**Employees Pillar**

**Vision for the Future**

Today and into the future, PCRWRD makes investing in its staff a priority. Our employees are a critical priority and the department strives to become a best-in-class workplace that attracts and retains highly qualified and dedicated employees. The vision for the future is one in which employees are excited to be part of an environment where innovation is encouraged and appreciated, and where their contributions are recognized. In this dynamic environment, employees feel a sense of commitment to excellence and are motivated to grow their skills and apply their talents. Collaboration is a key element of the PCRWRD employee vision.

Key elements for becoming a best in class workplace include:

- The continuous development of formal programs to develop individual employees’ skills and support their professional growth. Training programs for managers and supervisors emphasize the skill-sets needed to create transformational leaders who engage employees.
- The continuous improvement and strategic planning processes engage employees in creating clear, tangible goals and provide a sense of direction, purpose, empowerment and belonging.
- The understanding of processes and customer requirements supports knowledge management and consistent training.
- Multiple forums for two-way dialogue allow employees to be heard and expectations and recognition to be communicated.
- The provision of safe, secure facilities and adequate tools and resources are critical for a successful workplace.

**Opportunities**

**Training**

PCRWRD is preparing its workforce to meet future challenges and changes resulting from technological advancements, turnover, diversity and multi-generational factors. Incorporating modern learning methods (e.g. simulation) that motivate employees to learn new skills and enhance employee productivity is key to the department’s success. Preparing employees to assume leadership roles in the department is critical to successful succession planning, and is dependent on the expansion of programs to develop and train learning groups as well as individual employees.

**Knowledge Management**

Capturing knowledge and making it accessible for future employees is a priority. As the “baby boomer” generation continues to age, the department is experiencing increasing numbers of retirements. Within the next five years, 36.5% of PCRWRD’s workforce will be eligible to retire.

**Culture Change**

PCRWRD recognizes that employee development is essential to PCRWRD operations. To this end, the department fosters an organizational culture that is collaborative, team oriented and skilled in process management. Developing these organizational qualities is necessary to strengthen communications, reduce “silo-effects,” and...
encourage employees to engage in continuous improvement. When the culture encourages employees to feel ownership of their work areas and processes, they are motivated and better able to achieve our visions and goals.

MAJOR PROJECTS AND PROGRAMS

Training
PCRWRD will establish Learning Groups for each work unit and will focus resources on the individual needs of each group. The department will also implement Project Management training to improve the efficiency of projects and improve collaboration among Project Managers. Administrative employees will be able to take advantage of an Administrative Services Training Program that will be designed to increase efficiency and collaboration among those who serve in these types of positions. To improve the Operations and Maintenance (O&M) Training Program, RWRD will develop O&M Team lead positions that will result in proper leadership in this job category and provide necessary leadership to team members.

An incident Command System tabletop training exercise will bring together employees from a variety of sections and divisions who will need to collaborate and work closely together in the event of an emergency.

To ensure employee training is documented and tracked, the department will implement a learning management software program. In addition to documenting and tracking employee development and training, this program will be able to generate reports on staff’s participation in these efforts.

Leadership Development
To develop the department’s leadership, PCRWRD must foster team building among senior managers and Executive Team members to improve communications, productivity and collaboration. To this end, RWRD will provide professional development for the Executive Team and senior management through coaching services. In addition, the department needs to develop a change management program to address the challenges of the impending retirements of numerous “baby boomer” employees.

Evaluation and Assessment
Computer skills, communication skills and other essential skillsets are critical to the fulfillment of PCRWRD’s mission and vision. To this end, the department will conduct assessments of the necessary skillsets among its staff, and evaluate what types of training and development activities are needed.

Employee Communications
“Pillar Talks” are Biannual open forums held at a variety of work sites. The Pillar Talks provide opportunities for employees to communicate one-on-one in a casual setting with the director. In addition, the director has an open-door policy. Any department employee can schedule a meeting with him to discuss issues or concerns without fear of retribution.

Performance Plans and Appraisals provide the opportunity for private, one-on-one meetings between employees and their supervisors. During these sessions, feedback
is provided and discussion and planning for the development/improvement of skills and responsibilities take place.

Management Review Meetings attended by senior management are held three times a year. During these large group meetings, senior staff members monitor key performance indicators, discuss business opportunities, and update the Strategic Plan.

The Annual Strategic Planning Retreat is attended by a broad group of supervisory management, and executive-level employees. This retreat is held at the beginning of the fiscal year, and provides for the review of the strategic plan which will guide department efforts over the course of that year.

In fiscal year 2014/2015, an employee satisfaction survey will allow the department to track improvements or declines in employee satisfaction. The results of the survey will be compared against results from a 2012 survey of managers and a 2013 survey of all employees. Survey results will be used to measure progress and identify areas of continuing concern. PCRWRD also communicates with its workforce through the monthly employee newsletter The Pipeline. The newsletter, which is distributed to all staff, provides information about departmental activities, successes and challenges.

Strategic Planning

The PCRWRD Strategic Plan is updated annually and serves as a decision support tool that is used to work through problems and anticipate challenges ahead. The Plan measures performance and focuses resources on clearly defined goals and priorities within the six foundational Pillars (Employee, Compliance, Safety, Customers, Financial and Sustainability), and the three Core Business Systems (Growth and Development, Conveyance and Treatment).

Continuous Improvement

The formal Continuous Improvement Program currently implemented in the Conveyance and Growth and Development Business Systems will be expanded to the Treatment Business System. This will include training in process management skillsets and establishment of cross-functional teams to define and improve processes through use of process mapping methodology. Critical operational information is referenced on process maps providing both a training tool and a knowledge retention tool. This methodology also fosters collaborative problem solving, communication, empowerment and accountability through the use of a “Plan-Do-Check-Act” approach.

BENEFITS

Long term benefits of the department’s commitment to the Employees Pillar include:

- Improved employee morale and job satisfaction;
- Increased employee retention;
- Increased cooperation, communication, and team work;
- More collaborative problem solving and shared decision-making;
- Improved trust; and
- Improved employee and operational performance.
Compliance Pillar

VISION FOR THE FUTURE

Nearly a decade ago, Pima County launched planning efforts for the Regional Optimization Master Plan (ROMP) to comply with state environmental standards at the Ina Road and Roger Road Water Reclamation Facilities (WRFs). Through that process, it was decided that instead of rehabilitating the Roger Road WRF, that the facility should be replaced. The facility that replaced the Roger Road WRF has been named the Agua Nueva WRF. The Ina Road WRF was renamed the Tres Ríos WRF. With substantial completion of both facilities in 2013, the Arizona Department of Environmental Quality’s (ADEQ) environmental requirements have been met.

The vision now includes continued efforts to build on prior successes at improving the quality of our discharges that sustain flow in the Santa Cruz River and the quality of recycled water produced at Pima County’s regional and sub-regional facilities. PCRWRD will continue to be an industry leader in taking innovative approaches to meeting environmental regulatory objectives. Future work will enhance and maintain the rapport and professional respect we have developed with key regulatory agencies.

The future Water and Energy Sustainability Center (“Water Campus”) will also continue to provide opportunities to address future water quality and sustainability issues for the entire community.

OPPORTUNITIES

Disinfection Enhancements

Disinfection is the most critical step in the treatment process for ensuring protection of public health. This process also presents the greatest challenge for maintaining compliance, especially when chlorination is the method of disinfection. Chlorination requires careful management because of daily sampling requirements. Numerous chemical interactions also require keen attention. In addition to daily monitoring of disinfection parameters (E. coli & fecal coliforms), PCRWRD must keep surface water discharges free of chlorinating agents, maintain adequate dissolved oxygen levels, and prevent excessive formation of disinfection by-products such as Trihalomethane (THM).

Fairgrounds WRF

The Fairgrounds WRF is a small, 20,000 gallons per day (on a monthly basis average), evaporative/percolation lagoon facility that operates under a general permit. Upgrades to this facility are problematic since any improvements would necessitate a nutrient removal process. Additionally, the sporadic nature of flows makes biological treatment difficult, if not altogether impossible. A possible solution would involve diversion of flow from the Fairgrounds WRF to a nearby interceptor or to the Corona de Tucson WRF.

Corona de Tucson WRF

Despite producing high-quality denitrified water, the Corona de Tucson WRF does not have an engineered disinfection system. Instead, it relies on soil aquifer treatment. Unfortunately, this method can result in false exceedances and is prone to interferences caused by inclement weather. For these reasons, the department has plans to install a more traditional disinfection process.
Biological Nutrient Removal

A common complication of the biological nutrient removal process is the increased potential for forming THMs when using chlorination for disinfection. PCRWRD evaluated two options for THM control: THM formation prevention and post-formation stripping. THM formation prevention is being tested at the Tres Ríos WRF and so far is proving viable for larger WRF facilities. Post formation stripping also proved viable, but it is better suited for small-facility flows where pumping costs are lower.

Industrial Wastewater Control Program

Each year, the Industrial Wastewater Control (IWC) program employees conduct over a 1,000 samples at a variety of businesses and organizations in Pima County. The sampling serves to ensure discharges into the sanitary sewer system are in compliance with Pima County’s pre-treatment ordinance. Sampling also determines if the organizations are meeting monitoring requirements and environmental permit requirements. Compliance inspections were conducted at over 700 permitted and non-permitted facilities last year. IWC issues 30-50 Notices of Violations (NOV) each year to users. There is an opportunity to work more closely with commercial and industrial users to reduce the number of NOV issued annually.

Research and Education Partnerships

With the completion of the Water and Energy Sustainability Center expansion, the University of Arizona (UA) will provide staff and students from the Agricultural and Life Sciences Department to conduct research on the next generation of treatment technology. This is an opportunity to prepare for the anticipated new regulatory requirements for such things as emerging contaminants and other predicted changes to federal and state regulations. Additionally, there is an opportunity to partner with the City of Tucson, the UA, and the private sector firm CH2M Hill to study advanced oxidation treatment for direct potable reuse.

MAJOR PROJECTS AND PROGRAMS

Biological Nutrient Removal

An official report on the pilot project to test the use of THM formation prevention at the Tres Ríos WRF will be completed by the end of 2014. Following the release of the report, a scope of work will be developed for a project to be implemented at the facility.

Disinfection Enhancements

Last year, the Compliance and Regulatory Affairs Office (CRAO) held detailed discussions with the Arizona Department of Environmental Quality (ADEQ) to establish optimal sampling locations at the Corona de Tucson WRF to provide more reliable and accurate readings. These discussions led to a detailed evaluation of our point of compliance monitoring. As a result, CRAO is currently developing a scope of work to provide disinfection using a precast chlorine contact basin at the Corona de Tucson WRF. A hydrostatic tank will be repurposed from the decommissioned Roger Road WRF and will be incorporated into the service water system at the Corona de Tucson WRF.
Trihalomethanes Formation Prevention at Tres Ríos WRF

PCRWRD is designing a full-scale THM mitigation pilot for large-scale operations such as the Tres Ríos WRF, in which a portion of the high strength ammonia-laden centrate will be used to create chloramine and thereby minimize THM formation.

Total Residual Chlorine

Compliance with Total Residual Chlorine (TRC) limits can be problematic because the extremely low Arizona Pollutant Discharge Elimination System (AZPDES) permit limit of eight milligrams per liter is below the practical detection limit of the approved methodologies. If the laboratory is able to detect it, the facility is immediately in non-compliance with the regulatory limit. To address this challenge, PCRWRD worked closely with the Western Coalition of Arid States (WESTCAS) to develop a strategy that allows for the monitoring of sulfite, a component in the dechlorinating agent, in lieu of TRC monitoring. Stoichiometry dictates that if sulfite exists in solution, then all of the residual chlorine is effectively neutralized. As a result, maintaining a residual concentration of sulfite demonstrates full compliance with the residual chlorine permit limit. With ADEQ’s concurrence, a study period has been incorporated into Agua Nueva WRF’s AZPDES permit with projected completion in FY 2014/15.

Water Quality Research

To better understand the impacts of improved water quality on infiltration rates and other environmental changes in the wetland/riparian areas of the Santa Cruz River, PCRWRD is partnering with Pima County Regional Flood Control District and Pima County Office of Sustainability and Conservation in the Living River Project. This project is funded through a grant from the Environmental Protection Agency.

Recharge and Groundwater Storage at Sub-Regional WRFs

In an effort to maximize recharge and groundwater storage, PCRWRD is looking to recharge reclaimed water from sub-regional facilities, where possible. Corona de Tucson, the only sub-regional WRF with a groundwater storage permit, has served as a proving ground enabling PCRWRD to enhance operational efficiency and increase recharge credits. PCRWRD is now looking to build on this success and secure permits for two more facilities.

- **Avra Valley WRF** – As part of the Avra Valley WRF expansion to a capacity of 4 million gallons a day, the percolation basins were emptied, excavated deeper and reconfigured to maximize future recharge infiltration. A pre-application meeting was held with the Arizona Department of Water Resources (ADWR). A groundwater storage permit application will be submitted in 2014 with groundwater recharge credits beginning to accrue in 2015. With a potential recharge capacity of over 1,400 acre-feet annually, these credits add to the county’s long-term storage account at ADWR. This stored water can be recovered throughout the Tucson Active Management Area and be used to offset groundwater pumping. Credits also can be sold or exchanged for property, easements, or anything else of value.

- **Green Valley WRF** – The Green Valley WRF currently operates a biological nutrient removal process and an older aerated lagoon system. Water discharged from the Green Valley WRF is recharged off site. This discharge generated
over 1,100 acre-feet of recharge credits in 2013. Recently, PCRWRD held a pre-application meeting with ADWR and expects to complete facility and basin modifications in 2015. A groundwater storage permit application seeking approval for storage of up to 2,335 acre-feet a year will be submitted to ADWR in calendar year 2014.

**SHARP Constructed Recharge Project**

In 2011, Pima County and the City of Tucson entered into an inter-governmental agreement for a joint constructed recharge project known as the Southeast Houghton Area Recharge Project (SHARP). A Joint Recharge Oversight Committee (JROC) was formed with city and county administrative and technical staff to supervise and review the project activities. With JROC direction, the selected design firm (CH2M Hill) is prepared to proceed with design and ADEQ/ADWR permitting tasks. Once completed, Pima County will use this facility for recharging the balance of its metropolitan reclaimed water in a constructed rather than managed facility. In this manner, the county will receive 100% credit for the reclaimed water that reaches the aquifer in this favorable up-gradient location. PCRWRD can wheel reclaimed water to the site through Tucson Water’s reclaimed water delivery system.

**Evaluation of Conditions at Mt. Lemmon WRF**

The Mt. Lemmon WRF is a small facility operating under a general permit that serves a very small population of users in the Summerhaven community. PCRWRD is planning to shut down the Mt. Lemmon WRF in order to perform a comprehensive condition evaluation. The evaluation will result in a decision to 1) renovate the facility, 2) shut down the facility for an extended period and haul the community’s wastewater for treatment at one of the department’s metropolitan facilities, or 3) replace the old plant with a new state-of-the-art facility that will serve the needs of the community for the foreseeable future.

**BENEFITS**

Long term benefits of the department’s commitment to the Compliance Pillar include:

- Meeting regulatory compliance and decreasing permit non-compliance;
- Reducing the risk of fines, penalties and adverse publicity associated with late or inaccurate agency reports, noncompliance events, and improving public perception;
- Maintaining permit compliance schedules and budgets;
- Improving accessibility, timeliness and accuracy of environmental information;
- Monitoring trends in a proactive manner;
- Improving communication and feedback;
- Creating accurate and secure records and reports;
- Increasing accountability in new regulations;
- Increasing goodwill, flexibility, and cooperation from regulatory agencies; and
- Increasing infiltration rates at managed recharge projects.
OUR GOAL

To prevent accidents and injuries among employees, on-site contractors and visitors through the provision of safe facilities and equipment, standardized safety training, accountability, and safety performance measurement.

SAFETY PILLAR
VISION FOR THE FUTURE

PCRWRD places a major emphasis on safety throughout the organization. A strong Safety Pillar ensures that working conditions at all facilities are safe and up to standards; that employees are trained and accountable for consistently implementing safe protocols and procedures; that safety data is consistently monitored; and that the Safety Program is continuously improved.

PCRWRD’s vision is to have a “zero accident” safety culture. To achieve this vision over the next five years, the department will develop a standardized Department Safety Plan in collaboration with a broad cross section of employees to guide departmental policies and procedures. An expanded Safety Training Program will also be designed and implemented to ensure consistent understanding of and commitment to implementing the Safety Plan goals. Creating a safety culture in which every employee embraces safety as part of his or her daily job is paramount to achieving the vision. Developing transformational leadership skills and a collaborative approach to identifying safety hazards, hazard control mechanisms, preventions, and corrective actions are key objectives for creating a safety culture.

OPPORTUNITIES

Procedures
The definition of consistent standards and procedures (e.g. lock out tag out [LOTO], confined space entry, etc.) across the department is critical to achieving measurable performance results.

Safety Plan
There are many facets to safety that span the entire organization. Field staff and office staff all face safety challenges. A plan to address the policies, goals and procedures for safety among different employees in different working conditions is essential to achieving the vision of zero accidents.

Safety Culture
To ensure adoption of department-wide safety policies, goals, and procedures, a Safety Plan that is owned by the many people who will implement it is needed. Collaboration among a broad cross section of subject matter experts in defining program goals, needs, procedures and solutions is essential to the successful implementation of the Safety Plan and the creation of a department-wide safety culture.

Training
Training is needed to facilitate a change in culture that ensures that safety is embraced by everyone. Supervisors in particular play a key role in mentoring their employees.
MAJOR PROJECTS AND PROGRAMS

Safety Net Committee Phase I

The department Safety Committee and certain subject matter experts will collaboratively develop the Safety Plan and will track leading and lagging safety indicators. They also will perform safety reviews.

Safety Plan

The Safety Plan will incorporate a safety mission, safety values and safety rules. Intranet access and standardized programs will provide information on such topics as Fall Protection, Confined Space Entry, Hot Work, ARC Flash, Job Hazard Analyses (JHA), Forklift, Work Zone/ Traffic, Lock Out Tag Out, Hazardous Communication, Contractor Safety, and others.

Development of these programs includes conducting annual program reviews, controlled documents, and standardized compliance documentation.

Specialized Trainings

Specialized trainings are being developed for supervisors who act as safety coaches and are subject matter experts in their unique areas of responsibility.

Safety Culture Promotion

Communication tools to promote a safety culture will include the Intranet, department-specific posters, articles in the employee newsletter (The Pipeline), safety committees, and regular safety meetings.

Standardized Safety Inspection Reporting

Standardized baseline reporting for employee and supervisor safety inspections will be implemented. Inspection reports are a leading indicator of the safety program’s performance.

Job Hazard Analyses

Job Hazard Analyses define the safety controls needed for job task hazards. Pertinent safety requirements, such as supervisory inspections, will be implemented department wide. An effort to automate reporting and inspection requirements through work orders is underway and will promote increased efficiency and consistency of safety procedure implementation.

BENEFITS

Long-term benefits of the department’s commitment to the Safety Pillar include:

- Awareness of safety hazards;
- Prompt corrective actions;
- Effective safety audits and inspections; and
- Reduced numbers of incidents and accidents.

An organization that focuses on safety sends the message that its employees are valued. This, in turn, can attract high quality applicants and support retention of the existing workforce.
The department’s ratepayers deserve exceptional customer service through positive, respectful, responsive, and effective interactions. Focusing on customer satisfaction is a component of good governance and is a PCRWRD priority.

The Customer Service vision is founded on these guiding principles:

- **Service-oriented** – We listen and respond, in a timely and complete fashion, to our customers and prioritize their satisfaction as we do our work.
- **Results-focused** – We establish community-driven goals, measure our performance and report to the public on our successes in meeting those goals.
- **Innovative** – We are creative; we learn from experiences and results; and we seek new, innovative, efficient and effective ways to serve the public.
- **Quality workforce** – We develop and empower PCRWRD’s most valuable asset, our employees.
- **Public engagement** – We promote robust public engagement that informs, involves, and empowers people and communities.

The vision for the next five years is to increase customer satisfaction through continuous improvement and enhanced two-way communications. This will involve gaining a better understanding of customers’ needs and embedding measurable customer satisfaction goals and customer feedback loops into the continuous improvement of our operations. Enhancing internal employee capacity to respond to customer needs and solve problems is also a key component of PCRWRD’s commitment to increasing customer satisfaction. Improving public access to information and awareness about PCRWRD’s products, services and the benefits of infrastructure investments are other priorities.

PCRWRD also will examine how internal customers receive the information and services they need from co-workers. The timely receipt of accurate information, documents, and other work products provides the necessary tools for all employees to complete their work in a productive manner.

**OPPORTUNITIES**

**Customer Service Key Performance Indicators**

PCRWRD has a wide diversity of products, services and customers (internal and external). Therefore, it is not possible to prescribe a single customer service measurement tool or methodology that could be used by all PCRWRD processes.

**Public Participation and Engagement**

Open and transparent government entities focus on encouraging public participation and engagement through the use of social media. PCRWRD must seek new ways to solicit public input and increase collaborative opportunities. The department anticipates continued public demand to learn about Pima County’s regional wastewater reclamation and user fees in person, online, and at public events.
Continuous Improvement

To achieve the vision for increased customer satisfaction, PCRWRD must openly receive customer feedback through a variety of feedback mechanisms. The department must then consider how to put customer-generated suggestions and recommendations into practice.

MAJOR PROJECTS AND PROGRAMS

Customer Satisfaction Performance Indicators

Continuous improvement methods being implemented in PCRWRD business systems include development of process-based customer satisfaction performance measures and feedback loops for internal and external customers.

Communication Channels, Methods, and Tools

In an effort to improve public education and access to current and accurate information, the department will explore a number of different communication tools. The following communication tools will be expanded or explored: bill inserts and other printed material, social media, targeted outreach events, and the department’s website.

Standardized Training

A standardized customer service training program will be implemented to provide training on proper communication protocols for staff and contractors who interact with the public. In addition, training also will be provided to foster positive and productive communication between department sections and divisions, and with other county departments.

BENEFITS

Long-term benefits of the department’s commitment to the Customers Pillar include:

- Increased customer satisfaction;
- Increased public awareness about ROMP, our business, rates, water quality; and the relationship between the water cycle and the wastewater treatment process;
- Increased awareness of how the community benefits from system improvements funded by sewer user fees;
- Improved customer service including timely response to requests for information from internal and external customers;
- Increased access to accurate information; and
- Improved understanding of customer needs and concerns.
Fiscal responsibility is vital to all employees and is of major importance to the public and ratepayers. PCRWRD demonstrates fiscal responsibility to its ratepayers and the Board of Supervisors (BOS) by seeking adequate funds to meet expenses, managing available funds and resources efficiently, and utilizing technology to enhance and optimize business operations while decreasing overall operating costs.

A key activity for achieving Financial Pillar goals and objectives is the development and monitoring of PCRWRD’s annual Financial Plan and Budget. In the last strategic planning cycle, the need to improve PCRWRD’s budget planning process was addressed through development of a consistent process for budgeting. The effort to establish consistent procedures and identify opportunities for improvement will continue over the next strategic planning cycle. With each division monitoring its own budget, consistent reports, forecasts, and financial updates can be provided to the BOS. This process is a useful tool that helps divisions to stay within their approved budgets.

The ROMP was the largest and most complex public works program ever undertaken in the history of Pima County. The original budget for the ROMP was $720 million. As the projects were developed during the design and construction phases, there were opportunities to reduce costs through value engineering or project delivery approaches. As a result, the total cost of the ROMP Program is forecasted to be about $605 million, for a total cost savings of $115 million below the original budget.

In spite of substantial rate increases that were necessary to fund the improvements, upgrades and expansion, Pima County’s rates are still well within the mid-range for sewer utilities nationally.

The application of best practices for value engineering and efficient project delivery was key to the successful delivery of the ROMP. The continued application of best practices is the key to strengthening PCRWRD’s Financial Pillar. To this end, continuous improvement methods recently implemented in the Capital Improvement Program (CIP) system have resulted in action plans and process performance metrics. Implementation of these continuous improvement action plans and ongoing monitoring of process metrics will contribute to a strong Financial Pillar.

**OPPORTUNITIES**

**Advantage Financial Management System**

An on-going challenge for the Financial Pillar is the need for increased accountability and the availability of effective tools. It will be critical that the Advantage Financial Management System (AMS) provides accurate and timely information to PCRWRD if the department is to improve its forecasting and overall budget management and coordination.

**Staff Needs and Requirements for Success**

An emphasis on staff accountability in budget management is and will continue to be addressed through unit-level monthly budget forecasting meetings. The use of AMS, especially by managers, will be imperative to the success of these meetings. To increase success, dedicated financial support staff should be allocated to each division. A comprehensive continuous-improvement program is being applied throughout
the Capital Improvement Program (CIP) system. This program will support project managers’ ability to accurately project budgets and complete project commitments during the years the projects are scheduled and forecasted.

**Operational Efficiency Through Technology**

There are ongoing efforts pending through the county’s Information Technology Department (ITD) to integrate work-order management systems in the Treatment and Conveyance Divisions with AMS. These efforts are aimed at reducing the time needed for manual or duplicate inputs. Fully utilizing technological opportunities and extending these technologies to mobile applications will enable PCRWRD to increase its operational efficiency and yield significant cost reductions over the life of these systems and tools.

**MAJOR PROJECTS AND PROGRAMS**

**Annual Financial Plan Project**

PCRWRD divisions will lead the development of an annual Financial Plan in coordination with the Pima County Finance and Risk Management Department. The plan will set forth expected revenue needs sufficient to meet anticipated expense requirements. PCRWRD will strive to deliver industry-leading service without increasing its user or system fees beyond industry-median levels, nor anymore than necessary.

**Budget Management Program**

Once the Financial Plan is set and approved, PCRWRD divisions will spend only what is necessary, and with good fiscal management will not exceed their budgets. Such efforts will require monthly reviews of expenditures and accurate projections of costs through the end of the Fiscal Year. It also will requires accessible and accurate financial data.

**Continuous Improvement of the Budget Planning & Capital Improvement Programs**

Process Improvement Action Plans and monitoring key performance indicators at the process, system, and enterprise levels are critical for continuous improvement. Key performance indicators are monitored at monthly meetings with the director and the deputy directors and at quarterly management review meetings. Additionally, where systems and their sets of interlocked processes are defined and measured, process and system metrics will be monitored regularly.

**BENEFITS**

Long-term benefits of the department’s commitment to the Financial Pillar include:

- Greater levels of performance and production as contemplated by annual budget plans;
- Improved bond ratings which in turn enable the department to invest in needed infrastructure improvements;
- Enhanced regulatory compliance through better capacity to fund infrastructure improvements;
- Public recognition by ratepayers that they receive quality services as good value for their fee payments; and
- Continued protection of the environment and the public health.
Sustainability Pillar

VISION FOR THE FUTURE

PCRWRD's vision for being a leader in sustainability involves optimizing processes; recovering and reusing resources from treatment operations; and advancing employee participation in green workplace practices.

Over the next five years, PCRWRD will focus increased efforts on process optimization to reduce chemical and energy consumption and increase energy/resource efficiency. Improving the ability to beneficially recover and reuse treatment byproducts, such as biogas and biosolids, is another priority focus for the future.

The end product of the treatment process (high-quality reclaimed water) is now considered the region's primary, growing renewable water resource. Put to beneficial use in landscaping, aquifer augmentation and environmental enhancement, reclaimed water can help to offset this region's reliance on limited, non-renewable groundwater resources. The Department is committed to advancing Pima County’s vision and adopted policies for a sustainable water future through maximizing beneficial use of its reclaimed water resources.

Another key component of the PCRWRD Sustainability Pillar vision is the department’s staff. Creating a green culture among employees is a department priority. Over the next five years, PCRWRD will continue to invest in sustainability training and encourage employees to reduce, reuse, and recycle; maximize the use of environmentally friendly products; and create a healthy and pleasant workplace. Such activities advance the goals of the Pima County Board of Supervisors’ Resolution on Sustainability (first adopted in May 2007, and again in June 2014). These activities adhere to the 2014 Sustainable Action Plan for Pima County Operations.

OPPORTUNITIES

Reclaimed Water Use

Although there has been a long history of some reclaimed water being reused in Pima County, for far too long, the discharge of reclaimed water into the Santa Cruz River was considered to be a disposal method for a waste product. However, due to the sustained drought and growing population in the region, reclaimed water is no longer seen as a waste product, but instead is considered a water resource. Since the completion of the ROMP, the improved quality of the treated water produced at PCRWRD facilities has increased opportunities to beneficially reuse this reclaimed water resource. PCRWRD views maximizing reuse and recharge of recycled water produced at our facilities as a critical opportunity. Other Pima County departments including Transportation, Flood Control, Parks & Recreation and Stadium District rely on a cost-effective supply of recycled water for maintaining operations. PCRWRD supports increased use of Pima County’s recycled water to replenish the aquifer, sustain environmental restoration projects and irrigate county facilities.
Energy Conservation and Renewable Energy

Energy is a big part of PCRWRD’s overall operating costs. Water reclamation facilities and pump stations in particular are highly energy intensive. From 2000 to 2014, most of PCRWRD’s wastewater reclamation facilities have been expanded and upgraded to produce a higher quality of reclaimed water. Inevitably, the department’s energy demand has increased. (In general, PCRWRD spends over $6 million in energy costs a year.) However, through the ROMP, old and inefficient facilities and equipment have been replaced or decommissioned. As a result, overall efficiency has increased significantly.

An effective energy management program is critical. Through optimizing treatment and maintenance processes; using solar energy where appropriate; and increasing the use of biogas to offset the energy requirements and greenhouse gas emissions, the department has achieved increased energy efficiency.

Culture Change

While most employees support efficient use of resources, increased education and positive reinforcement of “green” behaviors can boost staff’s motivation to act more sustainably. As employees learn more about the department’s green purchasing procedures, recycling efforts, and health and wellness programs, they become motivated to live and work more sustainably. When they receive recognition for their own efforts, that motivation increases.

MAJOR PROJECTS AND PROGRAMS

Energy Management/Optimization Program

The purpose of the Energy Management/Optimization Program is to maximize the use of energy resources and energy-related assets, thus reducing both energy costs and consumption. Two major projects scheduled for completion in the next five years include the Facility Energy Audit for all sub-regional facilities and solar energy projects at the Green Valley WRF, Corona de Tucson WRF, and Avra Valley WRF. Procedures for managing utility accounts and monthly energy usage reports for all facilities will also be developed.

Strategic Plan for Effluent Utilization

A Strategic Plan for Effluent Utilization is being developed. Other water resource management activities to be implemented over the next five years include:

- Addressing the needs for sustainable flows in the Santa Cruz River;
- Offsetting groundwater use with reclaimed water at county facilities where feasible;
- Enhancing, restoring and maintaining riparian areas;
- Replenishing the aquifer and accruing long-term storage credits; and
Culture Change: The PCRWRD “Green Team”

PCRWRD has established an award-winning Green Team composed of employees representing every work area throughout the department with a focus on and a commitment to Green Purchasing, Waste Reduction, Communication of green alternatives and practices, Health and Wellness, and Sustainability Training. In the next five years, the Green Team will continue to develop sustainability training programs; foster awareness; recognize waste reduction, reuse and recycling efforts; and evaluate progress through surveys. Additionally, the team will launch new programs such as the “No Styrofoam Campaign”, “Keep Lights Off Program,” and the department’s “Bike Program”.

**BENEFITS**

Long-term benefits of the department’s commitment to the Sustainability Pillar include:

- The development and implementation of a comprehensive sustainability program can increase the uses for reclaimed water;
- The reuse of reclaimed water promotes economic development, social well-being, and environmental protection;
- The water needs of current generations can be met without compromising the ability of future generations to meet their own needs; and
- The availability of high-quality reclaimed water eases the strain on potable water supplies, especially in light of on-going drought and population increases.

**KEY PERFORMANCE INDICATORS**

- Reduction of PCRWRD Unit Energy Consumption
- Increase in percentage of the Energy Produced from Renewable Energy Sources
- Increase in percentage of Recycled Print Paper Purchased
- Reduction in the number of Small Purchases ($250 or less)
- Increase in percentage of Environmentally Friendly Products Purchased