DATE: NOVEMBER 19, 2012

APPROVED
DEPARTMENT HEAD: _____
CITY MANAGER: _____

TO: HONORABLE MAYOR GRIMES AND COUNCIL MEMBERS

FROM: HANNAH CHUNG, FINANCE DIRECTOR

DATE: NOVEMBER 13, 2012

SUBJECT: TRANSPORTATION DEVELOPMENT PLAN

BACKGROUND

The Kern Council of Government ("Kern COG") entered into a contract with TPG Consulting, Inc. to prepare a Transit Development Plan ("TDP") for the existing Dial-A-Ride transit service provided by the City of Tehachapi and the County of Kern jointly. The TDP has been completed and the consultant will present their findings and recommendations to the council of the City.

The findings and recommendations are:

- Increase the fare structure to make progress towards attainment of the State mandated 10% fare box ratio.
- Develop and implement an outreach marketing and education program to generate new ridership.
- Implement an aggressive cost containment program to assist in holding down cost increases over the next five years.
- Reduce service hours by two hours each weekday thus assisting in the overall reduction of operating costs.
- On a case-by-case basis, evaluate Saturday service with the goal of generating a minimum of 10% in fare revenues.

FINANCIAL IMPACT

There was no cost to the City.

RECOMMENDATION

Accept the Transit Development Plan and direct staff to implement the recommendations made by TPG Consulting, Inc. as staff deems appropriate.

CITY OF TEHACHAPI
TRANSIT DEVELOPMENT PLAN



APRIL 2012





CITY OF TEHACHAPI

2012 TRANSIT DEVELOPMENT PLAN

DRAFT: MAY 2012
FINAL: JUNE 2012

PREPARED FOR THE:
KERN COUNCIL OF GOVERNMENTS
1401 19TH STREET, SUITE 300
BAKERSFIELD, CA 93301



AND THE

CITY OF TEHACHAPI
115 SOUTH ROBINSON STREET
TEHACHAPI, CA 93561



PREPARED BY:
TPG CONSULTING, INC.
222 N. GARDEN STREET, SUITE 100
VISALIA, CA 93291



KERN COUNCIL OF GOVERNMENTS

Ahron R. Hakimi, Executive Director
Robert M. Snoddy, Regional Planner III

CITY OF TEHACHAPI

CITY COUNCIL

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Susan Wiggins
Kim Nixon
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CITY STAFF

Greg Garrett, City Manager
Hannah Chung, Finance Director
Dennis Wahlstrom, Public Works Director
David A. James, Community Development Director



TPG CONSULTING, INC.

Charles Clouse, AICP, PTP, Principal
Myles O'Keefe, Transit Planner
Carrie Bauer, Transit Analyst
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EXECUTIVE SUMMARY

The Kern Council of Governments (KCOG) and the City of Tehachapi contracted with TPG Consulting, Inc. to prepare a five-year Transit Development Plan (TDP) as an update to the existing plan that was developed in 2003. This TDP covers fiscal years 2012/13 through 2016/17. The Tehachapi area currently has a dial-a-ride system operated by Kern Regional Transit. The community is also served by regional fixed route transit services via the East Kern Express. This TDP presents a summary of the existing conditions related to current dial-a-ride services and inter-city service; defines the goals, objectives and service standards for the dial-a-ride service; evaluates future service options or strategies, and presents a blueprint for operations and funding over the next five years.

Plan Objectives

This TDP serves as the primary planning document for Tehachapi's transit systems. This TDP was developed to support the development of a safe, efficient, and economical transit system through the use of sustainable transportation principles and techniques that encourage public mobility, provide affordable transportation alternatives, reduce congestion, improve air quality, and support appropriate land use and development.

- *Evaluate the current operations*
- *Develop input from the riders*
- *Provide an understanding of current transit conditions*
- *Recommend strategies for the delivery of transit service*

Plan Approach

The plan approach focused on seeking input and data related to the Tehachapi Dial-A-Ride service that would provide a solid base from which to most effectively plan the future use of transit services within the Greater Tehachapi area. Efforts focused on garnering input from those people that use the service, and reviewing available data from the prior three fiscal years. Information was collected in a variety of ways, including:

- A review of current and past operational and financial data
- An assessment of current transit developments
- Passenger and Community surveys

Public involvement is a primary key to the success of transit planning within any community. Public involvement was garnered for this project early in this TDP's development process. On-board passenger surveys were administered to gather passenger and public perceptions about the Tehachapi Dial-A-Ride and East Kern Express services. The survey analysis revealed that the average Tehachapi transit rider is transit dependent with no access to a vehicle. Most Tehachapi Dial-A-Ride riders use the service for social service trips within town; while Tehachapi residents use the East Kern Express service most often to travel to Bakersfield, Mojave or Lancaster.

Summary of Key Issues

Major issues and concerns were identified during the preparation of this TDP update. The following are summaries of the key issues that need to be addressed over the five-year planning horizon of this Plan:

Farebox Ratios – The TDA mandates a farebox recovery ratio of 10% for demand-response services operating within non-urbanized areas as a requirement for receiving TDA funding. TDA funding accounted for 52% to 79% of total revenues during the three fiscal years examined as part of this plan. The farebox ratio for Tehachapi's Dial-A-Ride service has been in the 3% range since FY 2006/07. Not only is this significantly below the 10% standard, but no actions in terms of reducing cost or increasing fare revenues have been taken. If the State was to examine the state of the Tehachapi service and noticed no actions have been taken to address the poor farebox recovery ratio, continued leniency may not continue to exist, and funding could be jeopardized.

Operating Cost – The operational cost associated with the Tehachapi Dial-A-Ride service has increased 4% annually since FY 2005/06, and the FY 2010/11 operating cost was 10.5% higher than the next highest year during that time span. The biggest jump is seen in the "Purchased Transportation" element; that is, what the City of Tehachapi pays Kern County as per its agreement to have Kern Regional Transit administer, maintain and operate the Tehachapi Dial-A-Ride service.

When examined more closely, the Purchased Transportation was greatly influenced by spikes in the cost of maintenance and fuel. The rising operating cost is not only a financial burden for all parties involved and hindrance on improving system efficiency and economy, but the rising cost levels make reaching the 10% farebox ratio an even more difficult process.

***Ridership** – Although the population of the City of Tehachapi grew by 30% from 2000 to 2010, the ridership grew at a lesser rate (only 15% since FY 2006/07). More so, ridership is still down 30% from FY 2005/06 levels. This could be the result of a few factors: the population may have the ability (physical and financial), or may need, to use personal automobiles; the population is incapable of using the Dial-A-Ride services, potentially because they are small children; or the population may not see and understand the benefit of transit. Because the developed area is small and isolated there are not the typical destinations found throughout other transit systems.*



System Recommendations

Service recommendations were developed to address service issues and constraints that were identified throughout the analysis process. The recommendations focus on providing an efficient transit service that meets required farebox ratios. Recommendations to be implemented over the five-year planning horizon include:

Tehachapi Dial-A-Ride Service

- Increase the fare structure to make progress towards attainment of the State mandated 10% fare box ratio.
- Develop and implement an outreach marketing and education program to generate new ridership.
- Implement an aggressive cost containment program to assist in holding down cost increases over the next five years.
- Reduce service hours by two hours each weekday thus assisting in the overall reduction of operating costs.
- On a case-by-case basis, evaluate Saturday service with the goal of generating a minimum of 10% in fare revenues.

Service Implementation Schedule

Year One (FY 2012/13)

In year one of the plan, FY 2012/13, the Tehachapi Dial-A-Ride fare structure will be adjusted. The hours of operation will be reduced by two hours per day and additional cost containment strategies will be implemented. The marketing plan will be implemented with the publishing of a new transit brochure. The City and County should adjust the service area boundary to reflect the recent annexations to the City. The City, County and Kern COG should initiate discussions on the process for managing the State mandated fare box ratio requirements.

Year Two (FY 2013/14)

The second year of the Transit Plan efforts to market the transit service will be continued. Additional cost containment strategies will be identified by the City and the County.

Year Three (FY 2014/15)

The third year of the Plan will see another marginal increase in the fare structure. The marketing brochure and City website will be updated to reflect this change. Cost containment strategies will be reviewed and further refined to reflect the fare box ratio requirements.

Year Four (FY 2015/16)

During the fourth year of this plan transit services will continue to operate at the established level. Additional marketing efforts will continue with the objective to increase ridership. A review of the fare box ratio will be completed.

Year Five (FY 2016/17)

The fifth year of the Transit Plan will include a third fare structure increase.

CHAPTER 1 - INTRODUCTION

The Kern Council of Governments (KCOG) contracted with TPG Consulting, Inc. to prepare a five-year Transit Development Plan (TDP) for the City of Tehachapi. The previous TDP was completed in 2003. The City of Tehachapi began its transit service in 1994. This 2012 Transit Development Plan (TDP) will evaluate current transit services available, and provide recommendations for improving the efficiency and effectiveness of them.

PURPOSE OF THE TDP

The Tehachapi TDP is a federally mandated document that provides a blueprint for the delivery of public transportation services within the City of Tehachapi. The purpose of the plan is to promote a comprehensive, coordinated, and continuous planning process for transit service in the Tehachapi area over a five-year planning horizon. The TDP provides the community, policy makers, and city staff an opportunity to understand current transit conditions, defines the demand for service within the area, and establishes an operational and capital plan to meet those demands.

A TDP serves as the primary justification for receipt of federal and state funding for transit operations and capital projects. As such, Tehachapi City staff and City Council will use this TDP to help guide the planning, policy making, programming, and budgeting of transit activities over the next five years. The Kern Council of Governments (KCOG) will use this document for programming local, state and federal funding through the Federal Transportation Improvement Program (FTIP), and as documentation to support the projects included in the Regional Transportation Plan (RTP). The FTA will use the plan as documentation for supporting the use of federal funds.



CONTENTS OF THE TDP

The Tehachapi TDP is presented in nine chapters:

Chapter 1 continues with a profile of the Tehachapi service area and includes a transportation system overview. A summary of community demographics and economics is also provided.

Chapter 2 describes the history and organizational structure of the Tehachapi transit system. It also provides an overview of the Tehachapi Dial-A-Ride service, as well as a description of the regional fixed route service.

Chapter 3 presents a summary of passenger input gathered from on-board surveys conducted on both the Dial-A-Ride and regional fixed route systems.

Chapter 4 includes an operational analysis of the existing service. This section also includes future ridership demand estimates based on current system characteristics.

Chapter 5 outlines system goals, objectives, and service standards for Tehachapi's transit system.

Chapter 6 outlines the direction the system should take over the next five years. It includes a discussion of service strategies, and includes a comprehensive Management Plan and Marketing Plan.

Chapter 7 presents a statement regarding the capital plan for the Tehachapi Dial-A-Ride service.

Chapter 8 presents a complete five-year Financial Plan for the City of Tehachapi transit system, which includes estimates of operating and equipment expenditures and projections of revenues by source for the proposed services. This section also includes a discussion of potential funding sources, which may be investigated both now and in the future.

Chapter 9 contains a list of sources referenced during development of this Transit Development Plan.

COMMUNITY PROFILE/SERVICE AREA

Geographic Area

The City of Tehachapi is located in Kern County, which is in the Southern portion of the San Joaquin Valley of California. The San Joaquin Valley is a rich agricultural area, and Kern County is recognized for its mineral extraction and is home to three of the five largest oil fields in the United States; accounting for one-tenth of the overall US oil production. Tehachapi has a land area of approximately 4 square miles, situated in the Tehachapi Mountains, above the San Joaquin Valley and Mojave Desert. It is approximately 20 miles west of Mojave, 35 miles southeast of Bakersfield, 45 northwest of Lancaster and 115 miles north of Los Angeles. California Highway 58 bisects the City of Tehachapi, connecting with US 99 and US 14.

Government and Community

The City of Tehachapi was founded in 1876, and incorporated in 1909. Tehachapi functions as a general law city; governed by the California State Constitution and California General Law. The City has a five-member City Council, elected to serve staggered four-year terms.

The Tehachapi Unified School District operates in the City of Tehachapi. There are three elementary schools (Cummings Valley, Golden Hills, and Tompkins), one middle school (Jacobsen), and two high schools (Monroe, Tehachapi) that serve the youth of the community.





Population and Demographics

Demographic profiles help to better understand the transportation needs of a community by identifying distinct transportation markets. Within Kern County, the population markets most likely to be dependent upon public transportation include seniors, individuals with disabilities, and low-income families. The demographic data contained herein was extracted from the 2010 U.S. Census, unless otherwise noted. Figure 3 shows the Tehachapi Dial-A-Ride service area in relation to City's boundaries.

As of the 2010 Census, the City of Tehachapi had a population of roughly 14,400. However, this number is not entirely representative of the population that could or would utilize the Tehachapi Dial-A-Ride

services because this count includes the all-male inmate population of the California Correctional Institution (CCI) that is part of the City of Tehachapi. Current Census data is not available for the number of institutionalized persons within the City of Tehachapi; but, the California Department of Corrections and Rehabilitation has monthly counts available as part of public records; *Monthly Report of Population*. To best match the 2010 Census data, with its April 1, 2010 due date, the CCI count from midnight on March 31, 2010 was chosen. At that moment, CCI reported 5,875 male inmates as its total population (211% of the designed capacity of 2,783). Thus, for this study's purposes the non-institutionalized population of the City of Tehachapi is roughly 8,500. Between 2000 and 2010 the population of Tehachapi increased by 30%, with an average annual growth rate of 2.6%, when the calculation includes the CCI inmate population. The non-institutionalized population for the City of Tehachapi grew by a larger amount (47%) during that same time period; an average annual growth rate of 3.9%. The overall population of the service area is approximately 17,000, which includes the surrounding county areas such as Golden Hills. This is a substantial population base for the transit service.

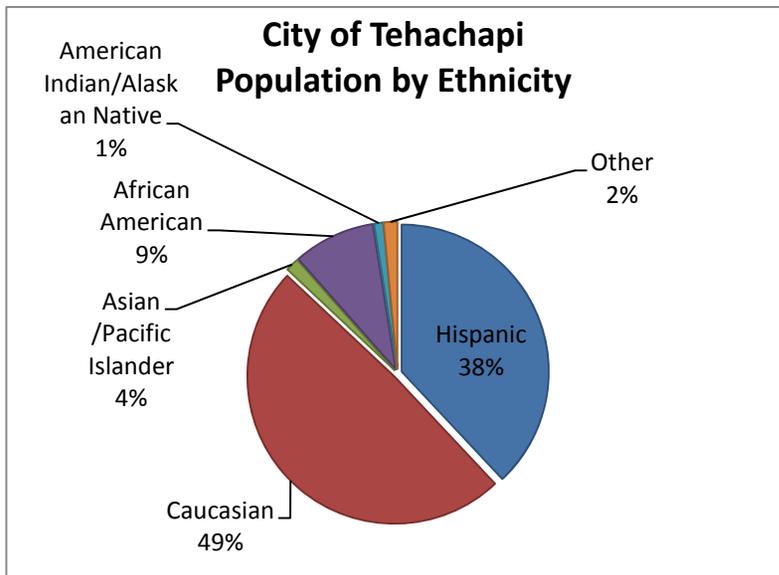
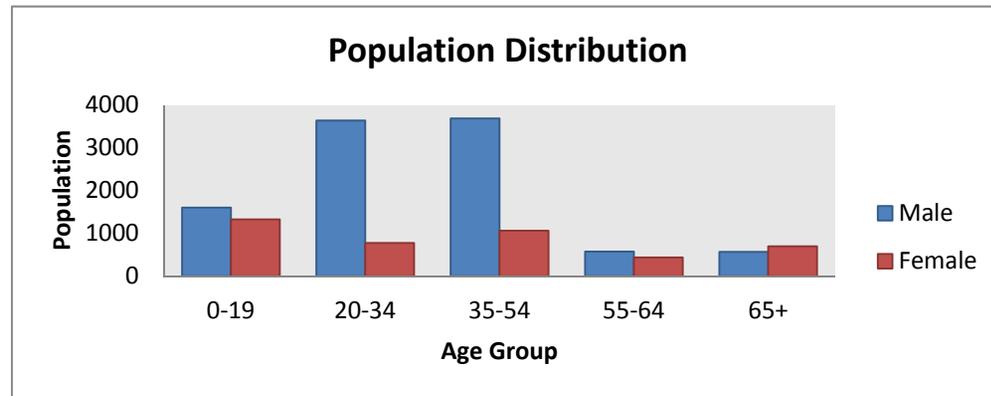
Figure 1 – Project Location

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Figure 2 – Tehachapi Populating density

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The population distribution of the Tehachapi area is shown in Figure 4. The 2010 Census revealed that Tehachapi's population is overwhelmingly male at 70%, with females making up only 30% of the population. This reflects the male population of the California Correctional Institution at Tehachapi; excluding that group, males account for roughly 50% of the non-institutionalized population. Of the total population, 20% are between the ages of 0 and 19, 31% are between the ages of 20 and 34, 33% are between the ages of 35 and 54, 7% are between the ages of 55 and 64, and 9% of the population is 65 years of age or older. The median age is 34.



Using the 2010 Census data, one sees that almost half of the population within the City of Tehachapi is Caucasian (49%). Another 38% of Tehachapi residents are of Hispanic descent. The remainder of the population is comprised of African Americans (9%), a mix of nationalities, and a portion of the population reporting multiple nationalities for their background.

In 2010, 70% of those twenty-five years of age or older in Tehachapi had at least a high school diploma. Of those people, 6% had an Associate's degree, 6% had a Bachelor's degree, and 6% had a Professional/Graduate degree. Conversely, 30% percent of persons twenty-five years of age or older did not have a high school diploma, and 6% of this population subset had less than a 9th grade education.

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Figure 3 – Unemployment rate

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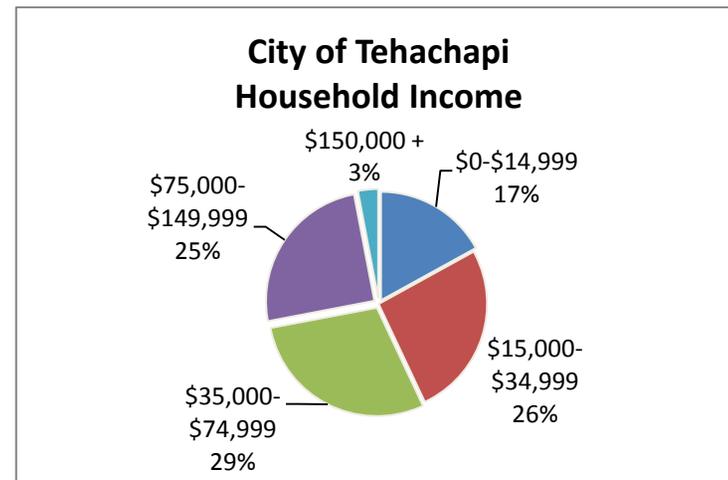
Figure 4 – Tehachapi Senior Citizen Distribution

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Census data revealed that in 2010, 30% of residents aged 16 years and older were employed, with Tehachapi's unemployment rate being only 5.5% (this value arising from the reported 211 unemployed people that are part of the 3,824 reported individuals in the labor force). While that number is far lower than the regional, state and national average, just as notable is that 38% of the City's non-institutionalized population is not part of the labor force. This is significant to note because typical transit systems' base ridership consists of work commuters. Thus planning the future of Tehachapi's transit services needs to take this unique characteristic into account. According to the 2010 Census, Tehachapi had 3,116 workers commute to work; sixty-eight percent (68%) of who report driving alone to work, 10% carpool, 17% walk to work, 5% use other means of transportation or telecommute, and zero people use public transportation as part of their commute. This coincides with the above data showing that over two-thirds of the community is not employed nor seeking employment; fewer people over all working brings down the number of people using transit (typically the smallest mode share in more rural, isolated areas) for their work trips. The mean commute time to work in 2010 was 19 minutes.

The median household income for the City of Tehachapi in 2010 was \$46,000, while mean income was only \$57,000. Over forty percent (43%) of total households earned less than \$35,000 annually. Twenty-nine percent (29%) of households earned \$35,000 to \$74,999, 25% fell into the \$75,000 to \$149,999 income range, and 3% claimed household income of \$150,000 or more.

Low-income persons are more likely to rely on public transportation than those with higher, more disposable incomes. According to the 2010 Census data, 12% of Tehachapi's households were below the poverty level, with 15% of single mothers below poverty. While a larger portion of the Tehachapi community has sufficient incomes, and most likely sufficient means of transportation, this low-income segment's mobility needs cannot be overlooked and any feasible assistance that can be provided must be.



Persons who do not own or have access to a vehicle often rely on public transportation as their sole means of transportation. Of the 3,116 reported commuters within the City in 2010, 154 (5%) had no vehicle available for use; while 620 commuters (20%) had only one vehicle available for their use.

Economy and Employment

Tehachapi's economy has a number of standout industries; the California Correctional Institution, the Tehachapi Unified School District, and GE Energy (wind power). According to the 2010 Census, 16% of employed residents over the age of sixteen are employed in public administration, 15% are part of the education/social/healthcare industry, and 15% are in the arts/entertainment/recreation/accommodation/food services employment arena. The occupational breakdown for residents of Tehachapi is also fairly balanced: 29% hold management/business/science/arts positions; 27% have service positions; 20% reported having sales/office roles; 14% hold natural resource/construction/maintenance related positions; and 11% claim production/transportation/material moving roles. Typically, those with professional, office or retail space oriented jobs take transit more than those with construction or production oriented jobs, as those have varying job sites or certain vehicle requirements for its employees.



TABLE 1: MAJOR EMPLOYERS IN TEHACHAPI	
<u>Employer</u> <i>(number of employees: descending order)</i>	<u>Industry</u>
California Correctional Institution	State Prison
Tehachapi Unified School District	Education
Tehachapi Hospital	Medical Care
GE Energy	Manufacturing
Lehigh SW Cement Company	Cement Production
Home Depot	Retail
Albertson's Supermarket	Retail
Big K-Mart	Retail
Benz Sanitation	Waste Management
City of Tehachapi	Government
Save Mart Supermarkets	Retail
Selecta Products, Inc.	Specialty Switches
Chemtool, Inc.	Specialty Lubricants

Transportation System Overview

Highways

Being situated up in the Tehachapi Mountains, the City of Tehachapi does not find itself at the crossroads of numerous highways. Highway 58 does laterally bisect the City, providing connections to Bakersfield, Mojave and other major routes that provide access to the rest of the state.

Truck

A variety of general transport and agricultural freight carriers provide service within and through the Tehachapi area. State Route 58 provides direct access to the state highway system.



Rail

The Union Pacific/Southern Pacific Railroad operates a major rail line through the community. The Tehachapi Railroad Line was built from 1874 to 1876 to connect California's fertile San Joaquin Valley with the then small agricultural town of Los Angeles on California's southern coast. Originally Southern Pacific, the company which nearly monopolized railroad transportation in California at that time, wanted the Tehachapi Line to bypass Los Angeles and instead go southeast through the Mojave Desert to Yuma, Arizona, and all points east. Ultimately state politics trumped Southern Pacific's desires and Los Angeles' bright future was cast in railroad steel.

The Tehachapi Railroad Line was the work of two talented civil engineers, William Hood and his chief of construction, J.B. Harris, both of who worked for Southern Pacific Railroad. The construction route extended south from Sacramento to the town of Caliente, just south of Bakersfield. As is normal in locating railroad lines, the Tehachapi followed the gentle grades of creeks like Caliente Creek as it made its way into the foothills of the mountains. There the two engineers encountered the challenge of getting the railroad over the steep Tehachapi Mountains which form the southern end of the Sierra Nevada Mountain Range. They chose a route across



Tehachapi Pass which, at 4,025 feet elevation, is the lowest pass across the Sierras and remains nearly snow-free in the winter.

Considered an engineering and construction marvel in its day, the Tehachapi Railroad follows the steep Tehachapi Creek, averaging a 2.2 percent grade over 28 miles. In order to do this the railroad line makes a series of twists, curves, and turns that include passes through six tunnels. The track finally gains an additional 90 feet of elevation as it dramatically spirals over itself at the Tehachapi Loop.

Most of the work to complete the railroad was done by laborers who came to the United States from Canton, China. As many as 3,000 laborers worked with picks, shovels, and dynamite to remove the granite rock of the mountains and haul it away in horse-drawn carts. Under the direction of Harris and Hood the entire Tehachapi Railroad Line was completed in less than two years, an amazing feat considering the complexity of the project.

Today the Tehachapi Railroad Line is in constant use and boasts being the busiest run of single-track railroad in North America. The track is basically unchanged from its construction over 130 years ago and sees an average of 36 railroad trains rumbling over its tracks every day. Trains using the tracks are still limited to 30 miles per hour as they travel the Loop and must pull over to sidings several times on the journey to avoid oncoming trains.

The State of California continues to plan and prepare for the implementation of an 800 mile long high speed rail (HSR) system; stretching from Los Angeles up to the Bay Area and Sacramento. There are proposed stations in Bakersfield and Palmdale; both areas easily accessible to residents of Tehachapi through connections with Kern Regional Transit. Because of the thorough planning process needed for such a project, a State and Nation experiencing financial limitations, political jockeying, and wavering public support, a timeline for the HSR system remains in fluctuation. However, with recent additional federal funding, made available through reallocation from states cancelling their HSR plans, the California HSR is slated to begin construction in 2012. As planned, both Bakersfield and Palmdale have been designated as station locations. It is anticipated that feeder bus service to Tehachapi and these stations will be deployed with the start of high speed rail service. As currently envisioned, service between Merced and Bakersfield could start as early as 2017. With additional funding services between Bakersfield and Palmdale and Los Angeles could be operating by 2021. As each stage is deployed the connector bus service to and from Tehachapi will need to be adjusted.

Air

There are two airports serving the Tehachapi area. The first is the Tehachapi Municipal Airport, located on the northern portion of the city. The second is a privately owned airport, open to the public; Mountain Valley Airport, located Southeast of downtown Tehachapi.

Bus

Along with the City's Dial-A-Ride system, Tehachapi residents are served by Kern Regional Transit. These services will be discussed in more detail in Chapter 2.



CHAPTER 2 – SYSTEM DESCRIPTION

HISTORY

Demand response transit services began in the City of Tehachapi in January 1994, under an agreement with Kern County. Today the Tehachapi Dial-A-Ride service continues to be provided by Kern County operating as Kern Regional Transit within the Greater Tehachapi area, Golden Hills and other adjacent unincorporated areas.

ORGANIZATIONAL STRUCTURE

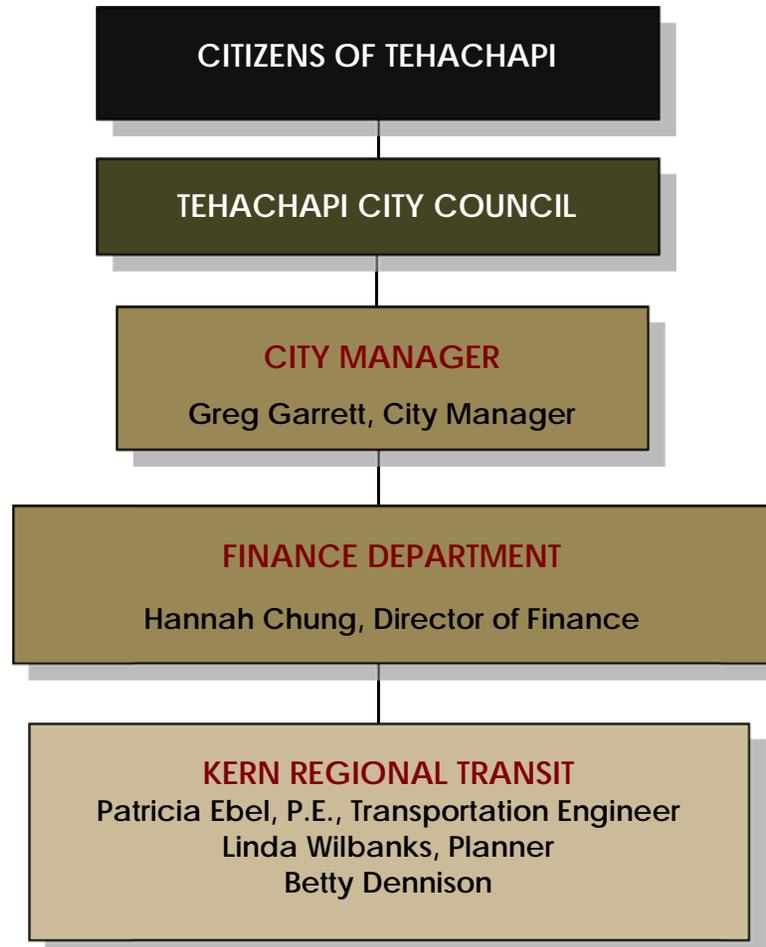
The Tehachapi Dial-A-Ride is owned and operated by Kern Regional Transit. The Tehachapi City Council is the policy-making body for the Tehachapi Dial-A-Ride service. It adopts the Transit Development Plan, and through the City's annual budgetary process, establishes operational and funding levels for the system. The City Council also sets operational policies and parameters for the service.

The administration, management, and operation of Tehachapi Dial-A-Ride are handled by Kern County and Kern Regional Transit. Kern Regional Transit purchases, manages and maintains any and all vehicles and other capital improvements used in supplying the Tehachapi Dial-A-Ride service. Administration and monitoring of the system is vested in the County's Director of Roads Department, or an individual appointed by the Director. The Tehachapi City Manager acts as the Transit Manager as well; overseeing the function of the City's Dial-A-Ride service.

Vehicles are dispatched from the Kern Regional Transit office in Mojave, but are stored at the Tehachapi Municipal Airport to reduce the number of deadhead miles each service day. Vehicle maintenance takes place at Kern County's maintenance facility in Bakersfield, where all routine vehicle work is conducted. Any warranty or specialized maintenance is contracted out. The bus drivers inspect their vehicles each day before beginning service.



CITY OF TEHACHAPI DIAL-A-RIDE ORGANIZATIONAL STRUCTURE



TEHACHAPI DIAL-A-RIDE SERVICE OVERVIEW

Description of Current Dial-A-Ride Service

Kern Regional Transit operates Tehachapi Dial-A-Ride as the City of Tehachapi's demand-response service. Tehachapi Dial-A-Ride provides curb-to-curb transportation to the general public. Service is provided within a majority of the City's limits, and also to the unincorporated area of Golden Hills (located about four miles west of Tehachapi). Due to the varying degrees of development in the area, service is not provided on unpaved roads, non-maintained roads, or when conditions are unsafe. Figure 5 delineates the Tehachapi Dial-A-Ride service area.

Tehachapi Dial-A-Ride Service Days and Hours

Tehachapi Dial-A-Ride operates Monday through Friday between the hours of 5:30 AM and 7:00 PM. The service does not operate on weekends, or major holidays, including New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving or Christmas.

Tehachapi Dial-A-Ride Fare Structure

The current Tehachapi Dial-A-Ride fare structure is as follows:

<u>Category</u>	<u>Fares</u>
General Public	\$1.00/one-way trip
Seniors (age 62+) / Disabled / Youth (age 5-15)	75¢/one-way trip
Children (age 4 and under)	FREE

Fare tickets may be used in lieu of cash and can be purchased by mail or in person at the Kern County Public Services Building.

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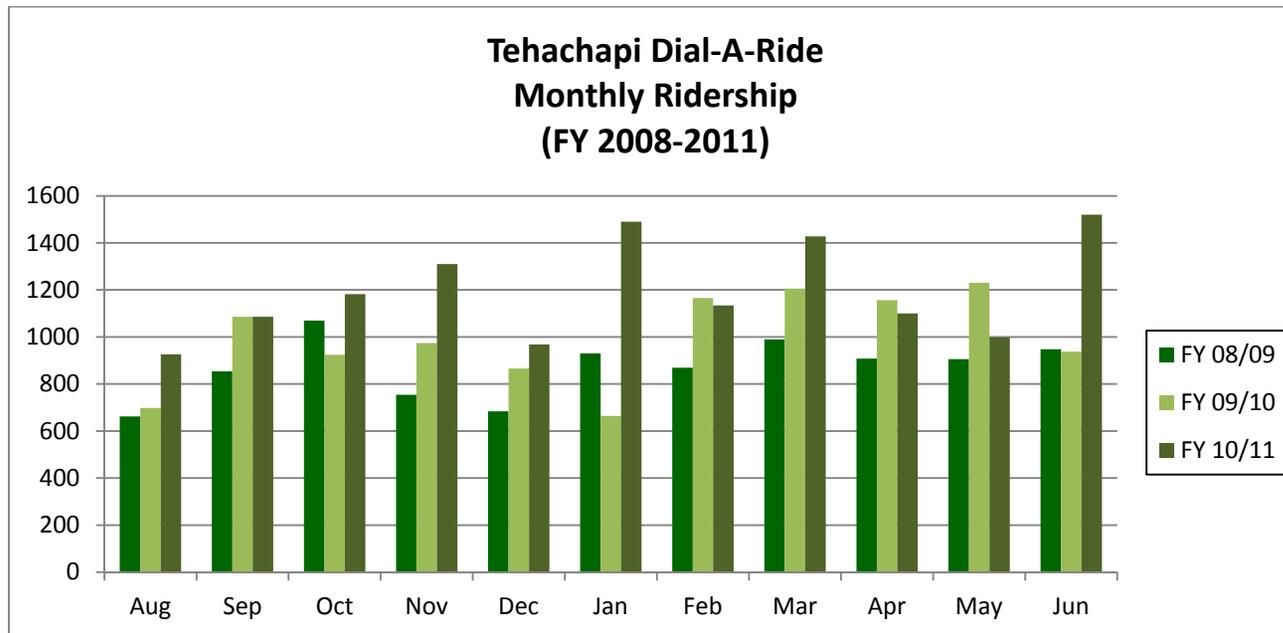
Figure 5 – Tehachapi Dial-A-Ride Service Area

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Tehachapi Dial-A-Ride Ridership Profile

In FY 2010/11, ridership on Tehachapi Dial-A-Ride totaled 13,332 passengers. This is a 14.4% increase from the FY 2009/10 total of 11,652 passengers, and a 26.1% increase over the 10,576 passengers in FY 2008/09. When examining the breakdown of passengers by fare type, the general public saw a more prominent increase than did senior, disabled, or youth riders; this group also being made up of more “choice” riders is more price elastic. This increase is due to the state of the economy. Thus, as the price of fuel rises, they are more likely to consider alternative modes of transportation; in this case, the Tehachapi Dial-A-Ride services.

Each fiscal year examined had different months in which ridership peaked and bottomed. Further adding to the lack of pattern, January was the low month in FY 2009/10, but the high month in FY 2010/11. The FY 2010/11 peak was 1,490 passengers, with the low being 760 passengers in June 2011. The average monthly demand-response ridership for FY 2010/11 was 1,111 passengers. Following is Tehachapi’s Dial-A-Ride monthly ridership charted over the last three reported fiscal years (FY’s 2008/09, 2009/10, and 2010/11).



Tehachapi Dial-A-Ride Vehicle Profile

Two vehicles are available during the Tehachapi Dial-A-Ride hours of operation. Because of the range of services and operating environments offered by Kern Regional Transit, the system regularly rotates its vehicles through the various dispatch offices to ensure even mileage patterns on all vehicles. As of November 2011, the Kern Regional Transit fleet consists of 30 buses with 12, 16 or 18 passenger seating capacity, and all buses capable of securing two passengers in wheelchairs in a fashion that conforms to the requirements of the Americans with Disabilities Act of 1990 (ADA). The vehicles are maintained at the Kern County maintenance facility in Bakersfield. All routine maintenance is handled at the facility, but warranty and specialized work are contracted out.

Tehachapi Dial-A-Ride Financial Profile

Tehachapi Dial-A-Ride cost a total of \$257,499 to operate in FY 2010/11. The passenger fare revenue totaled \$9,734 during the same fiscal year which equates to approximately 3.8% of total operating revenues. Federal Transit Administration (FTA) Section 5311 funding, State Transit Assistance funds, the Local Transportation Fund, and farebox revenues are the main sources of revenue for Tehachapi Dial-A-Ride.

KERN REGIONAL TRANSIT SERVICE OVERVIEW

Fixed Route Service to Tehachapi

Kern Regional Transit operates one inter-city fixed route that serves the Tehachapi community – the East Kern Express. This route originates in Bakersfield and terminates in Lancaster, with stops in Keene, Tehachapi, Mojave, and Rosamond along the way. Connections with other area service providers can be made in each city, to include Amtrak, Antelope Valley Transit Authority (AVTA) and Eastern Sierra Transit Authority. Figure 6 depicts the East Kern Express alignment.

The East Kern Express runs Monday through Friday (5:00 AM to 10:00 PM), Saturday (4:00 AM to 7:00 PM), and Sunday (9:25 AM to 7:00 PM). No service is provided on the following holidays: New Year's Day, Easter, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas.

Figure 6 – Kern Regional Transit: East Kern Express

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Kern Regional Transit: East Kern Express fares are as follows:

<u>Category</u>	<u>Fares</u>
General Public	\$1.00 to \$5.00/one-way trip (depending on origin and destination)
Children (age 4 and under)	FREE (maximum of two with a fare-paying adult)

There are no discounted fare rates for this route and exact change must be provided as drivers do not make change. Passengers also have the option of using pre-paid fare tickets in lieu of cash. Ticket booklets can be purchased by mail or in person at the Kern County Public Services Building on the first floor from the Cashier.

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CHAPTER 3 – PUBLIC OUTREACH

ON-BOARD PASSENGER SURVEYS

Surveys are one of the most accurate and cost-effective means of obtaining information about all aspects of a transit system, including passenger demographics, trip characteristics, passenger perceptions about the quality of service and public knowledge of the system. Survey results are helpful in identifying unmet service needs, and determining potential marketing opportunities. On-board surveys were conducted for Tehachapi Dial-A-Ride Service. Survey results are summarized in the following sections.

Methodology

Surveys were administered on-board Tehachapi Dial-A-Ride Buses during the week of January 16, 2012. The day and times of the surveys were selected to represent a “typical” ridership period. Thus, survey results are assumed to be representative of overall ridership. TPG Consulting developed the on-board survey forms with input and approval from Kern Regional and Tehachapi staffs. Surveys were distributed by the bus drivers of each system during regularly scheduled trips. Riders were asked to fill out the survey during the course of their trip, with driver assistance, if needed. Surveys were available in both English and Spanish. Respondents were asked to complete the survey only once, so as to avoid skewing statistical analysis through duplication. Appendix A contains copies of the survey forms administered during the on-board survey process.

Tehachapi Dial-A-Ride Survey Results

Eighty (80) valid surveys were completed for the Tehachapi Dial-A-Ride service. Results of the surveys are summarized below.

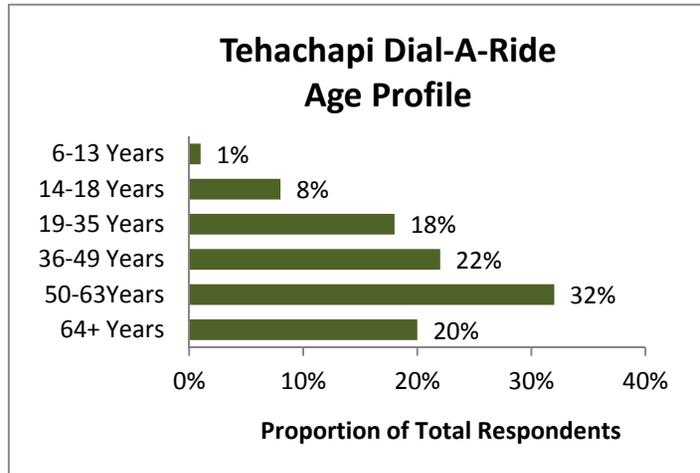
Demographic Characteristics

The average Tehachapi Dial-A-Ride rider is female, around the age of 46, with an average household income about \$21,000, and no access to an automobile.



Gender

Seventy percent (70%) of the respondents were female, while 30% were male. This is slightly different from the 50/50 gender split of the general population, but is an expected result as women are more willing to both use transit and respond to surveys. One hundred percent (100%) of respondents answered this question.



Age

Over half of the respondents (52%) were aged 50 years or older. The passenger age profile mirrors the general population distribution, being that much of the community is older and/or retired. Ninety-eight percent (98%) of respondents completed this question.

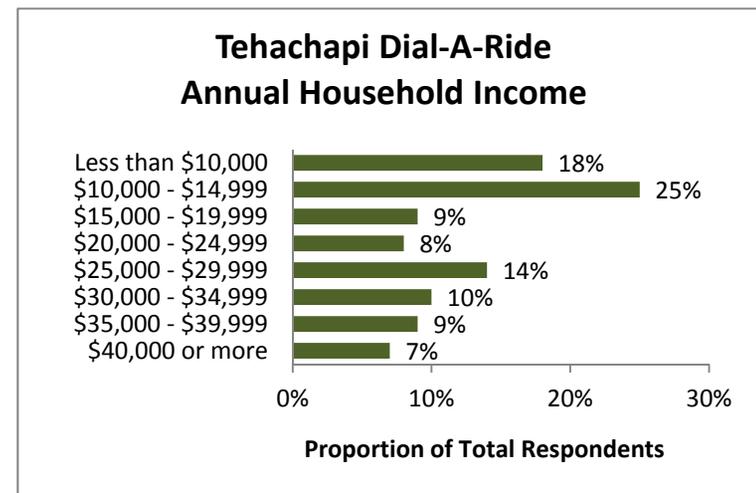
Ethnicity

Over seventy percent (71%) of respondents claimed white as their ethnicity, with the next largest group being Hispanics at 14%. This does not fall in line with the overall population ethnic distribution found in the 2010 Census data. This

question had a 98% answer rate from the 80 respondents.

Income

Income plays an important role in determining transit ridership. Forty-three percent (43%) of surveyed passengers make less than \$15,000 annually. This shows that the Tehachapi Dial-A-Ride services are indeed helping those in greatest need for transit. Ninety-six percent (96%) of respondents answered this question.

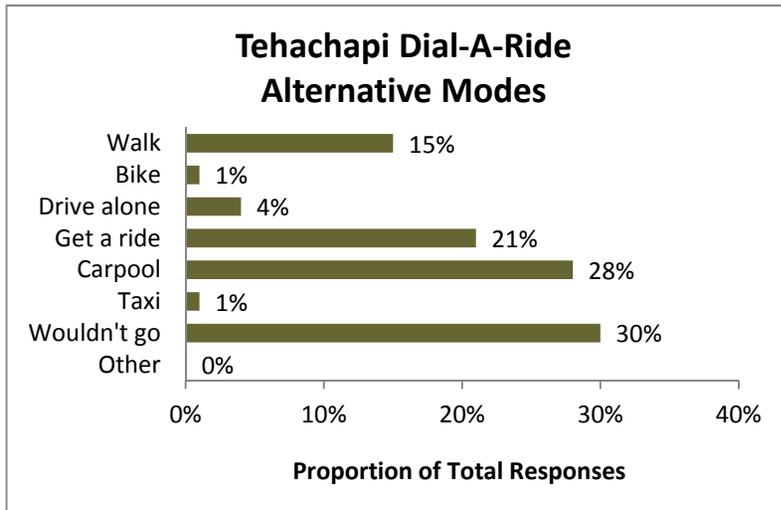


Disability Status

Sixty-five percent (65%) of respondents replied that they do have a disability. This is a significantly high percentage of riders with a disability and suggests that the door-to-door service is improving the mobility needs of those with few or no other options. Ninety-eight percent (98%) of respondents filled in this question.

Automobile Availability

Respondents were asked whether they had access to an automobile for their particular trip. The majority (75%) of passengers surveyed indicated that they did not have a car available for their trip, underscoring the importance of transit service to Tehachapi's core riders. Ninety-eight percent (98%) of respondents completed this question.



Alternative Modes

Riders were asked if the Tehachapi Dial-A-Ride service were not available, by what other means, would they have made the trip they were currently on. Overall, 70% of respondents would have used alternate means to make the trip, while 30% of respondents reported that they would not have made the trip if the bus was not available. This indicates that many riders may have no other transportation options available to them due to age, disabilities, distance, or financial constraints. Much like the responses to the disability and automobile availability questions, this shows that the Tehachapi Dial-A-Ride service has a vital position in the livability of the Tehachapi community. Multiple answers were allowed;

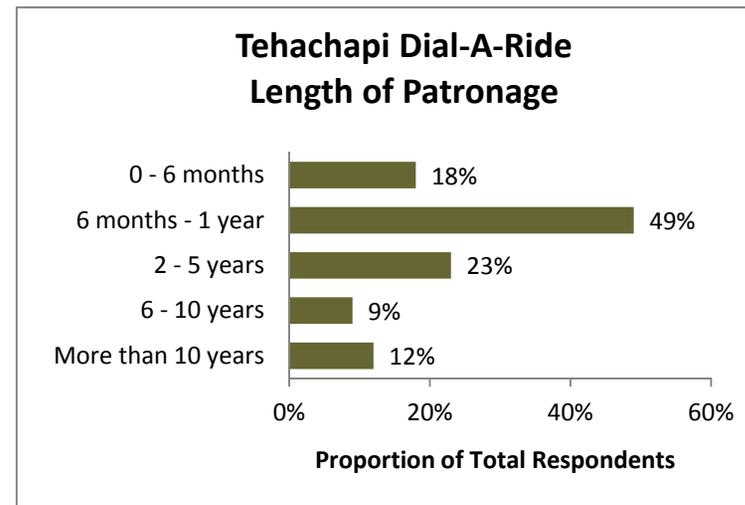
percentages are based on total responses received.

Residency

Patrons were also asked how long they have been residents of the Tehachapi, implying the Tehachapi area; yet another layer of evaluation for current and future service characteristics. Contrary to the recent population growth, and the predominance of “new” riders, which both suggest that riders are likely to be new residents, 59% of riders have lived in the Tehachapi area for eight years or longer. This could mean that long-time residents are either just now seeing the benefit of the Dial-A-Ride services or perhaps they have reached an age at which they are in need of the services provided. One hundred percent (100%) of respondents completed the residency question.

Length of Patronage

Almost half of respondents (57%) marked that they have been using the service for less than a year, indicating that Tehachapi Dial-A-Ride has a “new” and potentially growing ridership base. Another 23% of respondents have used the service for five years, and 12% for over 10 years. Ninety-six percent (96%) of respondents answered this question.

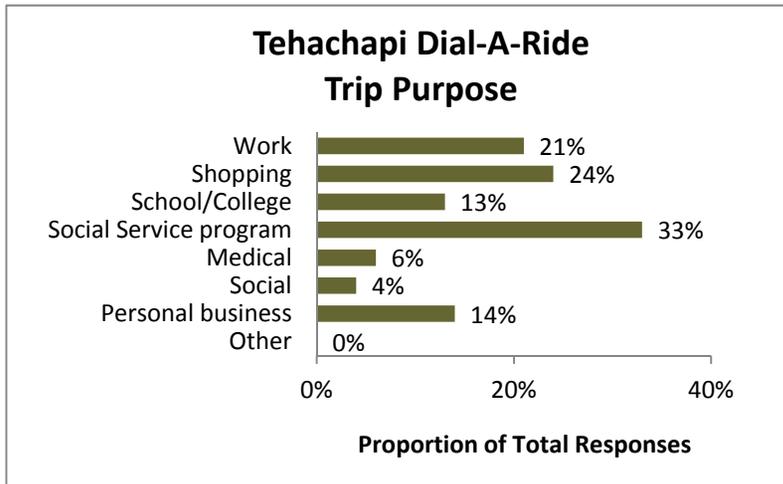


Use of Kern Regional Transit Services – East Kern Express

Passengers were asked to indicate whether or not they also use the transit services provided to Tehachapi residents through the East Kern Express, and if so, how often they use the service. Over half (54%) of respondents indicated that they use the service on a monthly basis; with Bakersfield being the predominant destination and Lancaster being second. Ninety-four percent (94%) of respondents answered this question.

Trip Characteristics

The average Tehachapi Dial-A-Ride trip is taken weekly to attend a social service program. Information regarding the service is most often obtained by asking a friend or family member; an expected practice in smaller communities.



Trip Purpose

Passengers were asked to indicate the purpose of their trip. Respondents reported a variety of trip purposes, indicating that Tehachapi Dial-A-Ride serves a variety of different needs. Social service trips comprise 33% of all transit use, shopping accounted for 24% and work made up 21%. Work trips are important because they tend to be made more than once per week and therefore are typically a larger influence. Many respondents included multiple answers; percentages are based on total responses received.

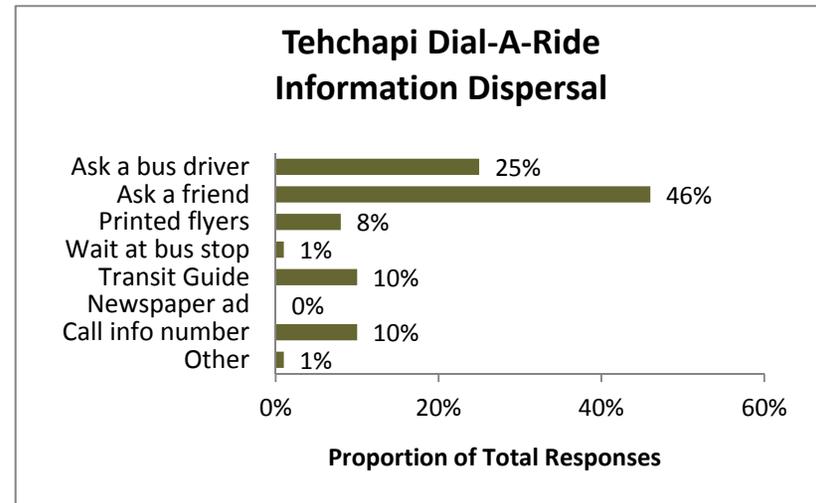
Those passengers, whose trip purpose was reported as “shopping”, were also asked how much money they had spent or expected to spend during their shopping trip. Forty-four percent (44%) of those replying to this question (more people responded to this question than those that responded with “Shopping” for their trip purpose, potentially skewing the results) said they anticipated to spend \$50 or more on their trip. The average expenditure was \$36 per shopper. Based on survey information and ridership statistics, it is estimated that Tehachapi Dial-A-Ride passengers spend approximately \$40,000 annually in the community.

Frequency of Use

The frequency of ridership use is almost evenly distributed between daily passengers (43%) and weekly passengers (45%). So even though many of the surveyed passengers are relatively new to the system, they have made the Tehachapi Dial-A-Ride service a routine element in their weekly travels, using the system one to five days a week. Ninety-four percent (94%) of respondents answered this question.

Information Dispersal

Respondents were asked to indicate how they usually get information about the transit system. Forty-six percent (46%) responded that they acquire information by asking friends or family members. This is not unusual with small systems. Another 25% would ask the bus driver. An indication that community members are either unaware of marketing and information materials or the distribution of the marking and information materials is less than effective is that only 10% call the provided info number, 10% consult the information guide and 8% utilize informational flyers. Multiple answers were allowed; percentages are based on total responses received.

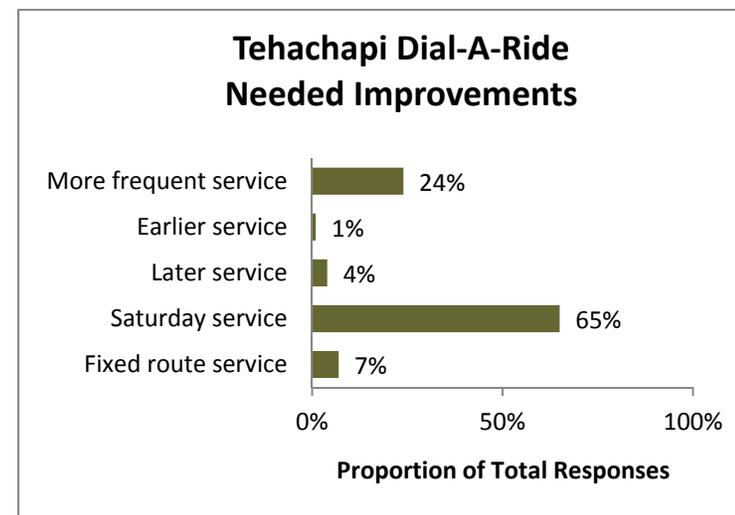


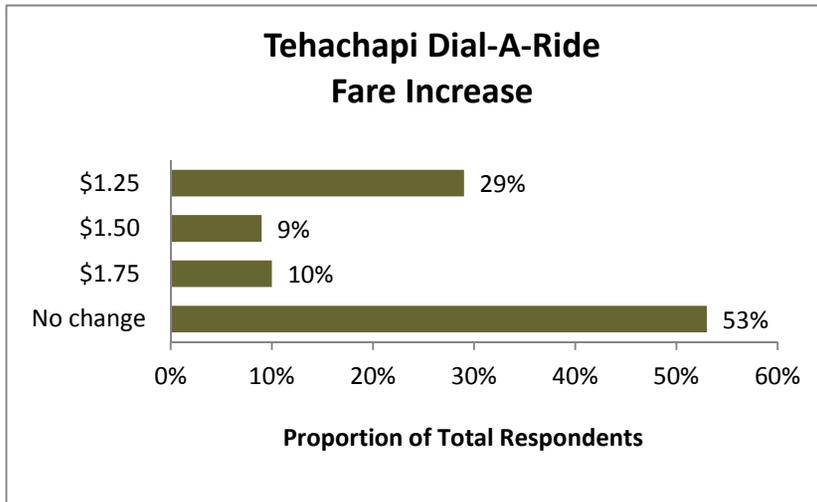
Rider Attitudes and Opinions

Tehachapi Dial-A-Ride riders would like to see one service enhancement in particular but are generally very happy with the current system's performance. The majority of riders surveyed also indicated that they would not be willing to pay more for service.

Needed Improvements

Survey respondents were asked to choose from a list of system improvements that they would most like to see addressed. Roughly two-thirds (65%) indicated that they would like Saturday service. Another 24% of respondents would like to see more frequent services. Multiple answers were allowed; percentages are based on total responses received.





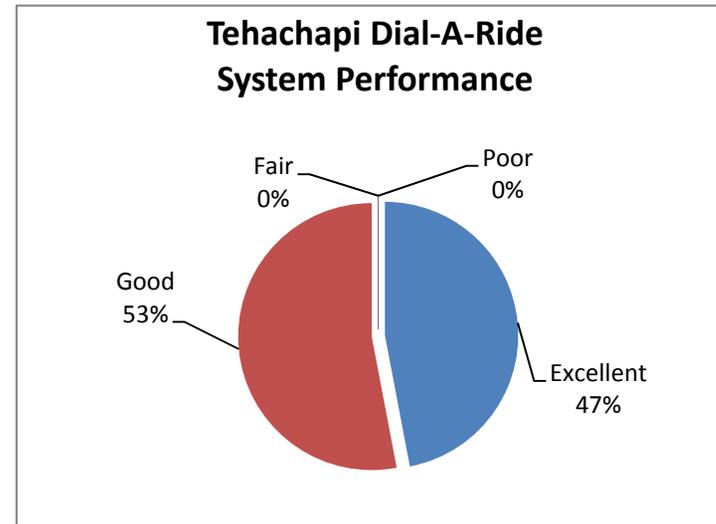
Fare Increase

The survey also asked respondents to indicate the amount they would be willing to pay for service if Kern Regional Transit needed to raise Tehachapi Dial-A-Ride fares. The majority (59%) of passengers surveyed were not in favor of such a move.

System Performance

All of the riders surveyed are very happy with the Tehachapi Dial-A-Ride system. In fact, 47% of respondents rated the system as “excellent” with the remaining 53% choosing “good”. None of the respondents rated the system’s performance as

“poor”, or even as “fair”, indicating that Tehachapi’s Dial-A-Ride is doing an excellent job in the provision of services.



Kern Regional Transit - East Kern Express Survey Results

Ninety-Five (95) valid surveys were completed for the East Kern Express. Passengers were only asked to respond to the survey if they were using the route to travel to, or from, the City of Tehachapi.

Demographic Characteristics

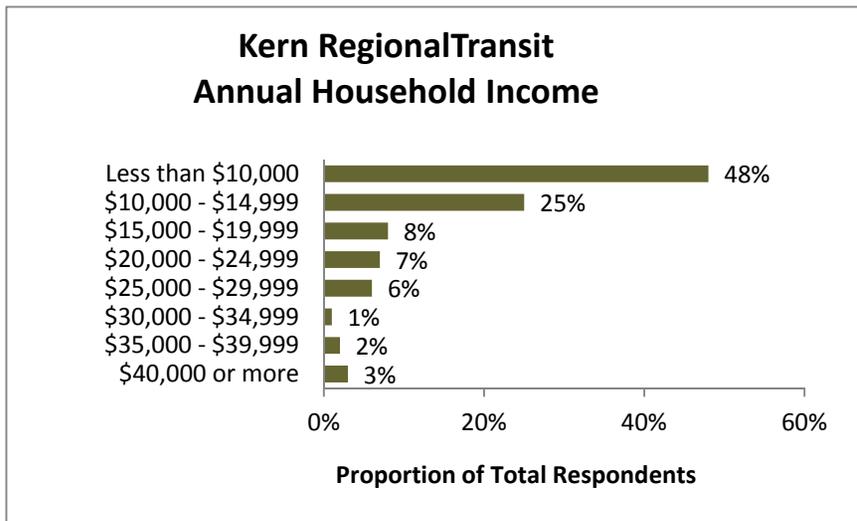
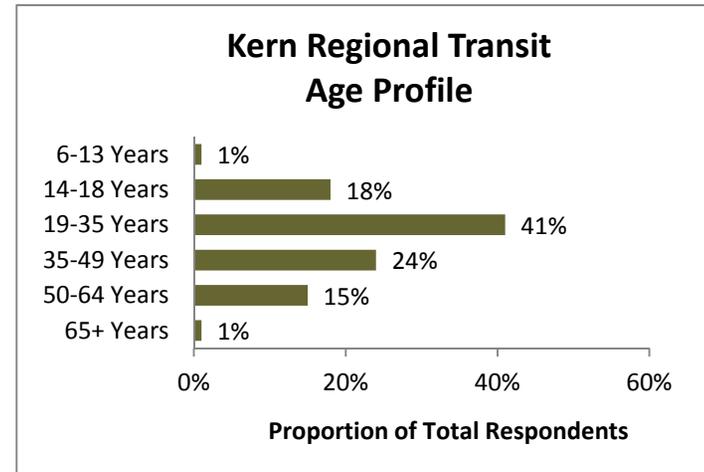
The average East Kern Express respondent was a female, between the ages of 19 and 35, with an average household income below \$15,000, and no access to an automobile.

Gender

The majority (66%) of surveyed riders who use Kern Regional Transit's inter-city fixed route service are female.

Age

Eighty-four percent (84%) of riders were under the age of 50, while only 1% was over the age of 64. This indicates that younger residents are willing, or in greater need, to travel farther to access goods and services. All survey respondents answered this question.



Income

Income plays an important role in determining transit ridership across the country. Typically, as income levels and available transportation options increase, the demand for transit services decreases. This correlation is apparent in the East Kern Express ridership base.

Forty-eight (48%) of respondents reported household incomes below \$10,000. Another 25% reported household incomes between \$10,000

and \$14,999. Although household size is not known, it is likely that many of these households are at, or near the poverty level. All survey respondents completed this question.

Ethnicity

In contrast with the Tehachapi Dial-A-Ride survey results for this question, the East Kern Express ethnicity profile shows that roughly half (54%) of riders are white and Hispanic, with African Americans accounting for 37%. Ninety-eight percent (98%) of survey respondents answered this question.

Disability Status

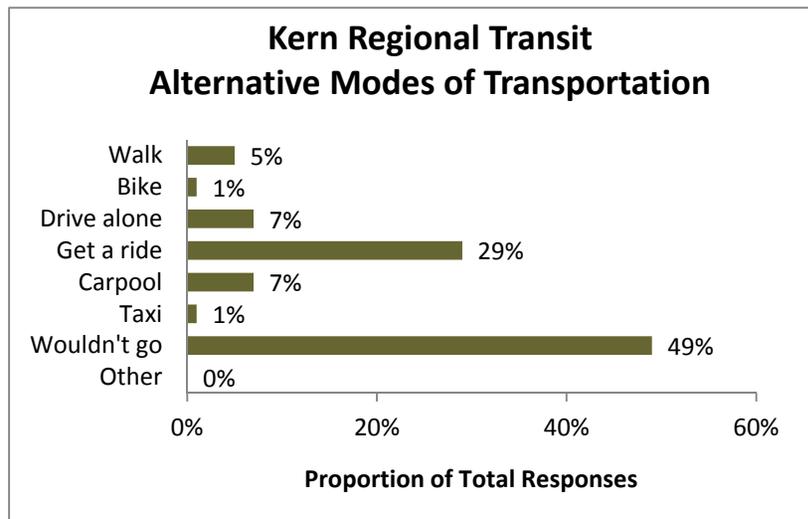
Twenty-four percent (24%) of respondents claim some form of disability, with all respondents answering this question. This is an average percentage of disabled riders. One-hundred percent (100%) of survey respondents answered this question.

Automobile Availability

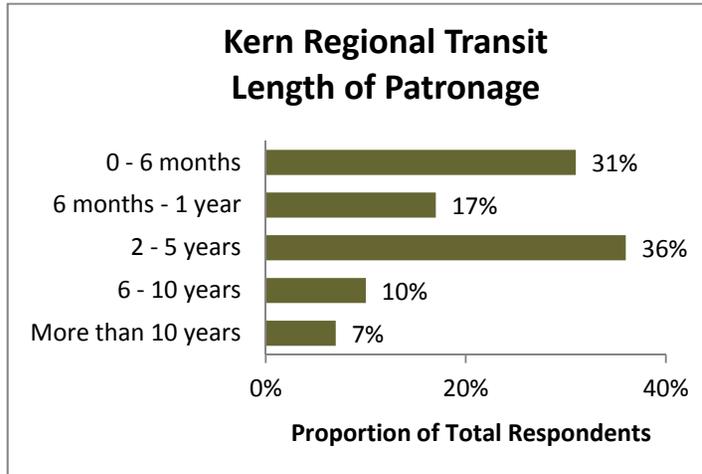
Respondents were asked whether they had access to an automobile for their particular trip. Almost all (90%) of the passengers surveyed indicated that they did not have a car available for their trip, underscoring the importance of regional transit service to Tehachapi residents and workers.

Alternative Modes

Another question asked Kern Regional Transit riders how they would have traveled to and from their destination if transit service had not been available. Almost half of respondents (49%) reported that they would not have made the trip if the bus was not available. This indicates that many riders may have no other transportation options available to them due to age, disabilities, distance, or financial constraints. Another 29% reported that they would have obtained



a ride from a friend or family member. Overall, 50% of respondents would have used alternate means to make the trip. Many respondents included multiple answers; percentages are based on total responses received.



Length of Patronage

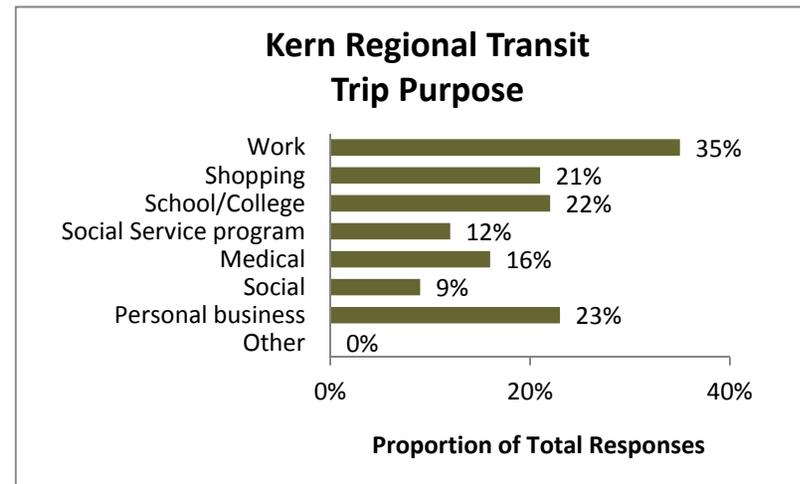
The largest percentage of respondents (36%) indicated that they have been using the service for at least two years. A loyal, established ridership base is always desired, but new patrons should be sought out to begin building a larger, long-term base.

Trip Characteristics

The average East Kern Express trip is taken daily to Mojave. Information regarding the service is most often obtained from the transit guide or city information phone number.

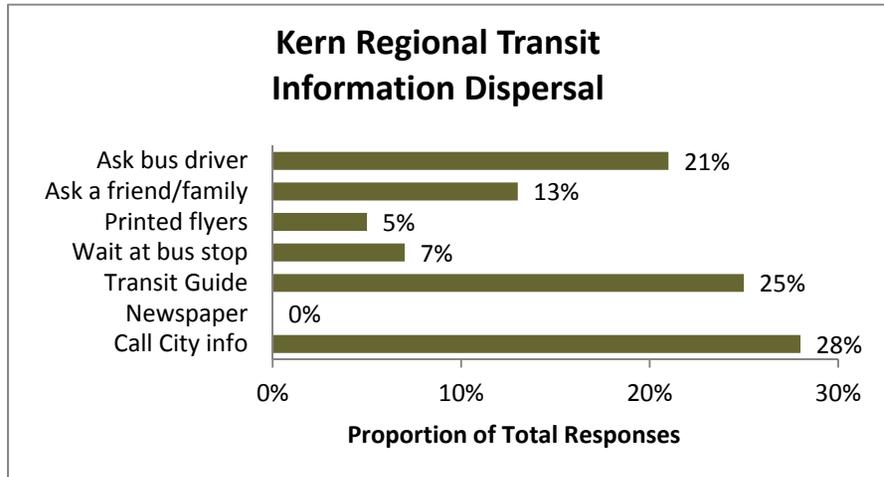
Trip Purpose

Passengers were asked to indicate the purpose of their trip. Respondents reported a variety of trip purposes, indicating that the East Kern Express serves a variety of regional needs. Work trips accounted for 35% of responses, with personal business trips receiving 23%, and school/college service programs and shopping each receiving around 20% of responses. Many respondents included multiple answers; percentages are based on total responses received.



Frequency of Use

Over half (62%) of riders surveyed, use the Kern Regional Express service daily. This indicates that many riders rely on the service to get to and from surrounding communities. Another 24% use it weekly, and 10% indicated that they use it on a monthly basis.

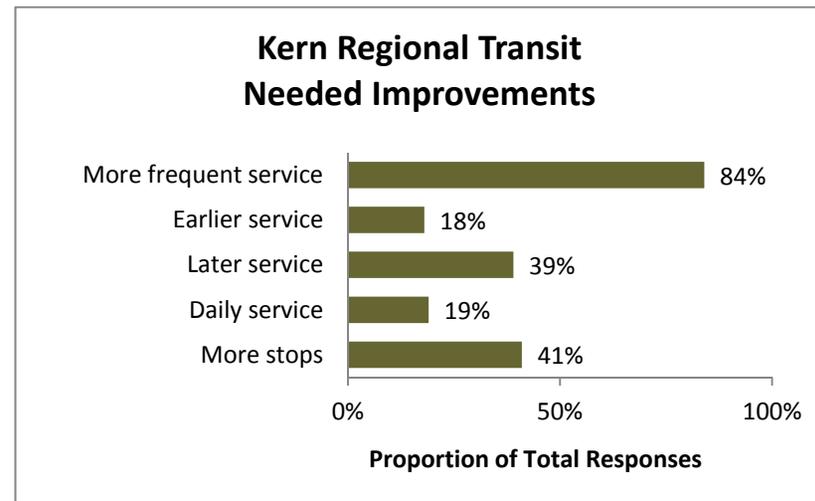


Information Dispersal

Respondents were asked to indicate how they usually get information about Kern Regional Transit services. Twenty-eight percent (28%) responded that they usually acquire information by calling the city info number. Another 25% would consult the transit guides, and 21% would ask a bus driver for information. Multiple answers were allowed; percentages are based on total responses received.

Needed Improvements

Survey respondents were asked to choose from a list of system improvements that they would most like to see addressed. Increased service frequency was overwhelmingly the top choice with 84% of respondents selecting the option. Another 41% would like to see more bus stops, and 39% desire services that run later each day. Multiple answers were allowed; percentages are based on total responses received.



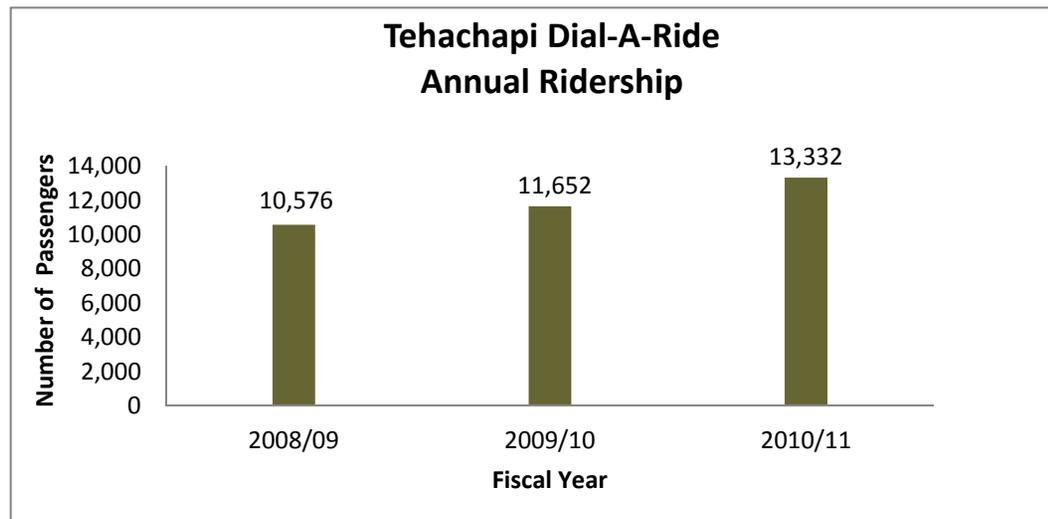
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CHAPTER 4 – SYSTEM ANALYSIS

The Analysis Section will review various components of the Tehachapi Dial-A-Ride service. By analyzing service performance and operational trends a better understanding of the overall operation of the system can be achieved. The results of the analysis will identify performance issues which should be addressed over the next five years.

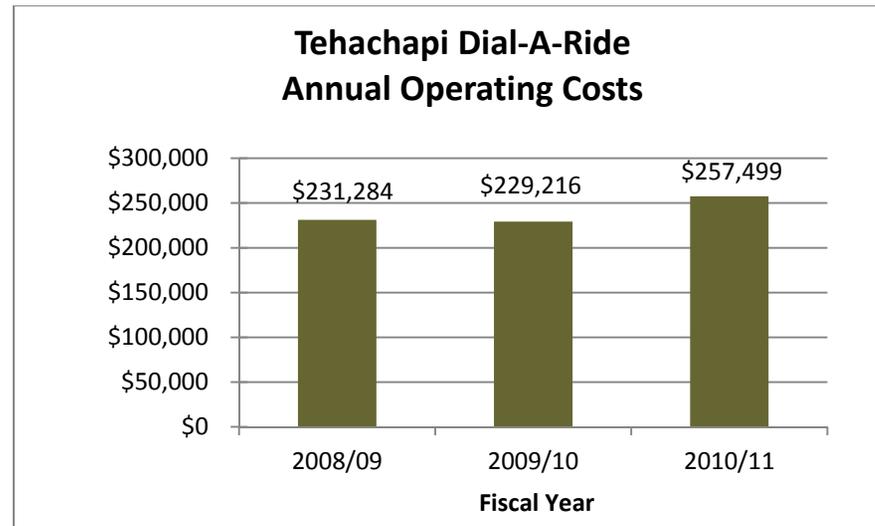
TEHACHAPI DIAL-A-RIDE SERVICE PERFORMANCE

Using operating data and performance indicators, a series of assessments were completed to provide a better understanding of the operations and productivity of the demand-response service. The following graphs show a comparison of performance data over the last three fiscal years.



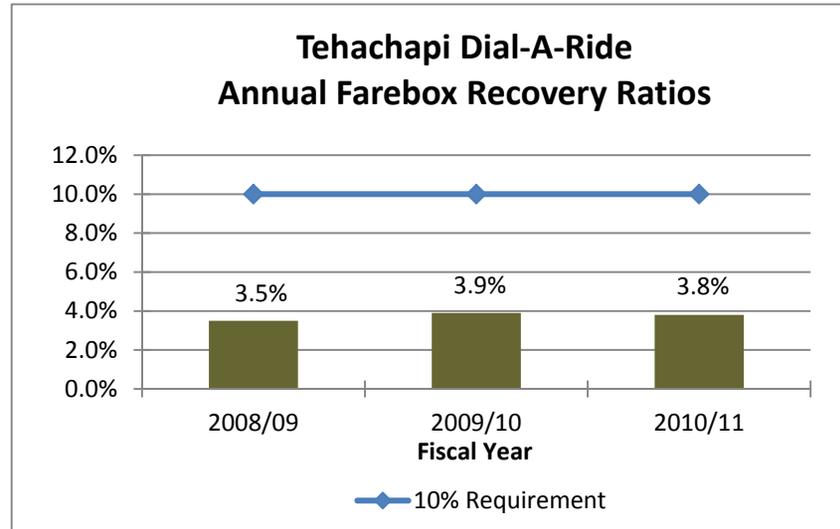
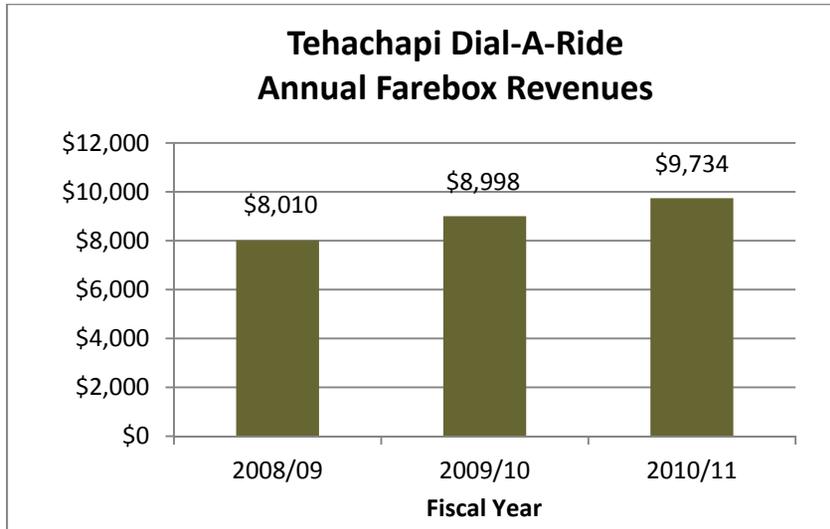
Tehachapi's ridership levels have been slowly increasing over the last three fiscal years. FY 2010/11 saw a 14.4% increase in ridership, attributable to an increase in general passengers. This group, often having more choice in

their mobility, likely shifted to the use of the Dial-A-Ride services for its benefits; be they convenience or economic. Overall, the service has seen a 26% increase in ridership over the past three years.



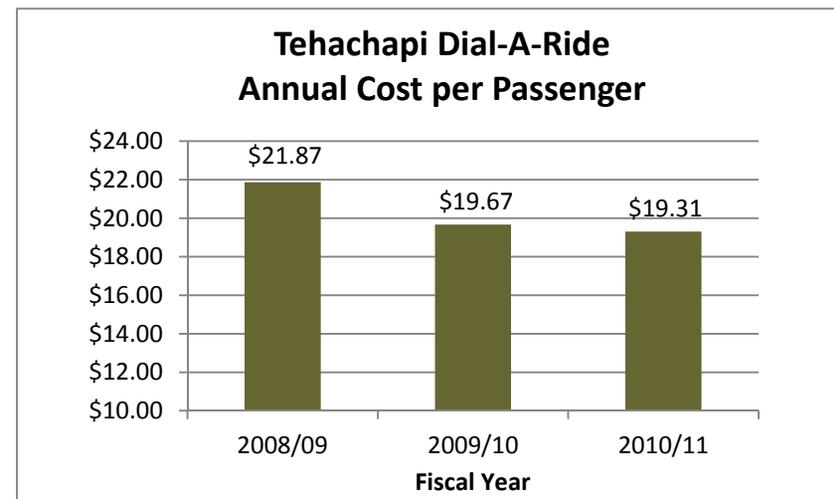
The annual cost of providing the Tehachapi Dial-A-Ride service increased by approximately 11.3% between FY 2008/09 and FY 2010/11. Looking closer at the components of operating cost, two items stand out. Fuel and maintenance expenses increased significantly in FY 2010/11 compared to the other years. Fuel increased from an average monthly expense in FY's 2008/09 and 2009/10 of about \$1,100 to \$1,840 per month in FY 2010/11; roughly a 68% increase. Meanwhile, maintenance expenses increased from an average monthly expense of \$1,500 in FY's 2008/09 and 2009/10 to \$2,698 per month in FY 2010/11; about an 80% increase. The increase in fuel prices nationwide rationalizes the increase seen in Tehachapi. A positive sign is the 26% increase in ridership with only an 11% increase in cost. This suggests Kern Regional Transit is doing an excellent job of minimizing cost increase, while maximizing the efficiency of the operations.

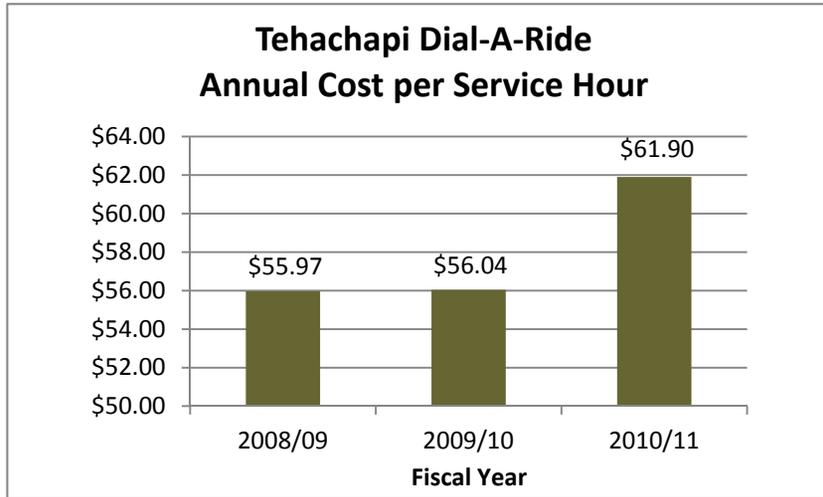
Tehachapi's farebox revenues increased by approximately 21.5% between FY 2008/09 and FY 2010/11. This increase can be attributed to the roughly 26% increase in ridership over the same time. This is a positive sign and will form the basis for future transit operations.



Tehachapi's farebox recovery ratios have long underperformed the 10% standard established by the Transportation Development Act. This suggests that ridership and fares for this service have been too low, while expenses are too high. The previous two Triennial Performance Audits (TPA), both recommended that the Tehachapi Dial-A-Ride service increase fares, but the City declined to do so after the 2007 TPA citing a concern for loss of ridership. A careful review of fare revenues and cost will follow later in the report.

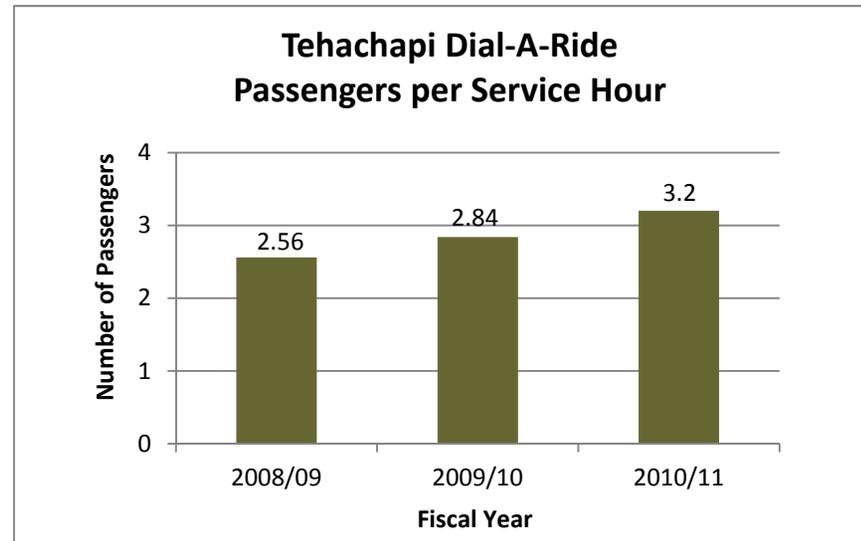
The annual cost per passenger using the Tehachapi Dial-A-Ride service has decreased approximately 11.7% over the past three fiscal years. This is solely attributable to the increase in ridership seen over this same time frame and is another positive indicator of operating efficiency.

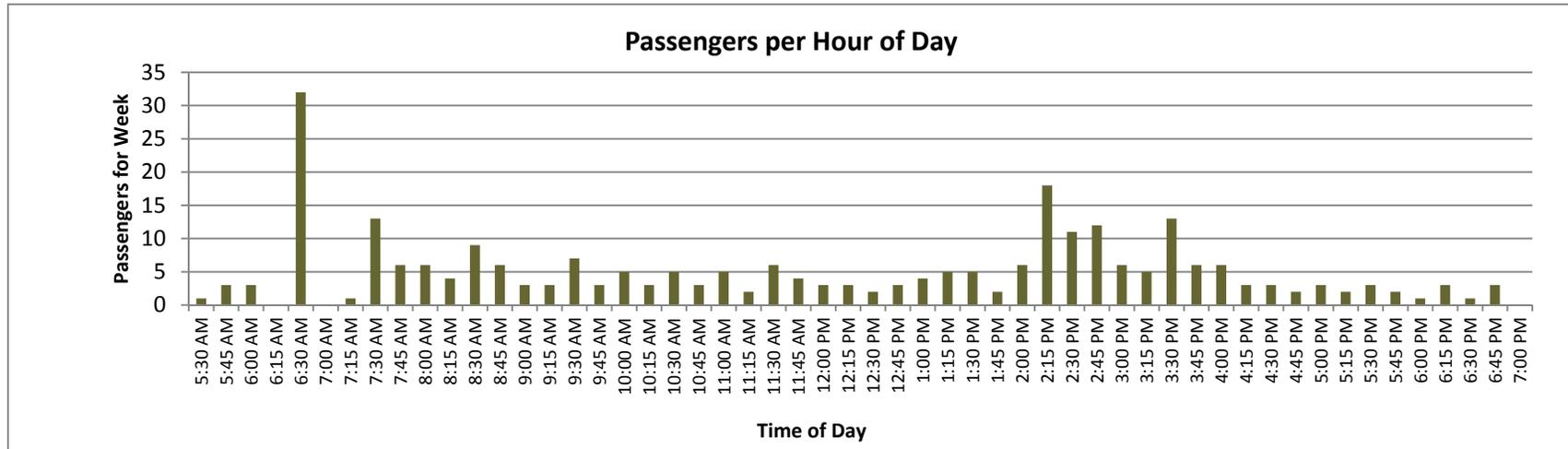




Operating cost per service hour is another indication of efficiency. Tehachapi's annual cost per service hour steadily increased over the years. This is in part because annual service hours have remained constant while expenses continue to increase. The data indicates the service is maintaining efficiency as this increases tracks with the increases in operations cost.

The number of passengers carried per service hour is a good measure of service productivity. Tehachapi's passengers per service hour indicator increased between FY 2008/09 and FY 2010/11 due to an increase in overall ridership. The system would benefit from a higher rate, as that will assist with attainment of the Fare Box Ratio requirement.





In an effort to understand the profile of current use of the service, data was analyzed for the time of day. Using sample data from dispatch logs, the following profile of time of day use was developed. This chart depicts the ridership in 15 minute increments for an entire week. This chart shows a distinctive peaking of demand in the morning, which is associated with commuters and students, as well as, in the early afternoon. The early morning and evening passenger levels were shown to be limited. Given the need to develop strategies for containing costs, the elimination of early morning service between 5:30 AM and 6:30 AM and evening service between 6:00 PM and 7:00 PM would reduce operating costs by approximately 15%. The proposed reduction of hours of service would need to be coordinated with a marketing campaign to encourage those passengers currently using the early morning or evening service to shift their trips to within the new hours of service (6:30 AM to 6:00 PM).

	FY 2010/11
<u>Operating Cost Per Passenger</u>	\$19.31
<u>Operating Cost Per Revenue Hour</u>	\$61.90
<u>Passengers Per Revenue Hour</u>	3.2
<u>Farebox Ratio</u>	3.78%

The FY 2010/11 indicators are shown below for perspective as to the state of the Tehachapi Dial-A-Ride service. From these indicators, and future service estimations, TPG developed the future performance standards by which the five years in this plan will be evaluated.

FUTURE TRANSIT DEMAND

Estimation of future demand for transit can be based on a number of factors, including population, automobile ownership, income, service availability and historic ridership. An estimation of the five-year demand for transit service in Tehachapi was completed using two methods. Both methods assume the continuation of the existing type and scope of transit service. The first method looks at the per capita ridership at the time of the 2010 Census, and extrapolates ridership through FY 2016/17 using that ratio. The second method looks at historical ridership growth from FY 2006/07 through FY 2010/11; FY 2006/07 being the first year ridership declined significantly and FY 2010/11 being the most recent and complete data set.



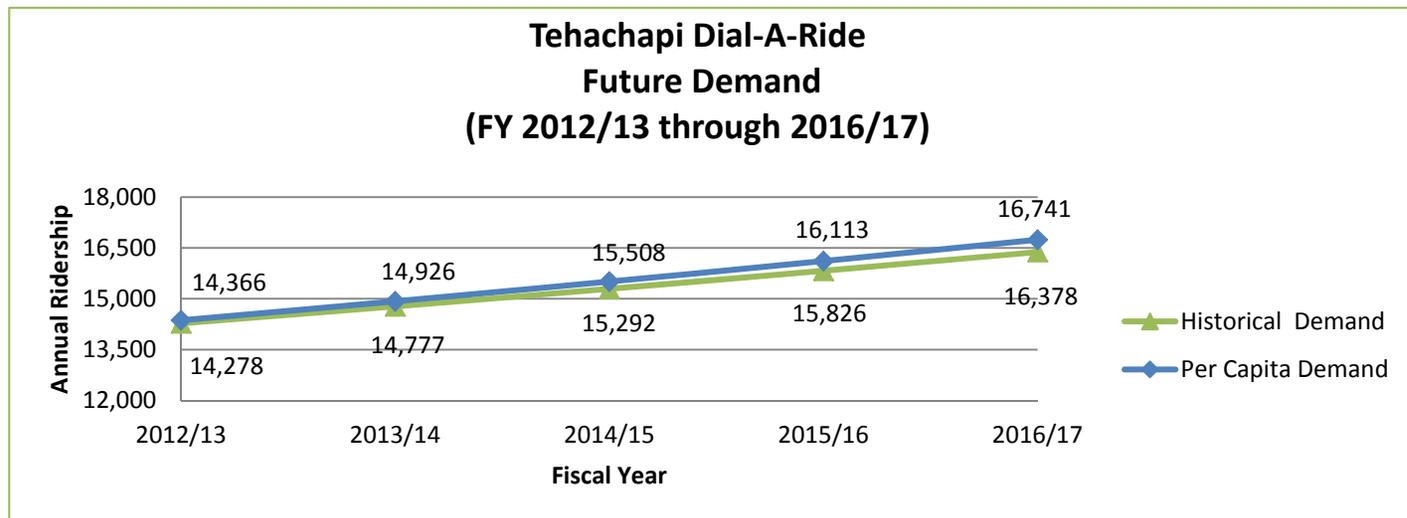
The first transit demand projection for continuation of services was calculated using the current annual per capita trip rate. Per capita trip rates reflect the transit trip-making characteristics of a community. The number of transit trips made per capita is reflective of the type and frequency of service, the fare structure and the socio-economic profile of the population. Thus any changes that occur in the demographics or the size of the population are reflected in the per capita trip rate.

- The estimation of future trips for continuation of the existing Tehachapi Dial-A-Ride service was based on the current non-institutionalized per capita trip rate of 1.5 trips per year. This factor was multiplied by the estimated

service area population to determine the projected annual ridership. The service area population is based on the 3.9% annual rate of growth from 2000 to 2010 discussed in Chapter 1.

The historical ridership transit demand projection looked at the annual rate of growth from FY 2006/07 to FY 2010/11. This method attempts to average out the fluctuations that can occur in a community's ridership from year to year; unlike the first method which uses a snapshot of the system to predict future ridership.

- The historic growth in ridership demand for Tehachapi Dial-A-Ride was found to be 3.49% annually. This rate was then applied to FY 2010/11 ridership and extrapolated through FY 2016/17 for the purposes of this planning document.



The above chart outlines the future transit demand for Tehachapi Dial-A-Ride in fiscal years 2012/13 through 2016/17. Using the per capita trip rate of the existing service, the Tehachapi Dial-A-Ride service can be expected to have an annual demand of approximately 16,700 passengers by FY 2016/17. This represents roughly a 25% increase in demand. This is depicted above as Per Capita. This estimation may be higher than what is counted for each year; the per capita rate is applied to the total ridership, but the county areas that make up a portion of the ridership will not likely grow at that same rate.

Using the historic transit demand for Tehachapi, the annual demand for transit service for FY 2016/17 is expected to be approximately 16,400 passengers. This would represent a 23% increase in ridership from FY 2010/11 figures. This is depicted above as Historic. This calculation may hold true for the first couple of years of this TDP, but the growth rate may slow the local, regional, state and national economies change. Therefore, this estimation may be higher than what comes to fruition.

BASELINE SERVICE

The following data is presented to provide a baseline for the evaluation of future service. The data represents a snapshot of the Tehachapi Dial-A-Ride service based on current service parameters and future transit demand, or the status quo. All projections are based on FY 2010/11 data.

TABLE 3: TEHACHAPI DIAL-A-RIDE STATUS QUO FY 2012/13 through FY 2016/17					
<u>Fiscal Year</u>	<u>Ridership*</u>	<u>Fare Revenues</u>	<u>Operating Costs**</u>	<u>Net Costs</u>	<u>Farebox Ratio</u>
2012/13	14,400	\$10,500	\$279,000	\$266,000	3.8%
2013/14	14,900	\$10,900	\$290,000	\$279,000	3.8%
2014/15	15,500	\$11,300	\$301,000	\$290,000	3.8%
2015/16	16,100	\$11,800	\$313,000	\$301,000	3.8%
2016/17	16,700	\$12,200	\$326,000	\$314,000	3.7%

*Ridership totals include revenue and non-revenue passengers and are based on the Per Capita demand projection

**Operating costs assume the historical 4% annual rate of increase

Based on the above illustration, overall ridership on Tehachapi Dial-A-Ride is projected to increase approximately 25% over FY 2010/11 totals by FY 2016/17. The combined farebox ratio for the system will remain below the 10% minimum required by the Transit Development Act (TDA), as the rate at which operating costs increase continues to outpace the rate of population growth and the per capita trip rate.

Future efforts should focus on decreasing costs (via service reductions, fuel contracts, and maintenance oversight), increasing ridership (via marketing, outreach and educational efforts) and increasing fares.

FARE ANALYSIS

The cost of providing transit service has steadily increased over the past several years, with a significant increasing occurring in FY 2010/11. Now, more than ever, transit systems must rely on fare revenues to offset operational costs. In addition, healthy farebox revenues are necessary to maintain stable farebox recovery ratios. The State Transportation Development Act mandates a farebox recovery ratio of 10% for systems operating in non-urbanized areas, thus 10% of the operating cost of service must be paid through passenger fares. Failure to maintain the 10% requirement could lead to the State and FTA withholding transit funding.

The current Tehachapi Dial-A-Ride fare system is comprised of general cash revenues, pre-paid fare tickets, discounted and free trips. General riders make up approximately 36% of Tehachapi's total ridership in FY 2010/11, up from 23% in FY 2008/09. This upward trend, should it continue, will result in a higher revenue per passenger value, as it is currently only \$0.72 per passenger.

As stated previously, the annual cost of providing the Tehachapi service has steadily increased over the past five years. Periodic fare increases help to maximize farebox revenues and will help the system reach the required 10% farebox recovery ratio. The last fare adjustment was initiated before FY 2003/04.

The City received feedback from local transit riders through on-board passenger surveys conducted during January of this year (2012). Customer feedback was less than favorable; 53% of passengers surveyed indicated that they would not be willing to pay a higher general fare for the service. Given the current economy, it is still more reasonable for many people to rely on the City's public transportation rather than operating their own private transportation, even with a fare increase. Part of the reluctance to see higher fares stems from the significant



amount of time that has passed since the last fare increase; the public has become comfortable and familiar with the \$1.00 fare, and people are reluctant to change; a scenario that has played out across the country for the past couple of decades.

Therefore, all future fare increases need to be done so marginally and at regular intervals, such that the public becomes accustomed to fare increases and understands that the Dial-A-Ride system they utilize does in fact become more expensive as time progresses, just like any other good or service they consume.

According to the *Financial Management for Transit: A Handbook*, published by the Institute for Urban Transportation in 1985, a special forecasting technique applies to fare revenue increases. Although fare increases are often required as a means of generating additional fare revenue, they usually result in the loss of a portion of the system's pre-increase passenger base. John F. Curtin's 1968 study, *Effects of Fares on Transit Riding*, established the Simpson-Curtin Rule, which predicts the percentage decrease in ridership as a function of the percentage increase in ridership. Because transit serves a relatively captive market within Tulare County, the Simpson-Curtin Rule generally over predicts passenger loss when applied to local systems. Because Tehachapi Dial-A-Ride passengers have few transportation options available to them, we would expect fare induced ridership loss to be less than expected for systems operating within metropolitan areas; a 2% decrease in ridership for every 10% increase in fares. Thus, any ridership loss should be negated by an increase in fare revenues.

A comparison of other service providers in the region shows that the Tehachapi City Dial-A-Ride fares for both general and discounted fare riders are not only some the lowest in the region, but also provide discounted fares, whereas Antelope Valley, Golden Empire and Victor Valley have only one fare category.



Based on the understanding that Tehachapi Dial-A-Ride is far from meeting the 10% farebox ratio requirement, any thoughts that because Mojave and McFarland have equal and lesser fares than Tehachapi the City should not have to raise its fares are too short-sighted. Each locality has unique funding streams, some of which are used to cover the gap passenger fare revenues leave when not meeting their ratio requirement. Unless the City of Tehachapi adamantly opposes raising fares and is willing to contribute additional funds to cover the gap left by low fares, it is recommended to look towards the systems that have raised their fares to meet present day fiscal constraints. Furthermore, Mojave's Dial-A-Ride is also operated by Kern Regional Transit, thus the similarity, and according to its schedule, the fares were updated no more recently than 2000. As all public entities are aware, revenues and expenses have changed significantly in the past twelve years, and holding on to a funding element from the past in today's volatile climate severely hinders the ability to improve and move forward.

TABLE 4: FARE COMPARISON OF REGIONAL SERVICE PROVIDERS
(Fares current as of January 2012)

<u>Provider</u>	<u>General (Dial-A-Ride)</u>	<u>Children (Dial-A-Ride)</u>	<u>Seniors (Dial-A-Ride)</u>	<u>ADA (Dial-A-Ride)</u>
Antelope Valley Transit Authority (AVTA)	\$3.00-\$6.00	N/A	N/A	N/A
California City Dial-A-Ride	\$1.70	\$1.00	\$1.00	\$1.00
Golden Empire Transit Get-a-Lift	\$2.50	N/A	N/A	N/A
McFarland Dial-A-Ride	\$1.00	\$0.50	\$0.50	\$0.50
Mojave Dial-A-Ride (Kern Regional Transit)	\$1.00	\$0.75	\$0.75	\$0.75
Tehachapi Dial-A-Ride (Kern Regional Transit)	\$1.00	\$0.75	\$0.75	\$0.75
Victor Valley Transit Authority (VVTA)	\$2.50-\$6.00	N/A	N/A	N/A

Note: Table does not include systems that operate Senior/ADA only services.

PARATRANSIT COMPLIANCE

The Americans with Disabilities Act of 1990 (ADA) requires that public entities which operate fixed route transit services also provide paratransit service to disabled persons who are unable to use the fixed route system. However, there is no complementary paratransit requirement for demand-response systems serving the general public, such as dial-a-ride or route deviation modes. The City of Tehachapi contracts with Kern County to operate the Tehachapi Dial-A-Ride as a general public demand-response service. The Dial-A-Ride

service is available to persons who meet the eligibility requirements of the ADA, other persons with disabilities, and seniors in addition to the general public. Because the City does not operate a fixed route service, they are not subject to paratransit requirements.

TRANSPORTATION DEVELOPMENT ACT (TDA)

The following summary was taken from *TDA-Statutes and California Codes of Regulations (Jan. 2005)*:

The Transportation Development Act (TDA) of 1971, is a California law aimed at improving existing public transportation services and encouraging regional transportation coordination. The law provides funding to be allocated to transit and non-transit related purposes that comply with regional transportation plans. The TDA provides funding from the following two sources:

1. *Local Transportation Fund (LTF)*
2. *State Transit Assistance Fund (STA)*

TDA funds are distributed by the designated regional planning agencies, such as Kern Council of Governments. To ensure program compliance, fiscal and performance audits are conducted. Fiscal audits are conducted annually, and include transit operators' expense to revenue ratio known as farebox recovery. In order to qualify for funding under TDA, a transit claimant must maintain a ratio of fare revenues to operating cost at least equal to 10% if the claimant operates in a non-urbanized area. If a claimant fails to meet its farebox recovery ratio, the claimant must raise local support money to meet the ratio, or risk a reduction in TDA funding.

Performance audits are conducted every three years and include performance measures that verify



the efficiency and effectiveness of planning agencies and transit operators. The *2010 City of Tehachapi Triennial Performance Audit (TPA)* was the last completed for the City of Tehachapi. The audit covers the three-year period ending June 30, 2009. The audit found the City to be in compliance with seven out of the nine TDA compliance requirements applicable to the City. Recommendations from the audit are included below.

TABLE 5: 2010 TRIENNIAL PERFORMANCE AUDIT (TPA) RECOMMENDATIONS	
<u>Recommendation</u>	<u>Status</u>
Update the 1999 Transportation Development Plan to address decline in Farebox Revenue	This Transit Development Plan serves to complete this recommendation
Correctly calculate the FTE metric in State Controller reports (including City Manager time)	Implemented
Consider increasing the adult base fare to \$1.25 for general public and \$1.00 for seniors and persons with disabilities	Not Implemented; City declined to implement the proposed fare increase given its belief that said increase would have a negative impact on transit ridership; this TDP will once again recommend and outline a fare adjustment strategy
More targeted marketing should be implemented. Kern Regional Transit should take a more active role in marketing the service	Not Implemented; City staff stated its belief marketing efforts would not yield an increase in program ridership given everyone who would potentially use the service is already doing so; this TDP will once again recommend and outline a marketing strategy for the City of Tehachapi

CHAPTER 5 – GOALS, OBJECTIVES AND SERVICE STANDARDS

System Goals, Objectives, and Policies represent the attitudes, values and aspirations of the community for their public transit services. This section of the TDP will outline the various policies that control the operation of the Tehachapi Dial-A-Ride system. In addition, this section will outline a set of service standards, which can be used by the City to test the attainment of the specified policies.

Goals, objectives, policies and standards are not static and should be updated periodically; the City should continuously test the service to determine its success and to highlight any problems that may arise. A goal is defined as the direction toward which the service is expending its efforts; it is general and timeless. An objective is an action or point to be reached; it is attainable and measurable. A policy is a specific course of action chosen from among a set of alternatives.

SYSTEM GOAL

“Provide an efficient and reliable transit service that meets the needs of Tehachapi residents and visitors.”

Though the low ridership numbers relative to similar systems may suggest otherwise, there is a significant role for public transit service in the City of Tehachapi. The critical role for transit is serving the mobility requirements and travel needs of the transit-dependent who have no, or very limited access to a private vehicle. Low-income families, seniors, and persons with disabilities comprise the base transit markets in Tehachapi. But as more of the general public chooses to utilize the Dial-A-Ride services, this segment of the community will serve as the financial backbone of the system.

Transit-dependent individuals have few travel choices and rely heavily on publicly provided community transportation to access jobs and those goods, services and activities within the community and surrounding areas that influence social well-being and quality of life. The development of a transit system goal should recognize and focus on the importance of the system’s primary markets and the importance of an affordable transit service to the mobility of this dependent market.

RECOMMENDED OBJECTIVES AND POLICY DIRECTIONS

Objective A: Provide Increased Mobility to the Community

Policies:

1. Provide Dial-A-Ride service to all areas of the city and designated non-incorporated areas (Tehachapi Dial-A-Ride service area), including newly developing areas.
2. Ensure availability of wheelchair accessible vehicles at all times in order to accommodate service to the transit dependent (seniors, disabled, children, etc.)
3. Continue to work with the Kern County to ensure that adequate fixed route regional service is provided to Tehachapi residents.

Objective B: Provide Effective Service

Policies:

1. Maintain affordable fares that are comparable to other area providers for low-income persons, seniors, and persons with disabilities on Tehachapi Dial-A-Ride.
2. Provide advance trip booking, and same-day service on Tehachapi Dial-A-Ride.
3. Operate Tehachapi Dial-A-Ride on schedule within adopted on-time service performance standards.
4. Ensure adequate demand-response capacity to meet all confirmed trips within adopted Tehachapi Dial-A-Ride wait times, maximum travel times, and on-time performance standards.
5. Ensure availability of sufficient safe and reliable in-service vehicles to meet the daily pullout requirements of Tehachapi Dial-A-Ride. Adopt and adhere to a zero tolerance standard for the cancellation of demand-response trips already confirmed with the passenger, unless service must be cancelled due to circumstances beyond the reasonable control of the City.
6. Ensure superior community knowledge of local and regional transit services through marketing and educational efforts.

Objective C: Provide Efficient Service

Policies:

1. Obtain and then maintain adopted farebox recovery ratio standards by operating productive and efficient services to minimize fare increases.
2. Maximize the use of state and federal funds available to the system.
3. Evaluate community demand for services, such that services are not over- or under-provided.

SERVICE STANDARDS AND BENCHMARKS

Monitoring system performance remains an important task for transit operators. Standards can be set by federal, state and local regulatory requirements, as well as goal objectives and service priorities adopted by transit agencies. While specific standards vary, industry practice generally uses the following three categories for service performance and design:

- *Efficiency (performance) standards;*
- *Service quality/reliability standards; and,*
- *Service design standards.*

Recommended Performance and Service Quality/Reliability Standards

Efficiency standards use operational performance data to measure the performance of a transit system. Monitoring operational efficiency and productivity requires data such as operating costs, farebox revenue recovery, vehicle revenue miles, vehicle revenue hours and boarding's (passenger trips).

Many communities the size of Tehachapi do not have the staff resources to collect and analyze a broad range of performance data. Therefore, there are limited efficiency performance standards to several key indicators that will provide transit managers with a good picture of how well their service is doing. Recommended efficiency performance standards for Tehachapi Dial-A-Ride include the following:

Operating Cost per Passenger: Calculated by dividing all operating and administrative costs by total passengers (with passengers defined as unlinked trips). The subsidy cost per passenger is a further refinement of this measure and is calculated by subtracting farebox revenue from gross operating and administrative costs and dividing by total passengers.

Operating Cost per Revenue Hour: Calculated by dividing all operating and administrative costs by the total number of vehicle revenue hours (with revenue hours defined as time when the vehicle is actually in passenger service). Operating cost per revenue hour measures system efficiency.

Passengers per Revenue Hour: Calculated by dividing the total number of passengers (unlinked trips) by the total number of vehicle revenue hours. The number of passengers per hour is a good measure of service productivity and is critical to the establishment of design standards and benchmarks for the expansion of transit service.

Farebox Recovery Ratio: Calculated by dividing all farebox revenue by total operating and administrative costs. The California Transportation Development Act (TDA) mandates a farebox recovery of 10% for transit systems operating in non-urbanized areas, or communities with an urbanized population of less than 50,000. Farebox recovery evaluates both system efficiency (through operating cost) and productivity (through passenger trips). Farebox recovery ratio benchmarks are critical to the establishment of passengers per revenue hour benchmarks and benchmarks for design standards.



The chosen indicators comply with the basic performance indicators required by the TDA and are consistent with operating and cost data already collected for Tehachapi Dial-A-Ride. Cost and productivity standards based on revenue miles were not included in the set of recommended performance standards because most transit costs, as well as budget projections, are based on operating or revenue hours. Revenue mile-based performance standards would be more relevant than hour-based standards for paratransit contracts, such as taxis contracts, where contractor

compensation is based on travel distance. It should be noted that the City does currently collect data related to vehicle mileage, and should continue to do so.

Tehachapi's Dial-A-Ride operating cost per revenue hour will be influenced by increasing labor, fuel, maintenance and inventory costs. The operating cost per revenue hour will be dependent on Kern County administrative overheads, and fleet maintenance costs. The operating cost per passenger and the achievement of the recommended farebox recovery ratio will be greatly influenced by the achievement of the passenger per revenue hour productivity benchmarks.

Service quality and reliability standards should reflect system goals and support the measurement of success in achieving specific objectives and policies. The following table summarizes performance and service quality/reliability standards for Tehachapi Dial-A-Ride. These standards were developed by examining recent performance trends and estimating future performance through the five year horizon of this TDP.

Please note that a zero tolerance applies to cancelled trips caused by equipment or manpower shortages and on-time performance. It does not apply to service cancellations resulting from conditions or circumstances beyond the control of Kern Regional Transit.

TABLE 6: TEHACHAPI DIAL-A-RIDE PERFORMANCE & SERVICE QUALITY/RELIABILITY STANDARDS

<u>Performance Standard or Service Quality/Reliability Standard</u>	<u>Tehachapi Dial-A-Ride</u>
Operating Cost per Passenger	\$20.00
Operating Cost per Revenue Hour	\$72.00
Passengers per Revenue Hour	3.6
Farebox Recovery Ratio	10.0%
On-Time Performance	90% of all pick-ups must be within the policy pick up window, and 90% of all drop offs will not be earlier than 20 minutes before, or 5 minutes after the requested drop off time, unless otherwise requested by the passenger.
Passenger Complaints per Passengers Carried	The number of complaints shall not exceed 0.30% of the total boardings. Standard = 3 complaints per 1,000 boardings
Preventable Accidents per Revenue Miles Operated	While there should be no preventable accidents, a benchmark has been established to permit some flexibility in the evaluation of training efforts. The number of preventable accidents shall not exceed 0.0005% of total revenue miles operated. Standard = 1 preventable accident per 200,000 revenue miles
Roadcalls per Revenue Miles Operated	The number of roadcalls should not exceed 0.01% of total revenue miles operated. Standard = 1 roadcall per 10,000 revenue miles
Bus Trips Cancelled	No scheduled (confirmed) passenger trips shall be cancelled because of insufficient vehicles to meet the scheduled in-service pullout requirement. Standard = zero tolerance
Trip Denials	No advance bookings by ADA certified registrants shall be denied.

Recommended Service Design Standards

Service design standards are critical planning tools used to justify and prioritize the expansion of service to new areas and potential markets, and to guide the direction of service delivery. Transit service design incorporates a mix of interrelated social, political and economic factors. Generally these can include:

- The community's vision, goals, and objectives for transit;
- The marketability of the service(s) to be provided;
- Environmental and energy issues;
- Available technology;
- Budget limitations; and,
- Land use constraints and right-of-way design characteristics and limitations.

Standard	Benchmark/Criteria
Service Eligibility	Service will be provided to the general public residing in the City of Tehachapi and in designated urban areas within the County.
Service Capacity	Service capacity, as determined by the number of in-service vehicles, will be maintained at levels that support the minimum hourly productivity standard needed to achieve the farebox recovery ratio standard of 10%.
Pick-Up Windows	The pick-up windows confirmed with passengers will not exceed 30 minutes, and will not begin, beyond 60 minutes of the confirmed drop-off time.
Drop-Off Window	Unless otherwise advised by the passenger, no passenger will be dropped off earlier than 20 minutes before the confirmed drop-off time.
Maximum On-board Travel Time	On-board travel times for passengers will not exceed 45 minutes.
Trip Booking Options	All passengers shall be able to make advance, and same day bookings. Same-day bookings are limited to space availability.

Minimum Vehicle Specifications

All transit vehicles will meet all applicable federal, state, and city safety, emissions, accessibility, and mechanical fitness requirements.

CHAPTER 6 – SERVICE PLAN

The Service Plan was developed to respond to current system constraints and transportation needs within the Greater Tehachapi area. This service plan identifies key service issues and outlines strategies to address those issues over the next five years. This section also includes a Management Plan and Marketing Plan for the system, and explores other topics for implementation within the scope of this TDP.

KEY ISSUES

Transit in Tehachapi has a strong, captive market and a great potential for high service productivity and cost-effectiveness. City staff is committed to the provision of high quality service that meets local public transit needs, and overall customer satisfaction is extremely high. However, there are factors contributing to operational strains upon the system. Following is a summary of key issues impacting the current service and future planning decisions.

Farebox Ratios – The Transportation Development Act mandates a farebox recovery ratio of 10% for demand-response services operating within non-urbanized areas as a requirement for receiving TDA funding. TDA funding accounted for 52% to 79% of total revenues during the three fiscal years examined as part of this plan. The farebox ratio for Tehachapi's Dial-A-Ride service has been in the 3% range since FY 2006/07. Not only is this significantly below the 10% standard. This is a critical issue that must be addressed as part of this five-year plan. Since farebox ratio is the relationship of revenue to operating costs, all possible measures should be taken to increase system revenues, and to decrease operating costs associated with the provision of the demand-response service. Failure to achieve the 10% requirement will jeopardize the availability of Transportation Development Act funds for both transit and street uses.



Operating Cost – The operational cost associated with the Tehachapi Dial-A-Ride service has increased 4% annually since FY 2005/06, and the FY 2010/11 operating cost was 10.5% higher than the next highest year during that five-year time span. The biggest jump is seen in the “Purchased Transportation” element; that is, what the City of Tehachapi pays Kern County to administer, maintain and operate the Tehachapi Dial-A-Ride service. When examined more closely, the Purchased Transportation was greatly influenced by spikes in the cost of maintenance and fuel. The rising operating cost is not only a financial burden for all parties involved and hindrance on improving system efficiency and economy, but the raising levels make reaching the 10% farebox ratio an even more difficult process.

Ridership – Although the population of the City of Tehachapi grew by 30% from 2000 to 2010, the ridership grew at a lesser rate (only 15% since FY 2006/07). More so, ridership is still down 30% from FY 2005/06 levels.

PROPOSED SERVICE STRATEGIES

Increase Tehachapi Dial-A-Ride Fares

Given the historical challenge of achieving the mandatory fare box ratio, significant changes must be made to the fare structure. Over the course of this Transit Plan, fare revenue must increase by at least 35%. In order to achieve this, a phased approach is being proposed. Over the course of this Plan, incremental increases in the fare structure coupled with increases in ridership are intended to bring the fare box ratio into compliance with the State requirement. Annual reviews should be made to test the progress in achieving this goal and additional adjustments to fares and cost containment may need to be made.

In the first year of this plan, it is proposed that all fares be raised 50¢, with the result being the general public fare will be raised from \$1.00 to \$1.50 and the senior, disabled and youth fares being increased from 75¢ to \$1.25. The third year of the plan should see a second fare increase, with all fares being increased an additional 25¢. Lastly, in the final year of the plan, all fares should be raised again, with an additional 25¢ being added. Beginning in FY 2012/13, the City of Tehachapi, Kern County and Kern Regional Transit should annually examine the fare revenues, ridership and operating costs for Tehachapi’s Dial-A-Ride; ensuring a proper balance has been struck and making adjustments when they are needed.

<u>Tehachapi Dial-A-Ride Fare Category</u>	<u>Existing</u>	<u>FY 2012/13</u>	<u>FY 2014/15</u>	<u>FY 2016/17</u>
General Public	\$1.00	\$1.50	\$1.75	\$2.00
Seniors (62+)	75¢	\$1.25	\$1.50	\$1.75
Disabled	75¢	\$1.25	\$1.50	\$1.75
Youth (5-15)	75¢	\$1.25	\$1.50	\$1.75

Examine and Remedy Fuel and Maintenance Costs

With an understanding that fuel is an internationally traded and speculated commodity; the daily fluctuations in price cannot be predicted accurately in this planning document. Nevertheless, fueling contracts and sources should be examined to determine if the status quo is the best option for the City of Tehachapi, and thus Kern County. Discussions with Kern County and the fleet vehicle maintenance staff should be initiated to ensure that aggressive costs containment strategies are developed and implemented over the life of the Plan. The goal of this effort should be to keep cost increase below 2.5% annually. Failure to contain costs will jeopardize the possibility of attainment of the fare box ratio requirement.

Implement a Substantial Marketing and Education Outreach Program

The City of Tehachapi and Kern County should dedicate time and resources to an outreach program in the Greater Tehachapi community, with the direction of marketing the benefits of transit and educating various segments of the population on how and when they can use the Tehachapi Dial-A-Ride system. TPG estimates that the finances required for this project will result in a one-time increase of 1% in operating costs, to occur in FY 2013/14. The efforts are estimated to yield a 54% increase in the prior annual rate of ridership increase; bringing that rate from 2.6% to 4% annually.

Decrease Hours of Operation

Based on small survey of the times of day when patrons utilized the Tehachapi Dial-A-Ride service, there are clear times of the day during which ridership is minimal. In an effort to further decrease operating expense, and in turn improve the farebox ratio, it is recommended that the City of Tehachapi and Kern County

implement a reduction of service hours for the Tehachapi Dial-A-Ride service. The proposed changes will focus on the reduction of one hour of service from the morning, with services then starting at 6:30 AM, and one hour from the evening, with services then ending at 6:00 PM, each weekday. This would reduce the hours of operation by over 500 hours annually, and would reduce the operating cost by approximately \$33,000 the first year.

Special Saturday Service

The City and passengers have expressed an interest in the implementation of a special Saturday service one weekend each month during the summer. This service would be coordinated with community events or special celebrations. With the challenges facing the dial-a-ride service in meeting the State required fare box ratio, the implementation of any additional service must be viewed in connection with the resulting fare box revenue. Saturday service, while a significant benefit for the community, must be evaluated on a case-by-case basis. Should an event request dial-a-ride service for a specific Saturday, an assessment should be completed to test the cost for the service (typical 8 hours of service will cost approximately \$560 per vehicle) vs. the fare revenue from the event. If the event can guarantee a minimum of \$56 per day, then the City should consider operating the Dial-a-Ride. If the event will generate less than the minimum, then service should not be provided.

Service to/from Bear Valley Springs

The potential for extending the service boundaries to include Bear Valley were identified. While the population in this unincorporated community is significant, access is limited via a security gate. This limited access would result in passengers being picked up or dropped off at the entrance gate. Thus a corresponding Bear Valley shuttle is needed to ferry passengers between the entrance gate and their homes. Further discussions between the City, County and the Bear Valley Home Owners Association will be needed to determine if this is the proper level of service for this area or whether this area should continue without dial-a-ride service. Until such time as these detailed discussions resolve the level of service to be provided, it is recommended that no service be provided to this area.

Based on the recommended reduction of service hours, the containment of costs and the increased fare structure described above, the following projections are made for the next five years of service.

TABLE 9: PROPOSED TEHACHAPI DIAL-A-RIDE SERVICE PROJECTIONS
 FY 2012/13 through FY 2016/17

<u>Fiscal Year</u>	<u>Ridership*</u>	<u>Fare Revenues</u>	<u>Operating Costs**</u>	<u>Net Costs</u>	<u>Farebox Ratio</u>
2012/13	13,800	\$15,500	\$246,000	\$230,500	6.3%
2013/14	14,300	\$16,000	\$252,000	\$236,000	6.3%
2014/15	14,600	\$19,100	\$258,000	\$238,900	7.4%
2015/16	15,200	\$19,900	\$264,000	\$244,100	7.5%
2016/17	15,600	\$23,400	\$271,000	\$246,600	8.6%

**Ridership totals include revenue and non-revenue passengers*

***Operating costs assume a 2.5% annual inflation rate and assumes an aggressive cost containment strategy is implemented.*

Given the significant increase in the fare structure, the recommended cost containment and no negative elasticity in ridership, the service is projected to continue to fail to meet the State required fare box ratio of 10%. Therefore, the Transportation Development Act requires that Kern COG reduce the amount of revenue provided to the City of Tehachapi and the County of Kern equal to the amount of the difference between the required fare revenue and the actual fares collected. That reduction would take place one year after the end of the fiscal year where the non-attainment occurred. In addition, the City of Tehachapi and the County of Kern will be required to demonstrate to Kern COG how they will achieve the required fare box ratio during that penalty year.

As an alternative, the City of Tehachapi and the County of Kern can agree to supplement the fare revenues with an amount of local support sufficient to clear the difference between the actual fare revenue and the amount required by the Transportation Development Act. So for example, beginning in 2013/14, the projected fare revenue will be \$9,200 below the required 10% fare box ratio. Therefore, the City and the County can jointly contribute that amount in non-Transportation Development Act and non-Federal Transit Administration funding to make the fare box ratio requirement whole. Through this additional subsidy process

the City and the County can avoid the potential problems associated with non-compliance with the State's fare box ratio requirement.

MANAGEMENT PLAN

General Procedures

The City of Tehachapi will continue to contract the Tehachapi Dial-A-Ride service out to Kern County and Kern Regional Transit. The City Council will continue to act as the governing body for the system. The County will continue to own and maintain all transit equipment and intends to continue to perform day-to-day operations in-house. As such, the County will be responsible for the employment of drivers and maintenance personnel, plus the tracking of all necessary ridership and operations data. Management of Tehachapi's transit system will continue to be vested with the County, but with oversight from the City's Transit Manager.

In addition, the City should continue to seek opportunities to develop partnerships with local social service agencies, such as the Tehachapi Chamber of Commerce, Tehachapi Unified School District and the California Correctional Institution. Emphasis should be placed on the dissemination of transit information to employees and fare payment methods, as well as development of service hours and operating parameters that meet the needs of employees (if warranted and feasible).

Finally, the City in consultation with Kern Regional Transit should annually review and adjust the system's performance standards. The review will include an assessment of the service's achievement of performance standards. Changes will be made to reflect inflation, changes in operations, passenger demand and modifications to operating agreements.

MARKETING PLAN

An aggressive, ongoing and progressive marketing plan shall be implemented. The marketing plan shall reflect the role that transit plays in the community and shall target current and potential users. Transit in Tehachapi has a very definitive target market including commuters (students and employees) and low-income residents with limited access to a vehicle. The marketing plan will focus on low-cost community education with this transit market in mind. By reaching target markets with published materials and literature, the community will gain a higher level of understanding of the current service, and passengers will receive

valuable information to assist in their use of the system, with the goal being an increase in ridership and service productivity. The marketing will also assist in informing the target riders of service goals and lets them know that their patronage is appreciated.

Marketing efforts within the Tehachapi community should include both the City's Dial-A-Ride and East Kern Express regional service. Cross marketing of the services will assist current and potential riders in planning their trip options, and will encourage transfers between the two services. Focused marketing to the general public, particularly those members of the community that are retired, should include information on how to ride transit, and how to transfer from one system to another. Since a significant portion of Tehachapi's target transit market is Hispanic, all advertising should be made available in Spanish, as well as English. The marketing efforts proposed for the Tehachapi transit system include the following:



Brochure/Handout

Updating the current Tehachapi Dial-a-Ride brochures is critical to begin the marketing campaign. A fresh brochure will clearly show the community a change has taken place and will encourage a “buzz” about those changes. This new brochure should be reflective of the unique character of Tehachapi and be updated to establish this identity within the public’s mind. This new brochure will be developed as part of this Transit Plan and will reflect the new hours of operation and fare structure. The brochure will also contain basic information including hours of operation, fares, policies, and dispatch numbers and will include other information such as “riding tips” and news related to service changes. This transit brochures will be developed in a format that provides the City and the County with easy of production, be coordinated with other common literature and will allow for ease of updating.

The brochures shall be made available at locations frequented by current and potential riders, including on board the bus, at City Hall, and community locations, banks, and major shopping and social service/medical centers. The City should also consider including the new brochure in utility billings or other direct mail vehicles to achieve the widest possible dispersion to the community. All printed material should be made available in English and Spanish.

Transit Information

Information on the transit system should be easily available and prominently displayed for all target markets. The availability of service information on buses and at public spaces is important to keep transit users informed and to provide potential users with necessary information. Annual posters should be produced and placed in all significant public spaces, City Hall, the Senior Center, community centers, major shopping centers, medical facilities, schools and large employers. These posters should be centered on a theme or promotion and should encourage potential riders to try the service.

Marketing Promotions

Marketing promotions involve efforts beyond printed information. Developing community-wide events to promote Tehachapi Dial-A-Ride will help to keep transit in the minds of residents as a viable transportation option. Promotions could be self-sponsored or held in conjunction with other local/global events such as National Transit Week, Earth Day, or local community events. Promotions should include the distribution of informational flyers and free bus passes (good for one round-trip) to attract potential riders. Transit personnel should be made available to answer service questions. All information should be made available in English and Spanish.

City Website

The City of Tehachapi bus transportation webpage should be updated to include current transit service information and contact information for both City and County staff. The City may wish to add a link to the Kern Regional Transit website as well. This would allow the City to provide single point information about the regional service without having to update the website whenever the County implements service changes. In addition, the webpage should list the Dial-A-Ride reservations phone number: 1-800-323-2396. All information should be made available in English and Spanish.

Travel Training

A common barrier to transit usage amongst the elderly, low-income and non-English speaking persons is a basic lack of knowledge about how to use the service. Fear of the unknown often prohibits potential users from even trying transit as a transportation alternative. Travel training is one effective method to overcoming these fears. Given the current workload of City staff, the City should consider seeking a volunteer to act a Transit Docent. This person should be knowledgeable of all aspects of the local and regional transit systems. The Tehachapi Dial-a-Ride Docent would be tasked with educating current and prospective riders on how to use both the Tehachapi Dial-A-Ride and Kern Regional Transit systems through presentations and on-the-bus assistance. For instance, the docent could work with the school district to help educate students and parents on the benefits of using the Dial-A-Ride, work with a social service agency's clients to help them understand how to get to their desired destination using transit, and work with local business to help build commute options for their employees. Travel training should be available in both English and Spanish.



Free Advertising

Free advertising, in the form of press releases and media coverage, should be utilized whenever possible to promote transit services. Press releases directed to the Tehachapi News should announce major service changes and improvements to the system, including the addition of new buses. Media coverage should be targeted to highlight the positive aspects of using the Tehachapi Dial-A-Ride service (including flexibility and low cost) in light of the current economy. Service milestones, such as the 20th Anniversary of Tehachapi Dial-a-Ride in 2014 can provide the service with free advertising and promotion. Both English and Spanish media outlets should be utilized.

Cross Marketing

As stated previously, the City should work closely with Kern Regional Transit staff to insure that the Tehachapi Dial-A-Ride and the East Kern Express services are cross marketed to all potential transit riders within the

Tehachapi community. Information on both services should be kept current on the City's web. East Kern Express service brochures should be available wherever Tehachapi Dial-A-Ride information is disseminated.

SAFETY AND SECURITY PLAN

On August 25, 2005, President Bush signed The Safe Accountable Flexible Efficient Transportation Act: A Legacy for Users (SAFETEA-LU), replacing the Transportation Equity Act for the 21st Century (TEA 21). The passage of SAFETEA-LU brought about increased attention to addressing the issues of safety and security as stand-alone factors with regards to public transportation systems. This section includes a discussion of the measures that the City should/does take to ensure both the safety and security of its system, passengers, and employees. These measures were taken from the *Model Transit Bus Safety and Security Program*, developed by the FTA in cooperation with the American Public Transportation Association (APTA), the Community Transportation Association of America (CTAA), the American Association of State Highway and Transportation Officials (AASHTO), and other representative from the transit industry.

System Safety

For the purpose of this plan, safety is defined as the protection of persons or property from unintentional damage or destruction caused by accidental or natural events. Core safety elements apply to all Section 5307 and 5311 transit providers, but their scope of implementation is dependent upon the size and scope of operations, and availability of resources. The following safety elements represent safety techniques applicable and appropriate to a transit service the size of Tehachapi Dial-A-Ride.

Driver/Employee Selection

Drivers are hired and employed by First Transit, a nationwide transportation services provider.

Driver/Employee Training

The Kern Regional transit agency should work with First Transit to ensure drivers be fully trained in safety issues specific to its fleet, as well as safety protocol related to breakdowns, accidents, and other service related issues. All buses should be equipped with safety protocol sheets which outline specific steps to follow in the event of an emergency.

Vehicle Maintenance

Proper maintenance of vehicles and equipment is critical to the continued safe operation of the transit system. Basic vehicle maintenance practices must regularly address safety-related vehicle equipment to ensure that no unsafe vehicles are dispatched for service. Tehachapi Dial-A-Ride vehicles are inspected daily by the driver to ensure that the vehicle is safe to operate prior to the start of each shift.

Drug and Alcohol Abuse Programs

The Omnibus Transportation Employee Testing Act of 1991 requires alcohol and drug testing of safety-sensitive employees in the aviation, motor carrier, railroad, and mass transit industries. Large transit employers, which are defined as those transit employers who operate in an area of 200,000 or more in population, are required to do random drug testing for all safety-sensitive transit employees. Small transit employers, operating in areas with less than 200,000 in population, are required to implement a random drug testing program.

Kern County is responsible for making sure this random drug testing program is implemented. This program includes pre-employment, reasonable suspicion, post-accident, random, return-to-duty, and follow-up drug testing. Employee tests are reviewed and interpreted by a physician before they are reported to the employer. All employee drug test results are confidential. Transit employers are required to provide information on drug use and treatment resources to safety-sensitive employees, as well as provide one hour of training on the dangers of substance abuse. The employer is not required to provide rehabilitation, pay for treatment, or reinstate the employee in his/her safety-sensitive position.

Safety Data Acquisition/Analysis

Understanding safety data is an important step toward allocating important (and often scarce) resources to implement safety program elements. Safety data relative to transit provider operations can be used to determine safety trends in system operation; the data are useful in hazard identification and resolution to help identify hazards before they cause accidents. Kern County should collect safety-related data for the Dial-A-Ride system, including accidents (and locations), passenger claims, and injuries.

System Security

For the purpose of this plan, security is defined as the protection of persons or property from intentional damage or destruction caused by vandalism, criminal activity, or terrorist events. All transit providers must take all reasonable and prudent actions to minimize the risk associated with intentional acts against passengers, employees, and equipment/facilities. In addition, the bus driver carries a cell phone that can be used to notify City personnel in the event of an emergency.

SERVICE IMPLEMENTATION PLAN

This section presents an action plan for implementing the Tehachapi Dial-A-Ride services proposed in this chapter. The implementation plan outlines service parameters for each of the five years covered by this TDP. This schedule assumes the availability of all projected funding, and should be reviewed annually to reflect current funding scenarios. Marketing and outreach efforts should be ongoing throughout the life of the TDP.

Tehachapi Dial-A-Ride Service

The implementation plan assumes that the Tehachapi Dial-A-Ride service will continue to operate Monday through Friday. Weekend service is not anticipated during the next five years due to operational cost constraints, but could occur in a limited, special event scenario if hours of operation can be transferred from weekdays to Saturdays. The demand for a City-run fixed route service does not exist at this time.

Year One (FY 2012/13)

In year one of the plan, FY 2012/13, Tehachapi Dial-A-Ride fare structure will be adjusted. The hours of operation will be reduced by two hours per day and additional cost containment strategies will be implemented. The marketing plan will be implemented with the publishing of a new transit brochure. The City and County should adjust the service area boundary to reflect the recent annexations to the City. The City, County and Kern COG should initiate discussions on the process for managing the State mandated fare box ratio requirements.

Year Two (FY 2013/14)

The second year of the Transit Plan continued efforts to market the transit service will be continued. Additional cost containment strategies will be identified by the City and the County.

Year Three (FY 2014/15)

The third year of the Plan will see another increase in the fare structure. The marketing brochure and City website will be updated to reflect this change. Cost containment strategies will be reviewed and further refined to reflect the fare box ratio requirements.

Year Four (FY 2015/16)

During the fourth year of this plan transit services will continue to operate at the established level. Additional marketing efforts will be continued to increase ridership. A review of the fare box ratio will be completed.

Year Five (FY 2016/17)

The fifth year of the Transit Plan will include the third fare structure increase.

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CHAPTER 7 – CAPITAL PLAN

As per the agreement between the City of Tehachapi and Kern County for the provision of Dial-A-Ride service by Kern Regional Transit in the Greater Tehachapi area, the City of Tehachapi has no direct capital obligations. The agreement calls for Kern County to own, operate, and maintain all capital equipment (buses and bus stops) that are used in the provision of the Tehachapi Dial-A-Ride service. Therefore, the development of a Capital Plan for the City of Tehachapi is retained as the responsibility of Kern Regional Transit. The City supports Kern County's maintenance and procurement of capital through its "Purchased Transportation" line item.



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CHAPTER 8 – FINANCIAL PLAN

The Financial Plan includes estimates of operating expenditures and projections of revenues by source for the proposed service plan. Estimates are for the purposes of this study only and represent approximations of the costs of the anticipated operations. Actual values for annual operation will vary and will be determined through the City's annual budgeting process. It should be noted that the City of Tehachapi contributes to the operation of the service through its contract with Kern Regional Transit Agency. The Kern Regional Transit Agency is responsible for all capital acquisitions and capital grants. The purpose of this data is to provide comparative information for the review of this Transit Development Plan.

CURRENT FUNDING SOURCES

Successful transit systems develop broad funding strategies to implement planned services and projects. Currently, the City of Tehachapi's primary revenue sources for the operation of its transit service come from the Federal Transit Administration Section 5311 funds, Transportation Development Act (TDA) funds, and passenger fares. The following is a brief description of these funding sources.

Fare Revenues

Fare revenue collection is a necessary source of transit funding, but usually only accounts for 10-20% of the costs of transit operations. Fare collection incurs costs for farebox maintenance, cash management, and auditing. The City's fare revenues currently account for approximately 4% of their annual operating revenues. State law requires that at a minimum, 10% of the operating costs be collected from passenger fares. Failure to maintain this minimum, results in the loss of state revenue for transit. All future plans for the Tehachapi's Dial-a-Ride service should be tested against this requirement to ensure achievement of this standard.



Transportation Development Act (TDA)

Local Transportation Funds (LTF) and State Transit Assistance Funds (STAF) are California State sales tax funds that are available for transit operations and street and road purposes. Historically, LTF money has been



derived from ¼ cent of retail sales tax collected in the State of California, and distributed to areas based on population, while STAF money has been generated by a gasoline sales tax and allocated to areas based on transit operator revenues. However, in 2009 the gas tax was eliminated as part of a compromise in the State Budget crisis. Legislative revisions are currently pending that will change the funding mechanisms for TDA money.

The use of TDA funds for public transit is of critical importance to the City of Tehachapi. Historically, a significant share of these funds, approximately \$400,000, have been used for street projects. State law requires that each year TDA funds first be

made available for transit purposes. If no transit needs exist that can reasonably be met, the funds can then be used for street projects.

Federal Transit Administration - Section 5311 - Non-urbanized Area Formula Grant

The Section 5311 program provides capital, operating, and planning assistance for operators of public transportation in non-urbanized areas with populations less than 50,000. In California, the 5311 program is administered by Caltrans on behalf of the Federal Transit Administration. Section 5311 funds must be matched by state and/or local funds. Capital projects require a 20% local match. Operating projects require a 50% local match. Local match funds can be cash or cash-equivalent, depending upon the expenditure. Some non-Department of Transportation (DOT) federal funds may be used as a match.

All 5311 projects must be included in an adopted Federal Transportation Improvement Plan (FTIP). The City has historically received approximately \$30,000 annually from this source and used these funds to assist with operational costs. It is assumed that the City will continue to use Section 5311 funds for operating assistance.

PROJECTED EXPENDITURES

The expenditure plan shown below anticipates an outlay in FY 2012/13 of \$246,000 for operating costs and the annual expenditures afterwards range up to \$271,000. Operating expenses assume a 2.5% annual inflation rate and will result in the following five-year expenditure plan. The expenditures represent total expenditure for the Tehachapi Dial-A-Ride services; showing both City and County combined. As per the contract for services between the two entities, expenditures are split equally.

Table 10: Expenditures						
<i>(FY 2012/13 through FY 2016/17)</i>						
	2012/13	2013/14	2014/15	2015/16	2016/17	Total
Operating	\$246,000	\$252,000	\$258,000	\$264,000	\$271,000	\$1,291,000

PROJECTED REVENUES

Federal funds are projected to cover 12% of total service costs over the next five years. These funds are anticipated to be used only for operating expenses. The local match is shown coming from the Transportation Development Act funds and are expected to provide 81% of the total operating costs of the Transit Plan. Finally, passengers are projected to provide only 7% of the total cost of the service over the next five years. The five-year expenditures outlined in the previous section will require the funding revenues as shown below.

Table 11: Revenues						
<i>(FY 2012/13 through FY 2016/17)</i>						
	2012/13	2013/14	2014/15	2015/16	2016/17	Total
Local TDA						
City of Tehachapi	\$100,250	\$103,000	\$104,450	\$107,050	\$108,800	\$523,550
Kern County	\$100,250	\$103,000	\$104,450	\$017,050	\$108,800	\$523,550
FTA Sec. 5311	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$150,000
Passenger Fares	\$15,500	\$16,000	\$19,100	\$19,900	\$23,400	\$93,900
Total	\$246,000	\$252,000	\$258,000	\$264,000	\$271,000	\$1,291,000

The following chart compares the Transportation Development Act funds that are projected to be available annually over the next five years. The projected level of funding needed for the demand-response service is also shown, with the projected balance available for street projects. The chart suggests that each year, some funds will be available for street projects.

Table 12: City of Tehachapi's Transportation Development Act Fund Balance						
<i>(FY 2012/13 through FY 2016/17)</i>						
	2012/13	2013/14	2014/15	2015/16	2016/17	Total
Transportation Development Act Available*	\$637,000	\$653,000	\$669,000	\$686,000	\$703,000	\$3,348,000
Transportation Development Act for Transit	\$100,250	\$103,000	\$104,450	\$107,050	\$108,800	\$523,550
Balance	\$536,750	\$550,000	\$564,550	\$578,950	\$594,200	\$2,824,450

CHAPTER 9 – SOURCES CONSULTED

The data provided within this TDP was compiled and analyzed from a variety of sources, including the following.

1. California Department of Transportation (Division of Mass Transportation), Transportation Development Act (TDA) – Statutes and California Codes of Regulations, January 2005.
2. City of Tehachapi website.
3. City of Tehachapi, State Controller’s Reports, 2009, 2010 and 2011.
4. Curtin, J F. 1968. *Effect of Fares on Transit Riding*. Highway Research Board.
5. Kern Regional Transit Agency, Linda Wilbanks, Transit Planner.
6. Kern Regional Transit Agency, Unmet Transit Needs Report, FY 2010/11
7. Kern Regional Transit Agency, City of Tehachapi Transit Agreement, 2006
8. Kern Council of Governments, 2011/12 Transportation Development Act Allocations.
9. Kern Council of Governments, 2011 Federal Transportation Improvement Program.
10. Triennial Performance Audit of the City of Tehachapi, June 2010.
11. U.S. Census Bureau, *Census 2010 Data*, <http://www.census.gov>.

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APPENDIX A

Tehachapi Dial-A-Ride & Kern Regional Transit On-board Surveys Forms

REGIONAL TRANSIT SURVEY CALIFORNIA CITY & TEHACHAPI

Your input is needed if you have boarded the bus in California City or Tehachapi or you intend on un-boarding the bus in one of these cities. This survey will help plan for future transit service and improvements. Please answer the following questions and return this form to the bus driver. **If you have already filled out a survey form, you do not need to fill out another. THANK YOU for completing this survey!**

- 1) What is the purpose of your trip today?

<input type="checkbox"/> Work	<input type="checkbox"/> Shopping	<input type="checkbox"/> School/College	<input type="checkbox"/> Attending a Social Service Program
<input type="checkbox"/> Medical	<input type="checkbox"/> Social	<input type="checkbox"/> Personal Business	<input type="checkbox"/> Other (specify) _____

- 2) If you answered "shopping" above (#1), about how much did you/will you spend during this shopping trip?

<input type="checkbox"/> \$10 or less	<input type="checkbox"/> \$11-\$25	<input type="checkbox"/> \$26-\$50	<input type="checkbox"/> Over \$50
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- 3) Did you have a car available for this trip? Yes No

- 4) How would you have made this trip if a transit bus was not available?

<input type="checkbox"/> Drive alone	<input type="checkbox"/> Bike	<input type="checkbox"/> Carpool	<input type="checkbox"/> Taxi
<input type="checkbox"/> Walk	<input type="checkbox"/> Get a ride	<input type="checkbox"/> Wouldn't make the trip	<input type="checkbox"/> Other (specify) _____

- 5) How do you usually get information about Kern Regional Transit services?

<input type="checkbox"/> Ask a bus driver	<input type="checkbox"/> Ask a friend/family	<input type="checkbox"/> Printed flyers	<input type="checkbox"/> Go wait at a bus stop
<input type="checkbox"/> Transit Guide	<input type="checkbox"/> Newspaper ad	<input type="checkbox"/> Call City info number	<input type="checkbox"/> Other (specify) _____

- 6) How often do you use Kern Regional Transit services?

<input type="checkbox"/> Daily (3-6 days/week)	<input type="checkbox"/> Weekly (1-2 days/week)	<input type="checkbox"/> Monthly (1-3 days/month)	<input type="checkbox"/> This is my first trip
--	---	---	--

- 7) Where are you going today?

<input type="checkbox"/> Bakersfield	<input type="checkbox"/> Mojave	<input type="checkbox"/> Lancaster	<input type="checkbox"/> Rosamond	<input type="checkbox"/> Inyokern	<input type="checkbox"/> Ridgecrest
Other _____					

- 8) How long have you been using Kern Regional Transit services?

<input type="checkbox"/> 0-6 months	<input type="checkbox"/> 6 months – 1 year	<input type="checkbox"/> 2-5 years	<input type="checkbox"/> 6-10 years	<input type="checkbox"/> More than 10 years
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- 9) Overall, how would you rate Kern Regional Transit services?

<input type="checkbox"/> Excellent	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor
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- 10) Which of the following improvements would you most like to see (check all that apply)?

<input type="checkbox"/> More frequent service	<input type="checkbox"/> Earlier service	<input type="checkbox"/> Later service	<input type="checkbox"/> Daily service
<input type="checkbox"/> More Stops	<input type="checkbox"/> Other (specify) _____		

In order to better understand your transit needs, we need to know a little about our riders:

- 11) How long have you been a resident of California City or Tehachapi?

<input type="checkbox"/> 0-1 years	<input type="checkbox"/> Less than 3 years	<input type="checkbox"/> Less than 5 years	<input type="checkbox"/> 6-7 years
<input type="checkbox"/> 8 years+			

- 12) What is your gender? Male Female

- 13) What is your age? 6-13 14-18 19-35 36-49 50-63 64+

- 14) What is your ethnicity?

<input type="checkbox"/> White	<input type="checkbox"/> Black/African American	<input type="checkbox"/> American Indian
<input type="checkbox"/> Hispanic	<input type="checkbox"/> Asian/Pacific Islander	<input type="checkbox"/> Other

- 15) What is the Estimated Annual income of all members of your household?

<input type="checkbox"/> Less than \$10,000	<input type="checkbox"/> \$10,000-\$14,999	<input type="checkbox"/> \$15,000-\$19,999	<input type="checkbox"/> \$20,000-\$24,999
<input type="checkbox"/> \$25,000-\$29,999	<input type="checkbox"/> \$30,000-\$34,999	<input type="checkbox"/> \$35,000-\$39,999	<input type="checkbox"/> \$40,000 or more

- 16) Do you have a handicap or disability? Yes No

- 17) Do the California City transit services adequately meet your mobility needs? Yes No

If you answered "Yes" to question #17, please answer the following.

- 18) Do you require a wheelchair lift for your trip? Yes No

Necesitamos su ayuda para planear el futuro del sistema de Kern Regional Transit.
Si usted ha llenado una encuesta, no es necesario llenar otro. ¡Gracias por completar esta encuesta.

- 1) ¿Qué es el propósito de su viaje hoy?
 Trabajo Compras Educa/Colegio Asistir un programa social de servicio
 Médico Social Negocio de personaje Otro (especifica)_____
- 2) ¿Si usted contestó las "compras" encima de (#2), acerca de cuánto usted/hizo que usted gasta durante este viaje de compras?
 \$10 o menos \$11-\$25 \$26-\$50 Más de \$50
- 3) ¿Tuvo usted un coche disponible para este viaje? Sí No
- 4) ¿Cómo habría hecho usted este viaje si un autobús de tránsito no estuvo disponible?
 Conduzca sólo Bicicleta Coche de uso compartido Taxi
 Caminata Consiga un paseo No haría el viaje Otro (especifica)_____
- 5) ¿Cómo consigue generalmente usted información sobre el servicio de Kern Regional Transit?
 Pregunte a un conductor de autobús Pregunte una amigo/familia Aviadores impresos
 Vaya espera en una parada de autobus Guía de tránsito Anuncio periodístico
 Llame la Ciudad número de información Otro (especifica)_____
- 6) ¿Con qué frecuencia utiliza usted los servicios de Kern Regional Transit?
 Diario (3-6 días/semana) Semanal (1-2 días/semana) Mensual (1-3 días/mes) Esto es mi primer viaje
- 7) ¿ Adónde va usted hoy?
 Bakersfield Mojave Lancaster Rosamond Inyokern Ridgecrest Otra
- 8) ¿Cuánto tiempo ha estado utilizando servicios de Kern Regional Transit?
 0-6 meses 6 meses – 1 año 2-5 años 6-10 años Más de 10 años
- 9) ¿En términos generales, cómo clasifica el servicio de Kern Regional Transit?
 Excelente Bueno Justo Malo
- 10) ¿Cuál de las siguientes mejoras que más le gusta a ver (verifica todo que aplican)?
 Más frecuente servicio Servicio más temprano Servicio posterior Más servicio del Sábado
 Más paradas Más rutas Otro (especifica)_____

Comprender mejor sus necesidades de tránsito, nosotros necesitamos para saber un pequeño acerca de nuestros jinetes:

- 11) ¿Cuánto tiempo usted ha vivido en California City o Tehachapi?
 0-1 año Menos de 3 años Menos de 5 años 6-7 años 8 años o mas
- 12) ¿Qué es su género? Macho Hembra
- 13) ¿Qué es su edad? 6-13 14-18 19-35 36-49 50-63 64+
- 14) ¿Qué es su etnia?
 Blanco Negro/Africano Norteamericano Indio Norteamericano
 Hispano Asiático / Isleño Pacífico Otro
- 15) ¿Qué es los ingresos Anuales Estimados de todos miembros de su casa?
 Menos de \$10,000 \$10,000-\$14,999 \$15,000-\$19,999 \$20,000-\$24,999
 \$25,000-\$29,999 \$30,000-\$34,999 \$35,000-\$39,999 \$40,000 o más
- 16) ¿Tienes una minusvalía o discapacidad? Sí No
- Si usted contestó "Sí" preguntar #17, contestan por favor el siguiente.
- 17) ¿Necesita usted un ascensor de sillón de ruedas para completar su viaje? Sí No
- 18) ¿Los servicios de transporte Kern Regional adecuadamente completan sus necesidades de movilidad? Sí No

CITY OF TEHACHAPI TRANSIT SURVEY

Your input is needed to help plan for future transit service and improvements. Please answer the following questions and return this form to the bus driver. **If you have already filled out a survey form, you do not need to fill out another. THANK YOU for completing this survey!**

1) What is the purpose of your trip today?

- Work Shopping School/College Attending a Social Service Program
 Medical Social Personal Business Other (specify) _____

2) If you answered "shopping" above (#2), about how much did you/will you spend during this shopping trip?

- \$10 or less \$11-\$25 \$26-\$50 Over \$50

3) Did you have a car available for this trip? Yes No

4) How would you have made this trip if a transit bus was not available?

- Drive alone Bike Carpool Taxi
 Walk Get a ride Wouldn't make the trip Other (specify) _____

5) How do you usually get information about Tehachapi transit services?

- Ask a bus driver Ask a friend/family Printed flyers Go wait at a bus stop
 Transit Guide Newspaper ad Call City info number Other (specify) _____

6) How often do you use Tehachapi transit services?

- Daily (3-6 days/week) Weekly (1-2 days/week) Monthly (1-3 days/month) This is my first trip

7) Do you also use the East Kern Express transit services provided by Kern Regional Transit, and if so, how often and to where?

- Daily Weekly Monthly
 Destination (specify) _____

8) How long have you been using Tehachapi Dial-A-Ride services?

- 0-6 months 6 months – 1 year 5 years 10 years More than 10 years

9) Overall, how would you rate Tehachapi Dial-A-Ride services?

- Excellent Good Fair Poor

10) Which of the following improvements would you most like to see (check all that apply)?

- More frequent service Earlier service Later service Saturday service
 Fixed routes Other (specify) _____

11) If the City needs to raise transit fares, how much would you be willing to pay for the service (general public fares)?

- Dial-A-Ride \$1.25 \$1.50 \$1.75 No Change

In order to better understand your transit needs, we need to know a little about our riders:

12) How long have you been a resident of Tehachapi?

- 0-1 years Less than 3 years Less than 5 years 6-7 years
 8 years+

13) What is your gender? Male Female

14) What age group do you belong? 6-13 14-18 19-35 36-49 50-63 64+

15) What is your ethnicity?

- White Black/African American American Indian
 Hispanic Asian/Pacific Islander Other

16) What is the Estimated Annual income of all members of your household?

- Less than \$10,000 \$10,000-\$14,999 \$15,000-\$19,999 \$20,000-\$24,999
 \$25,000-\$29,999 \$30,000-\$34,999 \$35,000-\$39,999 \$40,000 or more

17) Do you have a handicap or disability? Yes No

18) Do the Tehachapi Dial-A-Ride services adequately meet your mobility needs? Yes No

If you answered "Yes" to question #17, please answer the following.

19) Do you require a wheelchair lift for your trip? Yes No

Necesitamos su ayuda para planear el futuro del sistema de transportacion para la cuida de California City y Tehachapi. **Si usted lla llenado una encuesta, no es necesario llenar otro.**

¡Gracias por completar esta encuesta.

1) ¿Qué es el propósito de su viaje hoy?

- Trabajo Compras Educa/Colegio Asistir un programa social de servicio
 Médico Social Negocio de personaje Otro (especifica) _____

2) ¿Si usted contestó las "compras" encima de (#2), acerca de cuánto usted/hizo que usted gasta durante este viaje de compras?

- \$10 o menos \$11-\$25 \$26-\$50 Más de \$50

3) ¿Tuvo usted un coche disponible para este viaje? Sí No

4) ¿Cómo habría hecho usted este viaje si un autobús de tránsito no estuvo disponible?

- Conduzca sólo Bicicleta Coche de uso compartido Taxi
 Caminata Consiga un paseo No haría el viaje Otro (especifica) _____

5) ¿Cómo consigue generalmente usted información sobre el servicio de transportacion de California City y Tehachapi?

- Pregunte a un conductor de autobús Pregunte una amigo/familia Aviadores impresos
 Vaya espera en una parada de autobus Guía de tránsito Anuncio periodístico
 Llame la Ciudad número de información Otro (especifica) _____

6) ¿Con qué frecuencia utiliza usted los servicios de transportacion de California City y Tehachapi?

- Diario (3-6 días/semana) Semanal (1-2 días/semana) Mensual (1-3 días/mes) Esto es mi primer viaje

7) ¿También utiliza usted el servicio del Condado de Kern transportacion proporcionaron dentro del área de California City y Tehachapi, y si eso es el caso, con qué frecuencia y a dónde?

- Diariamente Semanalmente Mensualmente

Destino (especifica) _____

8) ¿Cuánto tiempo ha estado utilizando servicios de transportacion de California City y Tehachapi?

- 0-6 meses 6 meses – 1 año 2-5 años 6-10 años Más de 10 años

9) ¿En términos generales, cómo clasifica el servicio de transportacion de California City y Tehachapi?

- Excelente Bueno FERIA Pobre

10) ¿Cuál de las mejoras siguientes le hace la mayoría del quiere ver (verifica todo que aplica)?

- Más frecuente servicio Servicio más temprano Servicio posterior Más servicio del Sábado
 Más paradas Más rutas Otro (especifica) _____

11) ¿Si la Ciudad necesita humentar los precios del boleto, qué estaría usted dispuesto a pagar por el servicio (general)?

- Dile A Ride \$1.75 \$2.00 \$2.25 Ningún cambio

Comprender mejor sus necesidades de tránsito, nosotros necesitamos para saber un pequeño acerca de nuestros jinetes:

12) ¿Cuánto tiempo usted ha vivido en California City o Tehachapi?

13) ¿Qué es su género? Macho Hembra

14) ¿Qué es su edad? 6-13 14-18 19-35 36-49 50-63 64+

15) ¿Qué es su etnia?

- Blanco Negro/Africano Norteamericano Indio Norteamericano
 Hispano Asiático / Isleño Pacífico Otro

16) ¿Qué es los ingresos Anuales Estimados de todos miembros de su casa?

- Menos de \$10,000 \$10,000-\$14,999 \$15,000-\$19,999 \$20,000-\$24,999
 \$25,000-\$29,999 \$30,000-\$34,999 \$35,000-\$39,999 \$40,000 o más

17) ¿Tiene usted una desventaja o lincapacidad? Sí No

18) ¿Necesita usted un ascensor de sillón de ruedas para completar su viaje? Sí No

Si usted contestó "Sí" preguntar #17, contestan por favor el siguiente.

19) ¿ necesita un ascensor para sillas de ruedas para su viaje?

- Sí No

APPENDIX B

Community Meeting (February 15, 2012)

Tehachapi Transit Plan

Community Meeting

February 15, 2012



8 11:36A



Introductions

- **City of Tehachapi**
 - Hannah Chung, Finance Director
- **Kern Regional Transit**
 - Linda Wilbanks, Planner
- **TPG Consulting**
 - Charles Clouse, AICP, PTP, Principal
 - Carrie Bauer, Transit Analyst

Agenda

- Overview of Plan
- Review of Existing Service
- Discussion of Key Issues and Challenges
- Passenger Surveys
- Next Steps



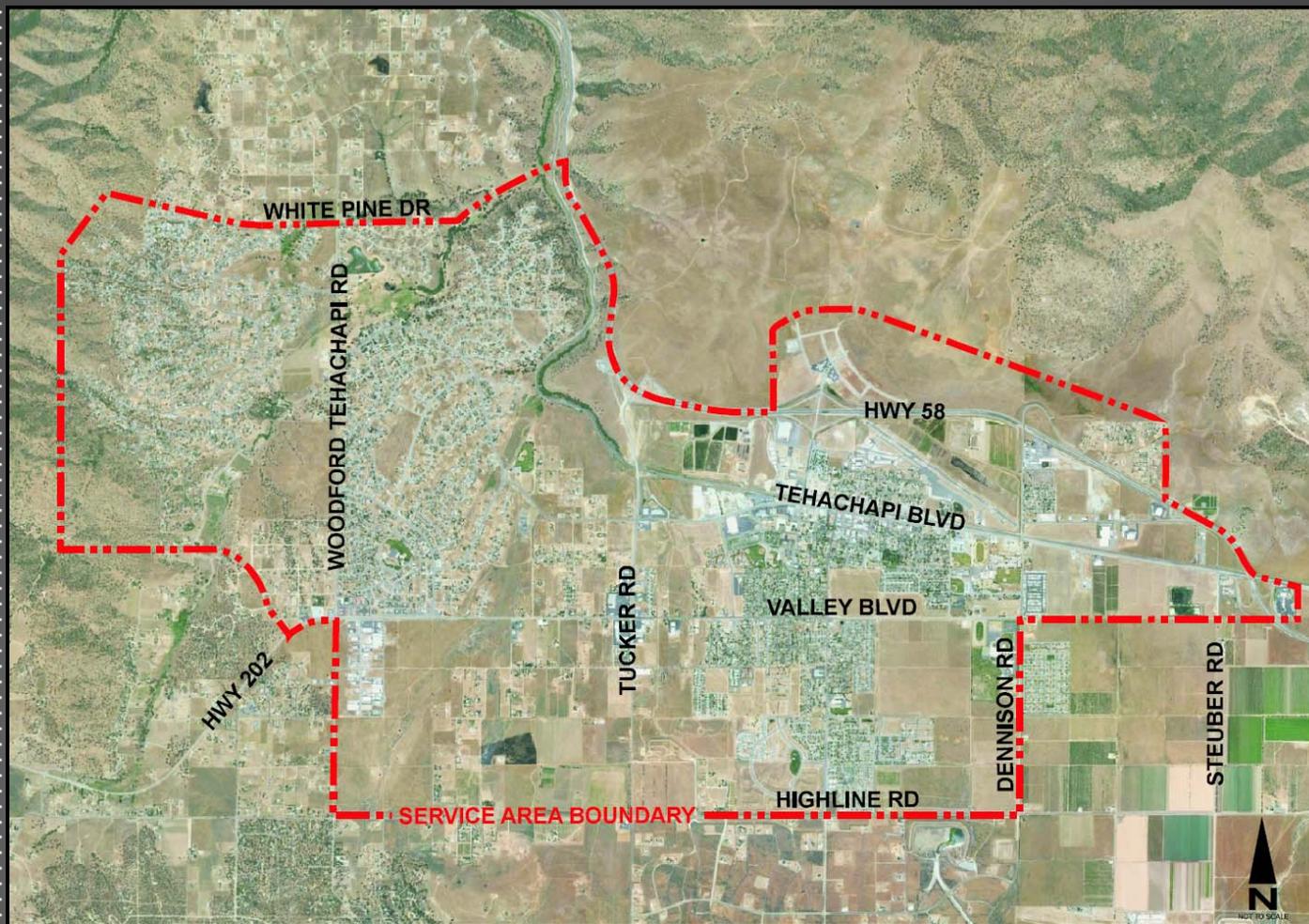
Overview

- Update of the Transit Plan completed 10 years ago
- Purpose:
 - *Assess Current Services*
 - *Develop Plan for Future Service*
 - *Provide 5-year Operating and Capital Vision*
- Used by Local, Regional, State and Federal Agencies to Program Funds

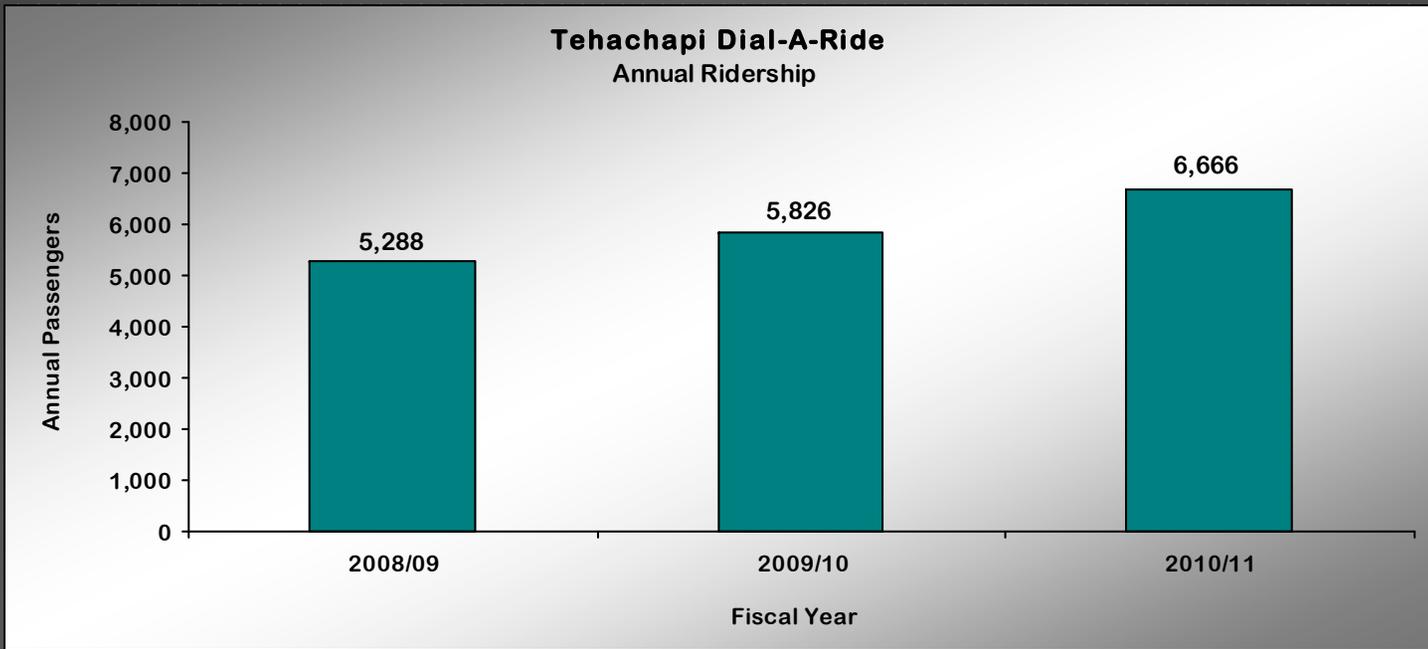


Existing Dial-a-Ride Service

Transit Plan

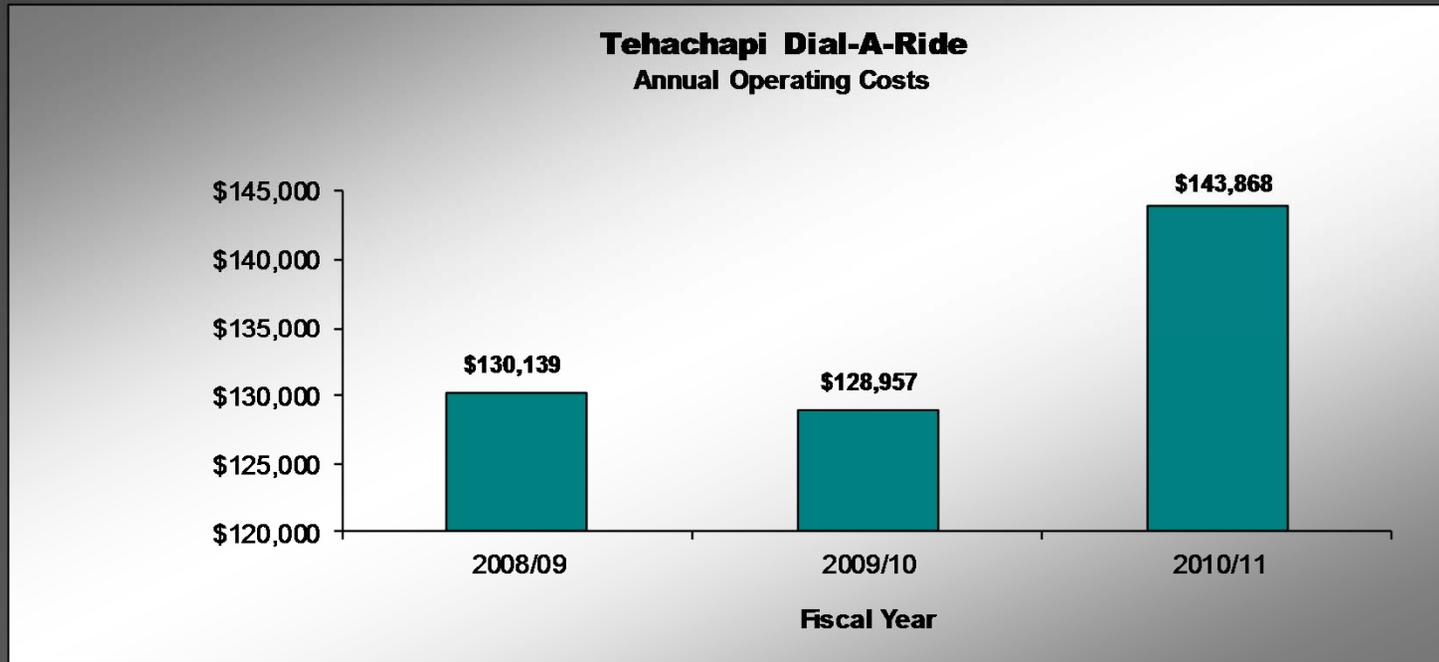


Annual Ridership



Annual ridership has increased 26% in the past 3 years. This is a significant increase and suggests further growth is possible.

Annual Operating Costs



Annual operating costs increased 10% in the past year and is attributable to minor cost increases in labor.

Fare Box Ratio

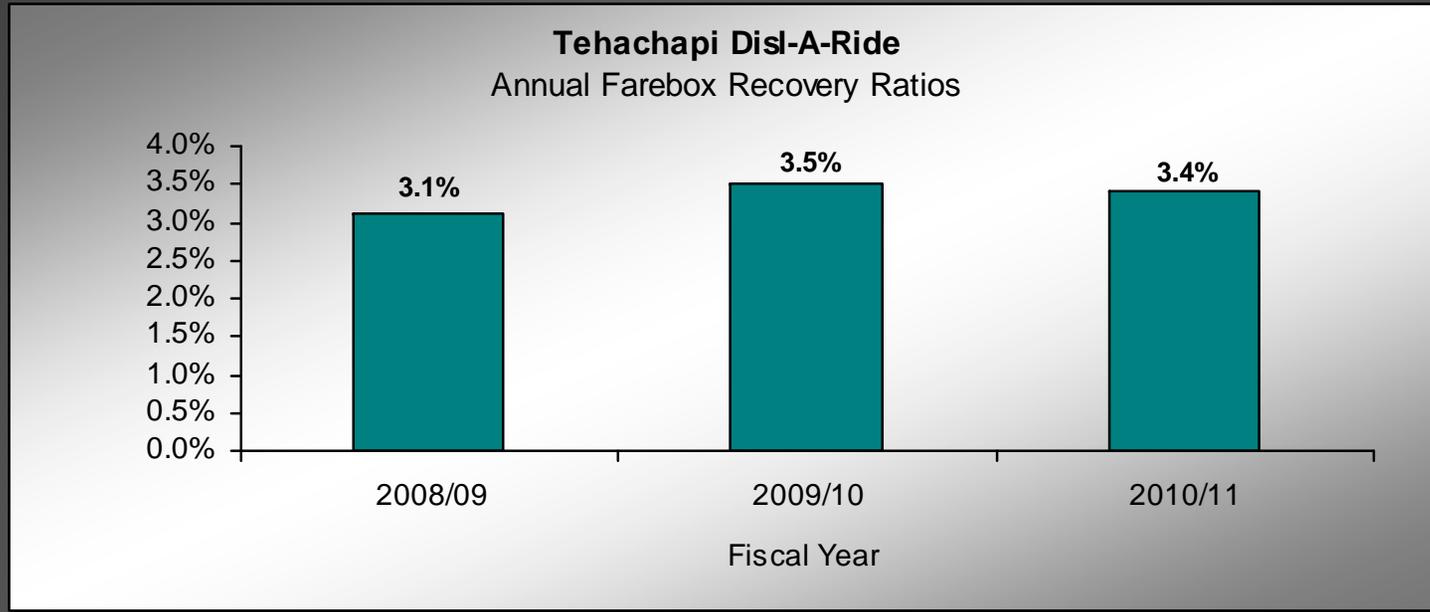
- State requires 10% of cost of service to be paid through passenger fares

$$\text{fares} \div \text{operating expenses} = \text{fare box ratio}$$



- The City and Kern Regional Transit have worked diligently over the past few years to aggressively control costs
- The Tehachapi Dial-a-Ride Service generates less than 4% of the cost of the service from fares
- Failure to maintain the 10% requirement can lead to loss of transit funding

Annual Fare Box Ratios



Annual fare box ratios have remained near 3% over the past 3 years. However, as the result of the increase in ridership, fare revenue has increased 21% during this same period.

Surveys

- Passenger surveys on Dial-a-ride buses

Key Issues and Challenges

- Need to increase ridership
- Increase fare box revenue
- Attain required 10% fare box ratio

*“Challenging times yield
spectacular results”*

Next Steps

- Complete evaluation of current services
- Consider options for service adjustments
- Determine strategic changes needed to meet fare box ratio
- Prepare 5-year operating and capital plans
- Release Draft Transit Plan for public review and comment in April

Thank you

- Please be sure you have signed in
- And if you have additional comments, please feel free to complete one of the comment cards
- Any additional comments or suggestions, please contact:

Charles Clouse, AICP, PTP

TPG Consulting

559.739.8072

cclouse@tpgconsulting.net

COUNCIL REPORTS

AGENDA SECTION: AIRPORT MANAGER REPORTS

MEETING DATE: NOVEMBER 19, 2012

APPROVED
DEPARTMENT HEAD: 
CITY MANAGER: 

TO: HONORABLE MAYOR GRIMES AND COUNCIL MEMBERS

FROM: TOM GLASGOW, AIRPORT MANAGER

DATE: NOVEMBER 14, 2012

SUBJECT: NON-COMMERCIAL HANGAR GROUND LEASE 05W

Background:

Mr. Kenneth Hetge recently purchased Hangar 05W located at the Tehachapi Municipal Airport. Mr. Hetge is requesting a new Non-Commercial Hangar Ground Lease.

Fiscal Impact:

Monthly hangar ground lease fee will be \$36.06

Recommendation:

Approve the Non-Commercial Hangar Ground Lease between Mr. Kenneth Hetge and the City of Tehachapi for Hangar 05W.

NONCOMMERCIAL HANGAR GROUND LEASE AGREEMENT

(Tehachapi Airport) 05W

THIS LEASE AGREEMENT, hereinafter referred to as this "Lease", is made and entered into this 19th day of **November, 2012**, by and between the CITY OF TEHACHAPI, hereinafter referred to as "LESSOR", and **Kenneth R. Hetge and/or Della Dusel-Hetge**, a husband and wife, hereinafter referred to as "LESSEE".

IN CONSIDERATION OF THE MUTUAL COVENANTS CONTAINED HEREIN, THE PARTIES HERETO AGREE AS FOLLOWS:

1. **PREMISES:**

LESSOR does hereby demise and lease to LESSEE, and LESSEE hereby hires from LESSOR, those certain premises situated in the City of Tehachapi, County of Kern, State of California, hereinafter referred to as the "premises" or "demised premises", and more particularly delineated on Exhibit A, attached hereto and by this reference made a part hereof.

2. **TERM:**

The term of this Lease shall be for 20 years, commencing on **November 19th, 2012**, and terminating on **November 19th, 2032** (the "Initial Term"). LESSEE is hereby granted option to renew the LEASE for an additional term of five years from the expiration of the Initial Term, and for a second additional term of five years, provided LESSEE gives LESSOR written notice of LESSEE'S exercise of its option to do so no more than 180 days and no less than 30 days prior to the expiration of the Initial Term or the first additional term, whichever applies. In the event LESSEE exercises its option to

renew the Lease, the renewal shall be on the same terms and conditions as described in this Lease except for rental and as to the rental to be charged, same shall be calculated based on the rental rate or rental formula then in effect by the LESSOR for new noncommercial hangar ground leases. In addition, the rental terms for the renewal period shall include requirements for such increases as is then required by the LESSOR for new noncommercial hangar ground leases.

3. **HOLDING OVER:**

In the event LESSEE shall hold over after the term herein granted with the expressed or implied consent of LESSOR, such holding over shall be a tenancy only from month to month at twice the rental rate then charged for noncommercial hangar ground leases; provided, however, that if LESSEE is otherwise in default under this Lease at the time of holding over, nothing herein shall expressly or impliedly cure the default and LESSOR shall have all rights to remedy the default in addition to all rights to the increased monthly rental provided for herein.

4. **RENTAL CONSIDERATION:**

As and for rental, LESSEE agrees to pay to LESSOR, the sum of **\$36.06** per month payable in advance on the first day of each month commencing **November 19th, 2012**. On January 1 of each calendar year thereafter, the monthly rental shall increase or decrease for said calendar year by the percentage increase or decrease between the Consumer Price Index (All Urban Consumers) (Base Years 1982-1984=100) for Los Angeles-Anaheim-Riverside CMSA published by the United States Department of Labor, Bureau of Labor Statistics ("Index") which is published immediately preceding the commencement of the prior calendar year and the Index published immediately preceding the commencement of the new calendar year. LESSOR shall notify LESSEE

in writing of said rental increase/decrease prior to January 1. LESSOR shall bill LESSEE monthly for the rental and rental shall be due on the date set forth on the billing and shall be deemed delinquent if not received by that date. Notwithstanding the foregoing, rental may also be increased as described in Paragraphs 15 and 24.

5. **INTEREST:**

If the payments required herein are not paid within fifteen (15) days after they become due, then, in addition to such sums are due, LESSEE shall also pay interest at the rate of ten percent (10%) per month on the unpaid balance or portion thereof, until paid in full.

6. **PURPOSE; NUISANCE:**

(a) The demised premises shall be used by the LESSEE for one or more of the following purposes: aircraft storage, maintenance, repair, restoration, and for the construction of aircraft to be certified in the experimental category; provided that such aircraft are owned or leased by LESSEE or partnership or other business association approved by the City Manager or designated representative in which LESSEE is a member, except for such aircraft permitted on the premises pursuant to an assignment or sublease approved by LESSOR pursuant to Paragraph 24; and provided further, that LESSEE shall conduct no activity for profit or commercial purpose under this lease.

(b) LESSEE shall not do or permit any act or thing to be done upon the premises which constitutes a nuisance or which may disturb the quiet enjoyment of LESSOR or any tenant of LESSOR on adjacent or neighboring property. LESSEE shall abate or cure any nuisance on the demised premises or for which LESSEE is responsible within ten (10) days after written notice thereof from LESSOR. In the event LESSEE has not taken corrective action within ten (10) days, LESSOR may take any action necessary to abate or cure such condition at LESSEE'S sole cost and expense,

without further written notice and LESSOR shall have no liability to LESSEE therefore nor for any damages to the premises or to the hangar or to property therein or thereon. Notwithstanding the foregoing, if any such nuisance creates, in LESSOR'S reasonable determination, a condition immediately hazardous to health or safety, LESSOR may immediately, without written notice to LESSEE, enter the premises to abate or cure the condition at LESSEE'S sole cost and expense and LESSOR shall have no liability to LESSEE therefore nor for any damage to the premises or to the hangar or to property therein or thereon.

(c) The use of combustible chemicals or cleaning solvents, stripping or painting, or welding or repair to any aircraft on the demised premises are allowed only to the extent permitted under all applicable federal, state and local regulation governing the use of hazardous materials and equipment, and only in a manner consistent with such regulation.

7. CONDITION OF PREMISES:

LESSEE has inspected the demised premises and knows the extent and condition thereto and accepts same in its present condition, as is, subject to and including all defects, latent and/or patent.

8. SAFETY:

Any area that is within the control of the LESSEE at the airport shall be kept clear of accumulation of oil, grease, fuel, trash and debris which are potential fire, environmental, or safety hazards, and LESSEE shall comply with all local, state and federal laws, statutes, rules and regulations with regard thereto.

9. ALTERATIONS:

LESSEE shall not construct any improvements or make any alterations of any kind (whether permanent or otherwise) on the demised premises without the written

consent of the City Manager or designated representative first being obtained..

10. **SIGNS:**

LESSEE shall not construct or place or permit to be constructed or placed, signs, awnings, marquees, or other structures projecting from the exterior of the premises without LESSOR'S prior written consent thereof. LESSEE further agrees to remove signs, displays, advertisements, or decorations it has placed or permitted to be placed on the premises, which, in LESSOR'S opinion are offensive or otherwise objectionable. If LESSEE fails to remove such signs, displays, advertisements or decorations within ten (10) days after having received written notice to remove same from LESSOR, LESSOR reserves the right to re-enter the premises and remove them at LESSEE'S expense.

11. **UTILITY EXTENSION OR MODIFICATION:**

LESSEE shall pay any and all expenses that may be incurred in obtaining the extension of public utility services to the demised premises from existing facilities or any modification of same.

12. **UTILITIES:**

LESSEE agrees to pay during the term of this Lease, or any holding over, all utilities used by LESSEE. The term "utilities" as used herein shall include, but is not limited to, gas, electricity, water, sewer, telephone, and trash and refuse disposal service.

13. **MAINTENANCE:**

LESSEE agrees to provide maintenance, repair, and upkeep on any structures situated on the demised premises and any grounds around the structures in a good, clean, sanitary, and safe condition.

14. **FAILURE TO REPAIR:**

In the event LESSEE shall fail, neglect, or refuse to commence the repair or

maintenance work required herein within ten (10) days after receipt of a written notice service by LESSOR, or in the event that LESSEE fails, neglects or refuses to pursue said repair or maintenance work with reasonable diligence to completion, LESSOR may perform or cause to be performed such repair or maintenance work and add the cost thereof to the installments of rent due for this Lease as a charge to LESSEE.

15. **SALE OR REMOVAL OF IMPROVEMENTS:**

(a) Unless otherwise agreed upon by the parties hereto, if LESSEE desires to sell or otherwise transfer any or all buildings, hangars and other improvements (the "Improvements") made to or constructed and placed on the premises during or prior to the term of this Lease, or any extensions thereof, LESSOR shall have a right of first refusal (the "Right of First Refusal") to purchase the improvements and the LESSEE shall give LESSOR a notice in writing at least thirty (30) days before such sale or transfer of the terms of same (the "Lessee Notice"). Any sale or transfer or agreement to sell or transfer the Improvements without LESSEE first complying with the requirements of LESSOR'S Right of First Refusal shall be void and, in addition thereto, shall constitute a breach and material default of this Lease. If LESSEE has received an offer to purchase the Improvements that LESSEE is prepared to accept, the Lessee Notice shall contain a complete copy of the offer (the "Offer"), or if LESSEE does not have any such Offer but nevertheless wishes to sell or transfer the Improvements to a third party, the Lessee Notice shall include all of LESSEE'S terms and conditions for such sale or transfer. Lessor's Right of First Refusal to purchase the Improvements shall be under the same terms and conditions as described in the Lessee Notice. The Lessee Notice shall be personally delivered or mailed to LESSOR by registered mail, return receipt requested. LESSOR shall have thirty (30) days from receipt of the Lessee Notice in which to exercise its Right of First Refusal (the "Exercise Period"). If LESSOR wishes to

exercise its Right of First Refusal, LESSOR shall do so in writing to LESSEE prior to expiration of the Exercise Period, provided however that if the Exercise Period terminates on a weekend or holiday, the Exercise Period shall be extended to 11:59 p.m. (California time) on the next business day thereafter. In the event LESSOR exercises its Right of First Refusal, LESSOR shall complete the purchase of the Improvements within a reasonable time thereafter. If LESSOR does not exercise its Right of First Refusal, LESSEE shall have the right, only for the next sixty (60) days, to complete the sale or transfer of the improvements to the offer or of the offer, or, if none, to any other third party under the same terms and conditions as described in the Lessee Notice, provided however that if the sale or transfer is not completed within sixty (60) days of the expiration of the Exercise Period or if the terms and conditions of the sale or transfer are modified, then LESSOR'S Right of First Refusal shall be revived and LESSEE shall once again give LESSOR the Lessee Notice containing the terms and conditions or, if applicable, the revised terms and conditions of the sale or transfer and LESSOR shall have all rights with regard thereto previously described herein. LESSEE shall not place a lien or otherwise encumber the Improvements as part of any sale or transfer without LESSOR'S prior written consent, which consent may be denied or conditioned in LESSOR'S sole and absolute discretion. If a sale is completed during the term of this Lease, no assignment or subletting of this Lease or of the premises shall occur without compliance with Paragraph 24 and, additionally, LESSOR shall have the right to increase the rental to the rental then being charged by LESSOR for new noncommercial hangar ground leases as then determined by LESSOR. Notwithstanding the foregoing, if the purchaser of the Improvements requests a new Lease, LESSOR may, in LESSOR'S sole and absolute discretion, enter into a new Lease with the purchaser.

(b) If at the termination of this Lease a new Lease has not been entered into by the parties or their successors, then LESSEE shall remove the Improvements and all fixtures and contents therein no later than 30 days after the expiration of the Lease Term without unnecessary damage to the premises and during the 30 day period after expiration of the Lease Term LESSEE shall pay rental to Lessor as a holdover tenant pursuant to Paragraph 3 of this Lease. If LESSEE does not effect such removal, LESSOR shall have the right to do so and LESSEE shall be obligated to LESSOR for the costs thereof; provided, however, that all right, title and interest in and to the Improvements without their removal may be acquired by LESSOR upon terms and conditions mutually agreeable to both LESSOR and LESSEE. Notwithstanding the foregoing, if LESSEE has failed to effect the removal as required herein and LESSOR and LESSEE have not agreed upon the terms by which LESSOR would acquire the Improvements, LESSEE shall be in breach of this Agreement and LESSOR shall have all rights described in Paragraph 28 of this Lease with regard thereto.

16. **COMPLIANCE WITH LAW:**

LESSEE shall, at its expense, promptly comply with any and all laws, ordinances, rules, regulations, requirements and orders whatsoever, present or future, of the national, state, county, or city governments which may in any way apply to the use, maintenance, or occupation of, or operations on the demised property.

17. **RIGHT OF INSPECTION:**

LESSOR shall have the right to enter upon the demised premises at all reasonable times to inspect the premises and LESSEE'S operations thereon. LESSOR reserves all rights in and with respect to the premises, not inconsistent with LESSEE'S use of the premises as in the Lease provided, including (without limiting the generality of the foregoing) the right of LESSOR to enter upon the premises for the purpose of

installing, using, maintaining, renewing, and replacing such underground oil, gas, water, sewer, and other pipelines, and such underground or aboveground telephone, telegraph, and electric power conduits or lines as LESSOR may deem desirable in connection with the development or use of the demised premises or any other property on the airport or in the neighborhood of the premises. LESSOR shall compensate LESSEE for any and all damage to LESSEE'S improvements and personal property caused by the exercise of the rights reserved in this paragraph.

18. **INDEMNIFICATION:**

LESSEE agrees to indemnify, defend (upon request by the LESSOR) and save harmless the LESSOR, its Council persons, agents, officers and employees, and each of them, from any and all losses, costs, expenses, claims, liabilities, actions, and damages, including liability for injuries to person or persons, or damage to property of third persons arising out of or in any way connected with (a) the LESSEE'S use, occupancy and/or operation of the demised premises during the term of this Lease or any holding over, and (b) the construction or the removal of any facilities or improvements on the demised premises during the term of this Lease or any holding over.

19. **WORKERS COMPENSATION:**

LESSEE agrees to observe and obey the Workers' Compensation Act of the State of California as from time to time amended, and will indemnify and save and hold harmless LESSOR from any and all liability hereunder.

20. **LIABILITY INSURANCE:**

LESSEE, in order to protect LESSOR, its agents, officers and employees, against all claims and liability for death, injury, loss, and damage as a result of LESSEE'S use, occupancy and/or operation of the demised premises or in a connection

therewith, shall secure and maintain in force during the entire term of this Lease and covering all LESSEE'S operations and activities on the airport, a Comprehensive General Liability insurance policy in the amount of \$ 500,000 with a reliable insurance carrier approved by the City and authorized to do such public liability and property damage insurance business in the State of California. Said policies of insurance:

(a) shall expressly name LESSOR, Council persons, agents, officers, and employees as additional insured; and

(b) shall be primary insurance as regards any other valid and collectible insurance LESSOR possesses, and any other insurance that LESSOR may possess shall be considered excess insurance only; and

(c) shall contain a Severability of Interest or cross liability clause, which is to say, such policy shall act as though a separate policy were written for each insured and additional named insured in the policy; and

(d) shall not be subject to cancellation and/or coverage reduction without thirty (30) day's prior written notice to LESSOR.

Within ten (10) days from the date of the Lease, LESSEE shall file with the City Manager a duly certified Certificate of Insurance evidencing that the hereinabove mentioned public liability and property damage (and hangar-keeper liability, where applicable) provisions have been complied with, and setting forth that LESSOR, its councilpersons, agents, officers, and employees are named as additional insured. In the event that LESSEE shall fail to obtain or thereafter maintain such policies or to furnish evidence thereof to LESSOR, LESSOR may, in LESSOR'S sole discretion, (1) procure the same, pay the premium therefore, and collect same with the next payment of rental due from LESSEE, or (2) terminate this Lease pursuant to Paragraph 28 hereof.

21. **TAXES AND ASSESSMENTS:**

LESSEE agrees to pay all taxes and/or assessments levied by any governmental agency upon any interest acquired by LESSEE under the terms of this Lease. Providing further, that LESSEE is aware that certain possessory interests may be created by entering into this Lease and that LESSEE will be subject to the payment of property taxes levied on such interests.

22. LEASE SUBORDINATE TO AGREEMENTS WITH UNITED STATES

GOVERNMENT:

This Lease shall be subordinate to the provisions and requirements of any existing or future agreements between the LESSOR and the United States relative to the development, operation or maintenance of the Airport.

23. AERONAUTICAL RESTRICTIONS:

(a) There is hereby reserved to LESSOR for the use and benefit of the public a right of flight for the passage of aircraft in the air space above the surface of the demised premises. This public right of flight shall include the right to cause in said air space any noise inherent in the lawful operation of any aircraft used for navigation or flight through the said air space or landing at, taking off from, or operation on the Tehachapi Airport.

(b) LESSEE shall not erect or permit the erection of any structure, building, or object of natural growth or other obstructions on the demised premises above the maximum elevation permitted by the Federal Aviation Administration. In the event the aforesaid covenant is breached, same shall be deemed a nuisance and a material breach of this Agreement and City shall have all rights described under Paragraph 6 (b) to abate the nuisance and City shall have all other rights and remedies available at law or in equity.

(c) LESSEE shall not make use of the demised premises in any manner, which might interfere with lawful air navigation and communication, the landing or taking off of aircraft from Tehachapi Airport, or otherwise constitute an airport hazard. In the event the aforesaid covenant is breached, LESSOR reserves the right to enter on the demised premises and cause the abatement of such interference at the expense of LESSEE.

(d) LESSOR reserves the right to further develop or improve the landing area at the Tehachapi Airport as it sees fit regardless of the desires or views of LESSEE, and without interference or hindrance.

(e) LESSOR reserves the right, but shall not be obligated to LESSEE, to maintain and keep in repair the landing area at the Tehachapi Airport and all publicly owned facilities at the airport, together with the right to direct and control all activities of the LESSEE in this regard. Provided, however, that in the event of the taxiways or runways at the airport are determined to be unfit for aeronautical use by the Federal Aviation Administration or by LESSOR or by the Aeronautical Division of the California Department of Transportation, or the airport ceases to be operated as an airport, then this Lease may be terminated by LESSEE, at its option, by its giving of at least thirty (30) days written notice thereof LESSOR.

(f) Nothing herein contained shall be construed to grant or authorize the granting of an exclusive right within the meaning of Section 308 of the Federal Aviation Act.

24. **SUBLETTING:**

(a) LESSEE shall not assign this Lease or sublet the premises, or any part thereof, without the prior written consent of the LESSOR, which consent shall not be unreasonably withheld but may be reasonably conditioned to include but not be limited

to the following:

- (i) Any assignment or sublease shall be in writing and shall provide that the assignee or sublessee shall agree to and be bound by all of the terms and conditions of the Lease;
- (ii) The assignee or sublessee shall secure and maintain in force during the entire term of such sublease or assignment a liability insurance policy or policies in conformity with the requirements of Paragraph 20, Liability Insurance, with respect to any aircraft hangared on the premises that are owned by sublessee or assignee or other third party; and
- (iii) A rental adjustment, which shall be, based on the rental then in effect by LESSOR for new noncommercial hangar ground leases.

(b) In the event of an attempted assignment or subletting in violation of the foregoing provisions, then in addition to any and all other rights and remedies available to it, the LESSOR may, at its option, by written notice to the LESSEE, either (1) declare such sublease, assignment, transfer, mortgage, or other conveyance void, or (2) terminate this Lease and all rights and interest of LESSEE and all other persons hereunder pursuant to Paragraph 28. Any consent by the LESSOR to any assignment or sublease, shall not be deemed, or construed as a consent to any different or subsequent assignment or sublease. The remedies available herein are cumulative with all other remedies available under this Lease or at law or in equity and the exercise of any remedy herein or under this Lease or at law or in equity shall not prevent the exercise of any other remedy provided herein or in this Lease or at law or in equity.

25. RIGHT OF INGRESS AND EGRESS:

LESSEE shall have the reasonable right-of-way over property owned and

controlled by LESSOR for ingress thereto and egress there from for pedestrian, vehicular, and air travel, together with the right to use in common with other LESSEE'S or licenses or LESSOR the airplane landing field adjacent to the demised premises. None of these rights are exclusive but shall be exercised in common with and subject to possible similar rights of other users of the airport. All the forgoing is subject to such reasonable rules and regulations as the LESSOR or its authorized agents may make from time to time. Such rules and regulations, however, shall be reasonable and shall not conflict in any way with similar rules and regulations adopted from time to time by the Federal Aviation Administration or its successor.

26. **BANKRUPTCY:**

In the event that (a) LESSEE shall file a voluntary petition in bankruptcy or shall be adjudged a bankrupt in any voluntary bankruptcy proceeding; (b) any voluntary or involuntary proceeding for the reorganization of LESSEE shall be instituted by anyone other than LESSEE under any of the provisions of the bankruptcy laws of the United States; or (c) a receiver or judicial trustee or custodian shall be appointed for LESSEE, or any lien or any writ of attachment, garnishment, execution or distraint shall be levied upon any LESSEE'S rights or interest under this Lease; or (d) there shall be any other assignment of any LESSEE'S rights or interests under this Lease by operation of law, then in addition to any and all other rights and remedies available to it, LESSOR may, at its option by written notice to LESSEE, terminate this Lease and all rights and interest of LESSEE and all other persons under this Lease. The term "LESSEE", as used in this paragraph, includes any individual, partnership, or corporation who is a LESSEE hereunder, even though several individuals, partnership, or corporations are such, and includes each partner of any partnership, which is LESSEE hereunder.

27. **WAIVER OF BREACH:**

The waiver by LESSOR of any breach by LESSEE of any provision contained herein shall not be deemed to be a continuing waiver of such provision, or a waiver of any other prior or subsequent breach thereof, or a waiver of any breach of any other provisions contained herein.

28. **BREACH:**

(a) In the event of a breach by LESSEE of any term, condition, or agreement herein contained, LESSEE shall have 30 days to cure the breach after written notice has been given to LESSEE by LESSOR, provided however that if any such breach cannot be reasonably cured within 30 days of such notice, then LESSEE shall have commenced reasonable efforts to cure same within said period. In the event of LESSEE'S failure to cure or commence the cure of any such breach within 30 days this Lease and all privileges herein granted shall be terminated and be of no further force or effect, and LESSEE shall immediately surrender to LESSOR possession of the premises, and in addition to all other remedies available to LESSOR hereunder or at law or equity, LESSOR shall have the remedies either to remove the Improvements on the premises at the expense of LESSEE or retain the Improvements and to thereafter be the sole and exclusive owner of same. Notwithstanding the foregoing, in the event LESSEE allows a nuisance to exist on the premises as described in Paragraph 6 of this Lease, LESSEE shall abate the nuisance as required therein, and nothing herein shall be deemed to waive or modify the requirements and remedies described in Paragraph 6. Providing further, that in the event LESSEE breaches this Lease and abandons the property before the end of the term, if LESSEE'S right to possession is terminated by LESSOR because of breach of this Lease, LESSOR shall have the right to recover damages from LESSEE as provided in the State of California Civil Code Section 1951.2.

(b) In the event of a breach by LESSOR of any term, condition, or agreement

herein contained, that deprives LESSEE in any manner, in whole or part, of its quiet enjoyment of the demised premises or its right to utilize them fully as described in Paragraph 6 hereof, or of its rights of ingress and egress described in Paragraph 25 hereof, LESSEE shall not be obligated to LESSOR for any rental payments otherwise due and payable for the period of such breach.

29. NEGATION OF PARTNERSHIP:

LESSOR shall not become or be deemed a partner or joint venture with LESSEE or in any other relationship with LESSEE other than that of landlord and tenant by reason of the provisions of this Lease nor shall LESSEE for any purpose be considered an agent, officer, or employee of LESSOR.

30. SURRENDER OF PREMISES:

On the last day of the term, or extension thereof, or sooner termination of this Lease, and subject to the rights and remedies of LESSOR and LESSEE described in Paragraph 15 hereof, LESSEE shall peaceably and quietly leave, surrender and yield up to the LESSOR the demised premises in as good condition and repair as at the commencement of LESSEE'S occupancy, reasonable wear and tear thereof excepted.

31. ENTIRE AGREEMENT:

This Lease contains all agreements of the parties with respect to the subject matter described herein. No prior agreements or understandings whether oral or in writing pertaining to any such matter shall be effective or of any force or effect.

32. VENUE AND GOVERNING LAW:

This agreement is made, entered into and is to be performed in Kern County, California. This Lease shall be governed by and construed in accordance with the laws of the State of California.

33. COVENANTS AND CONDITIONS:

Each provision of this Lease performable by LESSEE shall be deemed both a covenant and a condition.

34. **TIME OF THE ESSENCE:**

Time is hereby expressly declared to be the essence of this Lease and of each and every provision thereof, and each such provision is hereby made and declared to be a material, necessary and essential part of this Lease.

35. **SEVERABILITY:**

If any provision of this Lease is determined by a Court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions shall in no way be affected thereby and same shall remain in full force and effect.

36. **AUTHORIZED AGENT OF LESSOR:**

The City Manager of the City of Tehachapi is the duly authorized agent of LESSOR for purposes of this Lease, and as to any obligations assumed herein by LESSEE, they shall be performed to the satisfaction of the City Manager.

37. **NOTICES:**

All notices required or permitted under this Agreement or at law shall be deemed to be given when personally served on the party to be noticed or when deposited in the United States mail, Registered or Certified, postage prepaid and addressed as follows:

TO LESSOR: City Manager
City of Tehachapi
115 South Robinson Street
Tehachapi, Ca. 93561

TO LESSEE: **Kenneth R. Hetge
Della Dusel-Hetge
20251 Woodford-Tehachapi Road
Tehachapi, CA 93561**

Any party may change its or their address by providing notice of same in the manner herein prescribed.

38. **BINDING:**

This Lease shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, successors, and assigns.

39. **CAPTIONS:**

The captions appearing in this Lease are for convenience only, are not part of this Lease, and shall not be considered in interpreting this Lease.

40. **AMENDMENTS:**

This Lease may not be altered, amended, or modified except by a writing executed by duly authorized representatives of all parties.

41. **ATTORNEY'S FEES:**

In the event any action or proceeding is instituted arising out of or relating to this Lease or for the purpose of enforcing this Lease, the prevailing party shall be entitled to its reasonable attorney's fees and actual costs.

42. **RECORDATION:**

LESSEE acknowledges its understanding that the law of the State of California authorizes LESSOR to record this Lease or a memorandum of same. In that regard, LESSEE agrees to execute a memorandum of this Lease for the purposes of recordation in such reasonable form and content as may be proposed by Lessor.

43. **COUNTERPARTS:**

This Lease may be executed in counterparts and the respective signature pages for each party may thereafter be attached to the body of this Lease to constitute one integrated agreement which is as fully effective and binding as if the entire Lease had been signed at one time.

IN WITNESS WHEREOF, the parties have hereunto set their hands the day and year first above written.

LESSOR:

LESSEE:

CITY OF TEHACHAPI

By: _____

ED GRIMES

Mayor of the City of Tehachapi, California

By: _____

Kenneth R. Hetge

By: _____

Della Dusel-Hetge

EXHIBIT A



HANGAR 05W

TEHACHA

N Hayes St

Bryan Ct

N Mojave St

Commercial Way

N Davis St

E J St

© 2012 Google

Bill of Sale

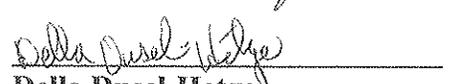
1. **PROPERTY DESCRIPTION:** A Port-a-Port hangar located on the Tehachapi City Airport and identified as building #5W.
2. **SELLER:** Mr. Kevin Judy
3. **BUYER:** Kenneth R. Hetge and Della Dusel-Hetge
4. **PURCHASE PRICE:** \$15,000 in immediately available funds consisting of \$1,000 down, which is fully refundable if the City of Tehachapi exercises their option of "right of first refusal". The remaining \$14,000 will be paid immediately to seller once Buyer and Seller receives written conformation that the City opts not to purchase the hangar. Buyer agrees to pay, on a pro-rata basis, the 2012 - 2013 property tax bill for the hangar. Gas generator and air compressor are included with purchase.
5. **TERMS AND CONDITIONS:** Sale of hangar is 'as is, where is'. Seller has guaranteed that no liens or encumbrances exist on hangar.
6. **DATE OF PURCHASE** October 22, 2012

Let it be known that as of this date, the Seller agrees to sell and the Buyer agrees to buy the above described property in accordance with the above described conditions. The Seller shall have no further interest in the aforementioned property and the Buyer is responsible for all rents, fees and utilities after the close date.

In agreement, this 20 day of June, 2012, in the City of Tehachapi, in the County of Kern.

Seller:  Date: 10/23/12
Kevin Judy

Buyer:  Date: 10/23/12
Kenneth R. Hetge

 Date: 10/23/12
Della Dusel-Hetge

ASSIGNMENT OF HANGAR GROUND LEASE

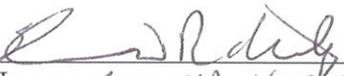
THIS ASSIGNMENT made this 23 day of October, 2012 by and between KEVIN JUDY (the "Assignor") and KENNETH HETGE (the "Assignee") who agree as follows:

1. **Assignment.** Subject to the consent of the City of Tehachapi, Assignor hereby assigns to Assignee all of its right, title, and interest in and to that certain hangar ground lease dated 7 June, 2010, between the City of Tehachapi as Lessor and Assignor herein as Lessee, a copy of which is attached hereto as Exhibit "A" and by this reference made a part hereof (the "Lease"). Assignee hereby accepts this assignment and agrees to assume all of the obligations of Assignor under the Lease and agrees to be bound by all of the terms and conditions of same.

2. **Counterparts.** This Assignment may be executed in counterparts.

WHEREFORE, the parties have executed this Assignment on the date first hereinabove written.


Name: KEVIN JUDY, "Assignor"


Name: KENNETH R. HETGE, "Assignee"

CONSENT TO ASSIGNMENT

The undersigned, on behalf of the City of Tehachapi, hereby consents to the foregoing Assignment.


AIRPORT MANAGER

Bill of Trade
20 October, 2012

I Tim Schaubsluger am trading my 50% ownership of T Hangar 05W at Tehachapi Municipal Airport (KTSP) for Kevin Judy's 50% ownership in Cessna 172M N12650. No cash is being exchanged.

Said Hangar 05W has been owned jointly since 2010, said Aircraft has been owned jointly since 2004.

As a result of this transaction, said aircraft is the sole property of Tim Schaubsluger, 13537 Jay Drive, Twin Oaks, California, and said hangar is the sole property of Kevin Judy, 23680 Reindeer Drive, Tehachapi, California.

Tim Schaubsluger agrees to be responsible for any and Taxes, insurance and any other liabilities associated with Cessna N12650, and Kevin Judy agrees to be responsible for Taxes, lease payments, insurance and any other liabilities associated with Hangar 05W.


Tim Schaubsluger


Kevin Judy

ASSIGNMENT OF HANGAR GROUND LEASE

THIS ASSIGNMENT made this 20 day of October, 2012 by and between Tim Schaub Schlager (the "Assignor") and KEVIN JUDY (the "Assignee") who agree as follows:

1. **Assignment.** Subject to the consent of the City of Tehachapi, Assignor hereby assigns to Assignee all of its right, title, and interest in and to that certain hangar ground lease dated 7 June, 2010, between the City of Tehachapi as Lessor and Assignor herein as Lessee, a copy of which is attached hereto as Exhibit "A" and by this reference made a part hereof (the "Lease"). Assignee hereby accepts this assignment and agrees to assume all of the obligations of Assignor under the Lease and agrees to be bound by all of the terms and conditions of same.

2. **Counterparts.** This Assignment may be executed in counterparts.

WHEREFORE, the parties have executed this Assignment on the date first hereinabove written.


Name: Tim Schaub Schlager, "Assignor"


Name: KEVIN JUDY, "Assignee"

CONSENT TO ASSIGNMENT

The undersigned, on behalf of the City of Tehachapi, hereby consents to the foregoing Assignment.


AIRPORT MANAGER





COUNCIL REPORTS

AGENDA SECTION: PUBLIC WORKS

MEETING DATE: NOVEMBER 19, 2012

APPROVED
DEPARTMENT HEAD:
CITY MANAGER:

[Handwritten signatures and initials are present over the form.]

TO: HONORABLE MAYOR GRIMES AND COUNCIL MEMBERS

FROM: DENNIS WAHLSTROM, PUBLIC WORKS DIRECTOR

DATE: NOVEMBER 13, 2012

SUBJECT: EDISON AGREEMENT

BACKGROUND

Southern California Edison is asking municipalities to enter into an agreement with them concerning use of their poles to place signage. The language of the agreement is straight forward and is safety and liability driven. It is basically a set of standards of what size sign can be placed, how it should be fastened and what type of pole signs can go on. The terms of this agreement have no fiscal impact to the City of Tehachapi and will affect the way we do business now or in the future.

RECOMMENDATION

APPROVE AND AUTHORIZE THE MAYOR TO SIGN THE AGREEMENT WITH SOUTHERN CALIFORNIA EDISON.

LICENSE AGREEMENT

THIS LICENSE AGREEMENT (this "License Agreement), is made and entered into this 19th day of November, 2012 by and between SOUTHERN CALIFORNIA EDISON COMPANY, a California corporation, (hereinafter called "Company") and the City of Tehachapi, a political subdivision of the State of California, (hereinafter called "City").

WHEREAS, City has jurisdiction of certain streets and highways and has the right to regulate the use of such highways.

WHEREAS, Company has installed Company-owned composite, concrete, and steel street light poles ("Poles") at various locations within said City at the request of City.

WHEREAS, City desires a license to place non-electrified traffic regulating signs, American flags, and Neighborhood Watch signs, banners and related appurtenances on said Poles.

WHEREAS, Company shall permit City to install non-electrified traffic regulating signs, American flags, and Neighborhood Watch signs, banners and related appurtenances on said Poles under this License Agreement.

NOW THEREFORE, in consideration of the mutual understandings and obligations of the parties as hereinafter set forth, Company and City hereby agree as follows:

1. Company hereby, subject to the terms and conditions provided in this License Agreement, licenses and permits City or City's authorized agent to install, maintain, use, repair, renew, and remove non-electrified traffic regulating signs, American flags, Neighborhood Watch signs and other city-sponsored

event banners and related appurtenances (collectively referred to as "Attachments") on the Poles in accordance with the following:

- A. Attachment shall be secured by means of stainless steel straps.
 - B. No holes shall be punched, drilled, or burned in any Poles.
 - C. All attachments shall be mounted so as to provide adequate clearance from traffic, pedestrians, and from all electrical facilities, and secured to Poles to avoid dislodging.
 - D. The total surface area of all Attachments on any one Pole shall not exceed 18 square feet at any one time.
 - E. Banners for use on Poles in high wind areas (90 mph) must be mounted with break-away, or bend-away banner supports.
 - F. No Attachment shall be suspended between Poles or between Poles and structures.
 - G. No Attachment shall be installed on any wooden Poles.
 - H. No Corporate Trademarks, Logos or other corporate identifiers shall be allowed on the City-sponsored banners.
2. Except as otherwise herein provided, the use by City of such Pole as herein provided for shall be without charge. City and/or City's agent shall not derive any revenues in connection with the license issued hereby that exceeds the direct expenses incurred in generating such revenues. City and/or City's agent shall maintain complete and accurate records in accordance with generally accepted methods of accounting for all transactions involving payment from a third-party for placement of an Attachment for three (3) years after the corresponding payment. Company shall have access to such records, upon reasonable notice, for the purposes of audit during normal business hours, for so long as such records are required to be maintained.
3. The Attachments shall be installed and maintained by City, or City's authorized agent, in a safe and workman-like manner in compliance with all

applicable laws, rules, regulations, ordinances, including but not limited to General Order No. 95 of the Public Utilities Commission of the State of California.

4. Should Company, in its sole and absolute discretion, determine that it is necessary to relocate or replace a Pole on which a City-owned Attachment is in place, City or City's agent shall, upon reasonable notice from Company promptly relocate, replace or transfer said Attachment to a substitute Pole, if any, as required at City's sole cost and expense.
5. City shall indemnify and hold harmless Company against all losses, expenses, claims, actions, causes of action, damages, costs or liabilities, directly or proximately resulting from or caused by the installation, placement, use, presence, operation, maintenance, and/or removal of said Attachments on any Poles, as herein provided. The termination of this License Agreement shall not relieve City of any liabilities which occurred prior thereto or which are occurring at that time. This paragraph shall not be construed to impose liability on either the Company or the City, in favor of any third party, unless such liability would have existed in the absence of this paragraph.
6. The failure of Company to enforce any provision of this License Agreement, or the waiver thereof, shall not be construed as a general waiver or relinquishment on its part of any such provisions; however, the same shall nevertheless remain in full force and effect.
7. This License Agreement shall continue in effect for a term of one (1) year from the date hereof and from year to year thereafter, unless terminated sooner. This License Agreement may be terminated by either party hereto by written notice given not less than sixty (60) days prior to the intended termination. In the event of such termination, City shall remove all of said Attachments from the Poles prior to the termination of this License Agreement.

8. This License Agreement shall not be assignable by City.

IN WITNESS WHEREOF, City and Company have executed this License Agreement by and through their respective officers thereunto authorized as of the day and year first herein above written.

CUSTOMER:

COMPANY:

CITY COUNCIL OF THE
CITY OF TEHACHAPI
ACTING FOR AND ON
BEHALF OF THE CITY
OF TEHACHAPI

SOUTHERN CALIFORNIA
EDISON COMPANY

ED GRIMES
Mayor, City of Tehachapi

BY: _____

TITLE: _____

ATTEST:

ATTEST: _____

DENISE JONES, CMC
City Clerk, City of Tehachapi

TITLE: _____

APPROVED AS TO FORM

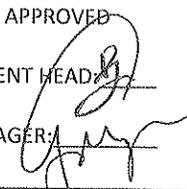
DATE: _____



COUNCIL REPORTS

AGENDA SECTION: COMMUNITY DEVELOPMENT

MEETING DATE: November 19, 2012

APPROVED	
DEPARTMENT HEAD:	
CITY MANAGER:	

TO: HONORABLE MAYOR GRIMES AND COUNCIL MEMBERS

FROM: DAVID JAMES, COMMUNITY DEVELOPMENT DIRECTOR

DATE: NOVEMBER 14, 2012

SUBJECT: REPORT AND POSSIBLE ADOPTION REGARDING CITY OF TEHACHAPI ENERGY ACTION PLAN

BACKGROUND:

The City of Tehachapi, through a partnership with the Kern Council of Governments, received grant funding from Southern California Edison to prepare an Energy Action Plan for the City of Tehachapi. The purpose of this Energy Action Plan (EAP) is to provide a policy framework for decision making regarding energy efficiency measures that result in the reduction of energy consumption and associated greenhouse gases (GHGs) in a manner consistent with the objectives of the CPUC's California Long Term Energy Efficiency Strategic Plan (CEESP) and also in a manner consistent with Assembly Bill 32 (AB 32). AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020. Per guidance from the California Air Resources Board (CARB), local governments can set their 2020 GHG reduction target as equivalent to 15% below baseline levels, where baseline occurs between 2005 and 2008. This EAP and its 2020 GHG reduction target is based on the results of Tehachapi's baseline (2005) energy use and electricity-related GHG emissions.

This Energy Action Plan will be included in the larger Kern Regional Energy Action Plan.

The Energy Action Plan was created using the seven (7) steps described below:

1. Establish a Baseline of existing emissions.
 - A baseline inventory was developed for 2005 and 2010 emissions (Section 5 of the Energy Action Plan)
2. Develop Strategies and Specific Goals.
 - A decision making template was developed by the consultant ESA for the Kern Region Energy Action Plans project to assist with the development potential energy efficiency standards that comply with the requirements of AB 32. (Section 6 of the Energy Action Plan)
3. Develop Potential Energy Efficiency Measures
 - A pre-developed list of energy efficient measures was developed as a part of the Kern Region Energy Action Plans Project. This set of measures was developed after reviewing other municipalities' best practices. (Section 7 of the Energy Action Plan)

4. Create an Implementation Plan.

- The Energy Efficiency Standards developed in Step 3 were prioritized based on the Cost/Benefit Analysis of each standard.
 (Section 8 of the Energy Action Plan)

5. Conduct Outreach and Stakeholder Engagement.

- Kern Council of Governments served as the lead on the outreach and stakeholder engagement. A public meeting was held in Tehachapi on June 13, 2012. Other outreach tools were used including a telephone survey, stakeholder workshops, and an online survey.

6. Review Finance Models and Mechanisms.

- Several financial models and mechanisms were identified that could fund future energy efficiency projects.
 (Section 10 of the Energy Action Plan)

7. Develop Monitoring, Measuring and Verification Plans.

- (Section 10 of the Energy Action Plan)

As stated above, the purpose of the Energy Action Plan is to develop energy efficiency measures to reduce energy consumption and associated greenhouse gases (GHG) within the City of Tehachapi's municipal operations. The measures that are included in this Energy Action Plan were chosen based on five (5) available criteria which are listed by importance: Financial return; Resources required; Energy savings; Ease of Implementation; and Co-benefits.

The measures chosen by the City of Tehachapi are as follows:

Measure Name	Description	Applicable Sector	Affected Departments	Additional Information
Airport Operations Optimization	Increase efficiency of airport operations by retrofitting lighting and reducing set-points of thermostats	Building and Facility Energy	Public Works	See results of Energy Audit for costs and savings
Municipal Building Energy Lighting	Continue to retrofit indoor lighting with more efficient equipment	Building and Facility Energy	All	See results of Energy Audit for costs and savings

Measure Name	Description	Applicable Sector	Affected Departments	Additional Information
Municipal Building HVAC upgrades	Retrofit HVAC units at City facilities to improve energy efficiency	Building and Facility Energy	Public Works	See results of Energy Audit for costs and savings
Municipal building water fixtures	Retrofit water fixtures with more efficient equipment	Building and Facility Energy	Public Works	
Energy efficiency purchasing policy	Develop and implement policy to prioritize purchase of energy-efficient equipment, such as equipment with the Energy Star label.	All	All	
Municipal Green Building Requirement	Require all new city buildings to achieve 15% above Title 24 requirements	Buildings and Facilities	All	
Municipal EV Program	Continue to purchase and use EVs for municipal operations	All	All	
Renewable energy installation	Review financing opportunities for solar panels and conduct feasibility analysis of rooftops	All	All	
Street light upgrades	Consider retrofitting city-owned decorative lighting with more efficient fixtures	Infrastructure Energy	Public Works	See results of Energy Audit for costs and savings
Plug load management	Optimize server operation and consider replacing servers with virtual servers. Consider other installing software to automatically control power settings of computers.	Buildings and Facilities	All	
Municipal building benchmarking	Continue to utilize USEPA's Portfolio Manager to track and reduce energy consumption in Municipal facilities and infrastructure.	All	All	The City has begun benchmarking of three buildings

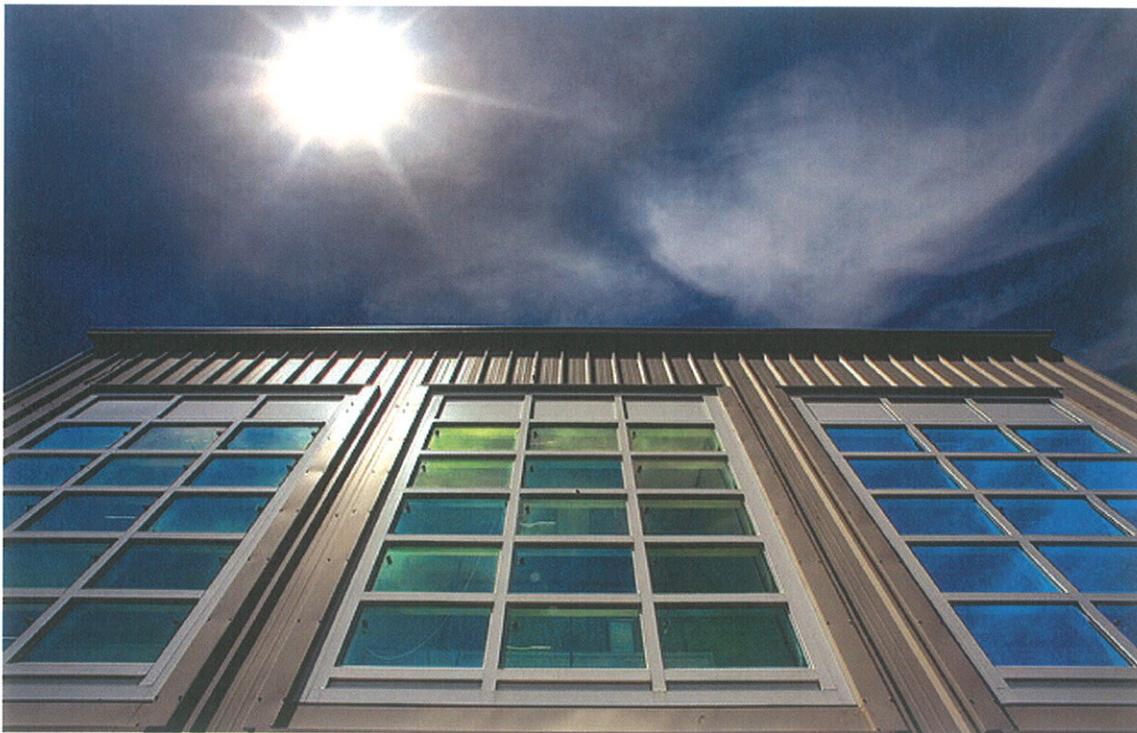
Measure Name	Description	Applicable Sector	Affected Departments	Additional Information
Potable water conveyance equipment upgrades	Upgrade water conveyance equipment to more efficient technologies, including variable frequency drives and premium efficiency motors.	Infrastructure Energy	Public Works	Some pump tests and upgrades have been completed

RECOMMENDATION:

Staff recommends the City Council of Tehachapi adopt the City of Tehachapi Energy Action Plan as reflected in Exhibit A.

Kern Region Energy Action Plan – DRAFT

City of Tehachapi Municipal Energy Action Plan



Prepared for:
City of Tehachapi, CA

Prepared by:
Kern Regional Energy Action Plans Project
Environmental Science Associates and DNV KEMA
November 2012

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City of Tehachapi Staff

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"The City of Tehachapi will serve as an example to the region as a leader in energy efficient design, energy efficiency, community engagement, and sustainability, and contribute to the economic and cultural vitality of Kern County"



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Abbreviations and Acronyms

AB 32	Assembly Bill 32
ABS	Automatic Benchmarking Service
ACEEE	American Council for an Energy-Efficient Economy
CALGreen	California Green Building Code
CAP	Climate Action Plan
CARB	California Air Resources Board
CBECS	U.S. Commercial Buildings Energy Consumption Survey
CCAR	California Climate Action Registry
CEC	California Energy Commission
CEESP	California Long Term Energy Efficiency Strategic Plan
CEQA	California Environmental Quality Act
CH ₄	Methane
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
CPUC	California Public Utilities Commission
DOE	U.S. Department of Energy
EAP	Energy Action Plan
ECM	Energy Conservation Measure
EECBG	Energy Efficiency and Conservation Block Grant
ELP	Energy Leader Partnership
ESCO	Energy Service Company
GHG	Greenhouse Gas
GWP	Global Warming Potential
HUD	Department of Housing and Urban Development
HVAC	Heating, Ventilation, and Air Conditioning
ICLEI	Local Governments for Sustainability
IPCC	Intergovernmental Panel on Climate Change
Kern COG	Kern Council of Governments
Kern REAP	Kern Region Energy Action Plans
KPI	Key Performance Indicator
kWh	Kilowatt-hour
LED	Light Emitting Diode
LEED	Leadership in Energy and Environmental Design
LGOP	Local Government Operations Protocol
MGD	Million Gallons per Day
MT	Metric Tons
NEPA	National Environmental Policy Act
N ₂ O	Nitrous oxide

NPV	Net Present Value
O&M	Operations and Maintenance
PACE	Property Assessed Clean Energy
PG&E	Pacific Gas and Electric Company
PV	Photovoltaic
ROI	Return on Investment
SCE	Southern California Edison
SCGC	Southern California Gas Company
SCS	Sustainable Communities Strategy
SEP	Statement of Energy Performance
SGC	Strategic Growth Council
TOU	Time-of-use
USEPA	United States Environmental Protection Agency
WWTP	Wastewater Treatment Plant

Glossary of Terms

Assembly Bill 32 (AB 32), California Global Warming Solutions Act of 2006

Establishes a comprehensive program of regulatory and market mechanisms to achieve real, quantifiable, cost-effective reductions of greenhouse gases for the state of California. Makes the California Air Resources Board responsible for monitoring and reducing statewide greenhouse gas emissions, with a target to reduce emissions to 1990 levels by 2020.

Automated Benchmarking Service

This free service from SCE is available on the ENERGY STAR® Portfolio Manager website and allows entities to seamlessly upload energy data into their ENERGY STAR® Portfolio Manager account. This data is necessary to generate an ENERGY STAR® rating and other building metrics. For more information on the Portfolio Manager tool, see ENERGY STAR Portfolio Manager.

Baseline Inventory Year

The base year for assessment of energy trends against which future progress can be measured. The baseline inventory year is a single calendar year (2005), consistent with legislative guidance and the Assembly Bill 32 Scoping Plan.

California Building Code (Title 24, Part 6)

California Code of Regulations, Title 24, also known as the California Building Standards Code (composed of 12 parts). Title 24, Part 6 sets forth California's energy efficiency standards for residential and nonresidential buildings and was established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.

California Green Building Code (CALGreen, Title 24, Part 11)

Refers to CALGreen component of the California Building Code. CALGreen is the first statewide green building code in the country and seeks to establish minimum green building standards for the majority of residential and commercial new construction projects across California. See also California Building Code.

California Long Term Energy Efficiency Strategic Plan (CEESP)

A plan adopted by the California Public Utilities Commission in 2008 that presents a single roadmap to achieve maximum energy savings across all major groups and sectors in California. This comprehensive plan for 2009 to 2020 is the state's first integrated framework of goals and strategies for saving energy, covering government, utility, and private sector actions, and holds energy efficiency to its role as the highest priority resource in meeting California's energy needs.

California Air Resources Board (CARB)

A part of the California Environmental Protection Agency, an organization which reports directly to the Governor's Office in the Executive Branch of California State Government. The CARB's mission is to promote and protect public health, welfare, and ecological resources through the effective and efficient reduction of air pollutants while recognizing and considering the effects on the economy of the state.

California Environmental Quality Act

A statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible.

California Public Utilities Commission (CPUC)

The CPUC regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies. The CPUC serves the public interest by protecting consumers and ensuring the provision of safe, reliable utility service and infrastructure at reasonable rates, with a commitment to environmental enhancement and a healthy California economy. The CPUC regulates utility services, stimulates innovation, and promote competitive markets, where possible.

Carbon Dioxide Equivalent (CO₂e)

A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential (GWP). The carbon dioxide equivalent for a gas is derived by multiplying the tons of the gas by the associated GWP. For example, the GWP for methane is 21. This means that emissions of one million metric tons of methane are equivalent to emissions of 21 million MTCO₂e.

Climate Change

The term "climate change" is sometimes used to refer to all forms of climatic inconsistency, but because the earth's climate is never static, the term is more properly used to imply a significant change from one climatic condition to another. In some cases, climate change has been used synonymously with the term "global warming"; scientists, however, tend to use the term in the wider sense to also include natural changes in climate.

Cost/Benefit Analysis

A systematic process for comparing the costs and benefits of various measures for energy efficiency and renewable energy generation. In this EAP, the cost/benefit analysis is used to measure the costs, savings, and energy and GHG reductions from measures. The results of the cost/benefit analysis are further used to prioritize specific energy efficiency measures.

Demand Response

Mechanism for managing end-user electricity consumption in response to energy supply conditions, especially during summer periods when electricity demand on the California power grid is high. A

demand responsive system is one that can be controlled (either directly or remotely) to reduce electricity consumption during times of increased energy demand and/or constrained energy availability.

Energy Efficiency

Doing the same or more work with less energy, such as replacing incandescent light bulbs with compact fluorescent light bulbs, using appliances that use less electricity to run than older models, or utilizing a vehicle that can travel farther using the same amount of gasoline.

Energy Efficiency and Conservation Block Grant (EECBG)

The Energy Efficiency and Conservation Block Grant program was funded through the American Recovery and Reinvestment Act and managed by the US Department of Energy to assist cities, counties, states, and territories to develop, promote, and implement energy efficiency and conservation programs and projects.

Energy Leader Partnership Program

Southern California Edison (SCE) has developed the Energy Leader Partnership (ELP) Program to provide support to local governments in identifying and implementing opportunities to improve energy efficiency in municipal facilities and promoting community awareness of demand side energy management opportunities. By participating in SCE's ELP, local governments are taking actions to support the California Long Term Energy Efficiency Strategic Plan while saving energy and fiscal resources for their communities. The ELP comprises four focus areas: municipal retrofits, demand response, strategic plan support, and energy efficiency programs coordination. The ELP program has four incentive tiers for participating cities: (1) Valued Partner, (2) Silver, (3) Gold, and (4) Platinum. Each city begins the program as a valued partner; to advance to the next incentive tier, each participating city must achieve the pre-determined energy savings and requirements community-wide and for city facilities.

ENERGY STAR

A joint program of the US Environmental Protection Agency and the US Department of Energy to provide consumers with information and incentives to purchase the most energy-efficient products available.

ENERGY STAR Portfolio Manager

Portfolio Manager is an interactive energy management and benchmarking tool that allows entities to track and assess energy and water consumption across an entire portfolio of buildings in a secure online environment. Portfolio Manager can help set investment priorities, identify under-performing buildings, verify efficiency improvements, and receive USEPA recognition for superior energy performance. The tool is provided free of charge, and SCE is able to automatically upload data on electricity use into Portfolio Manager: See also Automated Benchmarking Service.

Forecast

Projections of energy and GHG emissions to future years based on projected increases in population that may cause an increase in City services and operations.

Goal

The desired result and specific method used to achieve a certain strategy. To the greatest extent possible, goals should be SMART: Specific, measureable, attainable, relevant, and time-bound. Goals are supported by a set of specific measures.

Government Operations Inventory

Refers to energy use and greenhouse gas emissions from city-owned and operated facilities and equipment. See also: Operational Control.

Green Building

Sustainable or "green" building is a holistic approach to design, construction, and demolition that minimizes the building's impact on the environment, the occupants, and the community.

Greenhouse Gases (GHG)

Gases which cause heat to be trapped in the atmosphere, warming the earth. Greenhouse gases are necessary to keep the earth warm, but increasing concentrations of these gases are implicated in global climate change. The majority of greenhouse gases come from natural sources, although human activity is also a major contributor. The principal greenhouse gases that enter the atmosphere because of human activities are carbon dioxide (CO₂), methane (CH₄), nitrous Oxide (N₂O) and fluorinated Gases (hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride).

Greenhouse Gas Inventory

A greenhouse gas inventory provides estimates of the amount of greenhouse gases emitted to and removed from the atmosphere by human activities. A city or county that conducts an inventory typically looks at both community emissions sources as well as emissions from government operations. However, this EAP only includes a municipal operations GHG inventory.

Heating, Ventilation, and Air Conditioning (HVAC)

Systems that help maintain good indoor air quality through adequate ventilation with filtration and provide thermal comfort.

Incentive

Offered by the utility or state to promote the installation of renewables and energy efficiency projects.

Kern Energy Watch Partnership

Kern Energy Watch is a joint partnership of Pacific Gas and Electric Company, Southern California Edison, Southern California Gas Company and the County of Kern and participating municipalities. The mission of Kern Energy Watch is to reduce energy use throughout the county by providing residents, businesses and local governments with information about improving the energy efficiency of buildings and facilities; training industry professionals to incorporate energy efficiency into their practices; and the direct installation of energy efficient equipment in local government facilities and businesses.

Kilowatt-hour (kWh)

A unit of energy equivalent to one kilowatt (kW) of energy used for an hour. For example, if an appliance requires a kW of energy to function, leaving the appliance on for one hour would consume one kWh of energy.

Leadership in Energy and Environmental Design (LEED)

A green building standard and set of rating systems established by the US Green Building Council.

Measures

Measures are specific actions that are consistent with the strategies and goals. Measures provide the foundation for quantification of energy and GHG reduction potentials in the Energy Action Plan.

Operational Control

An organizational boundary used in the development of the GHG inventory. Defined as the following: A company (or city) has operational control over an operation if the company (or city) has the full authority to introduce and implement operating policies at the operation.

Pacific Gas and Electric Company (PG&E)

An investor-owned utility that is the primary electricity provider to portions of Kern County.

Portfolio Manager

See ENERGY STAR Portfolio Manager.

Property Assessed Clean Energy (PACE)

A form of financing that creates municipal finance districts to provide loans to homeowners and businesses for energy-efficient retrofits and renewable energy system installations. Loans are repaid through an annual surcharge on property tax assessments.

Rebate

Offered by the state, utility, or local government to promote the installation of renewables and energy efficiency projects.

Reduction Target

A target for the reduction of GHG emissions from all sources. The state-mandated GHG reduction targets are to achieve 1990 levels by 2020 and 80% below 1990 levels by 2050.

Renewable Energy

Energy from sources that regenerate and are less damaging to the environment than nonrenewable sources. Examples include solar, wind, biomass, and small-scale hydroelectric power.

Renewables Portfolio Standard

Requires utility providers to increase the portion of energy that comes from renewable sources to 20% by 2010 and to 33% by 2020.

Southern California Edison (SCE)

An investor-owned utility that is the primary electricity provider to City of Tehachapi and portions of Kern County.

Southern California Gas Company (SCGC)

An investor-owned utility that is the primary natural gas provider to City of Tehachapi and portions of Kern County.

Strategy

A high-level statement of overall policy that guides decision-making. Strategies are supported by groups of goals that will lead to energy and GHG reductions.

Title 24

See California Building Code.

1. Introduction

This Energy Action Plan (EAP) demonstrates the commitment the City of Tehachapi (City) has established for creating and implementing energy efficiency goals and policies affecting local government operations. This EAP builds upon previous and ongoing work by the City of Tehachapi. The City of Tehachapi is a member of the Kern Energy Watch Partnership, a joint partnership of Pacific Gas & Electric Company (PG&E), Southern California Edison (SCE), Southern California Gas Company (SCGC) and several Kern County municipalities. As a participant in the Kern Energy Watch Partnership, the City has committed to making efforts to implement projects that reduce energy use, and to perform outreach to the community regarding energy efficiency. The City also has a long list of energy efficiency achievements, from early adoption of new energy technologies such as electric vehicles and wind turbines, to incorporating energy efficiency into new municipal buildings. Other key activities include implementing demand response programs to save on energy bills, and retrofitting older water pumping equipment with newer, more efficient models.

The vision of the City of Tehachapi is to continue those efforts and to begin developing long-term energy efficiency programs by continually raising awareness of energy efficiency and developing and implementing new projects in all sectors of government operations. Furthermore, in April 2012, the City adopted a 2012 Update to the City's General Plan. As part of that process, the City committed to developing a community-wide Climate Action Plan (CAP) to document community-wide greenhouse gas (GHG) emissions and to develop strategies to reduce emissions from the community. This EAP will form a key portion of the City's CAP, by providing a foundation and a framework for municipal energy efficiency. For example, many of the municipal approaches to energy efficiency included in this EAP are expected to be appropriate for the community at large.

1.1 Policy Statement

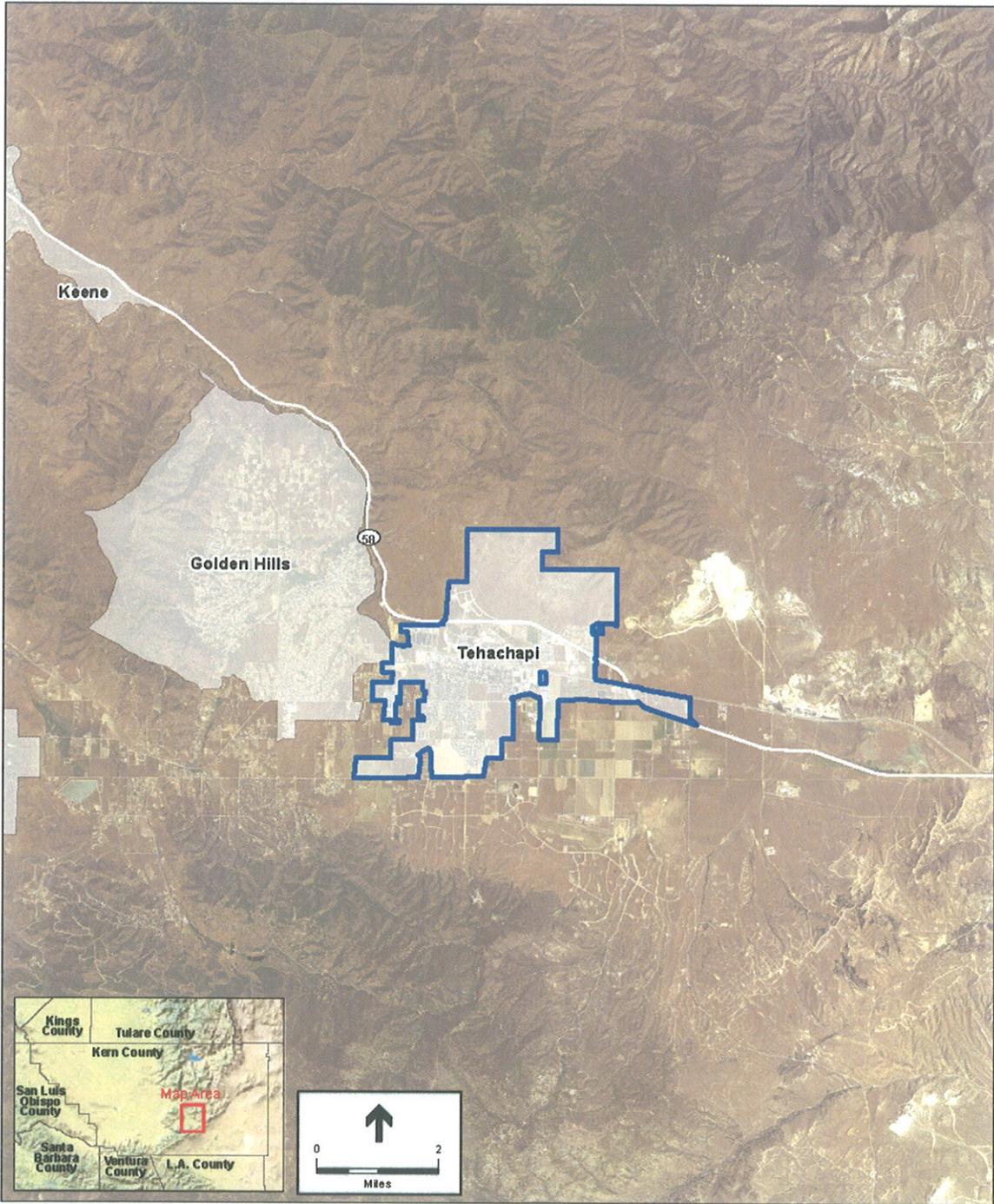
This EAP for the City of Tehachapi provides a policy framework for decision making regarding energy efficiency measures that result in the reduction of energy consumption and associated GHGs, in a manner consistent with the objectives of the California Public Utilities Commission's (CPUC's) California Long Term Energy Efficiency Strategic Plan (CEESP) and also in a manner consistent with Assembly Bill 32 (AB 32). AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020. Per guidance from the California Air Resources Board (CARB), local governments are encouraged to set their community-wide 2020 GHG reduction target at 15% below baseline levels, where baseline occurs

between 2005 and 2008. This is considered by CARB to be equivalent, on a statewide basis, to 1990 emissions levels, and consistent with the goals of AB 32.

Under business-as-usual (BAU) conditions, electricity consumption is projected to comprise approximately 75% of the City's total GHG emissions from municipal operations by the year 2020. This EAP includes strategies and actions that will reduce BAU energy consumption and the GHG emissions associated with that energy use. These GHG reductions will come primarily from reducing electrical energy use in Buildings and Facilities (29% reduction in GHG emissions by 2020). However, due to rapid growth in municipal operations between the baseline year 2005 and 2010, and additional projected growth by 2020, this EAP does not reduce overall electricity use enough to achieve a GHG target of 15% below the 2005 baseline. Emissions associated with the Water and Sewerage sector, the largest consumer of electricity in City operations, are expected to rise dramatically, primarily because the City will need to supply water to an increased City population by the year 2020. With implementation of this EAP, and the anticipated impact of the state's Renewable Portfolio Standard (RPS), the net result is that total GHG emissions associated with the electricity consumed by municipal operations are projected to be approximately 937 MT CO₂e by the year 2020, a drop of 1% below the 2005 baseline of 946 MT CO₂e.

Despite EAP measures to increase the per unit energy efficiency of water supply, total emissions associated with supplying water to the community are expected to increase between 2005 and 2020. Other than efficiency of operations, the only real way to reduce water-related emissions is to use less water across the community. Measures to address community water conservation are beyond the scope of this document; the City will address water-related measures, and other measures to reduce community GHG emissions, in the Climate Action Plan to be prepared pursuant to the General Plan Update. The Climate Action Plan will also need to set a community-wide target for GHG emissions, consistent with AB 32 that encompasses all sectors (energy, transportation, water, solid waste, and municipal operations) across the community.

More detailed information on the City's energy goals is provided in Section 6.2.



SOURCE: NAIP, 2010; ESRI, 2012; ESA, 2012

KernCOG Energy Action Plan project . 211767

Figure 1-1
Tehachapi

1.2 Jurisdiction Background

The City of Tehachapi is located between the San Joaquin Valley and the Mojave Desert in the Tehachapi Mountains at an elevation of 3,970 feet. The City covers about 10 square miles and includes a population of 14,414 as of the 2010 Census; however, this figure includes inmate population at the California Correctional Institution. The City does not provide any services to the correctional institution. The downtown of the City dates back to the construction of the Union Pacific Railroad Depot in 1876; the City was incorporated in 1909 and has served as a base for nearby mining, farming, and ranching for over a century. Located near the city is the famous Tehachapi Loop, a spiral on the Union Pacific rail line through the Tehachapi Pass. The City is also adjacent to a number of wind farms spanning the Tehachapi Pass, one of the largest wind resource areas in the State of California.

Tehachapi is known for its four-season climate. Due to its elevation of nearly 4,000 feet, the City receives 15-20 inches of precipitation (combination of rain and snow) each winter, and experiences a wet season from November – May. There are an average of 31.1 days with highs of 91 °F or higher and an average of 94.8 days with lows of 31 °F or lower annually.

Please see Section 3 below for a full description of Tehachapi’s municipal operations.

1.3 Project Funding

Pursuant to Decision 09-09-047, CPUC authorized SCE to conduct strategic plan activities centered on energy efficiency and addressing the “Big, Bold” strategies and related local government goals found in the CPUC’s California’s Long-Term Energy Efficiency Strategic Plan (CEESP). Based on this authorization, SCE conducted a solicitation seeking to fund activities that would lead to long-term, sustainable changes as opposed to supporting staffing resources or short-term initiatives that would cease to exist once the funding had ended. One of the selected programs in this solicitation is the Kern Council of Government’s (Kern COG) Kern Region Energy Action Plans (Kern REAP) Program which promotes long-term energy efficiency and climate action activities.

In order to accomplish a defined portion of the goals of the Program, Kern COG selected Environmental Science Associates (ESA) to prepare Local Government Operations GHG Inventories and EAPs for the County of Kern (including up to eight Community Service Districts) and the communities of California City, Delano, McFarland, Ridgecrest and Tehachapi. This document serves as the Draft EAP for the City of Tehachapi.

2. EAP Process

This EAP was created by following the general steps described below:

1. Establish the Baseline. Participation in the Kern REAP Program includes development of a municipal operations GHG inventory. The results of the City of Tehachapi's municipal operations GHG inventory are used in this EAP to develop a baseline of energy use, as well as a baseline of GHG emissions. For City of Tehachapi, the 2005 energy baseline represents the energy used by municipal operations in calendar year 2005, while the 2005 GHG inventory baseline represents the GHG emissions associated with municipal operations in calendar year 2005, and the results of the inventory. The EAP was also informed by energy benchmarking and energy audits of municipal facilities. In addition, prior to the development of the EAP, City staff (Community Development Director) attended a workshop regarding the Local Government Operations Protocol, and the Chief wastewater treatment plant Operator attended training in using the U.S. Environmental Protection Agency (USEPA) Portfolio Manager Benchmarking software.

In 2011 and 2012, the City of Tehachapi conducted energy benchmarking of facilities over 5,000 square feet using the USEPA Energy Star Portfolio Manager tool using 2010 or 2011 data on energy consumption. In addition, energy audits were conducted under the Kern REAP Program for three City facilities in 2012.

The methodologies used to develop the energy and GHG baseline, as well as the methodologies for energy benchmarking and audits are provided in Section 4 of this EAP; the results are provided in Section 5. Section 3 provides a detailed description of all municipal operations.

2. Develop Strategies and Specific Goals. Following review of the baseline data and other available information, including recent energy audits, all participating municipalities in the Kern REAP Program used a common decision-making framework for developing their energy efficiency strategies and goals. The framework is described in Section 6.2. The process of strategy and goal development for City of Tehachapi is summarized in Sections 6.3 and 6.4 and the goals are listed in Section 6.5. The strategies and goals are used to achieve progress towards the reduction targets included in this EAP.
3. Develop Potential Energy Efficiency Measures. This EAP provides a recommended set of energy efficiency measures for City of Tehachapi that support the strategies and goals defined in Section 6. Some measures for the City of Tehachapi were drawn from a pre-developed set

of energy efficiency measures, potentially applicable to all participating municipalities, that was prepared as part of the Kern REAP program. Others were custom-developed for the City of Tehachapi. All recommended measures are described in Section 7.

4. Create an Implementation Plan. Selection and prioritization of energy efficiency measures for implementation was based on a Cost/Benefit analysis and prioritization exercise. The methodology for analyzing costs, benefits, and other factors, common to all Participating Municipalities in the Kern REAP program, is summarized in Section 8.1. The results of the Cost/Benefit analysis and prioritization of measures are summarized in Section 8.2.
5. Conduct Outreach and Stakeholder Engagement. The Kern REAP Program included a significant amount of outreach and stakeholder engagement, some of which was conducted in relation to development of the Kern Regional Transportation Plan, and some of which was conducted in relation to the Kern REAP Program and development of this EAP. The outreach and stakeholder engagement relevant to this EAP is summarized in Section 6.4.
6. Review Financing Models and Mechanisms. A summary of potential models and mechanisms for financing the prioritized energy efficiency measures is provided in Section 9.
7. Develop Monitoring, Measuring and Verification Plan. A plan for ongoing monitoring of this EAP and measuring progress towards energy efficiency goals is provided in Section 10. A set of benchmarks to be used to monitor results and verify progress is also provided.

3. Municipal Operations Description

The City of Tehachapi government serves a community of approximately 9,000. It should be noted that the U.S. Census Bureau lists City population at 14,414 as of 2010; however, this figure includes inmate population at the California Correctional Institution. The California Correctional Institution is located within city limits but is operated by the State. The City's municipal operations include services such as community development, police, municipal airport, street lights and traffic signals, general services, potable water supply, and wastewater collection and treatment. The City of Tehachapi contracts out the following services: fire protection from the County; and solid waste hauling. A detailed list of City of Tehachapi-operated buildings and facilities and infrastructure is provided in Appendix A to the EAP.

In addition to buildings owned and operated the City leases out the following owned buildings to third parties: Senior Center (operated by the County); the Beekay Theatre that is leased to a local theatre group; and the Heritage Museum that is leased out to a local operator. The City of Tehachapi operates and

maintains a fleet of vehicles that includes trucks, passenger vehicles, and police vehicles. A comprehensive list of fleet vehicles is provided in Appendix B to the EAP.

The City provides potable water services to its residents through a series of seven groundwater wells, five storage tanks, two booster stations, and a distribution system. The City operates a wastewater treatment plant (WWTP) that is designed to treat a maximum flow of 1.25 million gallons per day (MGD) of wastewater. The treatment process utilized is secondary activated sludge. The facility serves residents within the City limits.

4. Energy Baseline Methodology

The data collected for the 2005 GHG inventory constitute the energy baseline, while the results of the full GHG inventory comprise the GHG emissions baseline. The methodologies used to develop the energy and GHG emissions baselines are described below. The methodologies used for energy benchmarking and energy audits are also described.

4.1 GHG Inventory Methodology

The purpose of the GHG emissions inventory is to identify source types, distribution, and overall magnitude of GHG emissions to enable policy makers to implement cost-effective GHG-reduction strategies in policy areas over which they have operational or discretionary control. The local government operations GHG inventory for City of Tehachapi was developed using the Local Government Operations Protocol (LGOP), which was developed by the California Air Resources Board (CARB), the California Climate Action Registry (CCAR), and Local Governments for Sustainability (ICLEI), in collaboration with The Climate Registry. The LGOP is designed to provide a standardized set of guidelines to assist local governments with quantifying and reporting GHG emissions associated with their operations. The municipal operations GHG inventory was developed for the years 2005 (baseline year) and 2010 (update year). GHG emissions were also projected to 2020. The methodology used to develop the inventory and the 2020 projection is described below.

4.1.1 Overview

An emissions “sector” is a distinct subset of a market, society, industry, or economy, whose components share similar characteristics. The City of Tehachapi’s inventory was compiled for the following emissions sectors, as per the LGOP: energy consumption in buildings (electricity and natural gas use), streetlights and traffic signals, transportation (City-owned and/or operated vehicle fleet), solid waste, potable water supply and wastewater treatment and employee commute. The City of Tehachapi’s local government

operations inventory is considered a subset of the City of Tehachapi's community-wide emissions inventory. The scope of this project does not include development of a community-wide inventory but such an inventory may be conducted in the future for City of Tehachapi as the City develops a community-wide Climate Action Plan.

The GHG inventory focuses on the three GHGs most relevant to local government policymaking: carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). These gases comprise a large majority of GHG emissions from the City of Tehachapi's government operations. In this EAP, all emissions are converted to CO₂e so that GHGs can be compared using a common metric. Non-CO₂ gases are converted to CO₂e using internationally recognized 100-year global warming potential (GWP) factors. GWPs are developed by the Intergovernmental Panel on Climate Change (IPCC) to represent the heat-trapping ability of each GHG relative to that of CO₂. For example, the GWP of CH₄ is 21 because one metric ton of CH₄ has 21 times more capacity to trap heat in the atmosphere than one metric ton of CO₂.

4.1.2 Base Year

The LGOP recommends that a local government's emissions inventory include all GHG emissions occurring during a selected calendar year. Reporting GHG inventories on a calendar year basis is considered an international standard. The City's inventory was prepared for the year 2005, to be consistent with GHG inventories developed for climate action plans being prepared in the region and across California. Because of time elapsed since 2005, the GHG inventory was updated to a more recent year (2010) for which good quality data is available. The updated inventory provides the City of Tehachapi with valuable trend information and a means for evaluating the effectiveness of programs and strategies implemented between 2005 and the revision year.

4.1.3 Operational Control Approach

The organizational boundary of a GHG inventory is the boundary that defines which emission sources are included and which are excluded from the inventory. The LGOP strongly encourages local governments to utilize the operational control approach (as opposed to the financial control approach) to defining their organizational boundary since this control approach most accurately represents the emission sources that local governments can directly influence. Under the operational control approach, a local government accounts for 100 percent of the GHG emissions from operations over which it has operational control, including both wholly owned and partially owned sources. A municipality has operational control over a facility or operation if it has the full authority to introduce and implement its operating policies (e.g., it holds an operating lease for the facility, or has the ability to implement health and safety policies). The

inventory results and the business-as-usual projections described in this EAP were prepared using the operational control approach.

4.1.4 Data Collection and Emissions Estimation

The LGOP identifies calculation-based methodologies as the most appropriate technique for local governments to quantify their GHG emissions. Calculation-based methodologies involve the quantification of emissions based on “activity data” and “emission factors”. Activity data are the relevant measurements of energy use or other processes that are associated with the emission of GHGs. Examples of activity data include fuel consumption by fuel type, metered annual energy consumption, and annual vehicle mileage by vehicle type. Activity data is used in conjunction with an emission factor to calculate emissions. Emission factors are calculated ratios relating GHG emissions to a proxy measure of activity by emissions source. Activity data for each sector was provided by the City of Tehachapi through the data collection process. The methods and assumptions used for each sector are summarized under the results of the inventory in Appendix C.

4.1.5 Projecting Future “Business-as-Usual” Emissions

GHG emission projections for 2020 were developed under a business-as-usual scenario, i.e., a scenario that does not include GHG reduction measures that will become part of the EAP or a future Climate Action Plan. The City of Tehachapi’s current General Plan dated 2012 acknowledges that growth in the City will result in an increase in demand for services within the City. As a result of this increase in demand, new facilities, equipment and personnel may be necessary to maintain adequate levels of services for the City of Tehachapi residents. These additional personnel and facilities would be funded through the normal budgetary process as growth occurs. For projecting City of Tehachapi’s government operations-related emissions, it was conservatively assumed that City departments and services would grow in proportion to population growth. City population data was obtained from forecast data developed by Kern COG and from the City’s General Plan and is estimated to be 15,607 by 2020. Inmate population at the California Correctional Institution (approximately 5,000) was excluded from population projections for 2020 since the City does not provide any services to this facility. City services to residents (i.e., streetlights and traffic signals and wastewater treatment) were assumed to grow in proportion to population growth. Emission sectors that are dependent on City employment (i.e., buildings and facilities, stationary sources, government operations generated solid waste, and employee commute) were conservatively assumed to grow by 10 percent by the year 2020 since City employment is not anticipated to grow at the same rate as the population.

An important external factor affecting “business as usual” electricity demand is the warming associated with anticipated climate change. If GHG emissions continue unabated, statewide annual average temperatures are expected to increase between 8 and 10°F by the end of the century. As temperatures rise, electricity demand will also increase, mainly due to increased air conditioner use. Although there is a high degree of uncertainty in predicting future temperature changes associated with higher levels of atmospheric GHGs, the California Energy Commission (CEC)¹ and others have published some recent studies that estimate the relationships between temperature and both total electricity consumption and peak demand at locations throughout California. The CEC study estimates that even without a population increase, an 8 to 10°F temperature increase is expected to increase annual electricity demand in California by 20 percent. The report also notes that the state’s electricity supply will be impacted by potential losses in hydroelectric supply due to direct and indirect effects of temperature changes on hydroelectric generation. Given the inherent uncertainty in predicting climate change impacts on temperature, and the lack of clear guidance from the CEC on the subject, it is beyond the scope of this EAP to predict how rising temperatures will affect electricity demand in Tehachapi. Since rising temperatures will clearly make energy reduction goals more difficult to achieve, new information from the CEC and other state agencies will be closely monitored and incorporated into future updates of this EAP.

4.2 Energy Benchmarking Methodology

The City of Tehachapi has conducted energy benchmarking of selected municipal facilities using the USEPA Energy Star Portfolio Manager tool. Portfolio Manager is an interactive energy management tool that allows users to track and assess energy consumption across an entire portfolio of buildings. Portfolio Manager can also be used to identify under-performing buildings, set priorities, monitor progress and verify improvements.

Within the City of Tehachapi account on Portfolio Manager, an individual profile has been set up for each municipally operated building selected for benchmarking. Energy Star benchmarking requires the following data:

- Building street address, year built, and contact information
- The building gross floor area and key operating characteristics for each major space type. Key operating characteristics include:

¹ Guido Franco and Alan H. Sanstad; Climate Change and Electricity Demand in California, A Report From: California Climate Change Center, CEC-500-2005-201-SF, February 2006.

-
- Weekly operating hours
 - Number of workers on main shift
 - Number of personal computers
 - Percent of floor area that is air conditioned ($\geq 50\%$, $< 50\%$, or none)
 - Percent of floor area that is heated ($\geq 50\%$, $< 50\%$, or none)
- 12 consecutive months of utility bills for all fuel types used in the building

The information listed above is used to benchmark key metrics such as energy use intensity and costs, water use, and carbon emissions. The tool also provides an Energy Star score; the final Energy Star score is a benchmark that indicates how efficiently a building uses energy on a scale of 1 – 100. A score of 50 indicates that energy performance is average compared to similar buildings, while a score of 75 or better indicates top performance, and means the building may be eligible to earn the Energy Star label. The scores take into account climate variations as well as changes in key physical and operating characteristics of each building.

Once the inputs are verified and a building is correctly benchmarked, the account holder can generate a Statement of Energy Performance (SEP). The SEP is a one page document that contains the Energy Star score and other relevant information, including:

- Building information
- Site Energy Intensity, measured in $\text{kBtu}^2/\text{square foot(sf)}/\text{year}$, defined as the amount of energy that enters a building at the site
- Source Energy Intensity, measured in $\text{kBtu}/\text{sf}/\text{year}$, and defined as Site Energy Intensity plus the energy losses that are incurred in the storage, transport and delivery of fuel to the building.
- Total GHG Emissions, measured in metric tons (MT) of CO_2e per year
- Final Energy Star Score, provided as a score on a scale of 1 – 100.

² $\text{kBtu} = 1000$ British Thermal Units (Btu)

4.3 Energy Audits Methodology

Energy walk-through assessments were conducted at three facilities as part of the EAP development process. The following facilities were assessed:

- Police Station
- Senior Center
- City Hall

The project scope initially included audits of five facilities, but upon review of the five facilities, it was determined that some of the facilities were new and/or recently upgraded, so auditing these buildings would not be productive at this time.

The energy walk-through assessment process included the following tasks:

- Identify key facilities for the audits and confirm with the jurisdiction. The Project Team reviewed electricity usage and benchmarking information for the City of Tehachapi and identified the highest electricity consumers and the most inefficient facilities. These facilities were targeted for the energy walk-through assessment.
- Conduct telephone interviews with facility managers. The Project Team conducted a telephone interview with each facility manager regarding the facility's needs and operational parameters, and a general discussion of the major energy-consuming equipment in place.
- Conduct facility walk-throughs. The purpose of the walk-through was to become familiar with each facility's construction, equipment, operation and maintenance.
 - To the greatest extent possible, the walk-through included an inventory of key equipment, including pertinent information for major energy consuming lighting, HVAC (heating, ventilation, and air conditioning), process and other equipment. For example, for lighting, the equipment inventory included existing fixture type, existing lamp type, and existing lamp count.
 - During the walk-through, the auditor also gathered information on any planned equipment upgrades or repairs, and current or planned energy efficiency projects.

Following the on-site walk-through, the Project Team completed the following tasks:

- Identify low-cost/no-cost changes to the facility. The Project team identified low-cost/no-cost changes to the facility or to operating and maintenance procedures, and determined the savings expected to result from these changes.

-
- Develop and conduct analysis of Energy Conservation Measures (ECMs). ECMs beyond the low-cost/no-cost options were identified, and the Project Team also provided an initial estimate of costs and savings for the ECMs.

5. Energy Baseline Results

Energy baseline results, as well as results from the energy benchmarking (using the Energy Star Portfolio Manager Tool and 2010 or 2011 input data) are presented below. In addition, results from the GHG inventory and recent energy audits are presented.

5.1 GHG Inventory Results

Reporting GHG emissions by sector provides a better understanding of the relative contributions from each sector and helps identify the best GHG reduction opportunities. Table 5-1 and Figures 5-1, 5-2, and 5-3 summarize the magnitude and relative contribution of municipal emissions by sector for 2005, 2010, and 2020 (projected). Supplemental data supporting the emission calculations are provided in Appendix C.

In 2010, the largest sources of GHG emissions were, in descending order:

- Electricity consumption for water supply
- Fuel consumption in City vehicle fleet
- Natural gas consumption in buildings and facilities
- Employee commute
- Electricity consumption in buildings and facilities

Emissions showed a general increase from 2005 to 2010 with the exception of fuel consumption in City fleet. A number of new street lights were added between 2005 and 2010, explaining the large increase in GHG emissions for the Lighting sector. It should be noted that employee commute data provided by the City shows multiple employees with one-way commute distances greater than 40 miles, leading to larger GHG emissions and relative contribution from this sector, compared to other participating municipalities.

Table 5-1: GHG Inventory Results

Sector	2005 GHG Emissions (MT CO ₂ e/year)	2005 Percentage of Total	2010 GHG Emissions (MT CO ₂ e/year)	2010 Percentage of Total	2020 GHG Emissions (MT CO ₂ e/year)	2020 Percentage of Total
Buildings - Electricity	71	6%	98	7%	108	7%
City-owned Streetlights/Traffic Signals - Electricity	6	1%	52	4%	58	4%
Water Supply - Electricity	868	74%	913	62%	1,032	63%
Buildings - Natural Gas ¹	0	0%	114	8%	125	8%
Stationary Sources ²	5	<1%	5	<1%	5	<1%
City Vehicle Fleet – Fuel	163	14%	124	8%	141	9%
Wastewater Treatment Plant ³	0	0%	0	0%	0	0%
Solid Waste	53	5%	59	4%	65	4%
Employee Commute ⁴	no data	–	101	7%	111	7%
Airport Facilities – Electricity	<1	<1%	1	<1%	1	<1%
Total Emissions	1,167		1,467		1,646	

Note: Totals may not add due to rounding.

¹ Natural gas data provided by SCGC showed no consumption in 2005. The City has indicated that there was natural gas used at City facilities in 2005; however, this data was not available from SCGC or the City.

² The City indicated that each generator is operated for 30 minutes per month for testing purposes. Generator permit conditions were assumed to stay the same through 2020.

³ The City's wastewater treatment plant uses an aerobic treatment process which would have negligible GHG emissions.

⁴ Employee commute data for 2005 was not available from the City. Data for 2010 includes multiple employees with one-way commute distances of greater than 40 miles. Data provided by the City indicates that these employees commute to the City four days a week in most cases, leading to a higher relative contribution of GHG emissions from this sector.

Figure 5-1: Tehachapi Municipal GHG Inventory by Sector: 2005

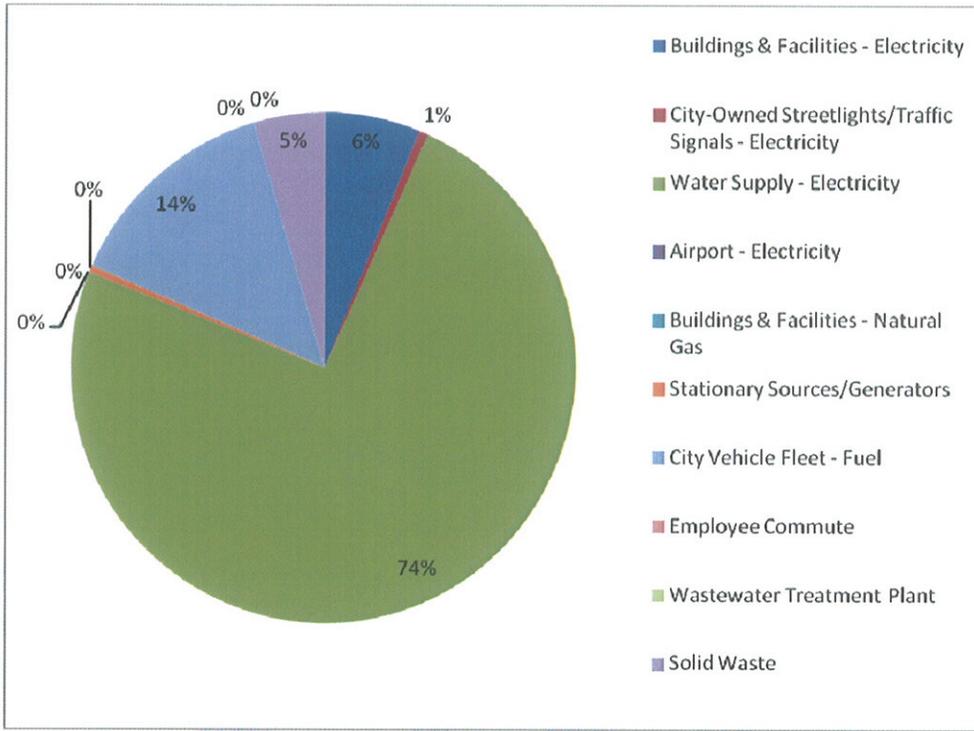


Figure 5-2: Tehachapi Municipal GHG Inventory by Sector: 2010

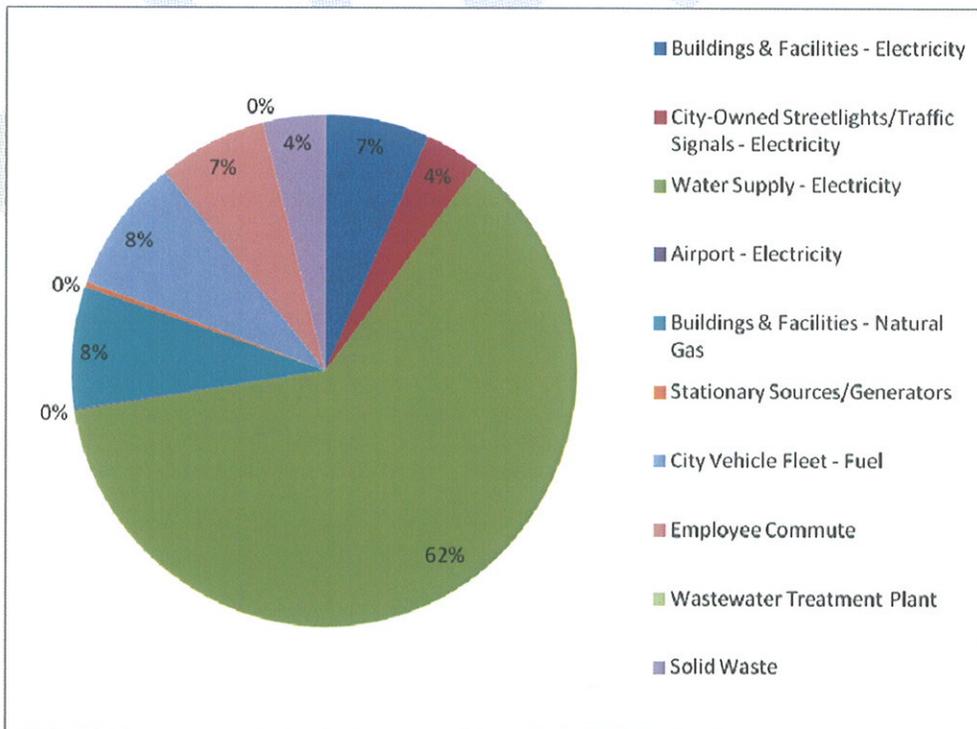
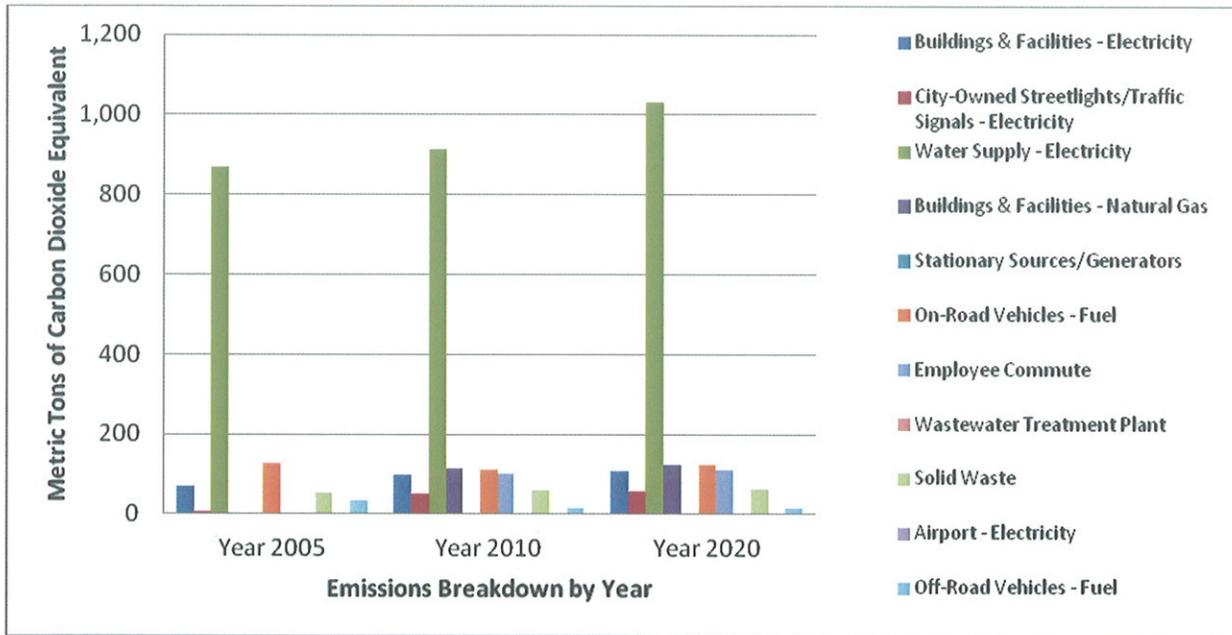


Figure 5-3: Tehachapi Municipal GHG Inventory by Sector: 2005, 2010, and 2020

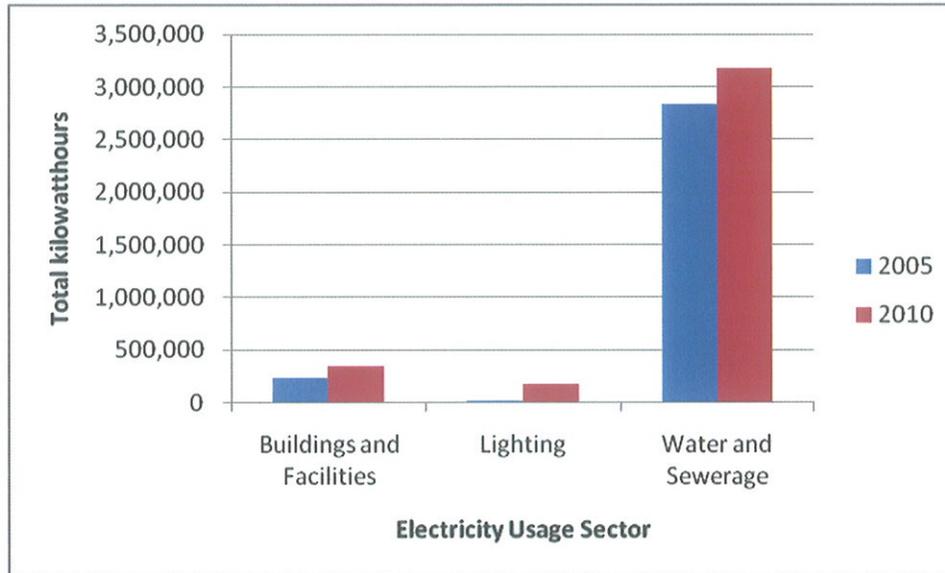


GHG emissions generally increased from 2005 to 2010 due to growth in City operations to accommodate population growth. GHG emissions are projected to increase from 2005/2010 to 2020 due primarily to the growth of municipal services and operations associated with anticipated population growth in Tehachapi. The relative contribution by each sector to the total municipal inventory is expected to remain relatively constant through the projection period.

5.1.1 Electricity Usage

Electricity is used in City operations in the following three sectors: buildings and facilities; lighting (including streetlights and outdoor lighting); and water and sewerage, which includes public infrastructure for water pumping and wastewater treatment. As part of the development of the EAP, electricity usage data was gathered for the 2005 baseline year, and for 2010. A summary of electricity usage in 2005 and 2010 is provided in Figure 5-4 below.

Figure 5-4: Electricity Usage for Municipal Operations in 2005 and 2010



As evident from Figure 5-4, electricity use increased in all three sectors between 2005 and 2010. These increases are due to general expansion of City operations and services in that time period. For example, a number of new street lights were added between 2005 and 2010, explaining the large increase in electricity used by the Lighting sector.

Also evident from Figure 5-4 is the relatively large impact of the water and sewerage sector on total electricity usage. In 2010, approximately 76% of total electricity was used in the Water and Sewerage sector, followed by Lighting (16%) and Buildings and Facilities (8%).

5.1.2 Energy Benchmarking Results

The results from the Energy Star Portfolio Manager benchmarking are as follows:

Table 5-2: Energy Benchmarking Results

Municipal Building Name	Site Energy Intensity (kBtu/ft²/year)	Source Energy Intensity (kBtu/ft²/year)	Emissions (MTCO₂e/year)³	Energy Star Score
<i>Public Works Shop</i>	<i>102.6</i>	<i>342.7</i>	<i>52.09</i>	<i>N/A</i>

The Public Works Shop did not receive an Energy Star Score because the Space Type for this building is in the “Other” category. Currently, a building may only receive an Energy Star score if more than 50% of the building is defined by one of the following space types: Bank/Financial Institution, Courthouse, Hospital (General Medical and Surgical), Hotel, K-12 School, Medical Office, Office, Residence Hall/Dormitory, Retail Store, Supermarket, Warehouse (Refrigerated and Non-refrigerated), Wastewater Treatment Plant, Data Center or Senior Care Facility.

However, data in the Energy Star Portfolio Manager show that the Public Works Shop uses an average of 28.15 kWh/square foot /year. According to the U.S. Commercial Buildings Energy Consumption Survey (CBECS), which is based on a sample of data from 2003, the average electricity intensity for buildings in the “Other” category is 22.5 kWh/square foot/year (see Table E6 of the 2004 CBECS). Thus, the Public Works Shop is using slightly more than the average electricity per square foot based on CBECS data. It should also be noted the CBECS data from 2003 is outdated, and the average usage per square foot is likely higher in 2012 than in 2003.

The City also began entering data for two additional facilities into the Energy Star Portfolio Manager: The Senior Citizens Center (500 East F Street), and the Railroad Depot (100 West Tehachapi Boulevard). However, complete energy usage data have not yet been uploaded to the Energy Star Portfolio Manager tool for these facilities. The Railroad Depot is operated by a third-party volunteer group but the City pays the utility bills for the building. The building is less than 5,000 square feet in size.

5.1.3 Energy Audits

An Energy Audit was conducted for the City of Tehachapi on July 16th and 17th and included review of three facilities. The audit included walk-through energy assessments of three buildings, and led to specific recommendations for one building, City Hall. The Police Station, located at 129 East F Street, was found

³ Total emissions are based on site energy use.

to have been retrofitted with new lighting about two years ago. The Police Station also includes a fairly new HVAC unit, which was replaced about five years ago. The building was found to be in good working order, and no ECMs were identified for this building. The Senior Citizens Center was also audited, and no recommendations were provided for similar reasons; building systems in this facility were fairly new, and all systems appeared to be in good working order.

The table below summarizes the energy audit results for the review of City Hall:

Table 5-3: Energy Audit Results

Facility Name	Energy Conservation Measure	Annual Energy Savings (kWh)	Annual Energy Savings (therms)	Annual Cost Savings	Measure Cost	Payback
City Hall	HVAC Duct Improvements	5,334	466	\$1,380	\$28,950	NA*

*A Payback Period is not provided for the HVAC Duct Improvements recommendation, as the existing HVAC rooftop units appeared to be in excess of 20 years old, and require replacement as they are reaching the end of their useful lives.

6. Energy Conservation Strategies and Goals for Municipal Operations

As a participant in the Kern Energy Watch Program the City of Tehachapi commits to taking certain actions and achieving energy efficiency goals in partnership with SCE and SCGC. The Kern County Energy Leader Partnership is a continuation of the previous partnership between the City of Bakersfield, Kern County, SCE, SCGC, and PG&E which was expanded in 2010 to include the cities of Delano, McFarland, Tehachapi, and California City, and the implementing partner: The Kern Council of Governments (Kern COG).

By participating in the Partnership, the City of Tehachapi has committed to achieving specified energy savings and GHG reductions from the facilities and infrastructure that it manages through technology retrofits, operational improvements and policy changes. Participating local governments also commit to take advantage of Partnership incentives for municipal facilities and, wherever possible, of eligible rebate, incentive and technical assistance programs offered by their serving utilities.

Furthermore, the City has a strong foundation of efforts to improve energy efficiency, such as performing retrofits to replace older equipment with more efficient models, and taking advantage of the SCE Savings

by Design Program to reduce energy usage in new construction. These efforts are described in more detail below.

- Wastewater Treatment Plant: The City recently constructed three new buildings at the WWTP, and used the Savings by Design program to incorporate energy efficiency elements in the building designs. The City of Tehachapi has also installed pump motor controls and premium efficiency motors to increase the efficiency of pumps at the plant. Finally, the City generates renewable energy using three wind turbines at the wastewater treatment plant, which are estimated to generate 7% of electricity used at the plant.
- Water pumping: The City recently purchased water storage tanks, and now pumps water at nighttime to take advantage of lower time-of-use (TOU) rates for electricity. Furthermore, Tehachapi has utilized SCE to conduct free pump tests on well pumps, and has replaced one motor with a more efficient model in response to the pump test results.
- Energy Efficiency retrofits: In 2011, Tehachapi retrofitted lighting at the Public Works Yard and City Hall, and has motion sensor controls on power strips in all City facilities.

In addition, the City changed the local government work schedule from 8 hours/5-days a week to a flexible 10 hours/4-days a week schedule in 2010. This change would contribute to reduced energy use in municipal buildings.

6.1 Kern Energy Leader Partnership

The Kern Energy Leader Partnership Program is designed to provide integrated technical and financial assistance to help local governments effectively lead their communities to increase energy efficiency, reduce GHG emissions, protect air quality and ensure that their communities are more livable and sustainable. The program provides a performance-based opportunity for member cities to demonstrate energy efficiency leadership in their communities through energy saving actions, including retrofitting municipal facilities as well as providing opportunities for constituents to take action in their homes and businesses. By implementing measures in their own facilities, member cities will lead by example as they work with Kern COG and the utility partners together to increase community awareness of energy efficiency and position each member city as a leader in energy management practices. The program will provide marketing, outreach, education, training and community sweeps to connect the community with opportunities to save energy, money and help the environment. The partners will leverage the strengths of each other and the member cities to help efficiently deliver both energy and demand savings.

Delivering sustainable energy savings, promoting energy efficiency lifestyles, and achieving an enduring leadership role for the member cities through this program design is rooted in an effective relationship between the member cities, Kern COG, Kern Economic Development Corporation and the utility partners.

6.1.1 Energy Leader Partnership Level

Member cities in the SCE service area are offered a tiered incentive structure through achievement of four separate levels of participation: “Valued Partner,” “Silver,” “Gold” and “Platinum.” The City started at the Valued Partner level, which was determined by their past participation in SCE energy efficiency and demand response programs both at the city/local government level and at the community level. Between 2010 and 2012, the city has made progress toward the Silver Level. The requirements for moving to the next Energy Leader Partnership level are provided to the city partner quarterly. Adoption of this Energy Action Plan fulfils one of the requirements for moving to the Gold incentive level. When the City of Tehachapi implements the plan, that action will fulfil one of the Platinum level requirements.

6.2 Framework for Strategy and Goal Development

The first step in developing the goals of the Energy Action Plan involved a review of existing policies related to energy efficiency within municipal operations. The next step involved collecting stakeholder feedback, a qualitative process that encouraged community members to provide input and feedback on the results of the GHG inventories and the City of Tehachapi goals for energy efficiency and GHG emissions reduction. Specific goals for energy and GHG emissions reduction were based on local conditions and on state regulatory guidance concerning AB 32. The process used to develop strategies and measures for reducing energy use in municipal operations is the subject of the next chapter.

The framework for goal development was based on the 2005 energy baseline and 2010 update, energy benchmarking, the GHG inventories, and energy audits, as well as evaluation of existing programs and policies and stakeholder feedback. The goals developed for this EAP are concerned with energy efficiency within municipal operations, and therefore focus on the following operational areas. Within these operational areas, the City is targeting the largest energy uses with the highest potential for reduction:

- Lighting and HVAC systems for municipal buildings
- Operation and maintenance of municipal buildings

-
- Potable water treatment and conveyance
 - Wastewater treatment
 - Use of electric vehicles in the municipal fleet.

In the future, additional strategies, goals, and measures should be developed as part of the City's Climate Action Plan as information and opportunities become available to address additional sources of emissions, such as the combustion of natural gas and the combustion of fuels in the City's fleet.

6.2.1 AB 32

AB 32 mandates that the state of California achieve 1990 levels of GHG emissions by the year 2020. CARB recommends in their 2008 AB 32 Scoping Plan⁴ that local governments adopt a community-wide GHG reduction target consistent with the State's commitment to reach 1990 levels by 2020. This is deemed equivalent by CARB to 15 percent below 2005 levels. State measures designed to reduce emissions are counted towards the reduction target; this includes the Renewable Portfolio Standard (RPS), which is expected to increase the percentage of renewable energy in the state-wide energy mix.

The target recommended by CARB is typically applied to emissions from the community at large, for all sectors and sources of GHG emissions combined. This document addresses only the electricity sector of the City's municipal GHG inventory, a very small contributor to total community emissions. Ideally, for consistency with CARB's community-wide guidance, and to support the Kern Energy Leader Partnership Program's goal of member cities leading by example, the City of Tehachapi would like to reduce local government GHG emissions associated with electricity consumption to 804 MT CO_{2e} by the year 2020, which is 15% below the 2005 electricity-specific baseline of 946 MT CO_{2e}, and approximately 33% below the BAU projection of 1,199 MT CO_{2e} (as shown in Table 5.1). However, such a target is unrealistic, given the projected population and jobs growth in the City over the next 8 years. If the strategies in this EAP are fully implemented, the City will be more efficient with its energy use, but total energy use will not fall sufficiently below 2005 levels, due primarily to the need to provide water service to the growing community.

The measures included in this EAP are expected to reduce GHG emissions associated with the City's municipal operations by 106 MT CO_{2e}/year by 2020 (as shown in Table 8-3). Anticipated City growth (and related services) is expected to add substantially to emissions associated with local government

⁴ <http://www.arb.ca.gov/cc/scopingplan/document/psp.pdf>

operations, especially for water-related services. So, even with EAP measures taken into account, the 2020 projection of GHG emissions associated with electricity is approximately 937 MT CO₂e/year, equivalent to 1% below the 2005 baseline and 22% below the 2020 BAU projection, but still above the 2020 target of 804 MT CO₂e. These numbers are summarized below:

2005 baseline of municipal operations GHG emissions (from electricity)	= 946 MT CO ₂ e
2020 recommended target (15% below baseline)	= 804 MT CO ₂ e
2020 projected GHG emissions (from electricity)	= 1,199 MT CO ₂ e
Annual GHG reductions by 2020 resulting from EAP measures ⁵	= 106 MT CO ₂ e
2020 projected GHG emissions with EAP implementation ⁶	= 937 MT CO ₂ e

The analysis conducted for the Municipal EAP determined that, even with the reduction measures in this EAP, the City's electricity use is expected to rise by the year 2020: for the Buildings and Facilities sector, this increase is expected to be 11% over the 2005 baseline; for the Lighting sector, the increase is expected to be 710% over the 2005 baseline; with most of this increase having already occurred between 2005 and 2010; for the Water and Sewerage sector, the increase is expected to be 20% over the 2005 baseline.

Projections for energy-related GHG emissions tell a slightly different story. The measures in this EAP are expected to reduce GHG emissions in the Buildings and Facilities sector by 9% in 2020 compared to 2005. If the projected impact of the state Renewables Portfolio Standard (RPS) is considered, the reduction increases to approximately 29% by 2020. GHG emissions from the Lighting and Water/Sewerage sectors tell a different story. As indicated by the preceding energy figures, the City's outdoor lighting infrastructure grew rapidly between 2005 and 2010, and is expected to continue expanding through 2020. Similarly, the Water/Sewerage infrastructure has been experiencing significant growth. GHG emissions associated with outdoor lighting are expected to rise dramatically by 2020, while the Water and Sewerage sector is expected to reduce its GHG emissions to just 3% below 2005 levels by 2020.

The measures included in this EAP call for higher efficiency in water delivery to the community through water conveyance equipment upgrades. Energy reductions of the scale needed to achieve the CARB-recommended target could only be achieved through reduced water consumption at the community level. Community-wide measures are not within the scope of this analysis. They would be included when the

⁵ See Table 8.3

⁶ Including reductions from EAP measures and RPS which would lower 2020 GHG emissions associated with electricity use by 156 MT CO₂e.

City undertakes the preparation of a full Climate Action Plan, at which time a community-wide target for GHG emissions would be set.

In addition to community-oriented measures to reduce water consumption, the City of Tehachapi may consider more aggressive energy efficiency measures related to its operations (to reduce overall energy consumption) and increased utilization of low-carbon energy sources (e.g., solar PV) to reduce energy use and energy-related GHG emissions. As mentioned above, significant GHG reductions are also expected through the state-mandated Renewable Portfolio Standard (RPS), which requires the average grid electricity mix in California to contain a minimum of 33% renewable energy by 2020. The City of Tehachapi may also consider efficiency measures for other energy sources, such as natural gas and fuel used for municipal fleet vehicles.

Even though municipal operations typically contribute a small percentage (typically around 1 to 2%) of overall community energy use and GHG emissions, the Municipal EAP provides a key component of comprehensive climate action planning needed to reach the AB 32 reduction target. Specifically, this EAP identifies actions that the local government can implement over time to reduce the energy use and GHG emissions associated with its operations. Accordingly, such “leading by example” is an effective strategy to elicit beneficial actions and behaviors in the wider community. This EAP addresses electrical energy only. As noted above, achieving GHG reductions consistent with the goals of AB 32 will undoubtedly require additional actions involving other important GHG sources such as fleet vehicles and stationary combustion of fuels for heating and other purposes.

6.3 Review of Previous Efforts and Current Policies

A review of existing policies related to energy efficiency within municipal operations helped the City document existing energy efficiency efforts and identify areas for potential improvement. This process also ensured that the EAP aligns well with current policies and programs that have already been implemented.

Table 6-1 below summarizes the City’s current policies related to energy efficiency in municipal operations.

Table 6-1: Current Policies Related to Energy Efficiency

Policy / Plan	Source
<p><i>Town Form</i> TF25. Efficient Use of Land. Incorporate efficient and use and development patterns that conserve resources such as:</p> <ul style="list-style-type: none"> • Shared parking to promote mixed uses • Parking alternatives • Adaptive reuse of sites/structures • Development standards (e.g., setbacks and lot coverage requirements) that enable a wide variety of physical outcomes based on the intended physical environment(s) • Transit-proximate housing. 	<p>General Plan, Town Form Element</p>
<p><i>Town Form Objective 12: Promote green building/energy efficiency through high quality and energy-conscious design</i></p> <p>TF45. Energy-Efficient Incentive Programs. Maintain an incentive program to encourage new development to incorporate the following design elements:</p> <ul style="list-style-type: none"> • Locate and design buildings to maximize natural day lighting and promote use of photovoltaic systems; • Energy-producing technology; • Light-colored “cool roofs”; and • Water-efficient landscapes, efficient irrigation, and permeable paving materials. <p>TF46. Energy Rebate Programs. Through coordination with the California Energy Council (CEC or other such groups), support an incentive program for the annual installation of approximately 25 solar energy systems on new and existing development;</p> <p>TF49. Green Building. Support and encourage Green Building design standards in new construction and redevelopment to promote increased energy conservation. Establish regulations requiring the development of environmentally sustainable buildings toward the following general targets:</p> <ul style="list-style-type: none"> • Achieve LEED™ certification for all new public buildings of at least 10,000 square feet. • Set a minimum target of 20 percent to the Silver LEED™ certification, 10 percent to the Gold LEED™ certification, and 2 percent to the Platinum LEED™ certification, with the remainder categorized simply as “Environmentally Sustainable Design”. • 50 percent of new buildings smaller than 10,000 square feet should obtain at least LEED™ certification or its equivalent. Applicants are responsible for the LEED application process; <p>TF51. Energy-Use Reduction. Monitor energy and water usage in Tehachapi and investigate other appropriate programs to achieve a 20 percent reduction in overall energy usage, conserving these and other natural resources.</p>	<p>General Plan, Town Form Element</p>

Policy / Plan	Source
<p><i>Town Form Objective 14: Reduce Tehachapi's production of greenhouse gas emissions and contribution to climate change, and adapt to the effects of climate change.</i></p> <p>TF55. Pro-actively cooperate with the state to implement AB 32 to achieve the required greenhouse gas emissions reductions;</p> <p>TF57. Reduce greenhouse gas emissions and adapt to climate change with efforts in the following areas:</p> <ul style="list-style-type: none"> • Energy. Key adaptation strategies will include incentivizing renewable energy installation, facilitating green technology and business, and reducing community-wide energy consumption; • Land Use. Key adaptation strategies will include transit-oriented development, compact development, infill development, and encouraging a mix of uses; • Buildings. Key adaptation strategies will include green building incentives, assessment of green building techniques as a formal phase of city design review, and development of a green building ordinance. Adaptation strategies will also include increased water efficiency in buildings; • Waste. Key mitigation strategies will include increased composting and recycling, and efforts to reduce waste generation; • Ecology. Key adaptation strategies will include tree planting and native and drought-resistant planting; • Government Operations. Key adaptation strategies will include green procurement and energy saving in operations and maintenance; • Communication and Programs. Key adaptation strategies may include energy or climate change themed publications and workshops, facilitating energy audits for residents, or establishing partnerships to promote climate action; <p>TF58. Within 1 year of adopting this General Plan, create and adopt a Climate Action Plan to guide city efforts in reducing green house gas emissions and adapting to climate change;</p> <p>TF59. To the extent feasible, complete a greenhouse gas inventory and review the Climate Action Plan's mitigation strategies every 5 years to ensure they are still appropriate.</p>	<p>General Plan, Town Form Element</p>
<p><i>Public Realm Objective 6: Incorporate green street techniques throughout the network</i></p> <p>PR23. As practical, include water harvesting measures in right-of-way design;</p> <p>PR24. As practical, retrofit existing rights-of-way with water harvesting measures</p>	<p>General Plan, Public Realm Element</p>

Policy / Plan	Source
<p><i>Sustainable Infrastructure Objective 1: Promote energy conservation and the development of renewable energy sources</i></p> <p>SI 30. Integrate energy efficiency measures into regulations and standards for land use, zoning, site orientation, building, housing, infrastructure, transportation, power and transmission, water and waste;</p> <p>SI 31. Provide rebates/incentives for ENERGY STAR® appliances, compact fluorescent light bulbs, dual pane windows, appliance recycling and home insulation;</p> <p>SI 32. Promote the use of “cool roofs”, which reflect the sun’s heat back to the sky rather than transferring it to the building;</p> <p>SI 33. Shade south and west facing windows where possible;</p> <p>SI 34. Promote the use of solar panels in all development, especially when building, acquiring, or retrofitting public facilities;</p> <p>SI 35. Select materials for rooftop technology that are sensitive to the visual needs of pilots in the area.</p>	<p>General Plan, Sustainable Infrastructure Element</p>
<p><i>Sustainable Infrastructure Objective 2: Promote transportation efficiency and reduce peak demand</i></p> <p>SI 36. Periodically assess electrical energy supply and demand, research supply sources and management options and integrate electrical energy planning into all planning and decision-making.</p>	<p>General Plan, Sustainable Infrastructure Element</p>
<p><i>Sustainable Infrastructure Objective 3: Increase use of renewable energy</i></p> <p>SI 37. Continue to pursue local energy supply management and distribution opportunities;</p> <p>SI 38. Develop an incentive program to assist with business and/or home renewable energy systems such as solar panels and wind power.</p>	<p>General Plan, Sustainable Infrastructure Element</p>

6.4 Stakeholder Feedback Process

The stakeholder feedback process helped educate the community about climate change, energy efficiency and related cost-saving measures, and provided opportunities for community input to the EAP development process. The public outreach and stakeholder education conducted for the Kern REAP project was uniquely part of Kern COG’s Regional Transportation Plan/Sustainable Communities Strategy’s (RTP/SCS) community engagement program. The SCS is required by Senate Bill 375. Specifically, Kern COG and their consultant Pacific Municipal Consultants (PMC) are leading two outreach phases in each of the Participating Municipalities. A central purpose of the first outreach phase was to gain insight regarding the issues, challenges and opportunities related to energy efficiency and implementation programs. The second outreach phase will not focus on energy issues.

Each outreach phase includes stakeholder meetings, community workshops, and a website that contains both an interactive game and an online survey (directionsto2050.org). Stakeholders representing specific interest groups (such as environment, business and industry, social services) are invited to participate in stakeholder roundtable meetings to provide feedback on the RTP/SCS and EAP strategies. Kern COG hosted 16 community workshops between April and June 2012 throughout the Kern region. Workshops took place on weekday evenings from 6:00 to 8:30 p.m. and translation services were available for Spanish-speaking participants. The outreach efforts for the Kern REAP and the RTP/SCS projects also include a statistically valid telephone survey.

Community input was folded into this EAP as much as possible. This input may also influence the eventual development of a comprehensive community-wide Climate Action Plan for Tehachapi. A final summary report (prepared by PMC and included as Appendix D) presents the community engagement approach and key findings for the Kern REAP program. The final summary report includes community feedback from stakeholder roundtable meetings, community workshops, and the online game and surveys.

During the community workshop, participants discussed their energy priorities for Tehachapi. Participants identified the following strategies as high priorities:

- Encourage long-term energy efficiency practices.
- Promote energy efficiency and green building practices in new developments.
- Improve energy efficiency of City-operated facilities and equipment.

Workshop participants emphasized the importance of promoting awareness in schools and the community about conserving energy and saving from energy efficiency upgrades. Participants believed that energy consumption is high in Kern County and that the City should lead by example with green building practices and energy efficient upgrades in public buildings. Participants suggested having a coordinated plan of attack that involves all energy conservation and efficiency practices and suggested requiring new developments to incorporate these practices.

6.5 Summary of Energy Efficiency Strategies and Goals

The tables below contain the high-level strategies that will result in significant reduction in energy usage in three primary sectors: Buildings and Facilities, Infrastructure Energy, and Policies and Procedures. For each strategy identified, a specific goal is defined that is measureable and has timely actions associated with implementation. In Section 7, additional detail is provided regarding how each measure was developed and how it supports energy efficiency strategies and goals.

Table 6-2: Strategies and Goals for Energy Efficiency in Buildings

Strategy for Reducing Energy in Buildings and Facilities	Specific Goal	Key Actions Identified	Status	Long / Short Term
Improve energy performance of city-owned or operated buildings	Improve energy performance of city-owned or operated buildings by 20% by 2020	Retrofit older HVAC units, Implement additional lighting retrofits	In progress	Short Term
Increase renewable energy usage in buildings and facilities	Increase renewable energy usage in buildings and facilities 10% by 2020	Conduct solar and wind feasibility studies, and review financing opportunities	In progress: City has begun to install renewable energy generation	Long Term
Develop green building requirements for municipal facilities	All new city-owned buildings achieve LEED certification or the equivalent, as well as 15% over Title 24 requirements.	Establish municipal green building requirement, educate City staff on benefits of green building	In progress: A green building policy was included in the City's General Plan (See Town Form Element, Objective 12)	Long Term

Table 6-3: Strategies and Goals for Infrastructure Energy

Strategy for Reducing Energy Use by Infrastructure	Specific Goal	Key Actions Identified	Status	Long / Short Term
Improve energy performance of city-owned lighting	Improve energy performance of outdoor lighting by 20% by 2020	Retrofit outdoor decorative lighting with more efficient bulbs, replace halides with LEDs	Not yet started	Short Term
Improve energy efficiency by reducing need for water conveyance.	Reduce water usage by 5% at City facilities to reduce the energy needed to pump, deliver, and treat water by 2020	Implement drought tolerant landscaping in parks and investigate the use of reclaimed water for irrigation	In Progress: City has adopted an Urban Water Management Plan	Long Term

Table 6-4: Strategies and Goals for Policies and Procedures Related to Energy Efficiency

Strategy for Developing Policies and Procedures Related to Energy Efficiency	Specific Goal	Key Actions Identified	Status	Long / Short Term
Improve energy management and have cost control systems in place to ensure that the listed specific goal is met.	Benchmark a minimum of 75% of municipal facilities by 2015	Continue to set up benchmarking, set up centralized billing and payment of utility bills, and conduct regular reporting to management on energy use and costs.	In Progress	Long Term
Actively participate in regional partnerships to improve energy efficiency.	Receive free pump test through SCE for all water pumps Audit all large facilities as appropriate.	Contact SCE to schedule free pump tests. Work with SCE and the Kern COG Energy Watch Program to receive free or low-cost energy audits.	In Progress	Long Term
Develop new financing mechanism for energy efficiency	Not applicable	Research and develop new options appropriate to the selected measures, such as a revolving loan fund or on-bill financing	In progress	Long Term

7. Identifying Energy Efficiency Measures

7.1 Measure Development

A pre-developed set of possible energy efficiency measures is provided in Appendix E. As noted above, each measure is designed to support the strategies and related goals described in Section 6. This set of measures was developed as part of the Kern REAP program, based on research and review of best practices regarding cost-effective energy efficiency measures for municipal operations. Some of these measures are applicable to all jurisdictions within Kern County, while other measures are applicable only to certain facilities or operations, such as an airport or a correctional facility. From the set of pre-developed measures, the City of Tehachapi selected several that are appropriate for consideration.

A review of the City's municipal policies and strategic planning documents, along with the GHG inventory results, benchmarking data, and energy audits results led to development of one additional measure. This additional measure includes expanding the City's progress in benchmarking City facilities.

7.2 Measures Chosen for the City of Tehachapi

A list of the energy efficiency measures appropriate for the City of Tehachapi is provided in Table 7-1 below. A description of each measure is provided, along with the applicable sector (building energy, infrastructure, or other) and the municipal department(s) that would be affected by the measure. Other relevant notes are also provided.

Table 7-1: Energy Efficiency Measures Identified as Appropriate for the City of Tehachapi

Measure Name	Description	Applicable Sector	Affected Departments	Additional Information
Airport Operations Optimization	Increase efficiency of airport operations by retrofitting lighting and reducing set-points of thermostats	Building and Facility Energy	Public Works	See results of Energy Audit for costs and savings
Municipal Building Energy Lighting	Continue to retrofit indoor lighting with more efficient equipment	Building and Facility Energy	All	See results of Energy Audit for costs and savings
Municipal Building HVAC upgrades	Retrofit HVAC units at City facilities to improve energy efficiency	Building and Facility Energy	Public Works	See results of Energy Audit for costs and savings
Municipal building water fixtures	Retrofit water fixtures with more efficient equipment	Building and Facility Energy	Public Works	
Energy efficiency purchasing policy	Develop and implement policy to prioritize purchase of energy-efficient equipment, such as equipment with the Energy Star label.	All	All	
Municipal Green Building Requirement	Require all new city buildings to achieve 15% above Title 24 requirements	Buildings and Facilities	All	
Municipal EV Program	Continue to purchase and use EVs for municipal operations	All	All	
Renewable energy installation	Review financing opportunities for solar panels and conduct feasibility analysis of rooftops	All	All	

Measure Name	Description	Applicable Sector	Affected Departments	Additional Information
Street light upgrades	Consider retrofitting city-owned decorative lighting with more efficient fixtures	Infrastructure Energy	Public Works	See results of Energy Audit for costs and savings
Plug load management	Optimize server operation and consider replacing servers with virtual servers. Consider other installing software to automatically control power settings of computers.	Buildings and Facilities	All	
Municipal building benchmarking	Continue to utilize USEPA's Portfolio Manager to track and reduce energy consumption in Municipal facilities and infrastructure.	All	All	The City has begun benchmarking of three buildings
Potable water conveyance equipment upgrades	Upgrade water conveyance equipment to more efficient technologies, including variable frequency drives and premium efficiency motors.	Infrastructure Energy	Public Works	Some pump tests and upgrades have been completed

8. Implementation

8.1 Cost/Benefit Analysis and Prioritization Framework

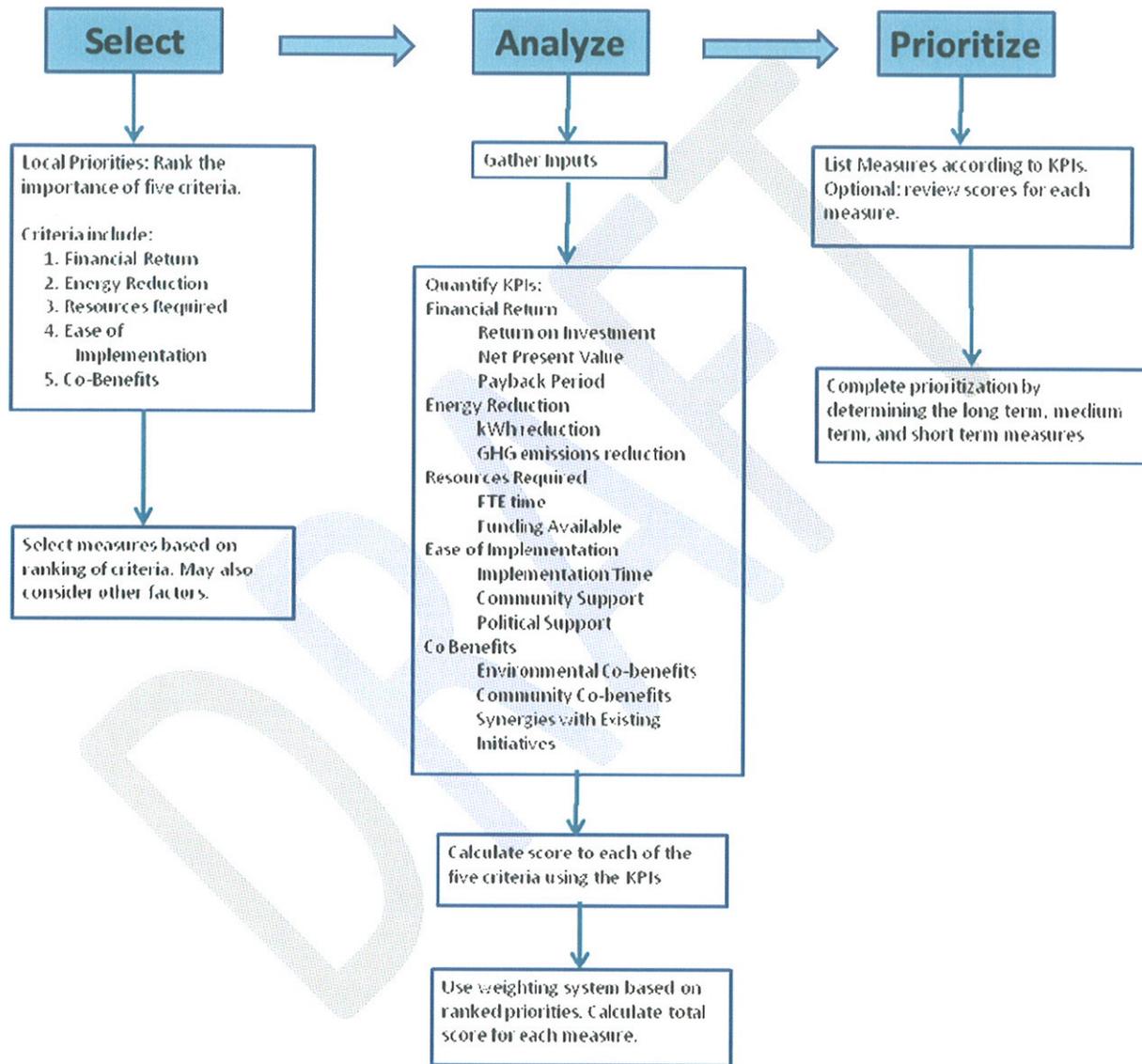
This section describes the approach used to analyze proposed energy efficiency measures, including criteria considered in the cost/benefit analysis, and the framework used to prioritize measures for inclusion in the EAP. This framework helps the City of Tehachapi make informed decisions about capital expenditures and funding, and places the City in a better position to partner with other public agencies and the private sector to implement energy efficiency programs and projects. The flow chart diagram below represents the measure prioritization framework. The first step was ranking five criteria for the City of Tehachapi on a scale of 1 – 5 (with 1 representing highest priority and 5 representing lowest priority). The next step involved gathering data and analyzing Key Performance Indicators (KPIs) such as energy savings and return-on-investment (ROI). Finally, the list of energy efficiency measures was prioritized according to the results of the KPI analysis and the ranking criteria. The following sections describe the analysis process in more detail.

8.1.1 Criteria for analyzing energy efficiency opportunities

In general, cost/benefit analysis methods range from the simple to the sophisticated. From a financial benefit standpoint, there are three primary methods of analysis:

- Simple payback analysis is a method by which a project's total cost is divided by the energy-cost savings accruing to it in the first year after it has begun. A simple payback calculation provides a rough initial estimate of the time needed to recover the initial investment.
- Return on Investment (ROI) is a performance metric used to evaluate the relationship between savings and costs of a given project. It is one of the most commonly used benchmarks for determining the efficiency of an investment. A positive ROI generally indicates a sound investment.
- Net Present Value (NPV) takes into account both life-cycle cash flows and the time value of money. This method is generally used for evaluating project financing decisions. The higher the NPV, the greater the profitability of an investment.

In addition to financial payback, project/program benefits to consider range from GHG emissions reduction to jobs creation to the ability to demonstrate leadership to the community. These are all examples of non-financial costs and benefits.



8.1.1.1 Costs and benefits

Analysis of a project or program involves thorough examination of costs and benefits, as summarized in Table 8-1 below, showing groupings of quantitative and qualitative criteria.

Table 8-1: Cost/Benefit criteria for analyzing energy efficiency measures

	Quantitative Criteria	Qualitative Criteria
Costs	<p>Capital cost, including equipment, and installation costs</p> <p>Training costs</p> <p>Annual O&M costs, including fully burdened staff time</p> <p>NPV, incorporating full lifecycle capital and operating costs</p> <p>Available rebates as an offset to costs</p>	<p>Political capital</p> <p>Opportunity costs</p>
Primary Benefits	<p>Energy (and cost) savings per year:</p> <ul style="list-style-type: none"> • energy use per useful output • energy use per capita or per function <p>Cost savings per year:</p> <ul style="list-style-type: none"> • simple payback period in years • IRR <p>GHG emissions reduction per year (metric tons CO₂e)</p>	<p>Represents a sustainable, long-term change that is independent of long-term funding</p> <p>Directly supports CEESP Goal 4 that “local governments lead by example with their own facilities and energy usage practices.”</p> <ul style="list-style-type: none"> • Demonstrates leadership and commitment to the local community • High profile or high visibility project/program
Secondary Benefits	<p>Environmental co-benefits:</p> <ul style="list-style-type: none"> • reduces criteria air pollutants • increases water conservation <p>Lifecycle energy savings, or reduction in the embodied energy of materials (e.g., use of recycled materials)</p> <p>Improved energy security (reliable supply; predictable cost)</p> <p>Generation of local green jobs</p>	<p>Leverage other funding sources, or places municipality in a better position for grant funding</p> <p>Showcases new technologies and/or practices that can raise awareness and spur adoption in the wider community</p> <p>Raises energy efficiency awareness with city staff, improving chances that additional efficiency opportunities will be identified and supported</p> <p>Can be replicated by other local governments</p>

8.1.1.2 Ability to Implement

The next stage of analysis involves identifying the opportunities, barriers and constraints to implementing identified energy efficiency actions. General criteria to consider are described in Table 8-2, along with more specific considerations related to each general criterion.

Table 8-2: Factors related to implementing energy efficiency measures

General Criteria	Specific Considerations
Alignment with other local and regional planning documents	<p>Existing General Plan policies are in place to support the measure</p> <p>Measure is consistent with AB 32 Scoping Plan</p> <p>Measure is consistent with identified best practice or strategy in other local, regional or state planning document (e.g., CEESP, Sustainable Communities Strategy)</p>
Available funding mechanisms	<p>The ability to finance the measure, the ability for the measure to pay for itself over time, and/or eligibility for an existing or future revolving municipal fund</p>
	<p>Ability to allocate city budget (e.g., Capital Improvement Program) for the measure</p>
	<p>The potential for federal-sponsored, state-sponsored or utility-sponsored grant funding</p>
	<p>Availability of rebates and incentives to reduce costs or to leverage capital investments</p>
	<p>Potential for energy savings performance contracts with a third party, and does such a contract trigger the need for an Investment Grade Audit to qualify</p>
Required departmental approvals	<p>Approval needed from the Budget office, Finance Director, Controller's office, Legal Department, and/or facility-operating departments, etc.</p>
Ability to monitor effectiveness	<p>The ease of monitoring energy and cost performance</p>
Leverages existing programs and resources	<p>Ability to piggyback on existing events, such as Earth Day (e.g., promote City as "leading by example" on energy efficiency)</p>
	<p>Ability to partner with other agencies or the private sector (e.g. Kern County, a local school district, the local Chamber of Commerce) to gain more access to funding opportunities</p>
Supports community-identified needs	<p>Requires education of community in order to garner support</p>
	<p>Requires the community to contribute to project/program success (e.g. the measure is based on occupant behavior in public facilities)</p>

8.2 Summary of Cost/Benefit Analysis and Prioritization

The following KPIs are used as the primary criteria for prioritization. The metrics below are shown in order of importance, with the most heavily-weighted factors listed first:

- Financial impact, measured as total return on investment
- Energy savings, measured in units of kilowatt hours (kWh)/year;
- Resources required, measured in staff time needed and upfront costs to implement;
- Ease of implementation, including consideration of stakeholder opinions, time needed to implement, and political support
- Co-benefits, such as reduced water usage, improved air quality, or setting a positive example to the larger community.

Using these criteria, the list of potential measures provided in Table 7-1 were analyzed and prioritized as presented in Table 8-3 below. The process of analyzing and prioritizing measures was aided by a spreadsheet tool developed for the Kern REAP program. The spreadsheet automates the methodology used for scoring and ranking the energy efficiency measures. This tool was developed using guidance and quantification methods provided by the USEPA, the State of California, and other organizations such as ICLEI and the American Council for an Energy-Efficient Economy (ACEEE).

The analysis for each measure in the table below was based on common assumptions, which are summarized in Appendix G. The specific methodologies used to calculate the costs, benefits, and energy and GHG reductions from each measure are included in the electronic version of the cost/benefit tool that was customized for the City of Tehachapi. This tool is considered proprietary by the project funder, SCE, but will likely be provided to any municipality that is interested in using the tool.

Table 8-3: Energy Efficiency Measures for the City of Tehachapi (Prioritized by Simple Payback Period)

Note: The City has the Cost/Benefit tool with supporting data for each measure on file. The tool can be reviewed at <http://www.liveuptehachapi.com/index.aspx?nid=77>

Measure Name	Energy Savings (kWh/year)	GHG Emission Reductions (MT CO2e/year)	Simple Payback Period (years)	Years Needed to Implement	Additional Comments
Street light upgrades	35,390	10	2	1	Upgrade city-owned street lighting to more energy efficient models
Municipal building water fixtures	1,160	<1	2	1	Upgrade water-consuming fixtures (faucets, aerators, toilets, urinals) with more water-efficient models
Municipal EV Program	(10,800)	7	2	1	The use of EVs increases electricity use but decreases GHG emissions from municipal operations. The City has an EV charging station and could purchase additional electric vehicles for municipal use.
Plug load management	46,880	13	4	3	Reducing plug-load energy usage includes installing plug strips with occupancy sensors, software management systems with timers, or manual shut down procedures for all office equipment when not in use, such as at night or over the weekend.
Municipal Building Energy Lighting	2,440	1	4	1	Upgrade interior lighting to more efficient models and/or install automatic lighting control systems
Municipal Building HVAC upgrades	7,160	2	6	1	Upgrade HVAC equipment to more efficient models and maintain regular maintenance
Airport Operations Optimization	4,670	1	6	1	Develop and implement policy for more efficient operation of the airport, to include strategies such as modifying control of electrical equipment based on the hours of operation, and ensuring that unused portions of the airport are shut down when not in use.

Measure Name	Energy Savings (kWh/year)	GHG Emission Reductions (MT CO2e/year)	Simple Payback Period (years)	Years Needed to Implement	Additional Comments
Potable water conveyance upgrades	182,950	52	9	1	This measure took into account a total cost per sq ft for green building, though only calculated the electricity savings per green measures.
Municipal Green Building Requirement	25,760	7	29	1	While a green building requirement will reduce natural gas and water use within the new buildings, this measure analysis only includes consideration of electricity reduction and associated cost savings.
Renewable energy installation	29,960	9	>30	3	Install additional renewable energy systems, such as photovoltaics, wind turbines, or solar hot water heaters, at select facilities
Municipal building benchmarking	10,300	3	>30	1	Continue to utilize the USEPA Portfolio Manager system to track and reduce energy consumption in all Municipal facilities.
Energy efficiency purchasing policy			NA		For new equipment, purchase Energy Star qualified products. This measure is not analyzed because it is considered a supporting measure for Plug Load Management measure.
TOTAL:	335,780	106	Average: 5.5	Average: 1.4	

8.3 Implementation Plan

EAP measures will be implemented by City staff in an ongoing process that includes additional research, initiation of projects selected for immediate implementation, and monitoring of results. The EAP is a living document that will be updated on a regular basis. Additional information on monitoring of results is provided in Section 10. The City of Tehachapi has assigned responsibility for overall implementation as follows:

Table 8-4: Roles and Responsibilities for the City of Tehachapi’s EAP Implementation

Role	Department or Staff	Responsible for:
Overall Plan Management	Community Development	<ul style="list-style-type: none"> Assigning implementation of specific projects Monitoring progress (this responsibility could be delegated to another department or staff but the overall plan manager should have overview) Updating the EAP (this responsibility could be delegated to another department or staff but the overall plan manager should have overview)
Project Implementation	Community Development	<ul style="list-style-type: none"> List specific projects to be implemented
Policy Development	Community Development	<ul style="list-style-type: none"> Reviewing goals and policies in City documents, such as the General Plan to ensure consistency with the EAP
Inventory and EAP Update	Community Development	<ul style="list-style-type: none"> Gather and analyze data for next inventory Review EAP implementation along with results of the inventory and update EAP as needed

9. Financing Models and Mechanisms

A number of potential financing models and mechanisms exist that may be useful in funding future energy efficiency projects.

9.1 Grants and Low-interest Loans

Grants and loans are available from federal, state, and regional agencies for investment in numerous types of climate-related projects. Grants and loans can provide short-term funding for program development and program testing. The program planning phase would require development of an alternative financial framework for the program's continued operation after the grant expires.

For example, the federal Department of Housing and Urban Development (HUD) administers the Sustainable Communities Regional Planning Grant Program. One of the key purposes of this grant program is to empower jurisdictions to consider the independent challenges of energy use and climate change, among other issues. In the San Joaquin Valley, a coalition of 14 cities received a \$4 million grant from the Sustainable Communities Regional Grant Program; some of these funds will be allocated toward developing local government Climate Action Plans. In the future, the City of Tehachapi could pursue such a grant in a coalition with other cities in the high desert region or in the Kern County region.

9.2 State Agencies

The California Energy Commission (CEC) has a well-established loan program that supports energy retrofits for local governments. The program provides low interest loans for feasibility studies and the installation of cost-effective energy projects in public care institutions, public schools and colleges, public hospitals, special districts, and local government facilities. The loans are repaid out of the energy cost savings. The program finances a variety of types of energy efficiency retrofits including: lighting, pumps and motors, building insulation, heating and air conditioning modifications, waste water treatment modifications, streetlights and LED traffic signals, and certain energy generation projects, including renewable energy projects and cogeneration. Loans can cover up to 100% of project costs and there is a maximum loan amount of \$3 million.

California Senate Bill 732 established the Strategic Growth Council (SGC), a cabinet level committee that coordinates the activities of several state agencies. The SGC aims to achieve multiple objectives, including improving air and water quality, protecting natural resources and agricultural lands, increasing the availability of affordable housing, improving infrastructure systems, promoting public health, and

assisting state and local entities in the planning of sustainable communities and meet AB 32 goals. The SGC operates the Sustainable Communities Planning Grant and Incentives Program. This program is a competitive grant program that supports a range of local government activities, including climate action planning.

The state also developed the State Energy Program (SEP), funded through grants received from the U.S. Department of Energy (DOE). The SEP has several components, including a low-interest loan program for energy projects for which cities are eligible, and a Municipal and Commercial Building Targeted Measure Retrofit Program.

9.3 Regional Organizations

The City of Tehachapi is currently a member of the Kern Energy Watch Partnership, which is an energy efficiency local government partnership in which Pacific Gas & Electric Company, Southern California Gas Company, and Southern California Edison provide support to local governments to assist them in achieving a joint vision of sustainability. A key goal in local government partnerships is helping cities and counties to lead by example in addressing energy efficiency first in their own municipal facilities. Some work on this EAP was funded through the Kern Energy Watch Partnership, and future funding may be available through both the Kern Energy Watch Partnership and the Kern County Energy Leader Partnership for the implementation of new energy efficiency projects.

Other financing options are available through the three utilities that serve Kern County. On-bill financing is a program in which a zero-interest loan is available for the purchase of qualified energy efficiency equipment. The cost of the purchase is repaid through the monthly utility bill; the loan term is based on the effective useful life of the equipment as well as the qualified project costs and estimated annual energy savings. No other loan fees or loan costs are incurred. Off-bill financing is a loan program in which the loan is repaid through a separate monthly bill. Numerous rebate programs are available for certain types of energy efficiency retrofit projects. Some assistance is also available to incorporate energy efficiency aspects into the design of new buildings.

9.4 Renewable Energy Municipal Financing and Revolving Fund Programs

In some cases, an initial investment in energy efficiency and renewable energy projects results in cash savings after a payback period is complete. A self-funding loan program could be developed to implement such projects; under a self-funding loan program, the loan payments are equal to the eventual cost

savings. The City of Tehachapi would provide an initial outlay for the loan program, which would be repaid through the energy cost savings and then reinvested in additional projects. Other financing programs for funding conservation and renewable energy technologies may also be available.

9.5 Public Financing

The California Statewide Communities Development Authority is a joint powers authority sponsored by the California State Association of Counties and the League of California Cities. The mission of the Statewide Communities Development Authority is to provide local governments and private entities access to low-cost, tax-exempt financing for projects that provide a tangible public benefit, contribute to social and economic growth and improve the overall quality of life in local communities throughout California.

California Communities® offers a pooled securitization program to assist local agencies in bonding against future payments to obtain funding for more infrastructure and transportation related projects today.

Because they require the approval of two-thirds of voters, bond and tax measures can be difficult to pass at this time, but they are another useful financing mechanism. For example, the voters of the City of Boulder, Colorado approved Initiative 202 in November 2006. This initiative created the Climate Action Tax Plan, which went into effect on April 1, 2007. The revenues generated through the tax are used to reduce GHG emissions from energy use in buildings, the operation of vehicles, and landfill gas emissions. The tax is implemented by a surcharge that is based on per-kilowatt-hour electricity usage (with an annual cap), and is collected by the local utility as part of the normal billing process. The customers who subscribe to the utility's premium priced renewable energy portfolio are exempt from the tax.

Although not used to fund municipal energy efficiency projects, a local government may provide an innovative funding mechanism for energy efficiency projects implemented by residential homeowners and commercial building owners through a Property Assessed Clean Energy (PACE) program. A PACE program allows residential and commercial property owners to finance energy efficiency retrofits through a loan that is repaid on the property tax bill. CaliforniaFIRST is the pilot program for PACE that will include 14 counties and over 100 cities, including unincorporated Kern County, City of Ridgecrest, City of Arvin, and the City of Bakersfield. Once the pilot phase is complete, any city may participate in CaliforniaFIRST.

9.6 Municipal Fees

Revenues from public services fees (e.g., parking fees, utility fees) could be used to fund programs such as energy efficiency and water use efficiency. Some local governments impose an internal surcharge on departmental energy bills. For example, the City of Portland, Oregon imposed a 1% surcharge (with a ceiling of \$15,000 per department) on departmental energy bills and used the funds to support a City energy specialist. The role of the specialist is to provide technical support for departmental energy projects, to help obtain utility energy rebates and other technical assistance available from local utilities, and to serve as an energy expert.

9.7 Private and Non-Governmental Support

Numerous organizations, such as non-profit organizations, foundations, or businesses, could provide funding for new projects. In addition, private investors may provide funding to local governments for projects that are expected to generate a positive return on investment. For example, energy service companies (ESCOs) can provide the initial investments in energy efficiency, and are then reimbursed by the local government over a contract period. In some cases, private companies finance renewable energy installations, and then recoup their investment by selling the resulting power to the building owner.

9.8 Carbon Offsets and Banking

Due to the new cap-and-trade program in the State of California administered by the Air Resources Board, certain types of projects will be allowed to create monetized credits due to the reduction of GHG emissions. These projects could then be financed through the sale or trade of the carbon credits that would be generated by the project.

10. Monitoring, Measuring and Verifying Progress

This EAP, developed as part of the Kern REAP Program, seeks to promote long-term energy efficiency and reduction of GHG emissions consistent with the goals of AB 32. Ongoing monitoring, measurement and verification of progress towards the energy efficiency goals in this EAP are essential. This section of the EAP provides a plan and schedule for ongoing monitoring, measuring, and verifying progress.

Energy monitoring is expected to continue using two methods. The first method is ongoing benchmarking using the Energy Star Portfolio Manager Program. Specifically, the City of Tehachapi will utilize the

Automatic Benchmarking Service (ABS) offered by SCE, in which data on electricity usage are automatically uploaded to the Portfolio Manager Program. In addition, cities will use the steps outlined in the “Benchmarking Made Easy” guide that was produced by the San Joaquin Valley Energy Partnership.⁷ This program provides a relatively easy and low-cost method for monitoring energy usage because the program has already been used by the City of Tehachapi and City staff has been trained to use it. Currently, only buildings of 5,000 square feet or more can be benchmarked in the Portfolio Manager Program. Data for smaller buildings may be entered into Portfolio Manager, but these buildings cannot be compared against a national database, and as such do not receive a benchmarking score.

The second energy monitoring method will address the energy usage of other buildings and infrastructure; for this method, the City of Tehachapi will review energy usage bills on a quarterly basis. A spreadsheet tool will be developed for the Kern REAP Program that will track progress towards the energy goals developed in this EAP, including goals to reduce energy used by buildings and infrastructure. The tool will sum energy usage and assess City of Tehachapi’s progress towards meeting specific energy goals.

An EAP update schedule is provided in Table 8-5. An Energy Efficiency Savings Analysis is scheduled to occur one year after EAP adoption. This analysis will summarize progress made towards implementing the EAP measures, including estimates of the GHG reductions associated with each implemented measure, where possible, and re-evaluation of the KPIs to provide an overview of progress towards EAP goals. If the findings in the GHG Energy Efficiency Analysis Report reveal that the City is not on track to meet energy efficiency goals, then the EAP may be revised with new or revised programs. Finally, it is expected that City of Tehachapi will update the municipal GHG inventory at least once every five years. The next full inventory update is scheduled for calendar year 2015; since complete data for all of 2015 will not be available until after the year has ended, the actual inventory will be conducted sometime in 2016. It is expected that the EAP will be updated each time the GHG inventory is updated, or once every five years at a minimum. As part of the EAP update process, it is highly recommended that City of Tehachapi consider how rising temperatures due to climate change will affect the progress towards goals outlined in this EAP. As noted in Section 4.1.5, temperatures are expected to increase between 8 and 10°F by the end of the century. As temperatures rise, demand for electricity is expected to rise, making goals more difficult to attain.

⁷ The “Benchmarking Made Easy” document is found at the following website:
http://viewthesavings.com/sites/default/files/VIEW_3.1.1_Benchmarking_Made_Easy_12_14_2011%20%281%29.pdf

Table 8-5: GHG Inventory and EAP Update Schedule, 2013 - 2036

Year	Item(s) to be Updated
Annually	Update Automatic Benchmarking Service program to include all City buildings; Document changes to facilities list and vehicle fleet list showing replaced vehicles; Ensure programs are on track per implementation schedule
2013	Energy Efficiency Savings Analysis
2015	Begin data collection for the 2015 GHG inventory update
2016	Complete 2015 GHG inventory update and complete EAP update
2017, 2018	Mid-cycle EAP review and update if needed (determine if another update is needed to reach 2020 goals, based on the results of the 2016 inventory update)
2020	Begin data collection for the 2020 GHG inventory update
2021	Complete 2020 GHG inventory update and complete EAP update, including revised goals if appropriate
2022 and beyond	Continue 5-year cycle: <ul style="list-style-type: none">• Mid-cycle EAP review and update (if needed)• Data collection for next 5-year GHG inventory update• 5-year update of GHG inventory and EAP

10.1 Monitoring Benchmarks

Monitoring benchmarks will be determined in the future based on the details of the monitoring plan developed for the City of Tehachapi.

11. Conclusion

This EAP for the City of Tehachapi was developed to be consistent with the objectives of the CPUC's California Long Term Energy Efficiency Strategic Plan (CEESP) and Assembly Bill 32 (AB 32). The EAP sets goals for energy reduction and provides a policy framework for decision making regarding energy efficiency measures that result in the reduction of energy consumption and associated GHGs, based on the City's energy baseline and GHG inventory results.

The City government's energy goals are summarized below.

- Reduce energy use in buildings and facilities by 20% by 2020
- Increase renewable energy usage in buildings and facilities by 10% by 2020.
- All new city-owned buildings achieve LEED certification (minimum level), as well as 15% over Title 24 requirements by 2020

-
- Improve energy performance of outdoor lighting by 20% by 2020
 - Reduce water usage by 5% at City facilities to reduce the energy needed to pump, deliver, and treat water by 2020
 - Benchmark a minimum of 75% of municipal facilities by 2015
 - Receive free pump test through SCE for all water pumps and audit all large facilities as appropriate.

This EAP includes strategies and actions that will reduce BAU energy consumption and the GHG emissions associated with that energy use. The analysis presented herein indicated that the City will fall short of many of the goals listed above, but will still achieve a 29% reduction in GHG emissions from the Buildings and Facilities sector by 2020, compared to the 2005 baseline. However, due to rapid growth in municipal operations between the baseline year 2005 and 2010, and additional projected growth by 2020, this EAP does not reduce overall electricity use enough to achieve a CARB-recommended GHG target of 15% below the 2005 baseline. Emissions associated with the Water and Sewerage sector, the largest consumer of electricity in City operations, are expected to rise dramatically, primarily because the City will need to supply water to an increased City population by the year 2020. With implementation of this EAP, and the anticipated impact of the state's Renewable Portfolio Standard (RPS), the net result is that total GHG emissions associated with the electricity consumed by municipal operations are projected to be approximately 937 MT CO₂e by the year 2020, a drop of 1% below the 2005 baseline of 946 MT CO₂e.

Energy consumption and GHG emissions associated with the Water and Sewerage sector are expected to increase significantly between 2005 and 2020. Other than efficiency of operations, the only real way to reduce water-related emissions is to use less water across the community. Measures to address community water conservation are beyond the scope of this document; the City will address water-related measures, and other measures to reduce community GHG emissions, in the Climate Action Plan to be prepared pursuant to the General Plan Update. The Climate Action Plan will also need to set a community-wide target for GHG emissions, consistent with AB 32 that encompasses all sectors (energy, transportation, water, solid waste, and municipal operations) across the community.

This EAP, along with the municipal operations GHG inventory, is expected to be updated (at minimum) every five years. As funding permits, strategies should be identified and incorporated into the EAP to address energy efficiency measures for natural gas consumption, fleet vehicles, and employee commute. Ongoing tracking and monitoring will occur to ensure that the City is making progress towards its goals. The City of Tehachapi may eventually use the EAP as a foundational component of a municipal Climate Action Plan, which would address all sources of GHG emissions. The City of Tehachapi General Plan

states that the City will prepare a community-wide Climate Action Plan that will develop and implement energy efficiency and related programs throughout the community.



Appendix A: List of the City of Tehachapi Facilities

Facility Name	Operated in the 2005 and/or 2010 Year(s)
City Hall	2005 and 2010
Public Works Office/Shop	2005 and 2010
WWTP Office/Control Room	2005 and 2010
Police Station	2005 and 2010
Fire Department	2005 only
Airport Terminal/Office	2005 and 2010
Tehachapi Museum	2005 and 2010
Senior Citizen's Center	2005 and 2010
Beekay Theater	2010 only
Railroad Depot	2010 only
Water Department Building	2010 only

Appendix B: List of the City of Tehachapi Vehicles

Year	Make	Model
Year 2005 On-road Vehicles		
2005	Chevy	Colorado
1957	Willy's	Jeep
1989	Chevy	Fire Patrol
2002	Chevy	Trailblazer
2006	Chevy	Tahoe
2005	Chevy	Colorado
2001	Chevy	Tahoe LS
2001	Honda	CRV
2003	Ford	Crown Victoria
2004	Chevy	C6500 Dump Truck
1986	Ford	Unknown
2001	Chevy	Silverado
2005	Chevy	Silverado
2003	Elgin	Crosswind Sweeper
2006	Chevy	Silverado
1998	Ford	F800 Dump Truck
1986	Chevy	½ Ton Pickup
1984	Ford	F700 Dump
1968	Chevy	½ Ton Pickup
1975	Chevy	C-60 Dump Truck
1996	Ford	F350 Pickup
2001	Chevy	C-60 Dump Truck
1997	Ford	F350 Pickup w/ Bed
2004	Chevy	Silverado 3500
2004	Chevy	Silverado
1996	Ford	F250 Pickup
Year 2005 Off-road Vehicle List:		
2003	JD310	SG Backhoe
2002	New Holland	LV80 Tractor

Year	Make	Model
2004	JD670CH	Motor Grader
1999	JD 544	Loader
1988	416 Caterpillar	Backhoe
1983	Caterpillar	Loader
2005	John Deere	3720 Utility Tractor
Year 2010 On-road Vehicles (includes all of the above plus):		
2008	Gem	EL XD (electric)
2008	Ford	Escape (hybrid)
2007	Crown	Victoria
2007	Chevy	Tahoe
2007	Crown	Victoria
	Raptor	300 B&W Motorcycle
2008	Ford	Expedition
2009	Ford	Explorer
1991	Chevy	Step Van
2000	Ford	F250 P/U
2001	Chevy	3500 Van
2006	Chevy	Silverado
2008	Chevrolet Silverado	Truck 2500
1986	IH	1600 Bucket Truck DSL AT
2007	Chevy	Silverado
2007	GMC	2WD ¾ Ton
2007	GMC	Sierra 1500 4WD
2008	Gem	EL EX (electric)
Year 2010 Off-road Vehicle List:		
2010	JD 3720CX	Tractor
2003	JD310	SG Backhoe
2002	New Holland	SG Backhoe
2004	JD670CH	Motor Grader

Year	Make	Model
1999	JD 544	Loader
1988	416 Caterpillar	Backhoe
1983	Caterpillar	Loader

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Appendix C: GHG Inventory Data and Calculations

1. Introduction

This document presents the City of Tehachapi's (City's) greenhouse gas (GHG) emissions inventory for local government operations. The purpose of the GHG emissions inventory is to identify source types, distribution, and overall magnitude of GHG emissions to enable policy makers to implement cost-effective GHG-reduction strategies in policy areas over which they have operational or discretionary control.

The City of Tehachapi is a member of the Kern Energy Watch Partnership and has participated in regional efforts to implement energy efficiency projects and perform outreach to the community regarding energy efficiency. The City of Tehachapi adopted an Update to its General Plan in April 2012. As part of that process, the City committed to developing a community-wide Climate Action Plan (CAP) to document community-wide GHG emissions and to develop strategies to reduce emissions from the community.

1.1 Jurisdiction Background

The City of Tehachapi is located between the San Joaquin Valley and the Mojave Desert in the Tehachapi Mountains at an elevation of 3,970 feet. The City covers about 10 square miles and includes a population of 14,414 as of the 2010 Census. The downtown of the City dates back to the construction of the Union Pacific Railroad Depot in 1876; the City was incorporated in 1909 and has served as a base for nearby mining, farming, and ranching for over a century. Located near the city is the famous Tehachapi Loop, a spiral on the Union Pacific rail line through the Tehachapi Pass. The City is also adjacent to a number of wind farms spanning the Tehachapi Pass, one of the largest wind resource areas in the State of California.

Tehachapi is known for its four-season climate. Due to its elevation of nearly 4,000 feet, the City receives 15-20 inches of snow each winter, and experiences a wet season from November – May. There are an average of 31.1 days with highs of 91 °F or higher and an average of 94.8 days with lows of 31 °F or lower annually.

Please see Section 3 below for a full description of Tehachapi's municipal operations.

2. Purpose and Need

The Kern REAP Program includes development of a municipal operations GHG inventory. The results of the City's municipal operations GHG inventory are used in the Energy Action Plan (EAP) to develop a baseline of energy use, as well as a baseline of GHG emissions. The methodologies used to develop the GHG inventory are provided in Section 4 of this document; the results are provided in Section 5. Section 3 provides a detailed description of all municipal operations.

3. Municipal Operations Description

The City of Tehachapi government serves a community of approximately 9,000. It should be noted that the U.S. Census Bureau lists City population at 14,414 as of 2010; however, this figure includes inmate population at the California Correctional Institution. The California Correctional Institution is located within city limits but is operated by the State. The City's municipal operations include services such as community development, police, municipal airport, street lights and traffic signals, general services, potable water supply, and wastewater collection and treatment. The City of Tehachapi contracts out the following services: fire protection from the County; and solid waste hauling. A detailed list of City of Tehachapi-operated buildings and facilities and infrastructure is provided in Appendix A to the EAP.

In addition to buildings owned and operated the City leases out the following owned buildings to third parties: Senior Center (operated by the County); the Beekay Theatre that is leased to a local theatre group; and the Heritage Museum that is leased out to a local operator. The City of Tehachapi operates and maintains a fleet of vehicles that includes trucks, passenger vehicles, and police vehicles. A comprehensive list of fleet vehicles is provided in Appendix B to the EAP.

The City provides potable water services to its residents through a series of seven groundwater wells, five storage tanks, two booster stations, and a distribution system. The City operates a wastewater treatment facility that is designed to treat a maximum flow of 1.25 million gallons per day (MGD) of wastewater. The treatment process utilized is secondary activated sludge. The facility serves residents within the City limits.

4. GHG Inventory Methodology

The purpose of the GHG emissions inventory is to identify source types, distribution, and overall magnitude of GHG emissions to enable policy makers to implement cost-effective GHG-reduction strategies in policy areas over which they have operational or discretionary control. The local government

operations GHG inventory for the City was developed using the Local Government Operations Protocol (LGOP), which was developed by the California Air Resources Board (CARB), the California Climate Action Registry (CCAR), and Local Governments for Sustainability (ICLEI), in collaboration with The Climate Registry. The LGOP is designed to provide a standardized set of guidelines to assist local governments with quantifying and reporting GHG emissions associated with their operations. The municipal operations GHG inventory was developed for the years 2005 (baseline year) and 2010 (update year). GHG emissions were also projected to 2020. The methodology used to develop the inventory and the 2020 projection is described below.

4.1 Overview

An emissions “sector” is a distinct subset of a market, society, industry, or economy, whose components share similar characteristics. The City’s inventory was compiled for the following emissions sectors, as per the LGOP: energy consumption in buildings (electricity and natural gas use), streetlights and traffic signals, transportation (City-owned and/or operated vehicle fleet), solid waste, potable water supply, wastewater treatment, and employee commute. The City’s local government operations inventory can be considered a subset of the City’s community-wide emissions inventory. The scope of this project does not include development of a community-wide inventory but such an inventory may be conducted in the future for Tehachapi.

The inventory focuses on the three GHGs most relevant to local government policymaking: carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). These gases comprise a large majority of GHG emissions from Tehachapi’s government operations. The LGOP and most other GHG reporting protocols also include consideration of three additional GHGs: hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. However, these GHGs are not included in Tehachapi’s inventory because municipal operations typically have minimal or no emissions of these three GHGs, and the data needed to quantify these gases is typically incomplete or difficult to obtain. All emissions are converted to carbon dioxide equivalent (CO₂e) so that GHGs can be compared using a common metric. Non-CO₂ gases are converted to CO₂e using internationally recognized 100-year global warming potential (GWP) factors. GWPs are developed by the Intergovernmental Panel on Climate Change (IPCC) to represent the heat-trapping ability of each GHG relative to that of CO₂. For example, the GWP of CH₄ is 21 because one metric ton of CH₄ has 21 times more capacity to trap heat in the atmosphere than one metric ton of CO₂.

4.2 Base Year

The LGOP recommends that a local government’s emissions inventory include all GHG emissions occurring during a selected calendar year. Reporting GHG inventories on a calendar year basis is

considered an international standard. The United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol, The European Union Emission Trading System (EU ETS), The Climate Registry, California Climate Action Registry (CCAR), and the state of California's mandatory reporting regulation under AB 32, all require GHG inventories to be tracked and reported on a calendar year basis. The City's inventory was prepared for the year 2005, to be consistent with GHG inventories developed for climate action plans being prepared in the region and across California. Because of time elapsed since 2005, the GHG inventory was updated to a more recent year (2010) for which good quality data is available. The updated inventory provides the City with valuable trend information and a means for evaluating the effectiveness of programs and strategies implemented between 2005 and the revision year.

4.3 Operational Control Approach

The organizational boundary of a GHG inventory is the boundary that defines which emission sources are included and which are excluded from the inventory. The LGOP strongly encourages local governments to utilize the operational control approach (as opposed to the financial control approach) to defining their organizational boundary since this control approach most accurately represents the emission sources that local governments can directly influence. Under the operational control approach, a local government accounts for 100 percent of the GHG emissions from operations over which it has operational control, including both wholly owned and partially owned sources. A municipality has operational control over a facility or operation if it has the full authority to introduce and implement its operating policies (e.g., it holds an operating lease for the facility, or has the ability to implement health and safety policies). Operational control is the consolidation approach required under AB 32's mandatory reporting program and is consistent with the requirements of many other types of environmental and air quality reporting (e.g., Clean Air Act Title V reporting). The inventory results and the business-as-usual projections described in this document were prepared using the operational control approach.

4.4 GHG Emission Scopes

To separately account for direct and indirect emissions, to increase transparency, and to provide usefulness for different types of climate policies and goals, the LGOP follows the World Resources Institute and the World Business Council for Sustainable Development (WRI/WBCSD) GHG Protocol Corporate Standard in categorizing direct and indirect emissions into "scopes" as follows, assuming the use of the operational control approach to the organizational boundary:

Scope 1: All direct GHG emissions (with the exception of direct CO₂ emissions from biogenic sources) from sources controlled by the reporting entity;

Scope 2: Indirect GHG emissions associated with the consumption of purchased or acquired electricity, steam, heating, or cooling, at facilities controlled by the reporting entity;

Scope 3: All other indirect emissions not covered in Scope 2, such as emissions resulting from the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity (e.g., employee commuting and business travel), outsourced activities, waste disposal, etc.

GHG accounting programs recognize that the Scope 2 emissions reported by one entity may also be reported as Scope 1 emissions by another entity. For example, the Scope 2 emissions from electricity use reported by a local government may also be reported as Scope 1 emissions by the regionally-serving utility that produced the electricity. This dual reporting does not constitute double counting of emissions as the entities report the emissions associated with the electricity production and use in different scopes (Scope 1 for the regionally-serving utility and Scope 2 for the local government). Emissions can only be aggregated meaningfully within a scope, not across scopes. By definition, Scope 2 emissions will always be accounted for by another entity as Scope 1 emissions. Therefore, Scope 1 and 2 emissions must be accounted for separately.

This also applies to Scope 3 emissions, as one entity's Scope 3 emissions is also another entity's Scope 1 or 2 emissions. Thus, all scopes should be accounted for separately. Reporting both Scope 1 and Scope 2 emissions helps ensure that local governments create a comprehensive emissions profile that reflects the decisions and activities of their operations. Reporting of Scope 3 emissions is encouraged but considered optional by the WRI/WBCSD and the LGOP. A large majority of Scope 3 emissions are typically associated with life-cycle processes, which can be speculative and difficult to quantify. The City's inventory includes Scope 3 emissions for which data was readily available; including those associated with government generated solid waste and employee commuting. The inventory results included in this document identify the scope for each emissions sector quantified.

4.5 Data Collection and Emissions Estimation

The LGOP identifies calculation-based methodologies as the most appropriate technique for local governments to quantify their GHG emissions. Calculation-based methodologies involve the quantification of emissions based on "activity data" and "emission factors". Activity data are the relevant measurements of energy use or other processes that are associated with the emission of GHGs. Examples of activity data include fuel consumption by fuel type, metered annual energy consumption, and annual vehicle mileage by vehicle type. Activity data is used in conjunction with an emission factor to calculate

emissions. Emission factors are calculated ratios relating GHG emissions to a proxy measure of activity by emissions source.

The City's baseline inventory and projection use California-, SCE-, and/or Kern County-specific activity data and emission factors when possible, which generate more accurate estimations of GHG emissions by sector for the City than estimated activity data or emission factors from the state or national level.

Activity data for each sector was provided by the City through the data collection process. The methods and assumptions used for each sector are summarized under the results of the inventory in the following section.

4.6 Projecting Future “Business-as-Usual” Emissions

GHG emission projections for 2020 were developed under a business-as-usual scenario, i.e., a scenario that does not include GHG reduction measures that will become part of the EAP or a future Climate Action Plan. The City of Tehachapi's current General Plan dated 2012 acknowledges that growth in the City will result in an increase in demand for services within the City. As a result of this increase in demand, new facilities, equipment and personnel may be necessary to maintain adequate level of service for the City of Tehachapi residents. These additional personnel and facilities would be funded through the normal budgetary process as growth occurs.

For projecting City of Tehachapi's government operations-related emissions, it was conservatively assumed that City departments and services would grow in proportion to population growth. City population data was obtained from forecast data developed by Kern COG and the California Department of Finance and from the City's General Plan. City services to residents (i.e., streetlights and traffic signals and wastewater treatment) were assumed to grow in proportion to population growth. Emission sectors that are dependent on City employment (i.e., buildings and facilities, stationary sources, government operations generated solid waste, and employee commute) were conservatively assumed to grow by 10 percent by the year 2020 since City employment is not anticipated to grow at the same rate as the population.

5. GHG Inventory Results

City-specific data for each emissions sector, any required adjustments to the data, and emission factors used are summarized below.

5.1 Energy Consumption

5.1.1 Stationary Combustion

Stationary combustion refers to the combustion of fuels to produce electricity, heat, or motive power using equipment in a fixed location. Stationary combustion is a Scope 1 emissions source because the power-generating equipment, fuel combustion, and subsequent emissions are controlled by the local the City. The City of Tehachapi operates multiple major facilities including police stations, a wastewater treatment plant, and a municipal airport. The City provided information on stationary sources under its operational control for year 2012, including generator specifications and permits. Emissions from these sources were calculated with emission and load factors from the OFFROAD2007 model as contained in the California Emissions Estimator Model (CalEEMod) User Guide. The City provided data on average run-time, at 30 minutes per generator per month for testing purposes. The provided data was used as a proxy for year 2010, and year 2005 emissions were based on the assumption that the same number of generators existed then as in 2010 and that there were no additional or fewer hours of run-time. Future projections for on-site stationary combustion were based on the assumption that no new additional generators would be purchased, nor any additional hours of run-time granted by the Air District for existing generators under the City's control in 2010.

The emissions inventory used natural gas consumption data for City of Tehachapi buildings and facilities for 2005 and 2010 from the Southern California Gas Company (SCGC). The data was obtained from the utility through authorization from City of Tehachapi. GHG emissions from natural gas consumption were estimated using emission factors contained in Tables G.1 and G.3 of the LGOP for natural gas combustion. The CO₂ emission factor is reported in kilograms of CO₂ per million British thermal units (kg CO₂/MMBtu) (Table G.1 of the LGOP). CH₄ and N₂O emissions depend not only on fuel characteristics, but also on technology type and combustion characteristics, usage of pollution control equipment, and maintenance and operational practices. Therefore, CH₄ and N₂O emission factors are reported in kg/MMBtu by building sector type, which account for these other variables. Natural gas emission factors for the commercial sector (see Table G.3 of LGOP) were determined to be most applicable to local government operations and therefore were used to calculate natural gas combustion emissions. Future projections for natural gas were based on a 10 percent increase in City employment and associated energy use at buildings and facilities by 2020 since City employment is not anticipated to grow at the same rate as the population.

5.1.2 Electricity Consumption

Local governments have indirect GHG emissions associated with the purchase and use of electricity. The generation of electricity through combustion of fossil fuels typically yields CO₂, and to a smaller extent, CH₄ and N₂O. Electricity consumption is a Scope 2 emissions source because emissions generated from electricity consumption occur from operations controlled by the utility provider.

Electricity consumption data for 2005 and 2010 was obtained from SCE for all City buildings and facilities, streetlights, and traffic signals. Utility-specific emission factors for CO₂ (pounds of CO₂ per megawatt-hour [lb CO₂/MWh]) from 2007 were used for 2010 for electricity delivery (Table G.6 of the LGOP). The 2007 emission factor was used since no verified emission factors were available for 2008. The emission factor has been third-party verified to the standard of the CCAR Power/Utility Protocol. Because there is delay in reporting and verifying these utility-specific emission factors, the LGOP recommends using the most recent metric available when calculating Scope 2 emissions from purchased electricity. Utility-specific emission factors for CH₄ and N₂O are not reported under CCAR's Power/Utility Protocol. Therefore, California Grid Average Electricity Emission Factors were used for CH₄ and N₂O (Table G.7 of the LGOP). These California-specific emission factors have been developed by CARB based on the total in-state and imported electricity emissions divided by the state's total electricity consumption. Future projections for buildings & facilities and water supply were based on a 10 percent increase in City employment and associated energy use at buildings and facilities by 2020 since City employment is not anticipated to grow at the same rate as the population. Future projections for City-owned street lighting and traffic signals were based on population growth, since outdoor lighting correlates closely with increases in population.

5.2 Transportation

Mobile combustion sources include both on-road and off-road vehicles such as automobiles, trucks, and buses. Emissions from mobile-source combustion can be estimated based on vehicle fuel use and miles traveled data. CO₂ emissions, which account for the majority of GHG emissions from mobile sources, are directly related to the quantity of fuel combusted and thus can be calculated using fuel consumption data. CH₄ and N₂O emissions are more dependent on the emission control technologies employed in the vehicle and distance traveled. Calculating emissions of CH₄ and N₂O requires data on vehicle characteristics (which takes into account emission control technologies) and vehicle miles traveled (VMT). Tailpipe emissions from mobile sources are classified as Scope 1 emissions.

The City provided hard-copy fuel purchase records for 2005 and 2010. Stationary source (i.e. generator) emissions were subtracted from this data to arrive at on-road and off-road vehicle fuel consumption. All

gasoline vehicles were assumed to be on-road and diesel vehicles off-road vehicles, based on the notations marked down on the fuel cards.

5.3 Solid Waste

The collection, processing, and disposal of solid waste can encompass many different sources of GHG emissions. Fugitive CH₄ emissions released from solid waste facilities, namely landfills that accept organic waste, constitute a Scope 1 emission source. City of Tehachapi does not own or operate a landfill. CH₄ emissions associated with the decomposition of waste produced directly or indirectly by government operations activities are classified as Scope 3 emissions sources.

The City provided solid waste disposal data specific to City operations. Standard state waste categorization percentages from the California Department of Resources, Recycling, and Recovery (CalRecycle) were used for government-related waste categories. The GHG emissions associated with solid waste disposal were quantified using U.S. Environmental Protection Agency's (USEPA's) Land GEM model, using parameters specific to local landfill conditions, to estimate CH₄ emissions. Future projections for this sector were based on a 10 percent increase in City employment and associated solid waste disposal by 2020 since City employment is not anticipated to grow at the same rate as the population.

5.4 Wastewater

Local governments are often responsible for providing wastewater services to their communities. This may include activities like wastewater collection, managing septic systems, primary and secondary treatment, solids handling and effluent discharge. Wastewater treatment processes can encompass many different sources of GHG emissions. The primary GHG emissions from wastewater treatment facilities are CH₄ and N₂O emissions created by septic systems and centralized wastewater treatment.

The City operates one wastewater treatment plant(s), along with 2600 sewer connections. Thirty-five miles of sanitary sewers convey water to the wastewater treatment plant from Tehachapi. The wastewater treatment plant is a 1.25 MGD secondary activated sludge treatment facility that provides wastewater treatment services for the community, and current plant flow influent is approximately 0.85 MGD. Since the City has direct operational control over the facility, fugitive emissions from the plant are reported as Scope 1 emissions. It should be noted that other communities served by the facility would report the fugitive emissions from the treatment of their wastewater streams as Scope 3 emissions.

Process data (e.g., treatment capacity, biological oxygen demand) for the wastewater treatment facility were provided by the City of Tehachapi for the years 2005 and 2010. The primary treatment process used at the facility is a secondary treatment activated sludge process. The LGOP does not include methodologies for estimating CH₄ emissions from aerobic treatment processes. These emissions are also not included in the U.S. inventory. This assumption is based on the acknowledgement that the regulatory system in the U.S. ensures that wastewater treatment plants are routinely in compliance with their discharge requirements, which requires that they are well-operated. This same regulatory system is in place in California, which ensures that plants are in reliable compliance with their discharge requirements and are consistently well-operated. The IPCC inventory guidance includes a methodology for estimating methane emissions from poorly-operated aerobic wastewater treatment systems. It is assumed that systems in the US would be well-operated; therefore, emissions from this sector are considered negligible for the City's inventory.

For GHG projections to 2020, it is assumed that the facility would continue to operate the aerobic system. The facility may need to increase treatment capacity to accommodate the increased population in the City's service area. An expansion of the facility, when it occurs, would not lead to a sizeable increase in GHG emissions due to the low-emitting nature of the treatment process employed.

5.5 Water Delivery

The City delivers water to Tehachapi residents using a network of 2,965 water service connections, with seven wells, of which six are currently active. The City also operates five storage tanks for a total capacity of 5.1 million gallons. Many communities of Southern California must import their water supplies from remote locations via the Colorado River and Northern California pipelines. The conveyance and distribution of water from these remote locations entails high electricity demand. The City's use of a local water supply ensures that the electricity consumption for treatment and distribution of water is limited to energy use at the local facilities and distribution system. SCE provided energy consumption data for the wells and distribution facilities. Scope 2 emissions associated with electricity consumption were estimated using the same methodology as described in the "Energy Consumption" sector above. The projected increase in population from 2010 to 2020 was used as an indicator for increased energy consumption for the water distribution facilities in 2020.

5.6 Employee Commute

Emissions associated with the travel of employees to and from work in personal vehicles not owned and operated by the local government are classified as Scope 3 emissions. Local governments can often

influence these emissions through various programs (e.g., carpools, telecommute options, flexible schedule options) despite not having direct control over them, and are therefore generally included in government inventories.

The City provided employee survey results data for 2012 that includes one way commuting mileage and days worked per week. Data from 2012 was used as proxy for 2010; data for 2005 was not available. Emissions associated with employee commuting were estimated using estimated distances with emission factors contained in CARB's On-Road Mobile-Source Emission Factor Model (EMFAC2011), and tables G.11 and G.12 of the LGOP. Future projections for this sector were based on a 10 percent increase in City employment and associated commuting emissions by 2020 since City employment is not anticipated to grow at the same rate as the population.

5.7 Airport

The City operates the Tehachapi Municipal Airport. The airport is a general aviation municipal airport with a 4,000 feet runway. Facilities at the airport include two hangars, a small executive terminal, fuel concession, and restrooms. Emissions from the airport were parsed out from the provided electricity data based on facility address, and GHG emissions were quantified following the same methodology as for electricity-related emissions for other municipal operations category. On-road and off-road fuel consumption data at the Airport was not available.

According to the *Guidebook on Preparing Airport Greenhouse Gas Emissions Inventories* prepared by the Airport Cooperative Research Program and sponsored by the Federal Aviation Administration, local government operations emissions at an airport owned/operated by the local government should consider Scope 1, 2, and 3 emissions, where Scope 3 only includes emissions over which the government exerts significant control or influence. In this case, generally only the emissions from sources owned and controlled by the airport governmental entity would be reflected. Thus, aircraft sources would be omitted, unless the airport governmental entity owns and operates aircraft. The City of Tehachapi does not own/operate any aircrafts at the Municipal Airport. Therefore, emissions from flight activity at the Airport are not included in this inventory.

5.8 Results

Reporting GHG emissions by sector provides a better understanding of the relative contributions from each sector and helps identify the best GHG reduction opportunities. Table C-1 and Figures C-1, C-2, and

C-3 summarize the magnitude and relative contribution of municipal emissions by sector for 2005, 2010, and 2020 (projected).

Table C-1: GHG Inventory Results

Sector	2005 GHG Emissions (MT CO₂e/year)	2010 GHG Emissions (MT CO₂e/year)	2020 GHG Emissions (MT CO₂e/year)
Buildings - Electricity	71	98	108
City-owned Streetlights/Traffic Signals - Electricity	6	52	58
Water Supply -Electricity	868	913	1,032
Buildings - Natural Gas¹	0	114	125
Stationary Sources²	5	5	5
On-Road Vehicle – Fuel	129	110	124
Off-Road Vehicles - Fuel	34	14	17
Wastewater Treatment Plant³	0	0	0
Solid Waste	53	59	65
Employee Commute⁴	no data	101	111
Airport Facilities – Electricity	<1	1	1
Total Emissions	1,167	1,467	1,646

Note: Totals may not add due to rounding.

¹ Natural gas data provided by SCGC showed no consumption in 2005. The City has indicated that there was natural gas used at City facilities in 2005; however, this data was not available from SCGC or the City.

² The City indicated that each generator is operated for 30 minutes per month for testing purposes. Generator permit conditions were assumed to stay the same through 2020.

³ The City's wastewater treatment plant uses an aerobic treatment process which would have negligible GHG emissions.

⁴ Employee commute data for 2005 was not available from the City. Data for 2010 includes multiple employees with one-way commute distances of greater than 40 miles. Data provided by the City indicates that these employees commute to the City four days a week in most cases, leading to a higher relative contribution of GHG emissions from this sector.

Figure C-1: Tehachapi Municipal GHG Inventory by Sector: 2005

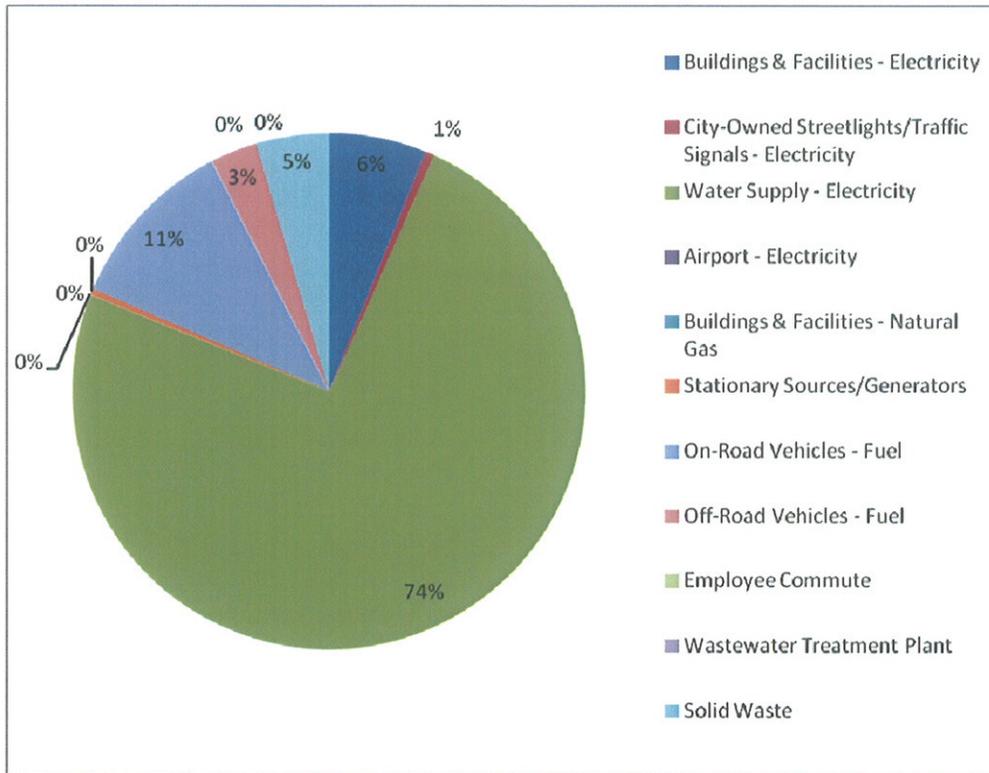


Figure C-2: Tehachapi Municipal GHG Inventory by Sector: 2010

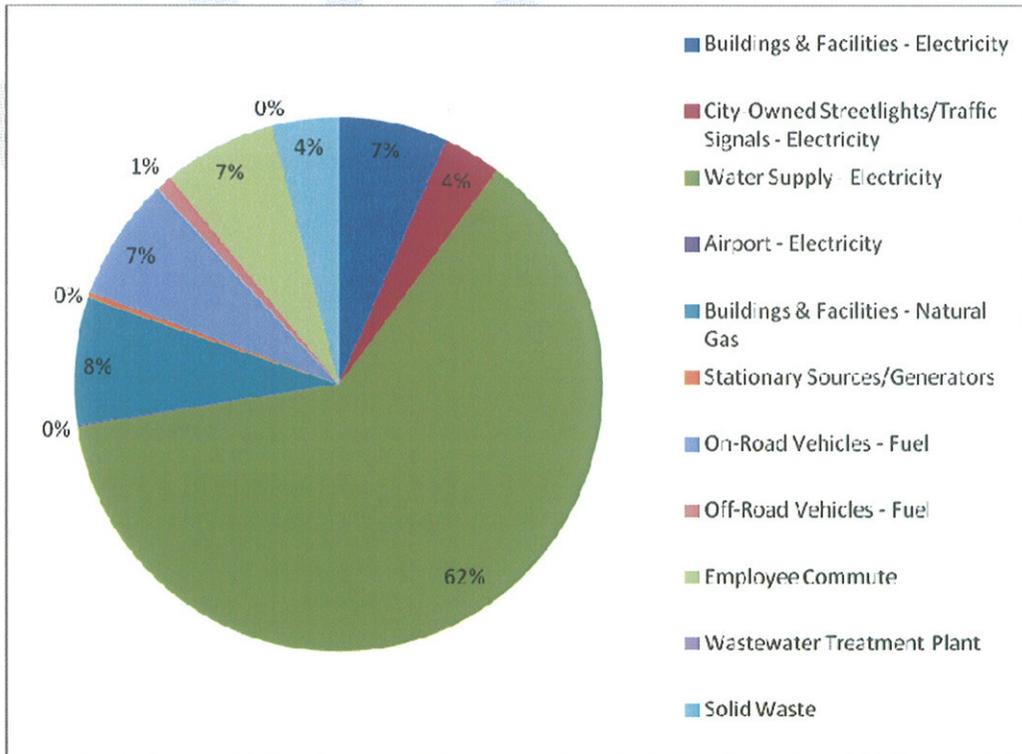
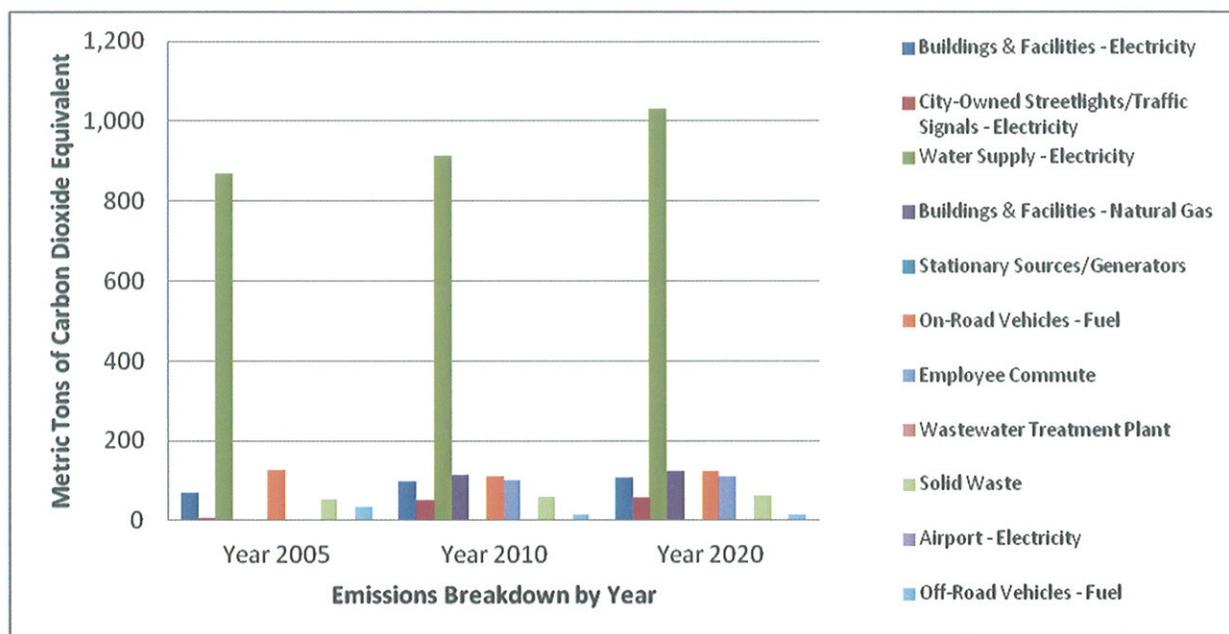


Figure C-3: Tehachapi Municipal GHG Inventory by Sector: 2005, 2010, and 2020



In 2010, the largest sources of GHG emissions were, in descending order:

- Electricity consumption for water supply
- Natural gas consumption in buildings and facilities
- Fuel consumption in fleet vehicles
- Employee commute
- Electricity consumption in buildings and facilities

It should be noted that employee commute data provided by the City shows multiple employees with one-way commute distances greater than 40 miles, leading to larger GHG emissions and relative contribution from this sector, compared to other participating municipalities. Table C-2 shows GHG emissions by Scope.

Table C-2: GHG Emissions by Scope

Sector	Total GHG Emissions in 2005 (MT CO ₂ e/year)	Total GHG Emissions in 2010 (MT CO ₂ e/year)	Total GHG Emissions in 2020 (MT CO ₂ e/year)
Scope 1			
Building - Natural Gas	0	114	125
Stationary Sources/Generators	5	5	5
City Vehicle Fleet - Fuel	129	110	124
City Off-Road Vehicles - Fuel	34	14	17
Wastewater Treatment Plant	0	0	0
Total Scope 1 Emissions	168	243	271
Scope 2			
Building - Electricity	71	98	108
City-Owned Streetlights/Traffic Signals - Electricity	6	52	58
Water Supply -Electricity	868	913	1,032
Airport – Electricity	<1	1	1
Total Scope 2 Emissions	946	1,064	1,199
Scope 3			
Solid Waste	53	59	65
Employee Commute	no data	101	111
Total Scope 3 Emissions	53	160	176

Note: Totals may not add up due to rounding.

GHG emissions generally increased from 2005 to 2010 due to growth in City operations to accommodate population growth. GHG emissions are projected to increase from 2005/2010 to 2020 due primarily to the growth of municipal services and operations associated with anticipated population growth in Tehachapi. The relative contribution by each sector to the total municipal inventory is expected to remain relatively constant through the projection period.

Appendix D: Stakeholder Engagement Report



Appendix E: List of Pre-Developed Energy Efficiency Measures for the Kern REAP Program

Name of Measure	Description	Relevant Emissions Sector(s)
Green Building Requirement	Require all new city owned or operated buildings to obtain 15% increase in energy efficiency performance over CalGREEN requirements	Building Energy
Building energy lighting	Upgrade lighting within municipal buildings to more efficient models and/or install automatic lighting controls	Building Energy
Building energy management	Install a building automation system, which is a network of devices that assist in monitoring and controlling the mechanical and lighting systems of a building	Building Energy
Plug load management	Optimize server operation and consider replacing servers with virtual servers	Building Energy
Building HVAC upgrades	Upgrade HVAC equipment within municipal buildings to more efficient models	Building Energy
Building insulation upgrades	Improve insulation within municipal buildings	Building Energy
Building programmable thermostats	Install programmable thermostats	Building Energy
Building water fixtures	Replace water-consuming fixtures (i.e. faucet aerators, toilets, urinals) in municipal buildings with more water-efficient models	Building Energy
Building operations optimization	Develop and implement policy for more efficient operation of the building	Building Energy
Building maintenance	Create and implement a plan for ongoing building maintenance, including preventive maintenance needed to maintain electrical equipment	Building Energy
Demand Response	Identify and implement projects that take advantage of utility's demand response program, reducing energy use during times of peak demand	Building Energy

Name of Measure	Description	Relevant Emissions Sector(s)
Street light upgrades	Upgrade street lights to more energy efficient models	Infrastructure Energy
Traffic signal upgrades	Upgrade traffic signals to more energy efficient models	Infrastructure Energy
Outdoor lighting upgrades	Upgrade outdoor lighting, such as lighting in parking lots or baseball fields, to more energy efficient models	Infrastructure Energy
Municipal EV program	Incorporate electric vehicles and charging stations in the municipal fleet	Transportation
Energy efficiency purchasing policy	Require all new electrical equipment purchased to be Energy Star if possible	Building Energy, Infrastructure Energy
Renewable energy installation	Install renewable energy projects, such as solar PV or solar hot water heaters, at selected municipal facilities	Building Energy, Infrastructure Energy
Potable water conveyance equipment upgrades	Upgrade water conveyance equipment to more efficient technologies, including variable frequency drives and premium efficiency motors	Potable Water Treatment and Conveyance
Wastewater treatment energy efficiency upgrades	Upgrade wastewater treatment equipment to more efficient technologies, including variable frequency drives and energy efficient motors	Wastewater Treatment
Wastewater treatment renewable energy	Install fuel cells to convert biogas from anaerobic digesters to electricity	Wastewater Treatment
Airport operations optimization	Develop and implement policy for more efficient operation of the airport, to include strategies such as modifying control of electrical equipment based on the hours of operation, and ensuring that unused portions of the airport are shut down when not in use	Airport
Prison energy efficiency upgrades	Upgrade electrical equipment in prisons to more efficient models, such as laundry equipment, and kitchen equipment	Prison

Appendix F: Additional Resources

US DOE EERE

The U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy works with industry, state and local governments, universities, and manufacturers to sponsor clean energy technologies and energy efficiency initiatives that align with predetermined national goals.

These goals include the strengthening of the economy, protection of the environment, and the reduction of dependence on foreign oil.

Home Page: <http://www.eere.energy.gov/>

CEC

The California Energy Commission is the state's primary energy planning and policy agency. It contributes to planning for future energy needs, by forecasting, promoting better energy consumption practices and new energy technologies, and preventing and preparing for State energy emergencies.

Home Page: <http://www.energy.ca.gov/>

CARB

The California Air Resources Board is a part of the California Environmental Protection Agency. It's mission is to promote public health, welfare, and ecological resources through the effective and efficient reduction of air pollutants.

Home Page: <http://www.arb.ca.gov/homepage.htm>

ICLEI – Local Governments for Sustainability

ICLEI is an association of over 1200 government Members who are committed to sustainable development. The organization supports the implementation of sustainable development on a local level by providing technical consulting, training, and information services at the local level.

Home Page: <http://www.iclei.org/index.php?id=about>

Utility Websites

SCE

Southern California Edison is the primary electricity supplier for much of Southern California, providing approximately 14 million people with electricity.

Home Page: <http://www.sce.com/>

PG&E

Pacific Gas and Electric Company is a major electricity and natural gas provider to California's Bay Area and most of the northern two-thirds of California.

Home Page: <http://www.pge.com/>

SEEC

The Statewide Energy Efficiency Collaborative is an alliance between three statewide non-profit organizations and California's four Investor-owned Utilities. The organization provides support to cities and counties to help them reduce their greenhouse gas emissions and save energy.

Home Page: <http://californiaseec.org/>

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Appendix G: Common Assumptions Used in Cost/Benefit Analysis

For additional methodologies used to analyze each measure, please refer to the version of the Cost/Benefit Tool customized for the City of Tehachapi.

Common Assumptions Used in the Analysis

Description	Number	Units
Cost per full time equivalent (FTE):	\$75,000	(\$/year)
SCE GHG Emission Factor for electricity, in lbs CO ₂ e/kWh:	0.63089	lb CO ₂ e/kWh
Conversion Factor for lbs to metric tons	2,204.6	lbs / metric ton
SCE GHG Emission Factor for electricity, in MTCO ₂ e/kWh:	0.00028617	MTCO ₂ e/kWh
Annual 2010 municipal electricity consumption in buildings and facilities, taken from data collected for the GHG inventory:	345,601	kWh/year
Annual 2010 Municipal GHG emissions in buildings and facilities:	99	MTCO ₂ e
Current cost of electricity consumption in buildings and facilities, taken from data collected for the GHG inventory:	\$0.20	\$/kWh

Appendix H: Categorical Exemptions under CEQA

Name of Measure	Description	Relevant Emissions Sector(s)	CEQA Notes (Exemption type, if applicable)
Green Building Requirement	Require all new City owned or operated buildings to obtain 15% increase in energy efficiency performance over CalGREEN requirements	Building Energy	New buildings already require CEQA analysis; therefore, there is no reasonably foreseeable effect associated with this requirement
Building energy lighting	Upgrade lighting within municipal buildings to more efficient models and/or install automatic lighting controls	Building Energy	Class 1
Building energy management	Install a building automation system, which is a network of devices that assist in monitoring and controlling the mechanical and lighting systems of a building	Building Energy	Class 1
Computer equipment energy management	Optimize server operation and consider replacing servers with virtual servers	Building Energy	Class 1
Building HVAC upgrades	Upgrade HVAC equipment within municipal buildings to more efficient models	Building Energy	Class 1
Building insulation upgrades	Improve insulation within municipal buildings	Building Energy	Class 1
Building programmable thermostats	Install programmable thermostats	Building Energy	Class 1
Building water fixtures	Replace water-consuming fixtures (i.e. faucet aerators, toilets, urinals) in municipal buildings with more water-efficient models	Building Energy	Class 1
Building operations optimization	Develop and implement policy for more efficient operation of the building	Building Energy	Class 1

Name of Measure	Description	Relevant Emissions Sector(s)	CEQA Notes (Exemption type, if applicable)
Building maintenance	Create and implement a plan for ongoing building maintenance, including preventive maintenance needed to maintain electrical equipment	Building Energy	Class 1
Demand Response	Identify and implement projects that take advantage of utility's demand response program, reducing energy use during times of peak demand	Building Energy	Class 1
Street light upgrades	Upgrade street lights to more energy efficient models	Infrastructure Energy	Class 1 (provided the streetlights are not classified as historical)
Traffic signal upgrades	Upgrade traffic signals to more energy efficient models	Infrastructure Energy	Class 1
Outdoor lighting upgrades	Upgrade outdoor lighting, such as lighting in parking lots or baseball fields, to more energy efficient models	Infrastructure Energy	Class 1
Municipal EV program	Incorporate electric vehicles and charging stations in the municipal fleet	Transportation	Chargers: Class 11 Vehicles: "General Rule" exemption of no potential to impact environment
Environmental purchasing policy	Require all new electrical equipment purchased to be Energy Star if possible	Building Energy, Infrastructure Energy	Class 1 or Class 2
Renewable energy installation	Install renewable energy projects, such as solar PV or solar hot water heaters, at selected municipal facilities	Building Energy, Infrastructure Energy	Class 2 (replacement) or Class 11 (new)
Potable water conveyance equipment upgrades	Upgrade water conveyance equipment to more efficient technologies, including variable frequency drives and premium efficiency motors	Potable Water Treatment and Conveyance	Class 1 or Class 2
Wastewater treatment energy efficiency upgrades	Upgrade wastewater treatment equipment to more efficient technologies, including variable frequency drives and energy efficient motors	Wastewater Treatment	Class 1 or Class 2

Name of Measure	Description	Relevant Emissions Sector(s)	CEQA Notes (Exemption type, if applicable)
Wastewater treatment renewable energy	Install fuel cells to convert biogas from anaerobic digesters to electricity	Wastewater Treatment	Class 1 or Class 11
Airport operations optimization	Develop and implement policy for more efficient operation of the airport, to include strategies such as modifying control of electrical equipment based on the hours of operation, and ensuring that unused portions of the airport are shut down when not in use	Airport	Class 1
Prison energy efficiency upgrades	Upgrade electrical equipment in prisons to more efficient models, such as laundry equipment, and kitchen equipment	Prison	Class 1 or Class 2

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KERN COUNCIL OF GOVERNMENTS (KERN COG)

CITY OF TEHACHAPI
ENERGY ACTION PLAN

STAKEHOLDER ENGAGEMENT REPORT



Kern Council
of Governments

Prepared for:

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SEPTEMBER 21, 2012

Southern California Edison Flight #5.6 Funding

This Program is funded by California utility ratepayers and administered by Southern California Edison under the auspices of the California Public Utilities Commission.

Kern Energy Watch Partnership Strategic Plan Strategies Program – Goal 3 Funding

“This Program is funded by California utility customers and administered by PG&E, Southern California Edison and SoCalGas under the auspices of the California Public Utilities Commission.”

I. Introduction

Purpose of Outreach

Directions to 2050 is the public participation program for the Energy Action Plan (EAP), Regional Transportation Plan update, and Sustainable Communities Strategy development process. The program builds on the 2008 Kern Regional Blueprint's (Blueprint) foundation of public participation in developing the region's future.

During the first phase of Directions to 2050, Kern Council of Governments (Kern COG) worked with local communities to identify and prioritize the next steps for the future of energy, the economy, transportation, housing, community services, and open space in the Kern region. The Directions to 2050 program results will be incorporated into the Kern region's plans to achieve the communities' mutual visions.

Promotions for Workshops, Meetings, and Online Activities

Kern COG undertook a comprehensive outreach effort to promote the Directions to 2050 community engagement process. Kern COG staff personally contacted stakeholders, such as City staff, agencies, health organizations, environmental groups, and community groups, and distributed fliers advertising community workshops.

Roundtable meetings were also scheduled. Kern COG identified a variety of stakeholder groups from the business, industry, environmental, and social sectors to participate in these small facilitated group discussions. Roundtable meeting participants received an invitation in the mail to attend the stakeholder meetings.

Several media outlets, including local and regional newspapers and radio, were contacted to promote the community engagement activities. Advertisements were also featured on the *Bakersfield Californian* website (www.bakersfield.com) to promote the online activity, which provided community members with an opportunity to prioritize transportation, housing, community services, the economy, open space, and energy strategies for the region's future. Facebook and Google advertisements directed people within the region to the online activity.

Key Themes and Overall Findings

Community Workshop

Tehachapi community workshop participants identified the following energy strategies as high priorities:

- Encourage long-term energy efficiency practices.
- Promote energy efficiency and green building practices in new developments.
- Improve energy efficiency of City-operated facilities and equipment.

Online Activity

Online activity participants from the Kern region supported the following energy strategies:

- Efficient New Developments: Promote energy efficiency and green building practices in new development.
- Coordinated Plan of Attack: Encourage long-term energy efficiency practices.
- Share the Knowledge: Develop an educational program for residents and businesses to share energy efficiency practices.
- Electric Vehicles and Charging Stations: Prepare communities for plug-in electric vehicles.

Stakeholder Roundtable Meetings

Stakeholder roundtable participants supported the following implementation opportunities for Kern's energy leadership:

- Distribute energy production.
- Develop small-scale energy production and distribution.
- Focus energy production.

Online Survey

When asked what their local government should be doing with respect to energy efficiency, over 70% of online survey respondents selected:

- Lead by example by making government facilities as energy efficient as affordable (79%).
- Provide information to the community on energy efficiency rebates and financial assistance (70%).

Next Steps

Directions to 2050 community engagement results will inform strategy and policy implementation in Tehachapi. These results can help to direct future outreach and plan amendments. Kern COG will continue to work with the City of Tehachapi to engage in community outreach and energy-related efforts.

II. Community Workshop

The Directions to 2050 community workshops provided an opportunity for community members to review the Blueprint Principles for Growth and understand the community's priorities for the future. Kern COG hosted 16 community workshops between April and June 2012 throughout the Kern region. Workshops took place during weekday evenings from 6:00 to 8:30 p.m.

During the meeting, participants learned about the Directions to 2050 project, prioritized the Principles for Growth, participated in small group discussions, and prioritized strategies for implementing the principles in their community. Participants visited six discussion topics area tables, shared topic-related facts, and engaged in an interactive strategy prioritization "board game" using cards and a game board.

Purpose and Process

At the community workshops, participants had an opportunity to:

- Learn about the role and purpose of the Directions to 2050 project and how this project relates to their lives.
- Confirm the Blueprint Principles for Growth and understand the community's priorities for the future.
- Learn about and prioritize sustainability strategies and initiatives.
- Share their demographic characteristics and community interests through a live interactive polling exercise with the use of TurningPoint, a software add-on to Microsoft PowerPoint that enables facilitators to develop and administer real-time assessments of a particular topic within a PowerPoint presentation.

Participants were presented with draft strategies for each of the following Blueprint Principles for Growth topic areas:

- Economic Vitality and Equitable Services
- Community Assets and Infrastructure
- Transportation Choices
- Conserve Natural Resources and Undeveloped Land
- Provide a Variety of Housing Choices and Use Compact, Efficient Development Where Appropriate
- Energy

City of Tehachapi Community Workshop

Kern COG hosted a meeting at the Training Room at 803 Tucker Road in Tehachapi on June 13, 2012. Fourteen community members attended the community workshop, including David James, Community Development Director.

Demographic Characteristics

Community workshop participants indicated the following demographic characteristics:

- Majority of participants were 60 years and older.
- Participants were residents of Tehachapi, Stallion Springs, and other unincorporated Kern County communities.
- Nearly all participants have lived in the region for six years or more.
- Most participants identified themselves as white (not Hispanic), and a few others identified as Hispanic/Latino and American Indian/Alaska Native.
- Participants represented residents, transportation and environmental interest groups, government agencies, and advocacy organizations for special needs populations.



Figure 1 - Workshop participants shared energy-specific facts, reviewed energy strategy cards, and prioritized strategies on the group's game board.

Energy Results

Participants discussed their energy priorities for Tehachapi and the region. Workshop participants identified the following strategies as high priorities for Tehachapi:

- Encourage long-term energy efficiency practices.
- Promote energy efficiency and green building practices in new developments.
- Improve energy efficiency of City-operated facilities and equipment.

Workshop participants emphasized the importance of promoting awareness in schools and the community about conserving energy and saving from energy efficiency upgrades. Participants believed that Kern County is using too much energy and that Tehachapi should lead by example with green building (e.g., energy-efficient upgrades in public buildings). Participants suggested having a coordinated plan of attack that involves all energy conservation and efficiency practices and suggested requiring new developments to incorporate these practices.

The table below presents the results from the energy strategies prioritization exercise.

Strategies – Energy <i>Listed by 1st Priority ranking</i>	Priority Rank						
	1st	2nd	3rd	4th	5th	6th	7th
Coordinated Plan of Attack: Encourage long-term energy efficiency practices.	34%	25%	25%	—	8%	8%	—
	84%			16%			—
Efficient New Developments: Promote energy efficiency and green building practices in new development.	9%	27.5%	27.5%	9%	9%	9%	9%
	64%			27%			9%
Efficient City Facilities: Improve energy efficiency of City-operated buildings, recreation facilities, and equipment.	17%	17%	8%	17%	8%	25%	8%
	42%			50%			8%
Share the Knowledge: Develop an educational program for residents and businesses to share energy efficiency practices.	25%	8%	8%	8%	18%	—	33%
	41%			26%			33%
Clean Fuel Vehicles: Support use of clean fuel technologies.	8%	17%	8%	17%	25%	25%	—
	33%			67%			—
Electric Vehicles and Charging Stations: Prepare communities for plug-in electric vehicles.	9%	9%	18%	18%	—	9%	37%
	36%			27%			37%
Expand Kern’s Energy Leadership: Invest in renewable energy production and distribution, including wind and solar power.	9%	18%	—	18%	9%	18%	28%
	27%			45%			28%

III. Stakeholder Roundtable Meetings

Kern COG hosted three stakeholder roundtable meetings. While all stakeholders were welcome at each roundtable meeting, the first meeting was mostly attended by business and industry stakeholder groups and the second and third by social services and environmental justice advocacy stakeholder groups. The third roundtable meeting, the Environment and Social Equity Roundtable, was a continuation of Kern COG's 2003 Environmental Justice Task Force. Approximately 20 people attended the first and second meetings and 10 attended the third meeting.

- Stakeholder Meeting #1: March 5, 1:00–3:00 p.m.
- Stakeholder Meeting #2: March 6, 9:00–11:00 a.m.
- Stakeholder Meeting #3: July 10, 1:00–3:00 p.m.

Purpose and Process

The purpose of the stakeholder roundtable meetings was to:

- Learn about the project, including project funding; the relationship of the plan to the Blueprint effort, general plans, and other activities in the region; and the potential impact of the plan.
- Review Blueprint Principles for Growth and prioritize them.
- Initially review and rank the Directions to 2050 Blueprint Principles for Growth topic areas through a live interactive polling exercise with the use of TurningPoint.
- Review Directions to 2050 draft strategies.
- Identify and discuss strategies in need of modification and/or those not supported by participants.
- Learn about environmental justice area identification process options.
- Identify and discuss the performance measures for environmental justice areas in need of modification and/or those not supported by participants.

Participants were presented with draft strategies for each of the following Blueprint Principles for Growth topic areas:

- Economic Vitality and Equitable Services
- Community Assets and Infrastructure
- Transportation Choices
- Conserve Natural Resources and Undeveloped Land
- Provide a Variety of Housing Choices and Use Compact, Efficient Development Where Appropriate
- Energy



Figure 2 - Stakeholders indicated whether they did or did not support each strategy using colored sticky dots.

Participants were polled on their support for proposed strategies. Through a sticky dot exercise, participants were asked to place red, yellow, and green sticky dots on posters around the room to indicate whether a strategy is one that they supported, did not support, or would support with modification.

Energy Results

Stakeholder roundtable meeting participants discussed each energy strategy at stakeholder meetings #1 and #2; participants of the third stakeholder meeting did not discuss energy strategies or issues in the region. Stakeholders discussed potential implementation opportunities for energy projects and programs. Most energy strategies were supported with modification by participants at the first and second stakeholder meetings.

Implementation Suggestions

Participants in the second stakeholder roundtable meeting suggested a number of potential implementation actions for energy strategies. Participants supported the following implementation opportunities for Kern’s energy production and distribution:

- Distribute energy production throughout the Kern region.
- Develop small-scale energy production and distribution in strategic locations in the Kern region.

Strategies Lacking Support

The following strategies were supported with modification by some participants at stakeholder meeting #1.

- Share the Knowledge: Develop an educational program for residents and businesses to share energy efficiency practices.

- Electric Vehicles and Charging Stations: Prepare communities for plug-in electric vehicles.
- Coordinated Plan of Attack: Encourage long-term energy efficiency practices.

Participants discussed preparing communities for electric vehicle charging stations in the Kern region. In general, some participants did support this strategy with modification based on the following:

- The strategy is not cost-effective for the region.
- The market plays a role in the success of electric vehicles and charging stations; a number of participants did not think it was Kern COG's role or responsibility to implement this strategy.

Participants discussed the Kern region's ability to have a coordinated plan of attack that would encourage the development of long-term energy efficiency practices. In general, some participants did support this strategy with modification based on the following:

- Long-term energy efficiency practices start with appropriate land uses; local and regional land use policies need to change first.
- The strategy is not a local or regional policy issue; it is a Board of Supervisors decision.
- Long-term practices would be more feasible if technology and industry changed their energy use, rather than local and regional entities changing policies.
- Kern region currently has wind, thermal, and geothermal energy resources.
- Kern region has the opportunity to capture heat generated by operating oil wells and use it for power.
- Renewable energy infrastructure requires a lot of land, which is costly.

IV. Online Results

An interactive project website served as a communication and education tool for the Directions to 2050 project. The website (www.directionsto2050.com) included the following content and features: home page, resources page, contact page, media page, interactive online activity, and survey.



Figure 3 - The Directions to 2050 website provided an opportunity for community members to learn about the project and provide input.

Purpose and Process

The purpose of the online activity and survey was to:

- Provide an opportunity for community members to engage online in the prioritization activity from the community workshop.
- Understand community members' priorities related to transportation, housing, community services, the economy, open space, and energy.
- Better understand community members' interest in energy efficiency improvements and activities in their homes.
- Provide an alternative medium for community members to provide input and participate in the Directions to 2050 process.

One-hundred and forty-four Kern residents participated in the online activity. Twenty-nine Kern community members completed the online survey.

Energy Results from Online Activity

Online activity participants identified the following energy strategies as the highest priorities:

- Efficient New Developments: Promote energy efficiency and green building practices in new development.

- Coordinated Plan of Attack: Encourage long-term energy efficiency practices.
- Share the Knowledge: Develop an educational program for residents and businesses to share energy efficiency practices.
- Electric Vehicles and Charging Stations: Prepare communities for plug-in electric vehicles.

Energy Results from Online Survey

Of the 29 participants, 92% owned their home and 88% have lived in Kern County for ten or more years. When asked what their local government should be doing with respect to energy efficiency, over 70% of respondents selected:

- Lead by example by making government facilities as energy efficient as affordable (79%).
- Provide information to the community on energy efficiency rebates and financial assistance (70%).

Over half of respondents supported the following local government actions related to energy efficiency:

- Use local government funding to provide financial incentives to residents and businesses to improve energy efficiency (58%).
- Provide information to the community on how to improve energy efficiency (58%).
- Lead by example by constructing all new facilities to the highest energy efficiency standards affordable (54%).
- Require energy efficiency improvements in the community through building codes or city ordinances (50%).

Respondents were asked what kinds of energy improvements they have made to their home or residence in the past two years. Over half of respondents have undertaken the following:

- Replaced old appliances (e.g., refrigerator, dishwasher) with Energy Star or more energy-efficient models (75%).
- Installed more efficient lighting (63%).

Respondents were asked what kinds of energy improvements they are considering in their home or residence over the next year. Some participants are considering the following improvements:

- Replacing old appliances (e.g., refrigerator, dishwasher) with Energy Star or more energy-efficient models (29%).
- Upgrading/installing attic insulation (29%).
- Installing solar panels (29%).

The majority of participants (74%) are motivated by high energy bills to make energy improvements. Most participants (67%) would likely look for energy efficiency tips on a utility website, with other resources including a how-to website (54%) or a utility insert with their bill (50%).

ENERGY AUDIT REPORT
For
Senior Center, Tehachapi, CA
August 31th, 2012



EXECUTIVE SUMMARY

This Energy Audit Report will discuss the energy use and potential energy conservation measures (ECM's) for the Tehachapi Senior Center. Development of this audit consisted of the following actions:

- Held a conversation with the facility staff to learn how the facility is currently being operated and to determine if there are any known building performance issues.
- Performed a site investigation to document the existing conditions of the building envelope, heating, ventilation and air conditioning (HVAC), as well as lighting systems.
- Analyzed the systems to determine potential energy and resulting cost savings for recommended low cost and other relevant upgrade/replacement measures. The analysis was completed in accordance with ASHRAE Level 1 energy analysis procedures.
- Summarized the life cycle costs associated with recommended ECMs, if any.

General Building Information

The building is estimated at 5,250 square feet. It is owned by the city of Tehachapi and is located at 500 East F Street, Tehachapi, CA 93561. The building is a facility for senior citizens in Tehachapi.

Operating hours: Monday to Friday, 07:00-17:30

Envelope Features: Single story building, slab on grade, gabled tiled roof, wood-framed walls with stucco, and dual pane glazing.

HVAC Features: Direct expansion roof top units complete with gas fired heating; however, roof was not accessible during site visit.

Lighting Features: Linear T8 fluorescent fixtures.

Summary of Recommendations:

- Envelope – None recommended
- HVAC – None recommended
- Lighting – None recommended

BACKGROUND INFORMATION

Kern Council of Governments (Kern COG) initiated the Kern Region Energy Action Plans (Kern REAP) program to help the State of California realize its long term energy efficiency goals, as expressed in the California Energy Efficiency Strategic Plan (CEESP). The CEESP was co-developed by the California Public Utilities Commission (CPUC) and its regulated utilities, which include the three major utilities serving the Kern Region – Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and the Southern California Gas Company (SoCalGas). The CEESP was developed in a policy context that recognizes the crucial role energy efficiency plays in meeting increasing demand for energy while accommodating the state's mandate to reduce greenhouse gas (GHG) emissions, driven by passage of the California Global Warming Solutions Act of 2006 (Assembly Bill 32) and other legislation.

The CEESP identifies energy efficiency as the keystone of California's energy strategy and sets forth a roadmap for increasing energy efficiency in California through the year 2020 and beyond. Kern REAP is a ratepayer-funded program administered by SCE, designed to support the CEESP's goal that "local governments lead by example with their own facilities and energy usage practices." The primary objectives are to develop energy consumption baselines and municipal EAPs for unincorporated Kern County and the cities of McFarland, Delano, McFarland, Ridgecrest, and Tehachapi. Through this process, Kern COG aims to:

- Set forth programs that will reduce the municipal energy use and provide cost savings that can be re-invested in energy programs to facilitate energy- and cost-effectiveness over the long term.
- Foster cooperation, information sharing, and implementation of consistent energy efficiency strategies among jurisdictions in Kern County.
- Incorporate best practices and lessons learned as EAPs are developed for each jurisdiction.
- Share Program information, best practices and/or lessons learned with other local governments.

As part of the Kern REAP program, the project team conducted energy walk-through assessments to identify high-priority energy efficiency opportunities in specific facilities. The walk-through assessments were conducted to support the development of Municipal Energy Action Plans for each participating jurisdiction. All walk-through assessments were conducted for facilities in the SCE service territory, with the exception of the City of McFarland, where all assessments were conducted in facilities served by PG&E. The purpose of this report is to present the results of the walk through assessment for the Senior Center in the city of Tehachapi.

NOTES FROM CONVERSATION WITH FACILITY STAFF

- Point of Contact – John Curry
- HVAC replaced circa 2 years ago
- Lighting retrofitted to T8 2 years ago

LEVEL 1 ANALYSIS

The site walk-through was conducted on July 18th, 2012. Jon Curry, Utility Manager for the city of Tehachapi, and Jorge Sánchez, with DNV KEMA, were present. The walk-through was conducted in the morning while the building was occupied. The building systems were operating in cooling mode and functioning normally. The building and its systems appeared to be in working order.

Our site walk did not reveal any obvious issues in the operation or condition of the building and its systems. Utility billing information was not available for this facility. Natural gas is assumed to be used for space heating and service hot water. Electricity is used for all other uses.

Envelope:

The existing envelope of the building, from an energy use perspective, is a code-minimum construction consisting of single story building, slab on grade, gabled tiled roof (no access to roof during audit) and wood-framed walls with stucco. The windows are double-pane with metal frame. No issues noted during the site visit.

Heating, Ventilation and Air Conditioning (HVAC):

The roof area was inaccessible during the site inspection. The building is served by rooftop units, assumed to be direct expansion cooling units with gas fired heating. The rooftop units reported to be circa 2 years old.

Lighting:

The existing lighting is predominantly linear T8 fluorescent fixtures, manually switched. No issues were identified.

RECOMMENDED ENERGY CONSERVATION MEASURES (ECM's)

No energy conservation opportunities were identified. The buildings systems are circa 2 years old and reportedly operating properly.

ENERGY AUDIT REPORT
For
Police Station, Tehachapi, CA
August 31th, 2012



EXECUTIVE SUMMARY

This Energy Audit Report will discuss the energy use and potential energy conservation measures (ECM's) for the Tehachapi Police Station. Development of this audit consisted of the following actions:

- Held a conversation with the facility staff to learn how the facility is currently being operated and to determine if there are any known building performance issues.
- Performed a site investigation to document the existing conditions of the building envelope, heating, ventilation and air conditioning (HVAC), as well as lighting systems.
- Analyzed the systems to determine potential energy and resulting cost savings for recommended low cost and other relevant upgrade/replacement measures. The analysis was completed in accordance with ASHRAE Level 1 energy analysis procedures.
- Summarized the life cycle costs associated with recommended ECMs, if any.

General Building Information

The building is estimated at 4,000 square feet. It is owned by the city of Tehachapi and is located at 129 East F Street, Tehachapi, CA 93561. The building is a local police department complete with office and jail facilities.

Operating hours: Monday to Friday 07:00-17:30

Envelope Features: Single story building, slab on grade, indicates a built-up flat roof with an up stand mansard (no access to roof during audit), concrete walls with brick facing, and dual pane glazing.

HVAC Features: Roof top units, however, no access during audit

Lighting Features: Linear T8 fluorescent fixtures.

Summary of Recommendations:

- Envelope – None recommended
- HVAC – None recommended
- Lighting – None recommended

BACKGROUND INFORMATION

Kern Council of Governments (Kern COG) initiated the Kern Region Energy Action Plans (Kern REAP) program to help the State of California realize its long term energy efficiency goals, as expressed in the California Energy Efficiency Strategic Plan (CEESP). The CEESP was co-developed by the California Public Utilities Commission (CPUC) and its regulated utilities, which include the three major utilities serving the Kern Region – Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and the Southern California Gas Company (SoCalGas). The CEESP was developed in a policy context that recognizes the crucial role energy efficiency plays in meeting increasing demand for energy while accommodating the state’s mandate to reduce greenhouse gas (GHG) emissions, driven by passage of the California Global Warming Solutions Act of 2006 (Assembly Bill 32) and other legislation.

The CEESP identifies energy efficiency as the keystone of California’s energy strategy and sets forth a roadmap for increasing energy efficiency in California through the year 2020 and beyond. Kern REAP is a ratepayer-funded program administered by SCE, designed to support the CEESP’s goal that “local governments lead by example with their own facilities and energy usage practices.” The primary objectives are to develop energy consumption baselines and municipal EAPs for unincorporated Kern County and the cities of McFarland, Delano, McFarland, Ridgecrest, and Tehachapi. Through this process, Kern COG aims to:

- Set forth programs that will reduce the municipal energy use and provide cost savings that can be re-invested in energy programs to facilitate energy- and cost-effectiveness over the long term.
- Foster cooperation, information sharing, and implementation of consistent energy efficiency strategies among jurisdictions in Kern County.
- Incorporate best practices and lessons learned as EAPs are developed for each jurisdiction.
- Share Program information, best practices and/or lessons learned with other local governments.

As part of the Kern REAP program, the project team conducted energy walk-through assessments to identify high-priority energy efficiency opportunities in specific facilities. The walk-through assessments were conducted to support the development of Municipal Energy Action Plans for each participating jurisdiction. All walk-through assessments were conducted for facilities in the SCE service territory, with the exception of the City of McFarland, where all assessments were conducted in facilities served by PG&E. The purpose of this report is to present the results of the walk through assessment for the Police Station in the city of Tehachapi.

NOTES FROM CONVERSATION WITH FACILITY STAFF

- Point of Contact – Jon Curry
- HVAC replaced circa 5 years ago
- Lighting retrofitted to T8 circa 2 years ago

LEVEL 1 ANALYSIS

The site walk-through was conducted on July 18th, 2012. Jon Curry, Utility Manager for the city of Tehachapi, and Jorge Sánchez, with DNV KEMA, were present. The walk-through was conducted in the morning while the building was occupied. The building systems were operating in cooling mode and functioning normally. The building and its systems appeared to be in working order.

Our site walk did not reveal any obvious issues in the operation or condition of the building and its systems. The following table is a summary of the electric consumption during 2010. Natural gas is assumed to be used for space heating and service hot water. Electricity is used for all other uses.

Table 1: Electric Utility Bill Data – Year 2010			
Total Electric Consumption	Peak Demand	Total Electricity Cost	Rate Schedule
74,760 kWh	23.6 kW	\$11,410	SCE: GS-2

Envelope:

The existing envelope of the building, from an energy use perspective, is a code-minimum construction consisting of single story, slab on grade, and concrete walls with brick facing. The building indicates a built-up flat roof with an up stand mansard (no access to roof during audit). The windows are double-pane with metal frame. No issues noted during the site visit.

Heating, Ventilation and Air Conditioning (HVAC):

The roof area was inaccessible during the site inspection. The building is served by rooftop direct expansion (DX) units reported to be circa 5 years old.

Lighting:

The existing lighting is predominantly linear T8 fluorescent fixtures, manually switched. No issues were identified.

RECOMMENDED ENERGY CONSERVATION MEASURES (ECM's)

No energy conservation opportunities were identified. The buildings systems are circa 5 years old and reportedly operating properly.

ENERGY AUDIT REPORT
For
City Hall, Tehachapi, CA
August 31th, 2012



EXECUTIVE SUMMARY

This Energy Audit Report will discuss the energy use and potential energy conservation measures (ECMs) for the City Hall in Tehachapi. Development of this audit consisted of the following actions:

- Held a conversation with the facility staff to learn how the building is currently being operated and to determine if there are any known building performance issues.
- Performed a site investigation to document the existing conditions of the building envelope, heating, ventilation and air conditioning (HVAC), as well as lighting systems.
- Analyzed the systems to determine potential energy and resulting cost savings for recommended low cost and other relevant upgrade/replacement measures. The analysis was completed in accordance with ASHRAE Level 1 energy analysis procedures.
- Summarized the life cycle costs associated with recommended ECMs.

General Building Information

The building floor area is estimated at 4,800 square feet. It is owned by the city of Tehachapi and is located at 115 S. Robinson Street, Tehachapi, CA. The building is an office for the city of Tehachapi employees..

Operating hours: Monday to Thursday 07:00 to 17:30.

Envelope Features: Two story building, slab on grade, gabled built-up roof with attic, stucco on wood-framed walls and single pane tinted windows.

HVAC Features: Three rooftop packaged units, circa 20 years old and require replacement.

Lighting Features: Predominantly linear T8 fluorescent fixtures.

Summary of Recommendations:

- Envelope – None recommended

- HVAC – Replacement of all three rooftop units as they are past their service life, replace all the ductwork with new insulated ductwork, ensuring the routing through the attic is unobstructed and there are no sharp bends or contractions. Either introduce outside air inlets or dedicated outside air system for new air handling units.
- Lighting – None recommended

BACKGROUND INFORMATION

Kern Council of Governments (Kern COG) initiated the Kern Region Energy Action Plans (Kern REAP) program to help the State of California realize its long term energy efficiency goals, as expressed in the California Energy Efficiency Strategic Plan (CEESP). The CEESP was co-developed by the California Public Utilities Commission (CPUC) and its regulated utilities, which include the three major utilities serving the Kern Region – Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and the Southern California Gas Company (SoCalGas). The CEESP was developed in a policy context that recognizes the crucial role energy efficiency plays in meeting increasing demand for energy while accommodating the state’s mandate to reduce greenhouse gas (GHG) emissions, driven by passage of the California Global Warming Solutions Act of 2006 (Assembly Bill 32) and other legislation.

The CEESP identifies energy efficiency as the keystone of California’s energy strategy and sets forth a roadmap for increasing energy efficiency in California through the year 2020 and beyond. Kern REAP is a ratepayer-funded program administered by SCE, designed to support the CEESP’s goal that “local governments lead by example with their own facilities and energy usage practices.” The primary objectives are to develop energy consumption baselines and municipal EAPs for unincorporated Kern County and the cities of California City, Delano, McFarland, Ridgecrest, and Tehachapi. Through this process, Kern COG aims to:

- Set forth programs that will reduce municipal energy use and provide cost savings that can be re-invested in energy programs to facilitate energy- and cost-effectiveness over the long term.
- Foster cooperation, information sharing, and implementation of consistent energy efficiency strategies among jurisdictions in Kern County.
- Incorporate best practices and lessons learned as EAPs are developed for each jurisdiction.
- Share Program information, best practices and/or lessons learned with other local governments.

As part of the Kern REAP program, the project team conducted energy walk-through assessments to identify high-priority energy efficiency opportunities in specific facilities. The walk-through assessments were conducted to support the development of Municipal Energy Action Plans for each participating jurisdiction. All walk-through assessments were conducted for facilities in the SCE service territory, with the exception of the City of McFarland, where all assessments were conducted in facilities served by PG&E. The purpose of this report is to present the results of the walk through assessment for the City Hall in the community of Tehachapi, a facility owned and operated by Kern County.

NOTES FROM CONVERSATION WITH FACILITY STAFF

- Point of Contact – Jon Curry, Utility Manager
- Conference room on the south west corner gets hot in the afternoon
- Ceiling tiles to be replaced in the near future
- Hot and cold spot issues throughout the building

LEVEL 1 ANALYSIS

The site walk-through was conducted on July 18th, 2012. Jon Curry, Utility Manager for the city of Tehachapi, and Jorge Sánchez, with DNV KEMA, were present. The walk-through was conducted in the morning while the building was occupied. The building systems were operating in cooling mode and functioning normally. The building and its systems appeared to be in working order. The following items were noted during the walk-through:

- None of the external ductwork is currently insulated
- No outside air intakes appear to be installed for the rooftop HVAC units.

Our site walk-through did not reveal any obvious issues in the operation or condition of the building and its systems other than noted above. Detailed utility billing data was not available for this facility. Table 1 is a summary of the electric consumption during 2010. Natural gas is used for space heating and service hot water. Electricity is used for all other uses.

Total Electric Consumption	Peak Demand	Total Electricity Cost	Rate Schedule
60,000 kWh	26.8 kW	\$11,066	SCE: GS-2

Envelope:

The existing envelope of the building, from an energy use perspective, is a code-minimum construction consisting of wood framing with stucco and batt insulation. The roof is built up and flat, over an attic. The windows are tinted single-pane with metal frame.

Heating, Ventilation and Air Conditioning (HVAC):

The existing HVAC units are as follows:

Qty	Make & Model	Tons	Type
1	Carrier 585HJ042060	3.5	Rooftop DX w/ gas furnace
1	Carrier 585HB060100	5	Rooftop DX w/ gas furnace
1	Carrier 585HB060100	5	Rooftop DX w/ gas furnace

All rooftop units appeared to be in excess of 20 years old and require replacement.

The following issues were noted regarding the installation of the rooftop units:

- No outside air intake was installed, which can cause indoor air quality issues due to insufficient ventilation within the space. It is of high importance that this issue be corrected. One possible solution is to add a dedicated outside air system (DOAS) to supply the existing rooftop units.

Note: Introducing outside air into the space will increase energy consumption of the building. It will also increase the thermal loads on the HVAC equipment and may require additional cooling and heating capacities. It is recommended that an engineering study be conducted to determine the most suitable solution.

Lighting:

The existing lighting is predominantly linear T8 fluorescent fixtures. Interior lighting is mostly manually switched, with occupancy sensors in the conference rooms, break room and one of the private offices. No issues were identified.

RECOMMENDED ENERGY CONSERVATION MEASURES (ECMs)

The following items were noted as potential low cost ECMs:

Regular Maintenance

- Verify that the appropriate maintenance is being performed regularly on the HVAC system and that filters and coils are clean.
 - Energy saving potential: Helps to keep units running in optimal condition and efficiency.

The following items were noted as potential mid cost ECMs:

HVAC Duct Improvements

- Correct the flex connector installation and duct leakage issues. Install UV shield on all flex connectors to prevent connector failure and significant duct air leakage. Add R-8 insulation for heating and cooling ducts in attic.
 - Energy saving potential: Reduces additional space conditioning energy due to duct air leakage.
- The existing roof top units are approximately 20 years old and were code-minimum efficiency at the time of installation. Recommend upgrading to high Energy Efficiency Ratio (EER) units.
 - Energy savings potential: The EER is a measure of efficiency; the higher the EER, the higher the efficiency. Units with a high EER can provide the same cooling capacity while consuming less energy.
 - The existing 6 ton unit has EER of 7.0. Proposed new unit EER is 13.0. The existing 3.5 ton unit has EER of 6.34. Proposed new unit EER is 14.8.
 - This retrofit could yield an annual site energy savings of 5,334 kWh with a total cost savings of approximately \$1,380.
 - The retrofit cost is approximately \$28,950 resulting in a simple payback of 21.0 years. Note that the payback is not truly representative for this measure since the existing equipment is within 4 years of the end of its useful life and it is deemed a necessary replacement.

The results from our analysis have been summarized in Tables 2 and 3 below. Figure 1 shows the baseline energy usage distribution. Figures 2 and 3 are graphical comparisons between baseline and proposed in electricity and gas consumption, respectively.

Table 2: Energy Usage and Cost Impacts of Recommended Upgrades

ECM Type	Baseline (Before ECMs)		ECM Type	Proposed (After ECMs)	
	Energy Use	Energy Cost		Energy Use	Energy Cost
Interior Lighting	11,843 kWh	\$2,184	Interior Lighting	11,843 kWh	\$2,184
Space Cooling	26,033 kWh	\$4,801	Space Cooling	20,699 kWh	\$3,818
Fans-Interior	18,424 kWh	\$3,398	Fans-Interior	18,424 kWh	\$3,398
Water Heating (Electric)	1,628 kWh	\$300	Water Heating (Electric)	1,628 kWh	\$300
Space Heating (Gas)	686 Therms	\$583	Space Heating (Gas)	220 Therms	\$187
Total Electricity	58,614 kWh	\$11,267	Total	52,814 kWh	\$9,887
Total Gas	686 Therms	\$583	Total	220 Therms	\$187

Note: Gray values in Table 2 above reflect end-uses for which no savings are anticipated.

Table 3: Summarized Benefits of Recommended Upgrades

Energy Conservation Measure (ECM)	Energy Savings kWh	Energy Savings Therms	Cost Savings USD	Measure Cost USD	Payback Years
HVAC Unit Upgrade	5,334	466	\$1,379.86	\$28,950	21.0
Total	5,334	466	\$1,379.86	\$28,950	21.0

Notes on Data

- The Baseline and Proposed energy use was derived from a computer energy model using EnergyPro version 5.1.7 software. The data shown is for a calendar year.
- The Baseline represents the as-built condition of the building to the extent that it could be verified.
- The difference between the baseline (based on energy model) and actual operating costs (as shown on the energy bills and included in Table 1) can be attributed to many factors including, but not limited to: actual versus simulated operating schedules; actual infiltration/exfiltration rates; receptacle equipment; the effect of efficiency erosion over time; and unknown differences between actual equipment and lighting types.
- Cost estimates for retrofit options are based on the best information available (manufacturer data, industry average costs, etc.). Cost estimates should be verified by contractor bids.

Figure 1: Baseline Energy Usage Distribution

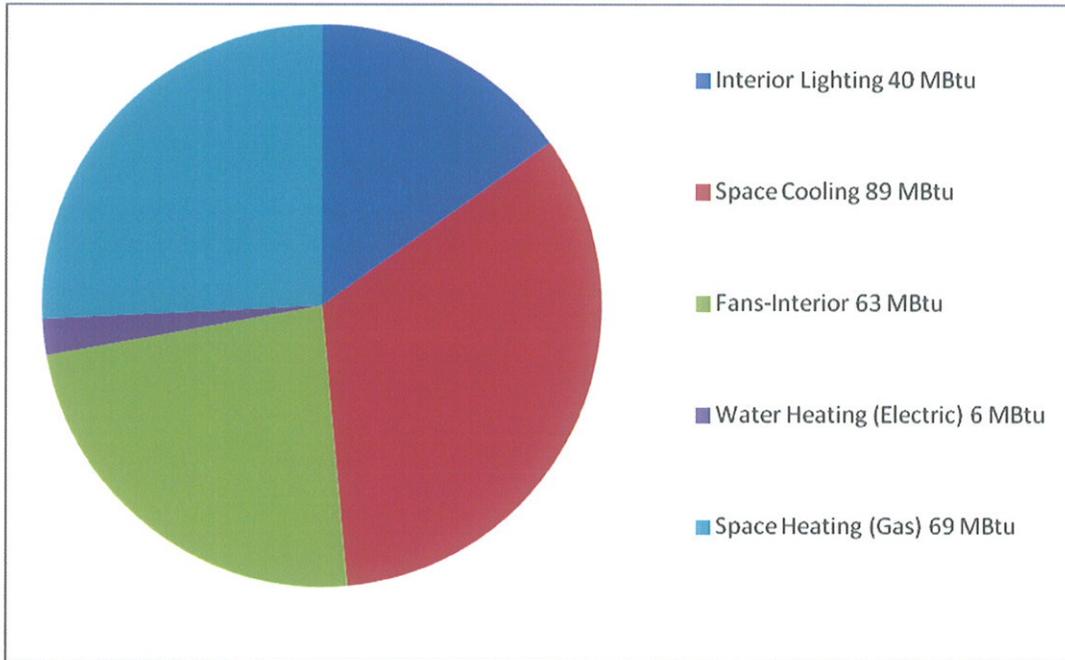


Figure 2: Electric Consumption Impact of Recommended Upgrades

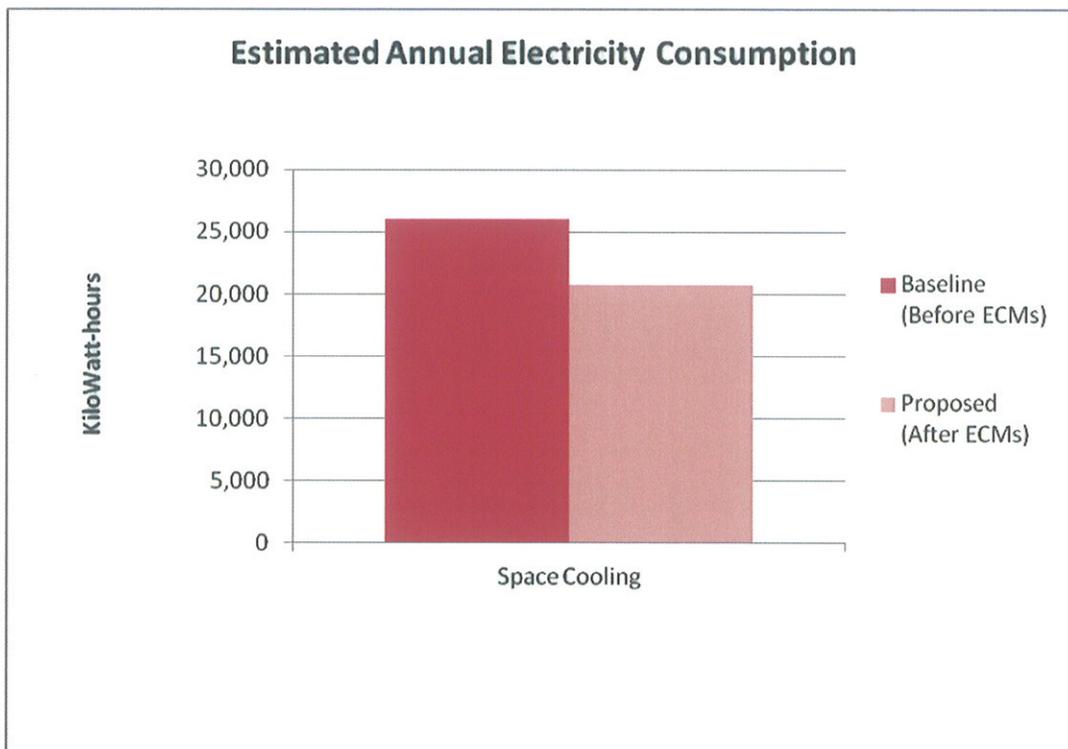


Figure 3: Natural Gas Consumption Impact of Recommended Upgrades

