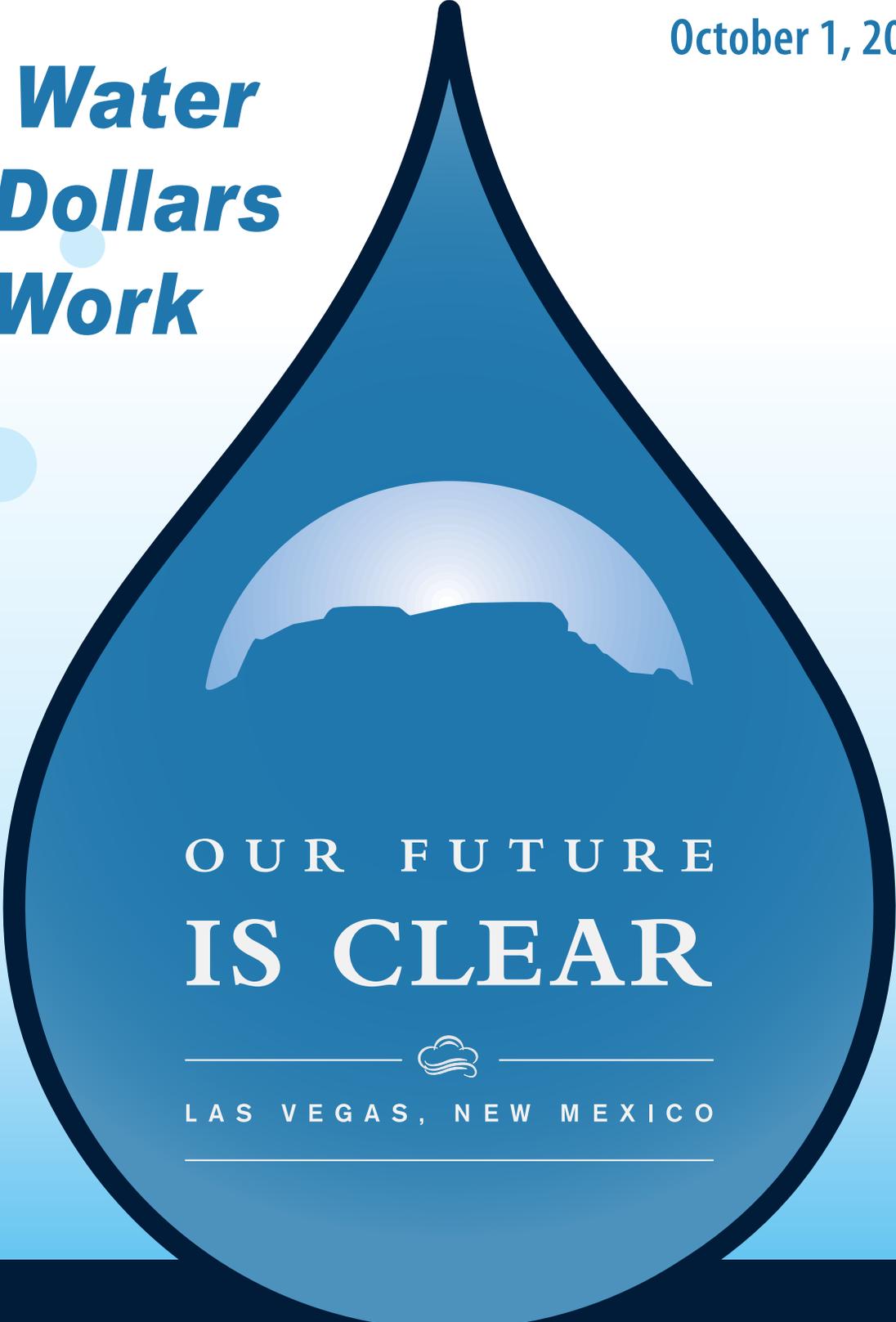


October 1, 2013

***Your Water
Rate Dollars
at Work***



OUR FUTURE
IS CLEAR



LAS VEGAS, NEW MEXICO



CITY OF LAS VEGAS, NM
lasvegasnm.gov

UTILITY SERVICE DEPARTMENT
905 12th Street
Las Vegas, NM 87701
505.454.3832

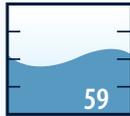
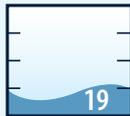
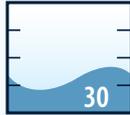
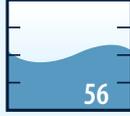
WELCOME

The City of Las Vegas and the Las Vegas Community Water Board want to thank you for your strong conservation efforts, and for bearing with us through these trying times. We are working to provide an acceptable water supply as soon as practical and at an affordable cost.



PER Summary Report

Funding Sources / PER Phase I and Water Distribution System Projects

| CATEGORY | PROJECT | COST | GRANT FUNDS | CITY FUNDS | % FUNDED |
|--|---|--------|-------------|------------|--|
|  CONSERVATION | <ul style="list-style-type: none"> • AUTOMATED METER READING | \$1.1 | \$0.8 | \$0.3 |  100 |
|  STORAGE | <ul style="list-style-type: none"> • BRADNER DAM EXPANSION • PETERSON DAM - STRUCTURAL & LEAK REPAIR • RAW WATER CONVEYANCE | \$45.3 | \$3.6 | \$1.4 |  11 |
|  TREATMENT | <ul style="list-style-type: none"> • WATER TREATMENT PLANT OXIDATION • WATER TREATMENT PLANT BUILDING REPAIRS | \$3.7 | \$1.1 | \$1.1 |  59 |
|  GROUND WATER | <ul style="list-style-type: none"> • GROUNDWATER PRODUCTION TAYLOR WELL FIELD • DESALINATION OF TAYLOR WELL #7 | \$18.8 | \$2.1 | \$1.4 |  19 |
|  DISTRIBUTION | <ul style="list-style-type: none"> • WATER STORAGE TANKS - INSPECT / REHAB • WATER DISTRIBUTION SYSTEM IMPROVEMENTS • ANNUAL LEAK REPAIR / REPLACEMENT | \$6.3 | \$1.4 | \$0.5 |  30 |
|  REUSE/RECYCLE | <ul style="list-style-type: none"> • EFFLUENT REUSE EXPANSION | \$3.2 | \$1.3 | \$0.5 |  56 |

TOTAL (millions) \$78.4





PROGRESS REPORT PURPOSE

This October 1, 2013 *“Our Future is Clear”* progress report is one component of a new public information campaign designed to ensure that all Las Vegas residents and businesses are kept up to date on the actions the City is undertaking to develop a long-term, sustainable water supply. Along with this report, the City is providing regular information via written media, radio, television, and community presentations to civic, business, educational, and other groups. Please call (505) 426-3319 to schedule a presentation.

PROGRESS REPORT CONTENT

The City continues to work on the planned improvement projects, maintenance across the water system and daily operations of the facilities such as the fresh water treatment plant, diversion dam, wells and storage facilities. This report identifies the status of projects currently in progress or recently completed. The City plans to periodically update and redistribute this report. We welcome your inquiries and comments.

PRELIMINARY ENGINEERING REPORT (PER)

A thorough 2010-2012 study addressed the overall needs of our water system. The result was a plan called the Preliminary Engineering Report (PER). Out of more than a hundred options, it identified and prioritized 29 recommended major projects to be completed over a forty year period, at a total cost about \$123 million. The objective is to improve supply and increase efficiency while also relying on citizens’ conservation as the best and cheapest alternative. (The PER Executive Summary can be viewed at <http://www.lasvegasnm.gov/uafall.htm>)



Grass returns to Plaza Park using effluent water

AREAS OF IMPROVEMENT

The City has identified six broad categories of significant system shortfalls. All of the categories must be improved to allow the City to reliably deliver quality water in sufficient quantities with limited funds for years to come. The six categories are Conservation, Storage, Treatment, Groundwater, Distribution and Reuse-Recycle. Each PER project is addressed in one of the six categories.



City Council worked aggressively to acquire and to allocate funds for the Water Enhancement Program

PRIORITIZED PER PHASE 1 PROJECTS

The ten Phase 1 high priority projects were chosen to be addressed during the first five years. Rather than place all resources in one of the projects, the City made the strategic decision to distribute its resources so as to make all ten eligible for construction grant funding. Along with City water rate dollars as a match, funding has been acquired to develop the Phase 1 projects to “shovel ready”.



Watch for successful Water Enhancement Programs around the city.

FINANCING SUMMARY

The City has applied for \$23.20 million in state and federal money. We have been awarded \$9.69 million in grants and \$2.43 million in very-low interest loans. Besides the grant and loan money, the City has provided the projects with \$1.74 million in cash from water rates and the ¼ percent water gross receipts tax. To date, receipts from the Dec. 2012 rate increase are \$0.31 million.



Taylor Well Field exploratory drilling



Automated Meter Reading (AMR) installation

USE OF FUNDS SUMMARY

The \$13.85 million of available funds from the grants, loans, and City cash were assigned to the six major categories of PER projects. They break down as follows: Conservation \$1.10 million, Storage \$5.03 million, Treatment \$0.56 million, Groundwater \$3.55 million, Distribution \$1.77 million and Reuse-Recycle \$1.84 million. The June 30, 2013 status of each of the Phase 1 PER projects is tabulated on the next pages, highest priority first.

We also list:

- **Grant \$** - dollars received and committed (state and federal outright gifts)
- **Your Rate \$** - dollars committed (base rates plus rate increases, plus loans to be repaid)
- **Estimate \$** - dollars needed to complete the project, including design and construction

BRADNER DAM STABILITY AND EXPANSION

PER Phase 1 / Priority 1



STORAGE

The City has far less water storage capability than needed to cover river flow fluctuations and emergency contingencies. The original plan was to expand the 100 year-old Peterson Dam, and in the process remedy its safety and leakage issues. When the early part of geo-technical investigations revealed that the underlying ground would not hold additional water, the City made the decision to expand the Bradner Dam stability analysis to include an expansion, and promote it from tenth to first priority.

| Project Name | | Status June 30, 2013 |
|--|--------------|------------------------|
| Bradner Dam Stability Analysis and Expansion | | In Planning/Design |
| Geotechnical Investigation | | Completed |
| Repair Leaking Valve (Pump House) | | Completed, Operational |
| Bradner Seepage Recovery | | In Evaluation |
| Solar Bee | | In Procurement |
| Grant \$ | Your Rate \$ | Estimate \$ |
| \$1,800,000 | \$895,828 | \$28,000,000 |



Meditate water line repair

PETERSON DAM - STRUCTURAL AND LEAK REPAIR

PER Phase 1 / Priority 2



STORAGE

When detailed measurements showed expansion of the Peterson Dam not to be feasible, the need for dam safety repairs and leak/seepage suppression remained. This project will accomplish those needed improvements.

| Project Name | Status June 30, 2013 | Grant \$ | Your Rate \$ | Estimate \$ |
|----------------------------------|-------------------------|-----------|--------------|-------------|
| Peterson Dam Safety Improvements | Procuring Detail Design | \$891,967 | \$215,709 | \$5,417,676 |
| Peterson Pump Back System | Completed, Operational | | | |

OPTIMIZE GROUNDWATER PRODUCTION AT TAYLOR WELL FIELD

PER Phase 1 / Priority 3



GROUND WATER

The City had only Taylor Well #4 (capacity 1/4 of one day's use) as a backup to the Gallinas River supply. Enhancing fresh groundwater supply was always important, and in the continued drought situation, it became urgent as a short term remedy.

| Project Name | | Status June 30, 2013 |
|---|--------------|------------------------|
| Optimize Groundwater Production - Taylor Well Field | | In Detail Design |
| Rehabilitate Taylor Well #6 | | In Progress |
| Rehabilitate and Connect the PNM-Valencia Well | | In Progress |
| Rehabilitate and Connect Cabin Site Well | | In Progress |
| Rehabilitate Taylor Well #5 | | In Progress |
| Wellfield Hydro Sustainability Model | | In Planning |
| Drill Taylor Well 2R | | Completed, Operational |
| Replace PLC at Taylor Well 4 | | Completed, Operational |
| Replace PLC at Valencia Station | | Completed, Operational |
| Rehabilitate Taylor Well #2 | | In Progress |
| Connect/Treat NMHU Golf Course Well | | Detail Design In Work |
| Grant \$ | Your Rate \$ | Estimate \$ |
| \$1,545,246 | \$1,210,855 | \$9,400,000 |



Work in progress on rehabilitating Taylor Well #2

DESALINATION FACILITIES

PER Phase 1 / Priority 3.5



GROUND WATER

Purified, brackish (salty) water can augment our fresh water supplies. Desalination of brackish water from Taylor Well #7 and other brackish groundwater sources was promoted to Phase 1 from later PER phases. This was done because of the need for more groundwater backup in light of the poor performance of the replacement to Taylor Well 2 and of the continuing severe drought.

| Project Name | Status June 30, 2013 | Grant \$ | Your Rate \$ | Estimate \$ |
|--|-----------------------|-----------|--------------|-------------|
| Desalination Capability | In Detail Design | \$599,012 | \$199,671 | \$9,351,271 |
| Connect and Blend Taylor Well #7 Water | Detail Design In Work | | | |

RAW WATER CONVEYANCE - DIVERSION DAM TO RESERVOIR

PER Phase 1 / Priority 4



STORAGE

The pipes and settling pond that lead water from the river diversion dam to the reservoirs are not large enough to let the City catch peak flows in the river from storm events and spring runoff. This project provides enlarged pipe and a larger settling pond.

| Project Name | | Status June 30, 2013 |
|---|--------------|-------------------------|
| Raw Water Conveyance System Improvements | | Procuring Detail Design |
| Convert TESCO PLC & Rotork Actuator for Raw Water | | Completed, Operational |
| Replace Gallinas 24" Meter | | Completed, Operational |
| Pump from Montezuma Skating Pond | | In Procurement |
| Acquire Storrie Lake Pump | | In Procurement |
| Repair 12" Bypass Line at Settling Basin | | Completed, Operational |
| Grant \$ | Your Rate \$ | Estimate \$ |
| \$916,575 | \$305,525 | \$11,855,118 |



AMR system installation

WATER TREATMENT PLANT OXIDATION

PER Phase 1 / Priority 5



SURFACE WATER

In the case of adverse weather conditions, the water quality from the fresh water treatment plant comes close to exceeding the allowable impurity levels, and causes some taste and odor issues. The oxidation system will enable the City to keep the impurities well below the allowable standards.

| Project Name | | Status June 30, 2013 |
|--|--------------|-------------------------|
| Water Treatment Plant Oxidation | | Procuring Detail Design |
| Install Valves and Bulkhead at MIOX Storage Tank | | Completed, Operational |
| MIOX System Acid Wash (#2 Generator) | | Completed, Operational |
| Clarifier Basin Cover | | In Planning |
| Grant \$ | Your Rate \$ | Estimate \$ |
| \$220,313 | \$73,438 | \$3,546,900 |



AMR installation

EFFLUENT REUSE EXPANSION

PER Phase 1 / Priority 6



REUSE/RECYCLE

The City now returns significantly more effluent from the waste water treatment plant to the river than required. This project will allow the City to use treated effluent to replace the demand for fresh water uses. Many potential uses such as irrigating parks, car washes, cement mixers do not need water that fully meets drinking water standards.

| Project Name | | Status June 30, 2013 |
|---|--------------|-------------------------|
| Effluent Reuse Expansion | | Procuring Detail Design |
| Melody Park to Carnegie Effluent | | Awaiting Authorization |
| Golf Course to Hanna Effluent | | Awaiting Authorization |
| Effluent Pipe, Fittings, Valves - Rodriguez Pk - 2100' | | Completed, Operational |
| Effluent Pipe, Fittings, Valves Cinder Road - 1410' | | Completed, Operational |
| Effluent Pipes, Valves Memorial Middle School-800' | | Completed, Operational |
| 10K gal Effluent Tank for Memorial Middle Sch. Field | | Completed, Operational |
| 10K gal Effluent Tank for West Las Vegas Fields | | Completed, Operational |
| Effluent Service to NMHU Baseball Field | | Completed, Operational |
| Effluent Bore to Islands at Plaza Park (4) | | In Planning |
| Melody Park Effluent Service | | Completed, Operational |
| Install Effluent Tap 12th Street | | Completed, Operational |
| Install Effluent Tap 905 12th St. | | Completed, Operational |
| Install 240' Effluent Main, 12 th Street | | Completed, Operational |
| Install 240' Electrical Conduit 12 th Street | | Completed, Operational |
| Grant \$ | Your Rate \$ | Estimate \$ |
| \$1,325,413 | \$513,038 | \$3,200,000 |



The City obtained first-ever permission from NMED to provide effluent water for drought-restricted customers to irrigate

FRESH WATER STORAGE TANKS - INSPECTION & REHABILITATION **PER Phase 1 / Priority 7**



DISTRIBUTION

The City uses several fresh water storage tanks to meet the fluctuations in demand through the course of a day and provide fire protection. These tanks have aged significantly and are in need of inspection, cleaning, and rehabilitation.

| Project Name | Status June 30, 2013 | Grant \$ | Your Rate \$ | Estimate \$ |
|--|-------------------------|-----------|--------------|-------------|
| Water Storage Tanks - Inspection & Rehab | Procuring Detail Design | \$963,450 | \$277,250 | \$1,093,600 |

WATER DISTRIBUTION SYSTEMS IMPROVEMENTS

PER Phase 1 / Priority 8



DISTRIBUTION

The City's distribution pipes (water mains) are old, and narrow. Some run as dead-end spurs. In order to minimize outages when there is a need for repair work, the City will loop the spurs so any shutdowns become highly localized. The City will also install larger pipes so as not to lose pressure in high demand conditions such as fighting fires.

| Project Name | Status June 30, 2013 | Grant \$ | Your Rate \$ | Estimate \$ |
|---|----------------------|--|--------------|-------------|
| Water Distribution System Improvements | In Detailed Design | \$172,500 | \$57,500 | \$1,900,000 |
| Pecos St. Water Line Replacement | In Planning | Renew 4 Dbl. Setters after Rita Dr. Main Repl. | | Operational |
| East Loop - MDF to SDC | In Planning | Install PVC Pipe on Encino - 485' | | Operational |
| 8th St. (Terrace to Sperry) | In Planning | Install 6" Water Tap - Dolores Street | | Operational |
| North Gonzales (Valencia to Delgado) | In Planning | Install 6" Gate Valve - Silva Street | | Operational |
| Moreland (Legion to Christine) | In Planning | Install Water Main Silva/Dolores St. 610' | | Operational |
| Field E. of Hospital (Harris to Mtn. View) | In Planning | Install Water Main Silva Street 790' | | Operational |
| Install 6" Tap Valencia | Operational | Install Water Main Montezuma Street 1240' | | Operational |
| Install 6" Tap Rio Arriba | Operational | Install New Fire Hydrant Silva Street | | Operational |
| 7th St. (Dianne to Mtn. View) | In Planning | Install 2 New Fire Hydrants Montezuma St. | | Operational |
| Alley Betw 4th & 5th (Columbia to Baca) | In Planning | Install Gate Valve Silva Street | | Operational |
| Water Main Replacement - Railroad Ave. 3000' | Operational | Install Water Main Silva St. 790' | | Operational |
| Connect New Main at Columbia to 4th St. Alley | Operational | Replace Fire Hydrant 4th St./Columbia | | Operational |
| Valve Maint. - Baca,3rd,7th,Univer'ty,E. Natnl. | Operational | Replace Fire Hydrant Grant/Salazar St. | | Operational |
| Pressure Reducing Valve Program | Ongoing | Replace Fire Hydrant Independence St. | | Operational |
| Install New Fire Tap at Tractor Supply Center | Operational | Replace Fire Hydrant Mullins Drive | | Operational |
| Leak Survey 16' River Crossing | Complete | Replace Fire Hydrant Moreno St. | | Operational |
| Leak Survey Wellfield Transmission Line | Complete | Replace Fire Hydrant McRae St. | | Operational |
| Leak Survey Montezuma Main | Complete | Replace Fire Hydrant Pecos St. | | Operational |
| Install 6" Master Meter, Montezuma Main | Operational | Replace Fire Hydrant Alamo/McRae St. | | Operational |
| Static Test on All Hydrants | Complete | Taps and Servicer Renewals Rita Drive - 530' | | Operational |
| Paint Various Fire Hydrants | Complete | New Services 29 | | Operational |
| Replace Various Broken Water Meter Boxes | Operational | Renewed Services 68 | | Operational |
| Install In-Line EZ Valve on Washington Ave. | Operational | Removed Services 9 | | Operational |
| Bulk Water (per each) | Procurement | Relocated Services 4 | | Operational |

ANNUAL LEAK REPAIR AND REPLACEMENT

PER Phase 1 / Priority 9



DISTRIBUTION

Over 100 miles of distribution pipes are very old and are subject to leaks that result in loss of precious water. The PER recommended a regular annual budget to address leak detection and repair. Distribution losses are estimated at 25 percent.

| Project Name | Status June 30, 2013 | Grant \$ | Your Rate \$ | Estimate \$ |
|---|----------------------|------------------|-------------------|--------------------------------------|
| Annual Leak Repair/Replacement | In Detail Design | \$223,500 | \$74,500 | \$3,328,000 |
| List of Completed Leak Repair Projects Is Below | | | | |
| 901 Palo Verde | Harris Dr. | NMHU/9th St. | Legion/8th St. | Chavez Dolores Street |
| 414 Washington | Pecos St. | West Drive | Rita Drive | Baca St. MDF |
| Santa Fe St. | Baca St. | Dalby Drive | N. Gonzales | Placitas del Llano 121 Independence |
| Chico Dr. | Railroad Ave. | Sabino St. | NM Ave. | Valve, Valencia St. 135 Independence |
| 1st/Baca St. | Commerce St. | Perez St. | Anderson St. | 8th Street 8 th St. |
| Vegas Dr. | 8th St. | Blanchard St. | Fresh Water Plant | El Llano Road Colorado St. |
| 7th St. | 1622 5th St. | Colorado/8th St. | Mullins | Placitas del Llano 1331 Reynolds |

WATER TREATMENT PLANT BUILDING REPAIRS

PER Phase 1 / Priority 10



TREATMENT

The fresh water treatment plant building was observed to have some structural problems, probably from settling. These will be remedied to prevent further damage. In addition, other relatively minor fixes are needed.

| Project Name | | Status June 30, 2013 |
|--|--------------|-------------------------|
| Water Treatment Plant Building Repairs | | Procuring Detail Design |
| Electrical at Alum Bldg | | In Planning |
| Install Hach CL17 Chlorine Analyzer in Filter Building | | Completed, Operational |
| NM Dept. of Health Compliance Inspection | | Completed, Operational |
| Remove Lagoon Pump for Repair | | Completed, Operational |
| WTP Office Porch/Alum Tank Cover | | In Planning |
| Replace Float – MIOX System | | Completed, Operational |
| Grant \$ | Your Rate \$ | Estimate \$ |
| \$202,500 | \$67,500 | \$300,300 |



Distribution system leak repair

NON PER PROJECT



An important project was not explicitly addressed by the PER because it was already in process. Besides reducing labor costs and errors in meter reading, this project will attract attention to customer leaks by detecting unusually large or unusual off hour use of water. This project appears in the following table.

| Project Name | Status June 30, 2013 | Grant \$ | Your Rate \$ | Estimate \$ |
|---|----------------------|-----------|--------------|-------------|
| Automatic Meter Reading and Analysis System (non-PER project) | In Procurement | \$825,000 | \$275,000 | \$1,100,000 |

WATER ENHANCEMENT PROGRAM SECTORS



CONSERVATION

The first step to ensure a sustainable water supply is to use existing water conservatively. There are many ways to decrease water consumption and it's easy for each of us to do our part.



GROUND WATER

Las Vegas has been pumping water from the Taylor Well Field since its construction in the 1950's. To ensure an adequate supply of ground water, the City will tap new wells to make alternative sources available.



STORAGE

The City's current water storage system does not have the ability to capture all the water that is available to us. The water enhancement program calls for increasing our water storage capacity.



DISTRIBUTION

Our current distribution system of water pipes is outdated and inadequate. The City is laying new pipes to provide redundant routing to maximize water pressure to minimize water outages.



TREATMENT

The City is working to purify diverted and captured water to make it suitable for drinking and other practical uses.



REUSE / RECYCLE

Water that has been used doesn't have to be wasted. The City is developing systems to recycle and reuse water to enhance the beauty of our community.



CONTACT US

For more information about **Our Future is Clear—Water Enhancement Program**, or to schedule a presentation by our staff with your business or organization on how the City is developing a long-term, sustainable water supply, please contact the City of Las Vegas Utilities Department at (505) 454-3832.