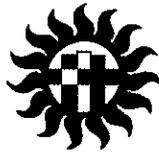


# **ICIP & Strategic Plan**



# City of Las Cruces®

PEOPLE HELPING PEOPLE

**TO:** Robert Garza, City Manager 

**FROM:** Jorge A. Garcia, PhD, P.E., Director of Utilities 

**DATE:** April 1, 2013

**SUBJECT:** **FY14 Infrastructure Capital Improvement Plan**

The Infrastructure Capital Improvement Plan (ICIP) for FY14 consists of numerous projects to provide consistent and improved service to our customers along with planning for the future growth and capacity of the utility system. Highlighted projects include:

- Gas Development Projects (Sierra Norte High Pressure and Calle Jitas High Pressure lines) with a \$1.70 million budget;
- Water Rehabilitation projects (Jornada Tank (expected to be completed in FY13), Well 31 Replacement and La Mancha Waterline) with a \$1.56 million budget;
- Water Development projects (Zone 1 Innerconnect Phase B, West Mesa Phase IV Project 2, West Mesa Water Improvements Project 3, and West Mesa Water Improvements Project 4) with a \$3.54 million budget;
- Wastewater Rehabilitation projects (Shadow Run Forcemain, JHWWTP Generator Replacement and JHWWTP Odor Control Improvements) with a \$3.47 million budget;
- Wastewater Development projects (Sandhill Wastewater Interceptor, EMWRF Reclaimed Booster and Waterline and Interceptor 236) with a \$1.6 million budget;
- New Mexico Department of Transportation projects (US70/North Main and I-10/Avenida de Mesilla) that utility rehabilitation funds are required in order to improve gas (\$259,762 budget), water (\$712,374 budget) and wastewater (\$494,880 budget) utilities that will require replacement prior to the end of the respective design life of the road improvements.

Additional smaller projects for utility line rehabilitation and extensions, SCADA system rehabilitation and new installations, and projects associated with Street Utility Rehabilitation are included as part of the FY14 Budget request. The Utilities Department coordinates regularly and closely with Public Works on all projects spearheaded by Public Works for the Utilities Department. Attached are the summary sheets for each utility and status for your review.

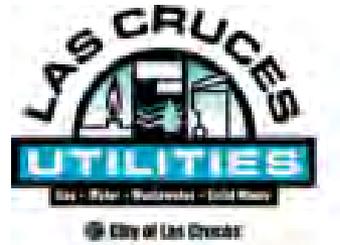
Thank you for reviewing our proposed ICIP for FY14 and please contact me at 528-3636 if you have any questions.

c: Brian Denmark, Assistant City Manager/COO  
Mark Winson, Assistant City Manager/CAO



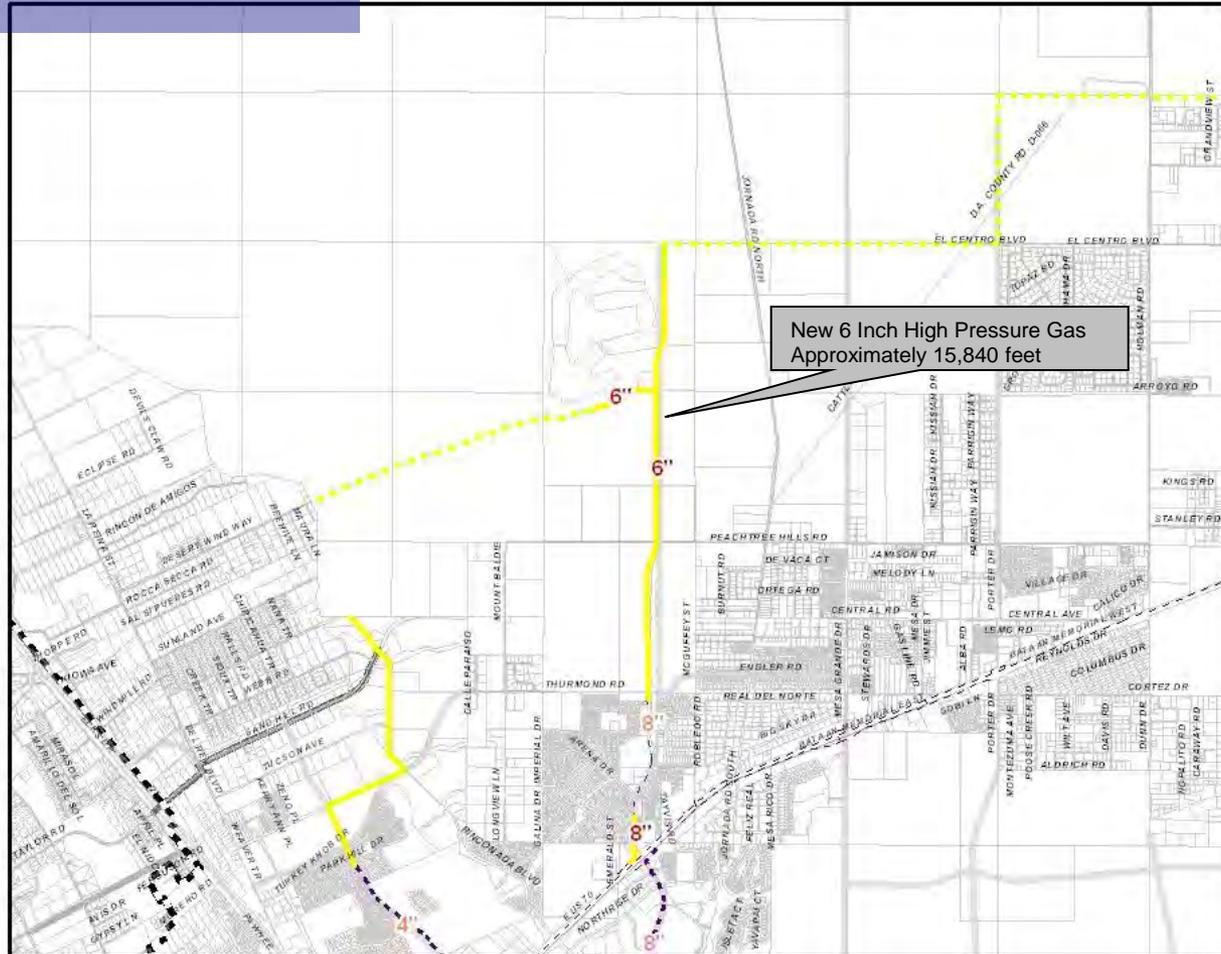
# Las Cruces Utilities Capital Improvement Program

FY 2013 - 2014



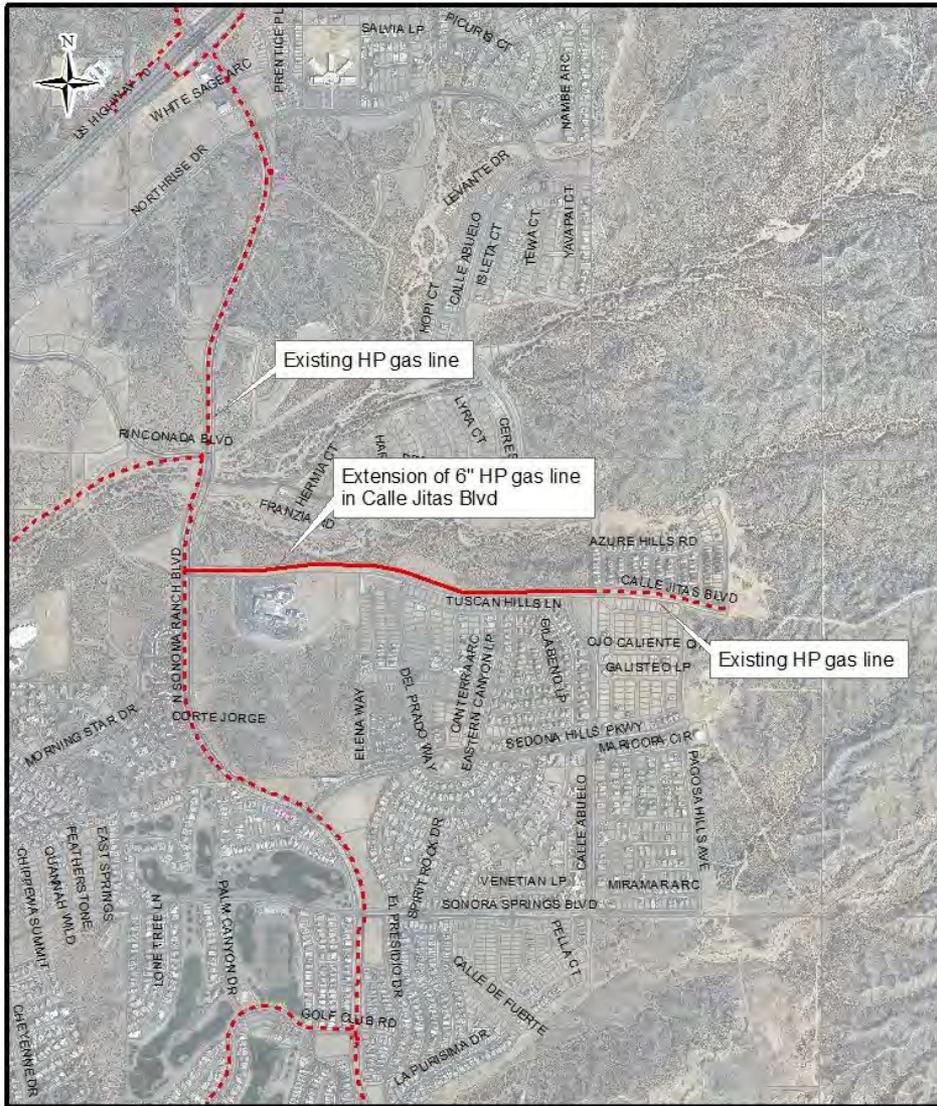
# Sierra Norte High Pressure Gas Pipeline

\$1,500,000 Gas Development  
FY14 Project



# Calle Jitas High Pressure Gas Pipeline

\$200,000 Gas Development  
FY13-FY14 Project



# Jornada Water Storage Tank

**\$904,441 Water Rehabilitation  
FY13 Project**

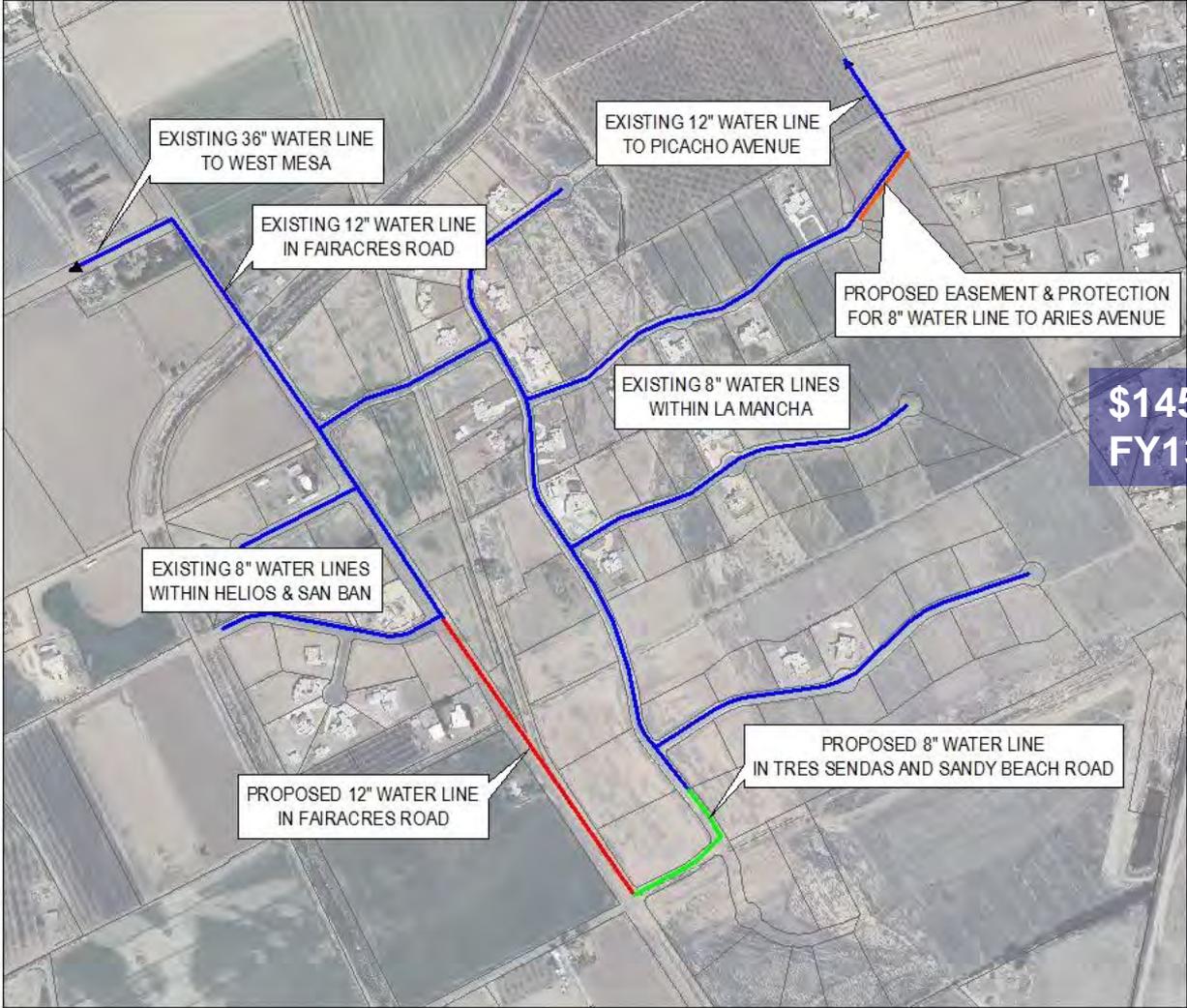
**Tank Mural  
\$93,760 Water Rehabilitation  
FY13-FY14 Project**



# Well No. 31 Replacement



# La Mancha Waterline



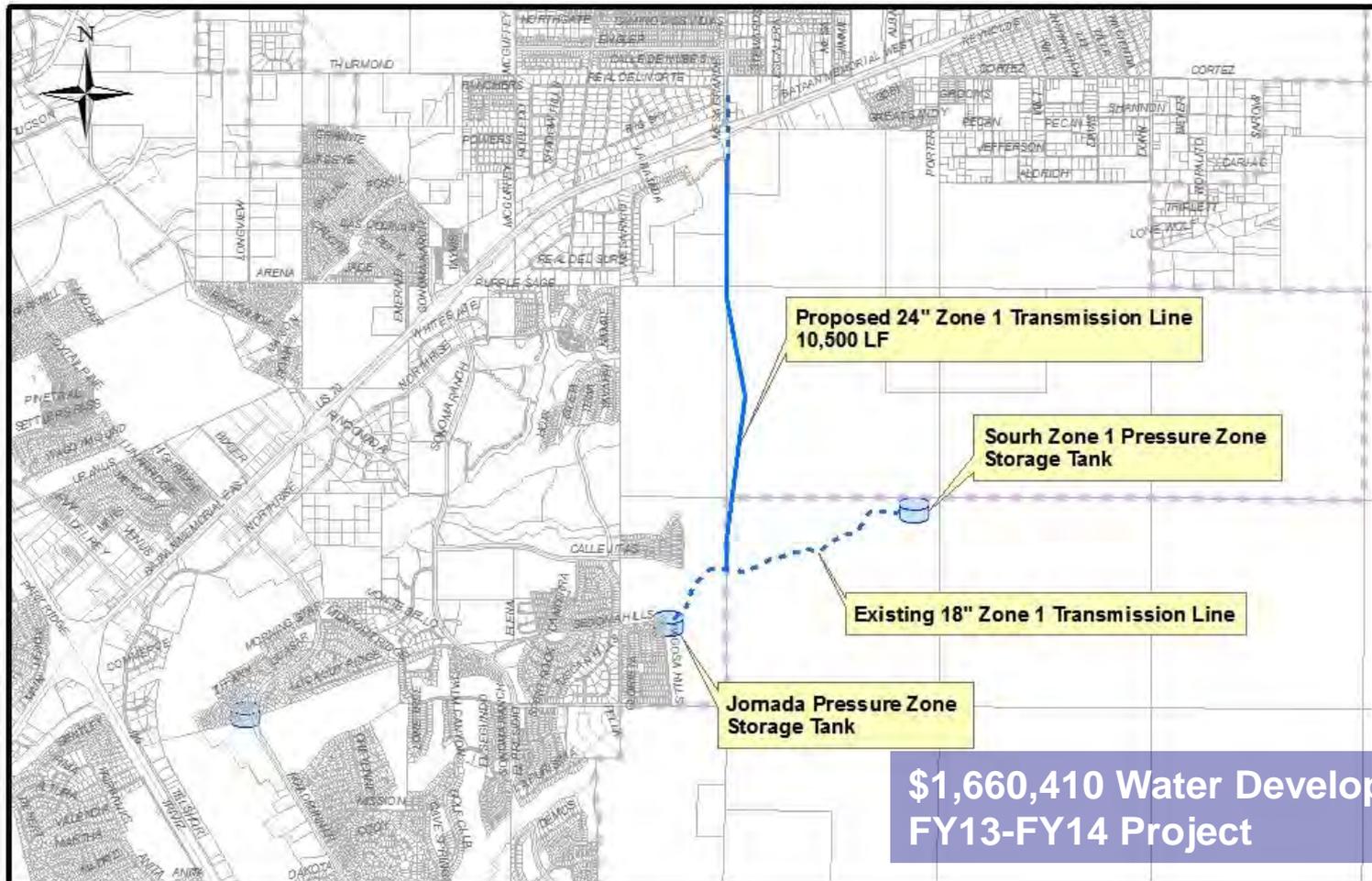
**\$145,469 Water Rehabilitation  
FY13-FY14 Project**

LAMANCHA  
WATER SYSTEM

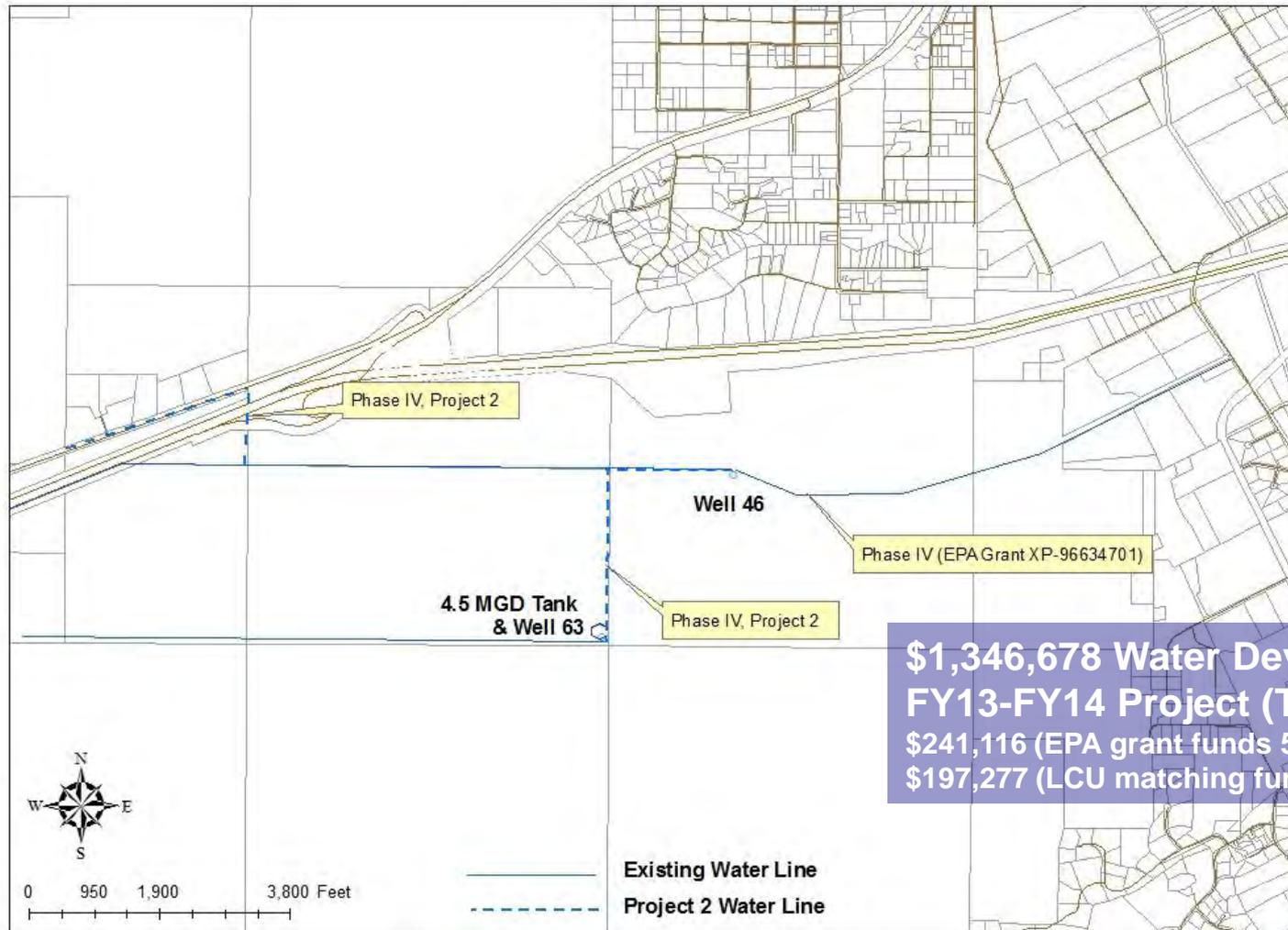
CLC GIS MAP  
12/22/11

# Zone 1 Interconnect Phase B

## PROPOSED 24-INCH ZONE 1 WATER TRANSMISSION LINE

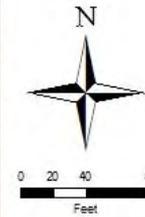
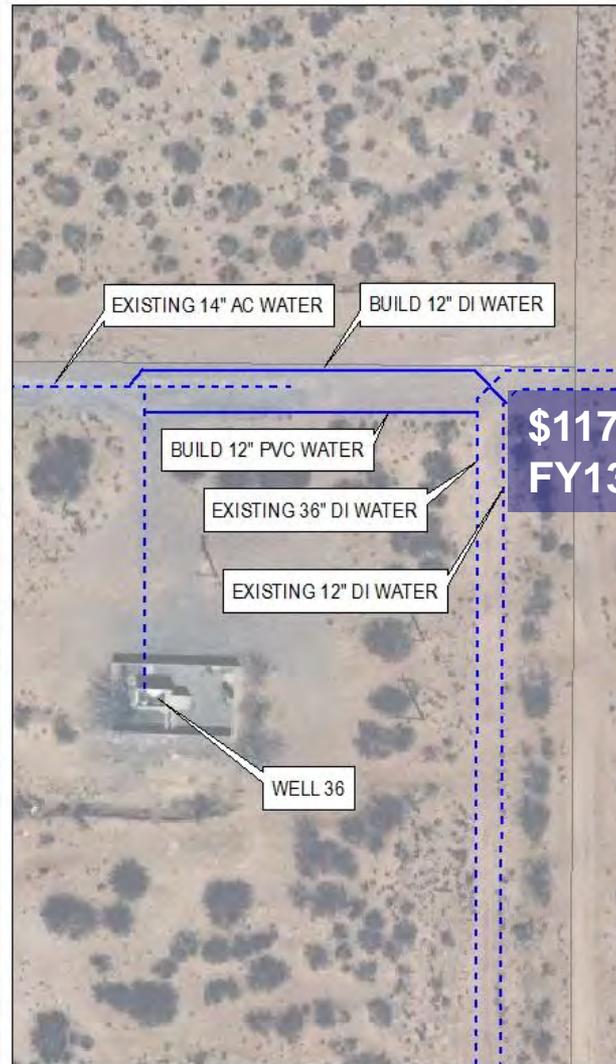
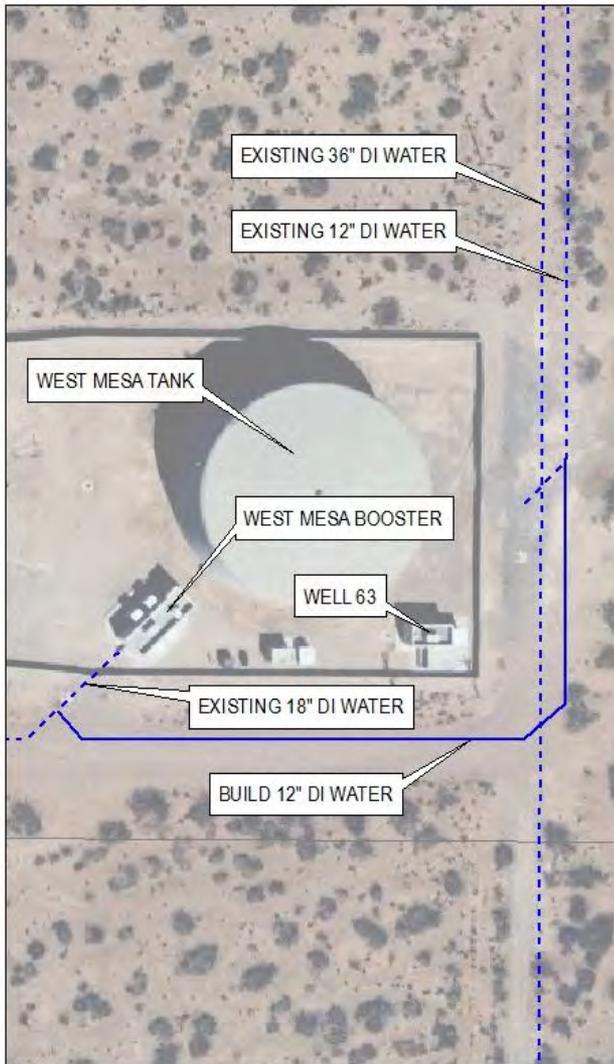


# West Mesa Water Phase IV - Project 2



**\$1,346,678 Water Development  
FY13-FY14 Project (Total)**  
\$241,116 (EPA grant funds 55%)  
\$197,277 (LCU matching funds 45%)

# West Mesa Water Improvements – Project 3



**\$117,563 Water Development  
FY13-FY14 Project**

WEST MESA  
WATER  
IMPROVEMENTS

# West Mesa Water Improvements – Project 4 (Well 64)



**\$411,469 Water Development  
FY14 Project**

# Shadow Run Force Main Rehabilitation



# JHWWTP Rehabilitation

\$2,948,087 Wastewater Rehabilitation  
FY13-FY14 Project



PRELIMINARY  
DESIGN REPORT  
(PDR) – FINAL

Jacob A. Hands WWTP  
Combined Heat and Power Project



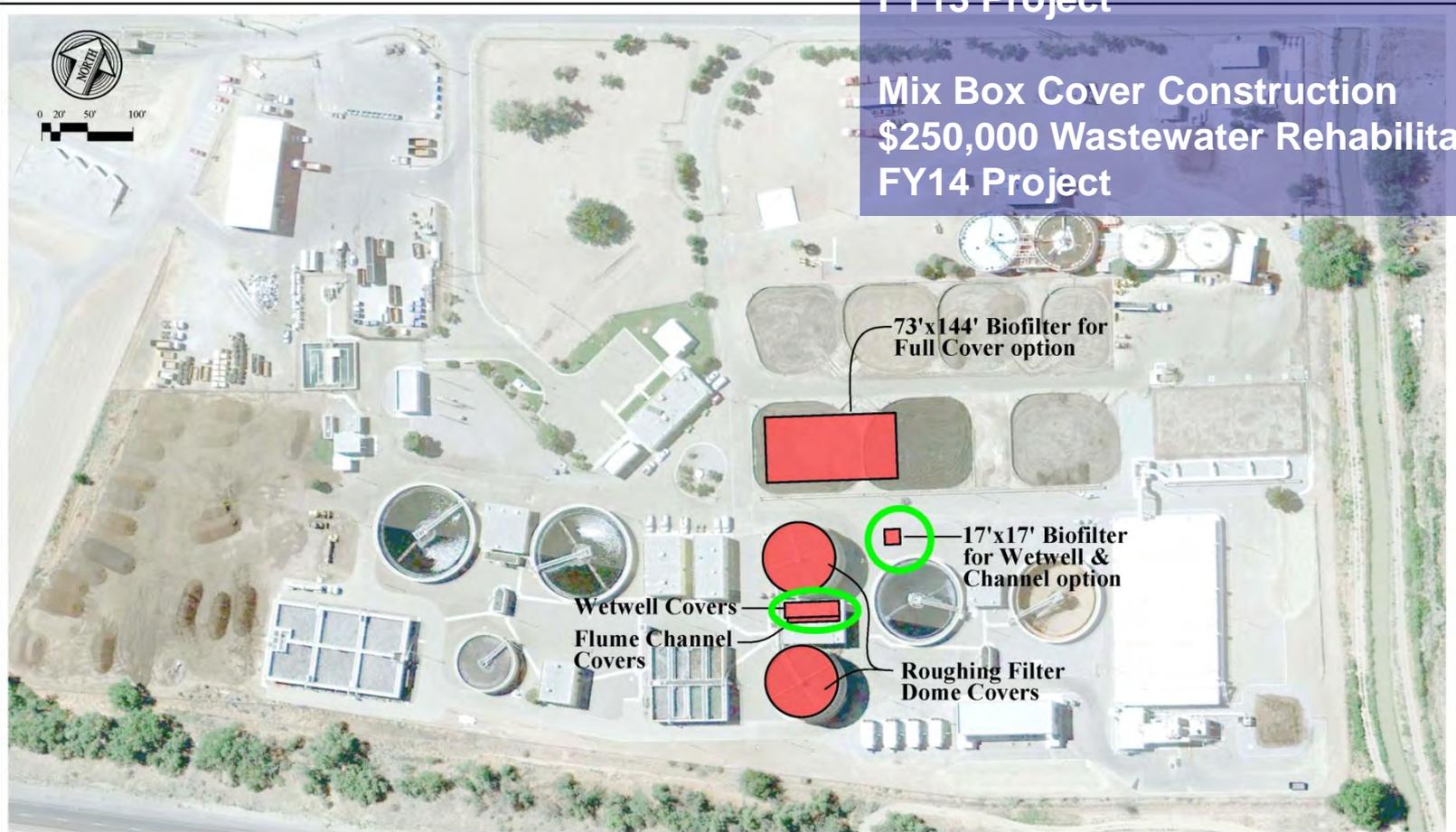
City of Las Cruces, NM  
January 2013

**CDM  
Smith**

# JHWWT Odor Control Improvements

Mix Box Cover Design  
\$37,483 Wastewater Rehabilitation  
FY13 Project

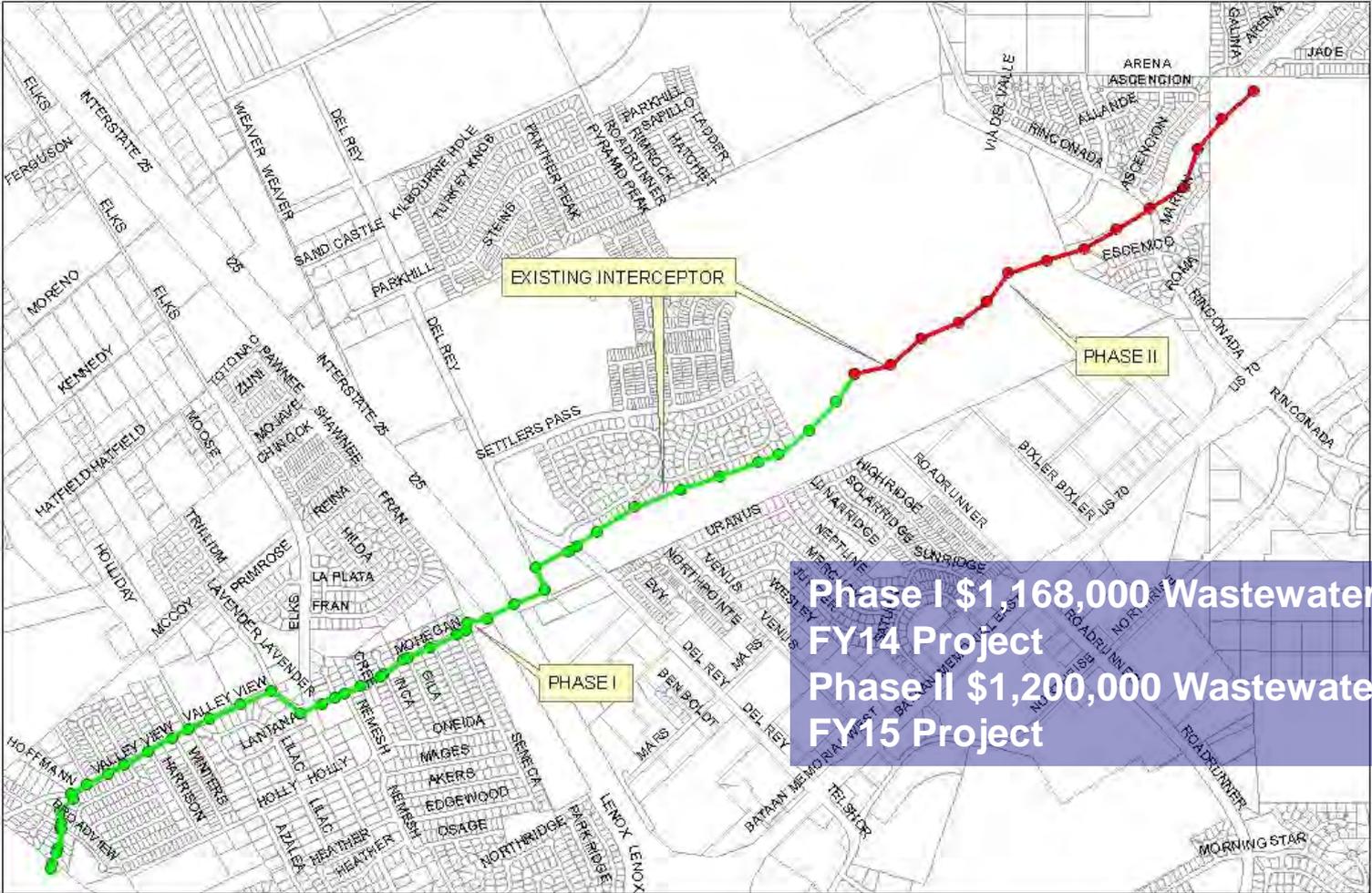
Mix Box Cover Construction  
\$250,000 Wastewater Rehabilitation  
FY14 Project



# Sandhill Wastewater Interceptor



## PROPOSED INTERCEPTOR UPGRADE



# Reclaimed Water – Plant to Landfill



**\$270,394 Wastewater Development  
FY13-FY14 Project**

PURPLE PIPE  
FROM PLANT  
TO LANDFILL



# NMDOT US 70 – North Main St Street Utility Rehabilitation



**\$194,878 Gas**  
**\$432,144 Water**  
**\$433,420 Wastewater**  
**Rehabilitation**  
**FY13-FY14 Project**

# NMDOT I-10 / Avenida de Mesilla Street Utility Rehabilitation

**\$64,884 Gas**  
**\$280,230 Water**  
**\$61,460 Wastewater**  
**Rehabilitation**  
**FY13-FY14 Project**



# Summary...

- Continue to develop the necessary utility infrastructure to meet growing demands
- Complete projects to expand the use of reclaimed water
- Continue to provide level of funding for rehabilitation of utility infrastructure in City streets and NMDOT right-of-way
- ICIP Budget does not rely on issuance of additional debt



# End of Presentation Questions?

Gas Summary by Project								ICIP-14
Project Title	Funding Projections by Year							Funding Source
	2014	Status	2015	2016	2017	2018	2019	
<b>Gas Rehabilitation Projects</b>								
Gas Rehabilitation Low Pressure	412,000	Planning	424,360	437,091	450,204	463,710	477,621	Rates
Gas Rehabilitation High Pressure	412,000	Planning	424,360	437,091	450,204	463,710	477,621	Rates
SCADA Rehabilitation	25,000	Planning	25,750	26,523	27,318	28,138	28,982	Rates
Street Utility Rehabilitation	1,339,000	Design	1,379,170	1,420,545	1,463,161	1,507,056	1,552,268	Rates
<b>Total Gas Rehabilitation Projects</b>	<b>2,188,000</b>		<b>2,253,640</b>	<b>2,321,249</b>	<b>2,390,887</b>	<b>2,462,613</b>	<b>2,536,492</b>	
<b>Gas Development Projects</b>								
Gas Development - Low Pressure	412,000	Planning	424,360	437,091	450,204	463,710	477,621	Rates
Gas Development - High Pressure	2,050,000	Design	2,111,500	2,174,845	2,240,090	2,307,293	2,376,512	Rates
Line Extension	309,000	Planning	318,270	327,818	337,653	347,782	358,216	Rates
SCADA Installations	25,000	Planning	25,750	26,523	27,318	28,138	28,982	Rates
<b>Total Gas Development Projects</b>	<b>2,796,000</b>		<b>2,879,880</b>	<b>2,966,276</b>	<b>3,055,265</b>	<b>3,146,923</b>	<b>3,241,330</b>	
<b>Total Gas Projects</b>	<b>4,984,000</b>		<b>5,133,520</b>	<b>5,287,526</b>	<b>5,446,151</b>	<b>5,609,536</b>	<b>5,777,822</b>	

**Water Summary by Project**

**ICIP-14**

Project Title	Funding Projections by Year							Funding Source
	2014	Status	2015	2016	2017	2018	2019	
<b>Water Rehabilitation Projects</b>								
Drill Replacement Wells - 2007 NMFA								NMFA
Drill Replacement Wells	420,000	Planning						NMFA
Pump Station for Well			463,500		477,405		491,727	Rates
Pump Station for Replacement Wells - 06 Bonds								Bonds
Rehab Pump/PRV - 2007 NMFA	51,500	Planning	53,045	54,636	56,275	57,964	59,703	Rates
Pump Station Rehabilitation			123,600		127,308		131,127	Rates
Booster Pump Station (Spruce)								Rates
Reservoir Rehabilitation			515,000		530,450		546,364	Rates
Line Rehabilitation - 2007 NMFA	206,000	Planning						NMFA
SCADA Rehabilitation - 2007 NMFA	50,000	Planning	50,000					NMFA
Street Utility Rehabilitation - Capital Improvements	1,390,000	Design	1,459,500	1,532,475	1,609,099	1,689,554	1,774,031	Rates
Street Utility Rehabilitation - NMFA	600,000	Design						NMFA
Griggs Walnut Project - NMFA (CLC)	-							NMFA/EGRT/SAP
Griggs Walnut Project - NMFA (DAC)	-							NMFA/EGRT/SAP
<b>Total Water Rehabilitation Projects</b>	<b>2,717,500</b>		<b>2,664,645</b>	<b>1,587,111</b>	<b>2,800,537</b>	<b>1,747,517</b>	<b>3,002,952</b>	
<b>Water Development Projects</b>								
East Mesa Wells 66 & 72 - NMFA 2007	71,423	Planning	71,423					NMFA
East Mesa Reservoir (Jornada, Zone 1 & 2)	823,301	Design	434,272					NMFA
Pump Station - East Mesa (Jornada) - 05 A Bonds	115,000	Planning	115,000	115,000	39,102			Bonds
Zone 1 Interconnect Phase B - NMFA	1,660,410	Design						NMFA
Transmission Lines West Mesa - 05 A Bonds	200,000	Construction						Bonds
Transmission Lines West Mesa - EPA Grant	141,116	Construction						Grant
<b>Total Transmission Line West Mesa</b>	<b>3,011,250</b>		<b>620,695</b>	<b>115,000</b>	<b>39,102</b>	<b>-</b>	<b>-</b>	
South Jornada Improvements Phase II - NMFA 2007								NMFA
SCADA Installations Development - NMFA 2007	19,712	Planning						NMFA
Telshor Tank B				5,385,600	5,547,168	5,713,583	5,884,991	
Transmission Pipelines	529,031	Design						NMFA
Booster Pump Station				4,145,458	4,269,822	4,397,916	4,529,854	
East Mesa Water System - 06 Bonds	1,661,308	On Hold	28,585					Bonds
East Mesa Water System - NMFA 2007	138,692	On Hold						NMFA
<b>Total Other - Water Development Projects</b>	<b>2,348,743</b>		<b>28,585</b>	<b>9,531,058</b>	<b>9,816,990</b>	<b>10,111,499</b>	<b>10,414,844</b>	
<b>Total Water Development Projects</b>	<b>5,359,993</b>		<b>649,280</b>	<b>9,646,058</b>	<b>9,856,092</b>	<b>10,111,499</b>	<b>10,414,844</b>	
<b>Total Water Projects</b>	<b>8,077,493</b>		<b>3,313,925</b>	<b>11,233,169</b>	<b>12,656,629</b>	<b>11,859,017</b>	<b>13,417,796</b>	

Wastewater Summary by Project								ICIP-14
Project Title	Funding Projection by Year							Funding Source
	2014	Status	2015	2016	2017	2018	2019	
<b>Wastewater Rehabilitation Projects</b>								
Lift Station Renovations- WW Capital Improvements			338,000	348,140	358,584	369,342	380,422	Rates
Forcemain Rehabilitation	235,000	Planning		242,050		249,312		Rates
Line Rehabilitation - Extension - WW Capital Improvements	103,000	Planning	106,090	109,273	112,551	115,927	119,405	Rates
Line Rehabilitation - Extension - 06 Bonds	30,900	Planning	30,900	30,900	30,900	30,900	30,900	Bonds
<b>Total Line Rehabilitation - Extension</b>	<b>133,900</b>		<b>136,990</b>	<b>140,173</b>	<b>143,451</b>	<b>146,827</b>	<b>150,305</b>	
SCADA Rehabilitation	10,000	Planning	10,300	10,609	10,927	11,255	11,593	Rates
Line & Manhole Rehabilitation - WW Capital Improvements	300,000	Construction	309,000	318,270	327,818	337,653	347,782	Rates
Line & Manhole Rehabilitation - 06 Bonds	19,584	Construction	19,584	19,584	19,584	19,584	19,584	Bonds
<b>Total Line &amp; Manhole Rehabilitation</b>	<b>319,584</b>		<b>328,584</b>	<b>337,854</b>	<b>347,402</b>	<b>357,237</b>	<b>367,366</b>	
Street Utility Rehabilitation - WW Capital Improvements	1,500,000	Design	1,545,000	1,591,350	1,639,091	1,688,263	1,738,911	Rates
WWTP Rehabilitation	2,948,000	Planning	1,379,100	1,420,473	1,463,087	1,506,980	1,552,189	Rates
WWTP Sludge Compost Relocation - WW Capital Improv								Rates
WWTP Sludge Compost Relocation								Rates
WWTP Odor Control	250,000	Design	257,500	265,225	273,182	281,377	289,819	Rates
<b>Total Wastewater Rehab Projects</b>	<b>5,396,484</b>		<b>3,995,474</b>	<b>4,355,874</b>	<b>4,235,724</b>	<b>4,610,593</b>	<b>4,490,605</b>	
<b>Wastewater Development Projects</b>								
New Interceptors	1,329,000	Design	1,000,000	1,030,000	1,060,900	1,092,727	1,125,509	Impact Fees
Lift Station Upgrade			490,000	504,700	519,841	535,436	551,499	Impact Fees
SCADA Installations	20,000	Planning	20,600	21,218	21,855	22,510	23,185	Impact Fees
<b>Subtotal CIP Projects</b>	<b>1,349,000</b>		<b>1,510,600</b>	<b>1,555,918</b>	<b>1,602,596</b>	<b>1,650,673</b>	<b>1,700,194</b>	
Septic Systems - WW Capital Improvements (Top Priority)	267,800	Planning	275,834	284,109	292,632	301,411	310,454	Rates/EGRT
Septic Systems - WW Capital Improvements (High Priority)			1,131,902	1,165,859	1,200,835	1,236,860	1,273,966	Rates/EGRT
WMIP System Improvements (Corp of Engineers Pmt)								COE/WMIP
WWTP Sludge Compost Relocation - WW Capital Improv								Impact Fees
Water Reclamation - Lift Station	221,094	Construction	227,727	234,559	241,595	248,843	256,309	Rates
Water Reclamation Booster & Pipe	350,000	Design	360,500	371,315	382,454	393,928	405,746	Rates
<b>Total Wastewater Development Projects</b>	<b>2,187,894</b>		<b>3,506,563</b>	<b>3,611,760</b>	<b>3,720,112</b>	<b>3,831,716</b>	<b>3,946,667</b>	
<b>Total Wastewater Projects</b>	<b>7,584,378</b>		<b>7,502,037</b>	<b>7,967,633</b>	<b>7,955,836</b>	<b>8,442,308</b>	<b>8,437,272</b>	