

**Utilities Department Monthly Report  
April 2011**

**MONTHLY REPORTING**

**Utilities Administration Division**

- Everyday tasks of monitoring the budgets for the six divisions within the utility department as well as assisting in the monitoring of the expenditures, submission of requisitions and payment requests for the numerous special projects within the divisions.
- Attended budget hearings with City Manager, Utilities Director, Mayor & Council.
- Preparing for year-end inventory, and requesting invoices from vendors in order to closeout as many invoices as possible.
- Reconciliation on project files for year end.

**Utilities Services Division**

**Customer Service Section**

- Updating files.
- Notifying customers on final accounts before they go to collections.
- Helping customers catch up on winter bills.

**Meter Reader Section**

- Re-reads 464
- Line Locates 171
- Work Orders 230
- Read in/out 23
- Cut out-non pay 85
- Stopped Meters 0
- Auto read Cycle 10, all meters are changed out but need to cut holes in meter lids before trial run.

Water Meter Size	Total Number of Meters	Total Meter Exchanges	Total Remaining Old Meters	Total Meters Changed This Month
5/8 inch	No Count			
5/8 x 3/4 inch	5157	4408	703	46
1 inch	143	38	74	31
1 1/2 inch	No Count			
2 inch	189	111	77	1
3 inch	6		6	0
4 inch	10		10	0
6 inch	2		2	0

### Waste Water Division

- National Pollutant Discharge Elimination System Permit (discharge monitoring report) for month of April 2011 completed and reported to E.P.A. and N.M.E.D. Surface Water Bureau.
- Fourteen calls for service responded to for the Month of April 2011 including afterhours.
- 37.21 million gallons of water treated and discharged to outfall 001 Gallinas River for month of April 2011.
- 10,367,025 gallons discharged for re-use to Highlands golf course, Robertson fields and city parks for Month of April 2011.
- Maintenance of 38,621 feet of sewer lines in the month of April 2011 throughout City including maintenance of problem lines that are done on a monthly basis and service calls.
- Attended weekly scheduled manager/supervisor meetings at Utility Directors office.
- Two new sewer tap permits issued for April 2011.
- Revised SWPPP (Storm Water Pollution Prevention Plan) for waste water treatment facility completed and is on file at the facility.
- Attended Grand Ave. (NMDOT) project meetings on April 13, 2011 and April 28, 2011. Requested to have contractor expose reclaimed water valves on Grand Ave. exposed to open them to irrigate Carnegie Park.
- Attended meeting in Santa Fe on April 19, 2011 with NMED Ground Water Bureau for the utilization of reclaimed water by residents for irrigation of lawns, flowers and ornamental trees. Should have their response by May 6, 2011.
- Submitted three funding applications for FY2012 Clean Water Revolving Loan Integrated Projects Priority List. The three projects are Reclaimed Water System Cinder road to Camp Luna-Sewer Main Project Cinder Road to Mills Ave.-Waste Water Treatment Facility Sludge Handling Facility-Total funding requested is \$4,478,100 Dollars.

### ACCOMPLISHMENTS

- Replacement of 400 feet of 8" VCP (vitrified clay pipe) with 8" PVC pipe between mile marker 1 and 2 on State Road 265 along with one manhole ring and cover.

### CHALLENGES

- Obtaining the necessary funding for corrective equipment/measures for solids and air handling issues at the treatment facility.
- Will be sending out letters and communicating with residents in the 3000 Block areas of Luna Circle and Camino Linda for replacement of the 4" vitrified clay pipe sewer main that is located in what was a twenty foot utility easement that has been encroached upon over the years. This sewer main is over-capacitated and is classified as a monthly maintenance line due to its liability issues.

### Gas Division

- Relocated 1,136 feet of 2” PE gas line on Palo Verde Street along with 4 1” gas services to the front of the houses.
- Hiring process complete for hiring of 3 gas laborers.
- Will be starting valve maintenance in mid May.

### Solid Waste Division

- Renovations of the Transfer Station are progressing and should be completed on schedule-July 11<sup>th</sup> 2011.
- Ordered two new Packer trucks (one Residential Loader and one Commercial Loader).
- Mulch from the Transfer Station has been cleaned and is now being offered for public use. We are relocating it so that it will be more easily accessible to the public.
- The Cardboard Baler has been fixed.
- Ordered transport truck trailer.
- Ordered a total of 300 container lids.

### Water Division

#### Water Conservation Section

Water Conservation Programs	Inventory	Distributed For month	Distributed Year to Date
Low Flow kits	157	140	912
Rain Barrels	127	16	167
High Efficiency Toilets Rebates		0	73
High Efficiency Toilet	9	1	11

- Changed to Stage IV Water Restrictions April 8, 2011
- Sent PSA’s out to radio stations and Comcast.
- Posted stage IV restriction posters at City buildings.
- April 14, 2011 gave Water update on radio station KNMX.
- April 15, 2011 gave Water update on radio station KFUN.
- April 14, 2011 to April 21, 2011 – Water patrol along with Code Enforcement - 8 written warnings and 2 citations were issued.
- Reordered 150 rain barrels – Reordered 500 low-flow kits – Ordered 500 home audit kits.
- Prepared all conservation information and low-flow kits and rain barrels for Synergyfest on 4/30/11 – 103 low-flow kits were given out to City water customers.

- Attended special council meeting on 4/8/11 to implement Stage IV Restrictions.
- Mike Chavez began working with water conservation on 4/11/11.
- 4/26/11 Attended meeting held with Institutional water users.
- Held meeting with Code Enforcement on April 20, 2011 to end nightly operations.

### **Distribution Section**

- Water Distribution Construction Crew. Installed 860' feet of new 2" water line for Mobile Home Park for individual meters.
- Water Distribution Construction Crew. Installed four new water services.
- Water Distribution Construction Crew. 2" water tap for 2" water extension
- Water Distribution Maintenance Crew replaced 2 old ¾ inch angel valves on water meter cans.
- Seven new ¾ inch water services
- One 6 inch fire hydrant tap.  
Water Distribution Maintenance Crew started to transfer services on ally on Railroad Ave. 31 services need to be transferred from old 2 inch line to the new 8 inch line. 7 have been transferred.
- Water Distribution Maintenance Crew raised valve boxes for new side walk on west side of seventh street.
- Water Distribution Maintenance installed 30' of new two inch pvc water line for domestic use at Carnegie Library did all the Domestic and Effluent tie ins.

### **ACCOMPLISHMENTS**

- Carnegie Library on Effluent water irrigation
- El Camino Mobil Home Park Individual water meters installation
- New ¾ Water services

### **CHALLENGES**

- May 9, 2011 start the cinder road 12" effluent water project
- Install new 12" C900 Effluent Water main from 12<sup>th</sup> street up Moreno Street to Rodriguez Park on Grant Street.
- North water loop from North Grand Ave. to Mills Ave.
- Three owners from Mobile Home Parks requesting to individual meter their Parks
- One 6 inch water tap for Fire Hydrants at New Mexico Behavioral health Institute
- New 6 inch fire protection tap at Highlands University new student center on National Ave.
- New 6 inch fire protection tap at LCC Community College.
- New 6 inch fire protection tap for West School District on Porter

### **Water Treatment Plant**

- Gallinas River Water Shortage Sharing Rotation Schedule Started May 1, 2011

- Construction for Diversion Rehabilitation is on schedule
- Spring cleaning all buildings willow and tree cutting for dam inspection
- Transfer of employee from distribution to water treatment plant
- Regular monitoring of water metering, water quality and equipment maintained and water sampling
- Meeting with Environment Department State Engineers Office discussing river flows and outlook for city's water drought and sharing rotation
- Completion of Storrie lake pipe line crossing inspection sign off
- Consumer Confident Reports completed and ready for approval

Operation Status as of 3/31/2011

**Surface Water Diversion**

Approved Diversion:	2754.27	AF
YTD Diversion:	<u>843.944</u>	<u>AF</u>
Remaining Balance:	1910.326	AF

**Ground Water Pumping**

YTD Taylor Wells #4: 144.391 AF

**Storage**

Total Storage:	1022.64 AF
Amount in Storage:	<u>769.496 AF</u>
Available Storage:	253.144 AF
Percent Full:	75%

**Water at Storrie Lake**

Amount in Storage: N/A AF

## **IMPROVEMENT PLANS**

### **Utilities Administration Improvement Plan**

PROJECT/CONCERN	IMPROVEMENT PLAN	PROGRESS
Develop Utility Rates based on cost of service Methodology	Hire a firm to perform rate study to ensure adequate funding for utility Operations and Capital improve.	Orientation Workshop 11/16-19 <sup>th</sup> , Financial Plan Workshop completed Rate Design Workshop Completed
Staffing/Cross- Training in Utility Department	Fill Vacant positions to have a full staff. Cross train staff in different areas to ensure coverage of all positions	Presently we are training a new inventory clerk
Some Service & Material Agreements not current.	Develop R. F. P.'s	On Going
Improve Critical Spare Parts Inventory	Work with Purchasing Officer to identify spare parts needed	The Purchasing Officer is currently working with supervisors to improve the critical spare parts inventory. This will be on going
Complete inventory of chemicals and MSDS Sheets	Work with Purchasing Officer to complete inventory MSDS Sheets	Work assignment given on 01/15/2010 deadline is 03/01/2010
Asset Management Plan	Work with the four Divisions to establish a committee to work with and implement the Asset Management Plan	Work assignment given Nov. 2010 Deadline 12/31/10

### **Customer Service Improvement Plan**

PROJECT/CONCERN	IMPROVEMENT PLAN	PROGRESS
Cross Training	Train cashiers in customer service.	Transfer of cashier to customer service.
Budget billing	Inform customers May is the month to start budget billing.	Re-starting customers on budget billing.

Water leaks	Notify customers as soon as leak is detected.	Working with customers on water leaks by detecting through consumption.
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### **Meter Reader Improvement Plans**

PROJECT/CONCERN	IMPROVEMENT PLAN	PROGRESS
Old Water Meters	Change out old outdated water meters	All 1989 or older meters are done. Continuing on exchanging Rockwell meters and then will continue with exchanging Precision meters.

### **Waste Water Improvement Plans**

PROJECT/CONCERN	IMPROVEMENT PLAN	PROGRESS
Install effluent reuse lines	Expand reuse system to Rodriquez Park.	Water Distribution Dept. will complete this project by end of 2011.
Re-use system expansion	Expand system to increase availability of re-use water to additional city parks and irrigation users.	PER Fee and agreement under negotiation, state funding Frozen.
Air handling issues at WWTP for aeration basins	Work with engineers on constructive solutions to this issue.	Waiting for quotes to finalize review of their responses.
Cinder Road, sewer and effluent lines	Install new 15" sewer collection pipe to be able to lift moratorium. Engineering and Design is 100% complete. pipe and materials ordered utilizing \$200,000 WTB Grant and \$50,000 loan. Updated uniform funding application re-submitted to water trust board for the sewer main for the requested amount of \$750,000.	Will Commence installation of 15" sewer main and 12" reclaimed water line on 5/4/11 along with two sanitary sewer mains. County signed off on crossing permits.
Solids handling issues at WWTP for aerobic digestors	Work with engineers on constructive solutions to this problem.	waiting for quotes to finalize review of their responses.

Camp Luna sewer line replacements due certain undersized lines	Lines in certain areas are undersized and over capacitated.	Seeking Easement Access
West side sewer line replacements	Replace undersized and over capacitated sewer mains	I.C.I.P./ Updated uniform funding application re - submitted to Water Trust Board for sewer main upgrades in the requested amount of \$2,750,000 on February 24, 2011
State road 65 sewer replacement project North of medical center.	Replace 400feet of six inch VCP pipe with 8" PVC pipe and new ring and covers on existing manholes.	Completed.

### **Gas Improvement Plans**

PROJECT/CONCERN	IMPROVEMENT PLAN	PROGRESS
Old PVC gas line that needs to be replaced.	Replace old line with new line and relocate gas services.	400 feet of 2"PVC and 5 service risers have been replaced on Lopez St.
Residential meter replacement project	Replacing 1989 and older gas meters with new R275 gas meters.	280 Gas Meters have been replaced. 20 more needed to complete.

### **Solid Waste Improvement Plans**

PROJECT/CONCERN	IMPROVEMENT PLAN	PROGRESS
Damaged Containers	Replace damaged roll-out containers.	Delivering containers as they come in

### **Water Conservation Improvement Plans**

PROJECT/CONCERN	IMPROVEMENT PLAN	PROGRESS
Conservation Ordinance Violators	Monitor watering, car washing, etc.	On-going

### Water Distribution Improvement Plans

PROJECT/CONCERN	IMPROVEMENT PLAN	PROGRESS
Distribution System modeling & mapping	Hire engineering firm to perform modeling and mapping. Obtain information from Molzen	Lack of Internal Capacity
Reuse water (Effluent) line extension	Extend the effluent reuse water to Plaza Park. Phase 1 River walk 980ft. installed 380 ft. 25 percent Complete	Started on 2/24/2011 Estimated date Complete. Complete
Distribution System Line Replacement	Replace leaky, small diameter, aged or add lines to loop system	Engineering Analysis, Scheduling
Distribution System Leak Detection Program	Work with OSE under grant to develop program. Results used to prioritize replacements.	Have detected 5 leaks. Relocated leak detection loggers. Have all 100 loggers installed on water valves.
Reuse Water (Effluent) Line Extension	Extend the effluent reuse Water to Plaza Park. Phase 2 Moreno st. From Escuelas to South Gonzales. 680 ft. Installed 460 ft. 75 percent Complete.	Started On 1/10/2011 Estimated date complete 3/24/2011

### Water Supply Improvement Plans

PROJECT/CONCERN	IMPROVEMENT PLAN	PROGRESS
Replace PLC at RAW Water Building	For flow control at cabin site tank and chemical pump feed rate for treated water	Alpha Southwest is in the process of ordering and programming
Structural of repair of Filter Building on Northeast side	Under review consulting with Molson and Corbin	Doug from Molson at water treatment for reviewing

## CAPITAL PROJECTS

### Waste Water Capital Project

PROJECT	STATUS	START DATE	COMPLETION DATE
Working with Engineer and Community Development Staff for emergency CDBG Grant for sludge centrifuge.	Grant request submitted- ICIP and budget 2011. Awaiting approval from DFA.	July 26, 2010	Working with Engineer and Community Development Staff for emergency CDBG Grant for sludge centrifuge.
Camp Luna- replace under sized sewer mains.	Need to work with county and residents for access do to encroachment on easements.	September 30, 2010	Camp Luna- replace under sized sewer mains.
Installation of 330 feet of 8 inch PVC pipe and six new sewer service taps.	Has been scheduled for third week of March 2011.	March 14, 2011	Installation of 330 feet of 8 inch PVC pipe and six new sewer service taps.
Air handling issues at WWTP for aeration processes-sludge handling issues and covering of entrance works.	Going out for quotes from engineering firms	December 14, 2010	Air handling issues at WWTP for aeration processes-sludge handling issues and covering of entrance works.
NPDES NM0028827 renewal	Assigned task order to Souder Miller and Associates engineering for preparation and completion of this permit.	September 23, 2010	NPDES NM0028827 renewal
Reclaimed water pipe and material bid for Cinder Road Project	County public works signed off on crossing permits so that we could commence this project.	January 2011	Reclaimed water pipe and material bid for Cinder Road Project
Industrial Storm Water Pollution Prevention Plan for WWTP.	Assigned task order to Molzen-Corbin engineering for preparation and completion of this EPA mandated Plan.	SWPP completed and NOI sent to EPA for approval- received response	Industrial Storm Water Pollution Prevention Plan for WWTP.

		from EPA for more Info. on 12-29-10.	
State police building KFUN	Final cost from contractor in for review by Molzen Corbin to move forward with finalizing the needed extension agreements. Need final DOT easements .	City wants 12” sewer and water lines installed for this project for future expansion of city utilities. City to pay the difference in pipe costs from 8” to 12”.	State police building KFUN
Service truck For waste water department with utility bed and crane.	Waste water will budget vehicle in 2011/ 2012 budget.	Will be getting the final state contract costs for this truck	Service truck For waste water department with utility bed and crane.
Working with Engineer and Community Development Staff for emergency CDBG Grant for sludge centrifuge.	Grant request submitted- ICIP and budget 2011. Awaiting approval from DFA.	July 26, 2010	Working with Engineer and Community Development Staff for emergency CDBG Grant for sludge centrifuge.

**Gas Capital Projects**

PROJECT COMPLETION	STATUS	START DATE	
Moreland St 2” gas line replacement.	Replaced 384 ft of 2” p.v.c with p.e. we still need 480ft and 14 services	7/13/09	5/15/10 est.

**Solid Waste Capital Projects**

PROJECT COMPLETION	STATUS	START DATE	
Transfer Station Renovations	Renovations have started and are going as scheduled	March 17, 2011	July 11, 2011
Landfill Closure	Preliminary Engineering report		

**Water Distribution Capital Projects**

PROJECT COMPLETION	STATUS	START DATE	
12 Inch Effluent Water Moreno project Phase 1	The new 12 in Effluent water Pipe phase one 980 feet. 25 per	2/24/2011	3/11/2011 complete
Meter Replacement	Started on 2" water meters from 1989 to 1990 38 meters have replaced seventeen 2" meters	12/1/2009	On going
12 inch Effluent Water Moreno phase 2	The new 12in Effluent water pipe Phase two 680. 75 percent complete		
Cinder Road Effluent water	Install 12 inch Effluent water main 8641 feet from Mills ave. up Cinder Road.	5/9/2011	8/30/2011 Estimated

**Water Supply Capital Projects**

PROJECT COMPLETION	STATUS	START DATE	
Peterson Dam Leaks	Under Souder Miller Consulting		
Distribution System – High Trihalomethanes. Problem is system wide and is the result of elevated summer TOC, increased temperature, low demand, inadequate system looping, and lack of periodic flushing.	Completed map and profile. It has been determined that this is a system wide problem. Efforts are in progress to modify disinfection practices and optimize Alum feed rates to minimize the problem. Distribution is in the process of identifying broken valves and eliminating dead ends. Operations will seek engineering solutions/recommendations for alternative disinfection/treatment at the water treatment facility pending PER completion.		

## Project Updates from Engineers

### Souder, Miller & Associates

The following Task Orders are currently on-going, pending approval or have been completed

- **On-Going Task Orders (Contract 1981-09)**
  1. **Peterson Pump Back Project (TO3)**
    - Planning Phase: all work has been completed on this phase.
    - Design phase: SMA submitted 100% plans and specs on 11/29/11
    - PNM Service Application: Application was submitted to PNM on 12/29/11. PNM is preparing service contract for the City's review. Contract and cost for extending PNM power to pump back site will be submitted to City on 3/15/11.
    - Construction Phase: Not started yet, pending 404 permit approval. SMA will prepare bid phase and construction observation amendment for construction phase
    - ACOE 404 Permit: At the direction of Ken Garcia, SMA is to determine another set of alternatives for presentation to city staff and city council. Specific areas that were discussed include the upper reach of the Gallinas (above the areas previously discussed) and wetlands area near City Hall. SMA submitted a 404 permit application on 4/25/2011 for review by the City. SMA has also submitted Amendment No. 1 for approval by the City to complete this work. In addition, SMA submitted a man-hour report for work done on the 404 permit to Ken on 5/3/2011 to justify amendment.
  2. **Mid-Term Operating Permit Review (TO4)**
    - Submitted review on 2/10/2011
    - City's comments were received on 3/4/2011
    - Comments incorporated and final review to be submitted to City on 5/9.2011
  2. **Landfill Monitoring (TO5)**
    - Work completed for 2010
  3. **Las Vegas Preliminary Engineering Report (TO6)**
    - On 4/15/11, Molzen-Corbin (MC) posted their technical report on the ftp site.
    - On 4/26/2011, MC posted a revised report based on Mustafa's review of water rights and comments.
    - DBS submitted their technical report on 4/28/2011
    - WHP is scheduled to submit their technical report on 5/13/2011
    - SMA is currently reviewing MC and DBS's technical reports
    - Integrated Preliminary Engineering Report: After review of the technical reports, SMA will incorporate the recommended alternatives into a composite preliminary engineering report to be presented to the City and other agencies review on 6/20/11.
  4. **NPDES Renewal Permit (TO7)**
    - NPDES Permit Renewal efforts was completed in January 2011
    - City asked to sample for Asbestos by EPA. Sampling was completed on 5/3/2011 and sent to Hall Environmental for testing. Analytical results will be submitted to EPA.
  5. **Corrective Measures and Closure Preliminary Design (TO8)**
    - Preliminary Design: Preliminary design was completed on April 29, 2011 and submitted to City for review.
  6. **Groundwater and Methane Monitoring (TO9)**

- SMA has scheduled the second groundwater and methane monitoring event for the week of September 1st and possible the week of September 7, 2011 depending on field staff schedule.
- 7. Corrective Measures and Closure Final Design (TO10)**
- Final Design: Final design task order was submitted to City on 3/18/2011 for review
  - Review was completed on 3/28/2011 and will be submitted to City Council for final approval.

### **Molzen-Corbin & Associates**

The following Task Orders are currently on-going, pending approval or have been completed:

#### **A. On-Going Task Orders**

##### **1. Taylor Well No. 2 (No. 3)**

- The final design was submitted to the City and the NMED on March 22, 2011
- NMED-CPB approved project on March 24, 2011.
- Site Certificate was submitted to NMED and NMFA on March 31, 2011
- NMED-DWB approval is pending.
- Construction Phase Services, Construction Observation (Surface Features) and Construction Observation (Well) to be provided later.
- The project has been recommended for WTB funding.
- The WTB meeting was held on April 20, 2011.

##### **2. Water System Hydraulic Model (No. 4)**

- The water model is 90% complete
- The draft model was submitted to the City for review on April 26, 2011.
- We request a meeting with the City to review the existing water system and the proposed improvements.
- The following information from the City is pending:
  1. Pressure reading on inlet pipe to the Luna Tank.
  2. The existence of the PRV on El Llano Road.
  3. The closed valves on Rio Arriba.
  4. Additional static pressure readings may be required.

##### **3. Finished Water PER (No. 5)**

#### **Water Treatment Plant**

The existing water treatment plant has been evaluated for existing operational issues that need to be addressed as well as long-term improvements.

The existing operational issues are well known, but are being further defined and clarified in this PER so the City can obtain funding for the improvements. These improvements must be made in order for the City to continue to operate the treatment plant.

The recommendations regarding the WTP in the PER are as follows:

#### **Priority 1 Improvements:**

- Reduce TTHMs and HAA5 to safely meet drinking water standards and improve taste and odor problems:
  - Add an oxidation process upstream of the pretreatment facility such as ozone, ultraviolet light, and/or hydrogen peroxide to reduce the organic precursors of disinfection byproducts
  - Install a building cover over the pretreatment facility to minimize algae growth in the basin
- Improve operation and maintenance of plant:

- Install roof over the existing alum storage and containment tanks located adjacent to the Raw Water Pump Station to protect them from sun and rain.
- Reroof the filter building to protect the equipment inside the building from water damage.
- Repair cracks in masonry walls of the filter building to seal the building from outside drafts and protect the masonry from further damage.
- Add three additional outlet drains in the concrete sludge lagoon to reduce the amount of sediment that clings to the slope of the lagoon.
- Add raw water pipe to feed into the top of Bradner Reservoir to improve water quality by reducing stagnant zones in the reservoir that now exist with a single inlet/outlet pipe in the bottom.

Priority 2 Improvements:

- Facility modifications to increase capacity assuming current source water

Priority 3 Improvements:

- Facility modifications to address variations in surface water quality

### **Finished Water Distribution System**

The finished water distribution system consists of the waterlines throughout the City of Las Vegas. Similar to the Water Treatment Plant, the improvements required to the distribution system have been presented as a prioritized list of what the City must do in order to address known issues with the existing distribution system.

The draft water model was submitted to the City for review and comment on April 26, 2011.

The improvements that have recommended are as follows:

- Upsize lines based on results of the water model.
- Loop dead end lines to improve water quality, water pressure and fire protection.
- Address lines that need to be replaced based on input from City staff.
- Leak detection (on-going of existing program and possible recommendation for additional leak detection).

### **Finished Water Storage**

The engineering analysis, which uses peak day demand and population projections for the planning period of the project, indicates that no additional storage will be required to meet 2050 storage requirements. A new water tank will be required at the Airport to supply the proposed booster pump building as presented in the Draft PER.

It has been recommended in the Draft PER that the three existing storage tanks be inspected and rehabilitated.

### **Effluent Reuse**

The effluent reuse evaluation has included the evaluation of many concepts for usage of effluent. Essentially, in order for an effluent reuse option to be beneficial to the City, the reuse must either replace a current potable use or result in an exchange with a current user(s) of potable water who is willing to use effluent rather than existing potable water.

The final report regarding the quantity of effluent available for reuse throughout the study period was provided on January 19, 2011.

The evaluation matrix created to help the City evaluate the effluent reuse options was presented at the public hearing and in the draft PER to outline the many effluent reuse options that were considered during the evaluation.

One additional option that Molzen Corbin is currently studying is obtaining a second NPDES permit to discharge effluent upstream from the existing discharge location, but downstream of

the City's diversion from the Gallinas River. The thought is this would possibly allow the City to divert more water from the Gallinas since the downstream users would have water to divert from the river that is currently not available with the City's existing diversion and discharge locations. It is essentially a "water swap" with the acequias that would allow the acequias to continue to divert from the Gallinas. We are researching the feasibility of this option, including conversations with the New Mexico Environment Department.

Based on input from the City staff and others, the recommendations in the Draft PER include the following short term and long term improvements:

**Short Term:**

- Expand existing system to irrigate more City parks and ball fields.
- Construct facilities to get the effluent from Cinder Road up to and back down from Camp Luna.
  - Allows for expanded reuse to maximize what is available on a daily basis and minimizes the reliance on the pumping equipment at the WWTP.
  - Would result in discharge of entire 0.6 MGD in winter.

**Long Term:**

- Pump excess reuse to Storrie Lake (waiting for City-coordinated meeting with Storrie Lake Board of Directors to determine if it will be recommended). The cost for water quality analyses that would define characteristics, including basic pharmaceuticals, is very high and has not approved by the City.
- Discharge effluent upstream of existing discharge location to provide water in river for users downstream of City's Gallinas diversion location (evaluation underway)

**Groundwater Evaluation**

The Draft PER focused on how to incorporate the new ground water recommendations from Daniel B. Stephen's report into the existing water system, including physical improvements to get the water into town and treatment required for any of the new sources of water.

**4. Storrie Lake Conveyance System Report (No. 6a and 6c)**

- We met with City Staff on September 14, 2010 to discuss the conveyance system and to review draft material prepared for a Public Scoping Meeting.
- Based on recommendations by the City at the September 14, 2010 meeting a meeting was held with the Storrie Lake Users Association on October 13, 2010.
- It was decided in this meeting to revise the scope of work to only evaluate the following three alternatives:
  1. New gravity pipe to replace open channel.
  2. Pump-assisted system to convey low flows by gravity and higher flows with pump.
  3. Concrete lining of channel.
- A Draft of the Evaluation was provided to the City in January 2011
- Cost for Alternative 1 was \$9.7M, Alternative 2 was eliminated due to large horsepower requirement, and Alternative 3 cost \$15.2M.
- A meeting was held on April 12, 2011 and April 21, 2011 with the City, Storrie Lake, State Game and Fish and U.S. Fish and Wildlife. The City requested that we revised the construction estimate for Alternative No. 1 to include the lining/repair of the tunnel, the two siphons and install a buried pipe from Bentley Lake to McAllister along NM281.
- Storrie Lake is considering the cost to City for additional storage at Storrie Lake.

#### **5. Cinder Road Sewer System Improvements (No. 7)**

- The scope of work is to extend a 15" sewer line along Cinder Road and through the memorial Middle School to Old National Road and extend a 12" effluent line from Mills Ave. to El Camino Road.
- The 15" sewer line is intended to eliminate the over load condition of the existing sewer line that was identified in Task Order No. 1.
- The 12" effluent line is intended to initially irrigate the middle school and baseball fields across the street and eventually be extended to Camp Luna and potentially Storrie Lake.
- The final design was submitted to the City and NMED on April 6, 2010.
- NMED approved the plans and specifications on April 21, 2010.
- The sewer portion of the project is on hold pending funding.
- The City received WTB funds to purchase the materials and install the effluent line portion of the project.
- The City requested that Molzen Corbin proceed with identifying the property needed for the booster pump building and tank on Cinder Road.
- We met with the City and two potential property owners to begin the discussion.
- The easement required for the 15" gravity sewer through the Memorial Middle School also needs to be secured.
- Molzen Corbin prepared the Utility Permits for San Miguel County to install the utilities that cross the new bike path and submitted them to the City on February 22, 2011. The City submitted them to the County for review and approval.
- On March 31, 2011 San Miguel County requested that additional language be included on all seven (7) permit application forms.
- We understand that the City has received the approved permits from San Miguel County and that the City will begin installing the utilities.

#### **6. KFUN/State Police Station Water and Sewer Extension (No. 8)**

- The State is constructing a new State Police Building east of the Interstate and south of the University exit.
- We assisted the City with evaluating the proposed design of the extension of the City water and sewer lines to service the building and future development east of the interstate.
- We are currently assisting the City with a Line Extension Agreement.
- Molzen Corbin waiting on approval/permit from the NMDOT for the utilities to complete the line extension agreement.

#### **7. Rodriguez Park Effluent Re-use (No. 9)**

- The preliminary design was submitted to the City on September 27, 2010.
- The final design was submitted to the City and NMED-CPB on December 23, 2011.
- We have received and addressed the City comments.
- We received and addressed comments from the NMED.
- The final design was submitted to the City and NMED on April 19, 2011.
- The project has been recommended for WTB funding. The WTB meeting was held on April 20, 2011.

#### **8. Storrie Lake Inlet Piping Crossing Repairs (No. 14)**

- Construction began on March 21, 2011
- The project is complete.
- The Substantial Completion Inspection was held on April 26, 2011.

#### **9. Gallinas River Effluent Line Crossing (No. 20)**

- The scope of this project consists of the construction of new 12” DIP effluent line encased in concrete across the Gallinas River at Moreno Street.
- Construction began on March 21, 2011
- The project is approximately 90% complete.
- The Contractor had difficulty controlling the groundwater so they hired a subcontractor to complete the work.
- The Contract time expired on April 19, 2011.
- The Subcontractor is now having difficulty with the pressure test.

**10. SWPPP at WWTP (No. 15)**

- Received review comments from EPA.
- The final SWPPP was submitted to the City on April 26, 2011.

**11. Entrance Works Enclosure (No. 23)**

- The scope of this project consists of enclosing the entrance works with a series of panels, windows and roll up doors.
- The City approved the Task Order for the design on March 18, 2011.
- The preliminary plans were submitted to the City on April 26, 2011.

**12. New Mexico Effluent Line Crossing (No. 24)**

- The scope of this project consists of the construction of new 12” DIP effluent line along New Mexico Avenue from Moreno Street to Grant Street.
- The City received a permit from the NMDOT on March 10, 2011.
- The City approved the Task Order for the design on April 14, 2011.
- The preliminary plans were submitted to the City on April 26, 2011.

**B. Pending Task Orders**

**1. Taylor Well No. 5 (No. 16)**

- The City would like to place this well back into service
- Molzen Corbin performed site visit to prepare scope of work on November 2, 2011
- Molzen Corbin provided Task Order to City on December 7, 2010

**2. North Grand Avenue Waterline Improvements (No. 17)**

- City would like to loop four dead end lines in the vicinity of City Hall and the Hospital
- These lines have been identified in the draft water model.
- Molzen Corbin provided Task Order to City on December 7, 2010

**3. Luna Tank and Cabin Site Tanks (No. 18)**

- The scope of this project consists of the draining, cleaning, repainting and possible structural improvements to the 2.5 million gallon Luna Tank and the 5.0 million gallon Cabin Site Tank. Modify yard piping at the Luna Tank to allow the existing booster pump building to be removed from service. The existing high service pump (red pump) will remain in service.
- We recommend the following tasks be performed by the City during the preliminary design phase:

1. Test for lead base paint on both tanks (inside and outside)
2. Inspect interior of both tanks to determine the following:
  - a. Quantity and type of debris.
  - b. The extent of structural improvements that may be needed
  - c. The condition of the cathodic protection system

3. Isolate the Cabin Site Tank and perform a trial water system operation using the clear well pumps at the Water Treatment Plant to simulate the daytime and nighttime operation for two days.
4. Perform pressure test at Luna Tank.

- Molzen Corbin provided Task Order to City on December 7, 2010

**5. Cover over the WTP Pretreatment Facility (No. 19)**

- The scope of work consists of the construction of a metal structure cover over the existing pre-treatment facility at the Water Treatment Plant.
- The purpose of the project is to reduce the amount of sunlight to the water surface
- The cover will be a pre-manufactured cover mounted to the top of the existing walls
- The west and south walls will be screened to reduce evening sunlight and improve security.
- Molzen Corbin provided Task Order to City on December 7, 2010

**5. Storrie Lake Conveyance System Environmental Information Document (No. 6c)**

- Based on the meetings with the City and Storrie Lake, this work will not be performed and will be removed from the Status Report.

**6. Septage Management Technical Assistance (No. 12)**

- A public meeting held on June 29, 2010.
- Molzen Corbin provided a Task Order on July 1, 2010.

**7. WWTP Sludge Handling Modifications (No. 21)**

- Molzen Corbin provided a Task Order on January 11, 2011.

**8. WWTP Aeration System Modifications (No. 22)**

- Molzen Corbin provided a Task Order on January 11, 2011.

**C. Completed Task Orders**

1. Old National Road Sewer Evaluation (No. 1)
2. West Las Vegas Middle School Sewer Evaluation (No. 2)
3. Storrie Lake Conveyance System Aerial Photography (No. 6b)
4. Camp Luna Elevated Tank Painting (No. 10)
5. Taylor Well No. 2 Design (No. 3)
6. Storrie Lake Inlet Piping Crossing Repairs (No. 14)