

QUARTERLY REPORT
PIMA COUNTY WASTEWATER
MANAGEMENT DEPARTMENT
January 2007 – March 2007



Pima County Wastewater Works Towards ISO Certification

Established in 1947, the International Organization for Standardization (ISO) is a non-governmental worldwide federation of national standards bodies from approximately 140 countries. One of the main missions of ISO is to promote the development of excellence and standardization. The ISO works in partnership with governments, international organizations, industry, and business and consumer representatives. ISO frequently acts as a bridge between public and private sectors.

ISO is recognized world-wide as a global network that identifies what International Standards are required by business, government and society; develops them in partnership with the sectors that will put them to use; adopts them by transparent procedures based on national input; and delivers them to be implemented worldwide. ISO standards make a positive contribution to the world we live in. They ensure vital features such as quality, ecology, safety, economy, reliability, compatibility, interoperability, sustainability, efficiency and effectiveness. They facilitate trade, spread knowledge, and share technological advances and good management practices.

Implementation of ISO standards prevents unnecessary duplication of efforts and makes available the latest in expert knowledge. ISO standards propagate new advances and transfer technology, making them an invaluable source of knowledge. An ISO certification demonstrates to regulatory agencies that the organization is proactive about reducing pollution and committed to continual improvement.

The Pima County Wastewater Management Conveyance Division continued to make progress toward a Business Management System for ISO certification in the first quarter of calendar year 2007. PCWMD will be the first utility in Arizona to achieve this distinguished goal. The processes involved in obtaining ISO certification entails a complete review of existing activities and an understanding of their impact on the environment, employee and public safety, and quality. ISO certification leads the removal of negative impacts and strengthening positive impacts, resulting in improved efficiency in operation and better integration in day-to-day activities.

When completed, Pima County Wastewater Management will join only a few private companies and public enterprises throughout the world to achieve all 3 certifications:

- Quality - ISO 9001
- Environmental - ISO 14001
- Safety - OHSAS 18001

The primary benefit gained from implementing a business management system is the building and sustaining a better organization. The very exacting process guarantees that all major or critical processes are thoroughly reviewed and evaluated to ensure that only the best practices remain in place and are well defined, documented and understood by all involved individuals.

The conveyance division will continue to establish documented guidelines that ensure consistency from day to day and become the basis for training new employees.

ISO is an abbreviation of the Greek word "isos", meaning equal. It is not a "misspelled" acronym for International Organization Standard. Because ISO is an international standardization system, the standard use of "ISO," avoids confusion that would result from different acronyms that would be developed in multiple languages.

Sewer Rehabilitation/Repair Projects

Wastewater Management performed two major sewer repair projects during the first quarter of 2007: Carrillo Sewer Repair Project (District 2) and Sabino Creek Sewer Repair Project (District 4).

Carrillo Sewer Repair Project: During the first quarter of calendar year 2007, PCWMD began and completed a major sewer repair rehabilitation project in Barrio Viejo (area located south of the Tucson Community Center). Open trench repairs and Cured-In-Place Pipe rehabilitation of 3.6 miles of very old sewer lines were completed in this historic neighborhood. In addition, 26 manholes were rehabilitated. Street repairs were done in March. Because of the extensive nature of this project and the significant disruption to the neighborhoods involved, a Community Relations staff member was assigned on a full time basis to the project area. Outreach activities included:

- arrangements for special accommodations for individuals and families with special needs or circumstances,
- arrangement for parking alternatives for businesses and residents impacted by rehabilitation/repair work
- close communication and coordination with Carrillo School and La Pilita Museum



Community Outreach Staff Member describes next step in Barrio Viejo Project to a resident

Over the course of the project there were only a few complaints; however there was a much larger number of emails, phone calls, and letters complimenting the extensive outreach effort. This project will serve as a model for future projects where neighborhood disruption will be extensive.



Open Trench Repair in Barrio Viejo Takes Place in Front of Historic Home

Sabino Creek Sewer Repair Project: During the month of January, the department began and completed the Sabino Creek sewer repair. This repair was made necessary after severe rain events led to the exposure of a sewer line that runs underneath Sabino Creek. Special precautions were taken during this project to protect this environmentally sensitive area. Nearby neighbors were informed about this project with door hangers and with personal explanations made by a Community Relations staff member. This level of outreach resulted in compliments to project staff. With the completion of this repair, the sewer which runs underneath Sabino Canyon Creek is better protected against future weather events.



Staff took extra precautions to protect trees and other vegetation during the repair of the sewer line underneath Sabino Creek

Treatment Facility Upgrades/Activities

In February, a public workshop was held to receive input from Mt. Lemmon residents and other stakeholders about the potential benefits that could be derived from the upgrade and expansion of the department's sewer and treatment plant infrastructure in Summerhaven. Representatives from the U.S. Forest Service and Pima County Department of Environmental Quality were in attendance. Comments provided at a February public workshop are being taken under consideration as this project moves forward.



Public participation at Mt. Lemmon Workshop

Ongoing expansion construction at a number of outlying facilities took place during the first quarter of calendar year 2007. Facilities where expansion activities took place include:

- Avra Valley Wastewater Treatment Facility: 1.0 MGD expansion
- Corona de Tucson: 1.0 MGD expansion
- Marana Wastewater Treatment Facility: A 0.5 MGD interim expansion

The design phase of an additional 1.5 MGD expansion at the Marana Facility began in the first quarter of calendar year 2007. The Avra Valley and Corona de Tucson expansions should be completed before the end of the next quarter.

A variety of projects were continued or started at the Roger Road facility during the months covered in this report. These projects include:

- The replacement of grit augers and a compactor at the headworks: The new augers remove grit and sand at the headworks, preventing the contamination of the subsequent biological treatment process. The compactor washes out odorous organics and removes liquids from the screenings (debris) that are removed at the headworks and taken to the landfill. (This project will help to reduce odors.)
- Construction of new stormwater basins: These new basins are required under the department's Arizona Pollutant Discharge Elimination System (AZPDES) Permit
- Rehabilitation of Gravity Belt Thickener: This project will provide increased capacity in solids handling

Regional Optimization Master Plan

The Regional Optimization Master Plan (ROMP) was presented to the Board of Supervisors on Tuesday, January 16. The Board approved the submittal of the plan to ADEQ. ADEQ also received the plan in January and approved it. With the approval of the plan by ADEQ, Wastewater Management now must meet the following deadlines:

- December 31, 2010 - PCWMD must award a construction contract for the Ina Road Water Pollution Control Facility (IRWPCF)
- January 30, 2011 – PCWMD must award a construction contract for a new plant on the current site of the Roger Road Wastewater Treatment Plant (RRWTP)
- January 30, 2014 – Effluent discharges from the IRWPCF must meet non-toxic ammonia levels
- January, 30 2015 - Effluent discharges from the RRWTP must meet non-toxic ammonia levels

To meet the new standards, PCWMD is obligated to construct the following major features:

- A new 32 MGD facility adjacent to the current Roger Road plant
- The expansion the existing Ina Road facility to treat 50 MGD
- The conversion of the existing process at Ina Road to meet new denitrification standards

- The use of the Bardenpho process of both plants to meet denitrification standards
- The construction of a plant interconnect line to convey additional flows to the Ina Road site

Odor Control Plan

Of the original odor control projects, all but the biotowers will be completed by this summer. The biotowers project is being delayed due to concerns raised by the Pima County Cultural Resources and Historic Preservation Office (CRHPO). CRHPO has hired a consultant to perform investigations into the possibility that there may be ancient bodies/artifacts in the area where odor control facilities are planned. Upon learning about the delay, PCWMD staff met with the odor control consultant and began planning an interim approach to odor control at the Roger Road facility until long term odor control can be implemented. *PCWMD is cautiously optimistic that the goal of noticeable odor relief by July 2007 will be met.* Archaeological work at the site has begun, and PCWMD will report on this issue as the investigation proceeds.



Temporary scrubbers/filters for the processes that can move forward will be rented until permanent facilities can be placed on the site being investigated by CRHPO. These temporary facilities will be replaced by more permanent filters/scrubbers once CRPHO allows PCWMD to move forward with construction on the site in question. Once completed, the new filters/scrubbers will serve all the newly constructed odor control projects at the Roger Road plant until it is decommissioned in 2015.

To date, ten odor control projects have been completed. Odor control projects that were completed during the months covered in this report are listed below:

- February 23, 2007: Chemical optimization of the scrubbers associated with the Ina Road Primary Clarifiers (from the old section of the plant) was achieved.
- March 15, 2007: The raising of the stacks on the Roger Road plant thickeners was completed. This project enhances atmospheric dispersion of odorous compounds.

2008 Bond Committee

The Wastewater Management Executive team met with the 2008 Bond Committee on March 14. An in depth presentation was made regarding ROMP needs as well as other CIP projects, including needed rehabilitation, expansion and regulatory projects not connected to the ROMP. The presentation was well received by the BOND committee.

Compliance and Regulatory Affairs Office

The Compliance and Regulatory Affairs Office (CRAO) was established in January 2007 to merge all compliance and regulatory activities into one office within PCWMD. This office is managed by Jeff Prevatt, PhD and now reports directly to the PCWMD Director, Michael Gritzuk.

CRAO is responsible for the following: Permitting, Compliance Reporting, Water Quality, Industrial Waste Control, Biosolids Management, Information Management, and Laboratories. The Permitting group prepares permit applications and ensures compliance with public health and environmental regulations. The Compliance group focuses on ensuring all of the department's monitoring requirements are met. It conducts compliance sampling of discharges, groundwater, and field analyses.

Areas that CRAO is responsible for include:

- The Water Quality group performs hydrological studies and point source identification. This group generates automatic Discharge Monitoring Reports (DMR) and Self-Reporting Report Forms (SMRF) reports and permit exceedances.
- The Industrial Waste Control (IWC) group, through a federal and state pretreatment program, handles 650 permits and over 50 Significant Industrial Users. The IWC focuses on fats, oils, and grease minimization from commercial sources; sewer system overflow investigations; point source investigations; pretreatment compliance database; and emerging pollutant research.
- The Biosolids Management group's regulatory tasks include the Annual Biosolids Report, disposal contract administration, registered lands and loading documentation, and biosolids research contract administration. It is working toward ISO certification for the department's biosolids program.
- The Information Management group provides a central database and library archive for regulatory information, permit exceedances, and permit non-compliance reporting.
- The laboratory handles the ever-increasing workload resulting from new compliance and monitoring requirements. The ROMP includes construction of a new full service laboratory which will be necessary for the performance of

additional contaminant research and analysis. In the interim, laboratory staff continues to perform outstanding work in very cramped facilities.



Cramped working space in current laboratory

The structure of the new CRAO provides a single point of contact for regulatory activities and interaction with regulators. This new coordinated approach expedites reporting and improves oversight of compliance issues. It should result in an avoidance of civil penalties associated with Consent Orders.