

Date: March 4, 2021

To: Carmine DeBonis, Jr., Deputy County Administrator – Public Works

From: Linda Mayro, Director, Office of Sustainability and Conservation
Kathleen Chavez, P.E., Water Policy Manager *Kathleen M. Chavez*

RE: **Water and Wastewater Infrastructure, Supply and Planning (WISP) Study Post Action Plan Report 2020**

The WISP Report, completed in 2010, was followed by a five-year action plan period ending in 2015. As previously noted, although the City of Tucson ended WISP reporting, Pima County continues to report on the status of WISP action plan related items. Accordingly, attached is the 2020 WISP Post-Action Plan Report. WISP reports, Phase 1 and 2, Technical Reports and Action Plans are available at the [WISP Website](#).

Pima County and the City of Tucson have continued to make progress toward several important WISP goals, however some goals remain unresolved. Below is a list of key deficiencies and progress:

- **Tucson Water Service Area Policy** – The City policy continues to limit development in suitable growth areas in unincorporated Pima County and outside the Conservation Land System as specified in the WISP recommendations. The policy does not allow for exceptions such as low income housing and is confined to the narrow exemptions in the Primary Jobs Incentive.

Also of concern is a proposed differential rate for Tucson Water customers in unincorporated Pima County which has no basis in cost of service or cost recovery for infrastructure and water service. Infrastructure improvements for water customers in the County are not borne by Tucson Water. The basis for a differential rate is purely a punitive land use policy to force annexation and not a water policy based provision. The City of Tucson and Pima County are regional water and wastewater providers respectively and a differential rate is not justified.

- **Respect for Environment Element** – Significant progress was made this year in regards to the WISP Respect for Environment element in the WISP goals. The Lower Santa Cruz River Management Plan is progressing with Phase 2 and addressing the needs of the individual jurisdictions for flood risk management, drainage, infrastructure protection, water recharge, recreational opportunities, public safety and riparian habitat preservation.

The acquisition of Canoa Ranch and the 4,715 acres of floodprone and riparian land along the Santa Cruz River for conservation and historic preservation purposes has been leveraged for additional environmental enhancement opportunities through the establishment of an in-lieu fee (ILF) mitigation program. The Board of Supervisors approved an Enabling Instrument with the US Army Corp of Engineers, Pima County Code amendment for Title 21 and a 300-acre conservation easement to retain the ILF program area in perpetuity is pending.

Board of Supervisors Policy C.3.20 Protection and Management of County Conservation Lands was adopted, recognizing the non-monetary intrinsic values of County open space properties and establishing an accurate inventory of fee lands and less than fee interests in order to protect and maintain County Conservation Lands.

The Office of Sustainability and Conservation is also working to create an inventory of wells and a baseline water use budget for properties that have restricted covenants. The covenants were recorded in 2017. Groundwater pumping uses and volumes are restricted and any new uses or increased pumping is not permitted without approval from the County and RFCD. Multi-Species Conservation Plan lands require concurrence from the U.S. Fish and Wildlife Service. Additional properties may be considered for such restrictions. This project ensures proper water management of the County's conservation lands.

- **Water Quality Research** – Pima County Regional Wastewater Reclamation Department (RWRD) in conjunction with the County's Department of Environmental Quality (DEQ) and the County Health Department has expended considerable time and resources into careful examination and analysis of emerging contaminants and its impact on public health. Commissioning the expertise of University of Arizona environmental scientists, RWRD and DEQ have been able to determine the public health impact of PFAS in both the local aquifers and in the biosolids applied upon agricultural lands from the County's metropolitan wastewater treatment plants pose no impact to neither the water or air quality in Pima County. RWRD will continue to stay apprised of PFAS research and impacts on the water and wastewater cycle.
- **Demand Management Element** – The Office of Sustainability and Conservation (OSC) issued the FY 2018/2019 Baseline Sustainability Report to monitor, measure and evaluate the County's performance over the duration of the 2018-2025 Sustainable Action plan for County Operations (SAPCO) programming period. OSC produced a SAPCO Implementation Plan to organize assigned department directors as Task Force leads, identify key staff Task Force members, collect and report on key performance indicators and prepare implementation plans for each fiscal year in meeting the SAPCO goals and targets.

The WISP goals adopted by the County and City remain relevant. The post-Action Plan reporting is an inter-departmental effort that draws together disparate activities to better inform on the successful implementation of shared goals and provide a more complete summary of water and land conservation efforts.

Should you have any questions, please feel free to contact us.



Water & Wastewater Infrastructure, Supply and Planning Study Post Action Plan Report 2020

The Water & Wastewater Infrastructure, Supply and Planning Study (WISP), or City/County Water Study, was initiated in 2008 and produced a two-phase report assessing existing water resources, infrastructure capacity and demand scenarios. Based upon the first phase framework, to include an extensive stakeholder process, agreement was reached on a range of topics central to sustainable water planning. An action plan was developed to implement the 19 shared goals and 56 recommendations over a five-year period. The WISP Action Plan for Water Sustainability 2011-2015 (Action Plan) was adopted by both Mayor and Council and the Board of Supervisors in 2010. The City and County have submitted a year-end progress report for each year of the plan period. Despite the closing of the plan period, County staff will continue reporting on the progress of WISP goals. The Action Plan contains four elements:

- Comprehensive Integrated Planning
- Respect for the Environment
- Water Supply
- Demand Management

Each element includes programs, goals, recommendations and action items to be implemented.

COMPREHENSIVE INTEGRATED PLANNING-COMPLETED

WISP Goals

1. Encourage sustainable urban forms
2. Direct growth to suitable growth areas
3. Integrate land use and water resources planning
4. Growth should pay for itself over time and be financially sustainable

- Pima Prospers (1.1)

Pima Prospers, the County's Comprehensive Plan, was adopted in 2015 and incorporated the WISP Action Plan, Water Resources Element (4.2). All significant action plan items for the CIP Element have been implemented.

- Tucson Water Service Area Policy and Service Denials (2.1)

Though the CIP action plan items have been completed by the County, the current Tucson Water service area policy is inconsistent with WISP goals and recommendations to "direct growth to suitable growth areas" and to "take steps to encourage growth and new development in areas that are within or adjacent to the existing built environment, are outside of the conservation land system, and are identified as most suitable for development". Further, proposed amendments to the policy seek a differential rate for customers in unincorporated Pima County, one would be a fixed \$1,000 fee on all dwelling units in a development project while another proposed fee change would charge all Tucson Water customers in unincorporated Pima County a 10, 20 or 30 percent higher rate than City customers, even though there is no cost differential to serve County residents.

While the City of Tucson is seeking differential water rates for all existing Tucson Water customers in unincorporated Pima County, Pima County is not permitted to charge differential sewer rates based upon City or County residency. Pima County Regional Wastewater Department is a regional provider of wastewater service as stipulated in the 1979 Intergovernmental Agreement and reciprocally Tucson Water was expected to be a regional water provider for water users in Pima County.

The 1979 IGA established effluent ownership based upon the City of Tucson being the only major water provider in the county managing the total water resources of the Santa Cruz River Basin and adjacent basins. The IGA preceded clarification from the Arizona Supreme Court that the utility treating the waste water flow controls the use of the effluent.

The 1979 IGA made no reference to either limited service area or differential rates. The 1979 IGA no longer reflects the reality of water and wastewater service and cost in Pima County, disproportionately benefiting the City of Tucson.

The County produces recycled water suitable for either indirect or direct potable reuse treatment per Arizona Department of Environmental Quality standards and provides it to the City free of charge. It costs RWRD \$3,265 to treat and produce an acre foot of Class A+ reclaimed water. In 2019, RWRD produced 26,401 AF of effluent for the City at a cost of \$86.2 million. The City purchases CAP water at a cost of \$211/AF, equating to \$5.57 million for the same volume of water RWRD produces at no charge. The County subsidizes \$80 million in treatment costs for recycled water suitable for potable reuse, a class of renewable water that will become vital as the Colorado River Basin experiences shortages and CAP supply is reduced.

Pima County continues to have concerns that unincorporated parcels have been denied service in WISP designated "suitable growth areas". The Tucson Water service area policy remains inflexible, allowing for exceptions to the policy that would "provide clear and substantial benefit to the region" but limits exceptions to the Primary Jobs Incentive Program and not other beneficial

development such as low income housing. Figure 1 depicts parcels denied water service from 2015 through 2018.

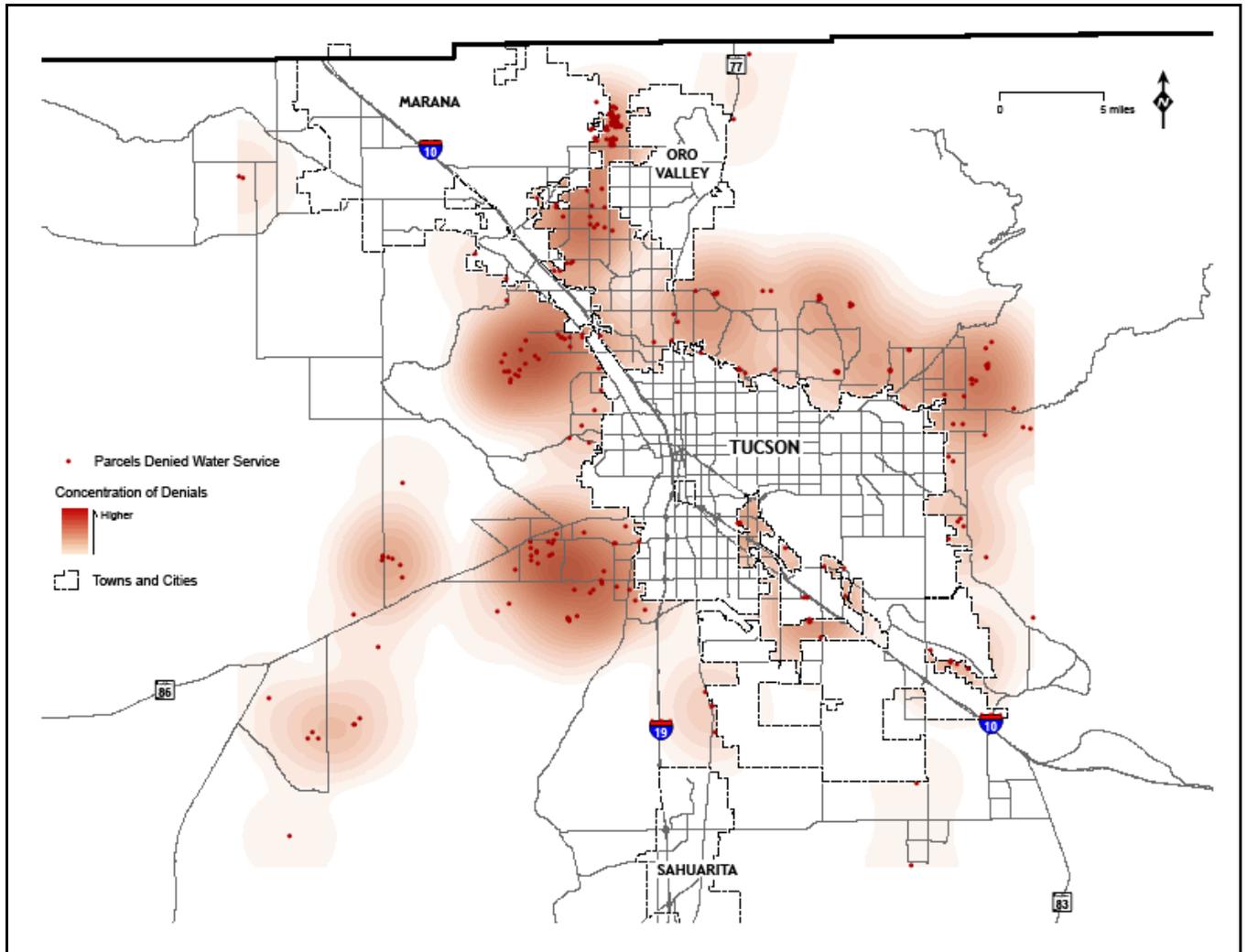


Figure 1. Parcels Denied Tucson Water Service 2015-2018

- City Water Service Area Review Board (2.1)

The City of Tucson's Water Service Area Review Board reviews service denials brought by appellants and considers appeals either upholding Tucson Water's denial of service or overturning the denial and directing Tucson Water to provide service.

In 2019, the Board heard two appeals for residential service in the Northwest area which were denied. No appeals were heard in 2020.

RESPECT FOR ENVIRONMENT

WISP Goals

1. Preserve existing riparian areas through coordinated regulation, policy and outreach
 2. Identify needs and opportunities for future restoration
 3. Ensure that public projects are multi-benefit including restoration, stormwater management, recharge and public amenity
 4. Ensure the future of riparian and aquatic habitat along the effluent-dependent reach of the Santa Cruz River
 5. Develop water supply for the environment
- Lower Santa Cruz River Management Plan (4.2)

The Lower Santa Cruz River Management Plan is being developed by Pima County Regional Flood Control District (RFCD) to manage the effluent dependent river while balancing flood risk and infrastructure protection with aquifer recharge and riparian habitat preservation.

In 2020, RFCD continued Phase 2, joining the consultant team in working with stakeholder workgroups from each reach of the Management Plan. The District is addressing the needs of the individual jurisdictions for flood risk management, drainage, infrastructure protection, water recharge, recreational opportunities, public safety and riparian habitat preservation. The goal is to have an accepted plan across all affected jurisdictions to manage the corridor in a consistent manner.

The District held stakeholder workgroup meetings to weight priorities in criteria and project type and presented the results of project ranking. The Management Plan consists of structural and non-structural projects along the three reaches- Three Rivers (Grant Road to Ina Road), Cortaro Narrows (Ina Road to Avra Valley Road) and Marana Flats (Avra Valley Road to Pinal County). Non-structural projects include organized trash cleanup, a vegetation management plan, acquisition of ecologically valuable lands and a FEMA letter of map revision. Structural projects include new bridges, levees and bank protection, stream restoration and new wetlands and a wildlife connectivity project.

RFCD will propose recommendations to the Board of Supervisors, City of Tucson and the Town of Marana after Phase 2 is completed in 2021. The recommended alternatives and draft implementation plan are expected by May 2021.

- Living River Report WY2019 (1.1)

This report documents the improved water quality released into the Lower Santa Cruz River and resultant benefits. Water quality in the river improved following significant upgrades of the County's wastewater treatment plants, reducing ammonia concentrations.

Water quality continues to improve with ammonia levels lower in WY2019 than those in WY2018. The improved water quality increased infiltration and reduced the river mile stretch to 21 miles with a dry stretch between Agua Nueva and Tres Rios Water Reclamation Facilities ranging between .30 and 2 miles in June. While aquatic invertebrate species and diversity have doubled since the

treatment plant upgrades, they may have stabilized with no new recorded species found in 2019. However, the Gila topminnow continues to have an established population within the Lower Santa Cruz River.

- Conservation Effluent Pool Applications (5.1)

Tucson Water previously submitted applications for Conservation Effluent Pool (CEP) water for the Santa Cruz River managed recharge projects and the Santa Cruz River Heritage Project. The request was for a volume of CEP water to cover the evapotranspiration loss associated with each recharge project, which is the equivalent of the volume to sustain the established habitat. The CEP project water requests were not Endangered Species Act (ESA) projects but designated riparian projects. The applications were deemed incomplete in 2019 and only the Santa Cruz River Heritage Project was resubmitted but found incomplete in 2020. Tucson Water will resubmit at a later date. The request is for 110 acre feet a year.

Pima County Regional Flood Control District submitted an ESA project request for CEP water in 2020 to support the river downstream of the Agua Nueva Water Reclamation Facility and the effluent dependent stretch sustaining the Gila topminnow. The request is for 5,600 acre feet a year and expected to proceed successfully given it is an Endangered Species Act project.

The proposed CEP water projects are on hold pending City of Tucson action.

- Arizona Department of Environmental Quality (ADEQ) Surface Water Protection Program (2.3)

The State's proposed Surface Water Protection Program's stated goal is to protect key wet waters and sustain the Arizona economy. ADEQ recognizes the revised Navigable Waters Protection Rule leaves protection of many important waters to the states. Non-WOTUS waters include drinking water sources and important recreation waters that are used for camping and fishing. These drinking water and recreational waters include impaired waters exceeding water quality standards for mercury and E. Coli. Water based recreation contributes \$13.5 billion to the State's economy. The State's proposed program focuses on water quality not land management. Listed Non-WOTUS waters will not require dredge and fill permits. Unlisted Non-WOTUS waters will not require point source or stormwater permits, Total Maximum Daily Load standards or dredge and fill permits. Arizona's major rivers are listed including the Santa Cruz River and San Pedro River with a public process to add or remove waters from the list. Permits are required for discharges to WOTUS or listed water.

Pima County as a policy has advocated for the protection of all headwaters, wetlands and intermittent, ephemeral and perennial streams. Staff has provided comment that the State's proposed legislation does not provide necessary protections and that waters protection should be regulated under the 2015 Clean Water Act Rule.

In addition to Clean Water Act concerns, the County opposes any weakening of the State's Outstanding Waters Program and seeks to maintain protections for Buehman Canyon, Cienega Creek and Davidson Canyon.

Staff has concerns the proposed legislation excludes groundwater feeding rivers, wetlands and other features. Additional language and definitions could be clarified. Staff is monitoring and participating in ADEQ's stakeholder meetings. RFCD is the lead department organizing County comment and working with the County's contracted lobbyist to ensure Pima County's position on a state water protection program is communicated to ADEQ and the Legislature.

- County Conservation Lands Water Budget (1.1)

In 2016, the Board of Supervisors authorized restrictive covenants on parcels of land purchased by Pima County and the Regional Flood Control District (RFCD) for conservation purposes under the Multi-Species Conservation Plan (MSCP) and the Conservation Land System (CLS). The covenants placed restrictions on fee-owned County properties to prohibit future uses that would be inconsistent with the purposes for which the properties were purchased though pre-existing uses are allowed. The covenants do not apply to County managed state and federal land. The covenants were recorded in 2017. Additional properties will likely be considered for such restrictions and added to the list of "Restricted Lands".

The pumping of water from existing diversions or wells for purposes other than those pre-existing, to include residential, wildlife, recreational, habitat enhancement and agricultural use associated with livestock grazing, is prohibited. Any increase in the pumped amount of surface or subsurface water that would be allowed by the Arizona Department of Water Resources is not permitted without approval from Pima County and RFCD in the case of Conservation Lands or the County and RFCD with concurrence from the U.S. Fish and Wildlife Service in the case of MSCP lands.

The Office of Sustainability and Conservation has worked with Natural Resources, Parks and Recreation and RFCD to inventory wells on restricted lands to establish a baseline of use and pumping amount for each property with restrictive covenants. A water budget has been assigned to the existing uses and any increase in pumping for future uses will require approval. The project also identifies properties with no water use. These "zero baseline" properties will require County, RFCD or U.S. Fish and Wildlife approval before any new water use could occur.

Because pumping uses and volumes are restricted by property, there can be year-to-year adjustments among wells on the same property without the need for approvals, so long as the uses remain within those authorized by the restricted covenants, including those uses that existed before the restrictive covenants were imposed.

As part of a separate project, wells on restricted land have been verified in the field with GPS, with some still pending due to new property acquisition. Annual groundwater reports or estimates of groundwater pumping serving as assigned volume for each parcel have been identified. In some instances, ADWR has limited the allowed volume of groundwater pumping. Baseline pumping and use will inform the Biennial Inspection Reporting process. This will ensure proper water management for important conservation lands.

- Board of Supervisors Policy C.3.20 (1.1)

The Board of Supervisors Policy C.3.20 Protection and Management of County Conservation Lands recognizes the public investment in open space and the non-monetary intrinsic values of the

properties. In order to protect and maintain County Conservation Lands, an accurate inventory of fee lands and less than fee interests owned by the County or the Regional Flood Control District is required and will be maintained in a GIS database. Individual properties will be periodically reviewed to determine whether specific protections are needed to protect property's intrinsic value and preserve natural, biological and cultural resources. Intrinsic values include water management goals such as facilitating groundwater recharge, protecting floodplains and riparian habitat areas, and maintaining natural hydrologic and hydraulic stream flow processes.

- RFCD In-Lieu Fee Mitigation Program (2.1)

The acquisition of Canoa Ranch and the 4,715 acres of flood prone and riparian land along the Santa Cruz River for conservation and historic preservation purposes has been leveraged for additional environmental enhancement opportunities through the establishment of an in-lieu fee mitigation program. The program allows any public or private development that causes unavoidable impacts to Waters of the US to purchase mitigation credits from RFCD where on-site mitigation is impractical. RFCD use of mitigation credits to restore riparian areas provides a cost effective process development projects that need to meet a mitigation obligation as determined by the US Army Corps of Engineers while providing RFCD a no cost funding source for environmental projects on RFCD properties. The estimated mitigation credit fee is \$125,000 per acre.

The Board of Supervisors approved an Enabling Instrument with the US Army Corp of Engineers and a Pima County Code amendment for Title 21. A 300-acre conservation easement to retain the ILF program area in perpetuity is pending following Board amendment of the Enabling Instrument to include the development plan specific to Canoa Ranch conservation goals. An ILF interagency review team is leading the process.

The successful establishment of this program achieves in intent one of the last remaining action items in the Respect for Environment action plan.

WATER SUPPLY

WISP Goals

1. Work collaboratively to acquire new water supplies for reliability
2. Maximize and make efficient use of effluent and other locally renewable water supplies
3. Address regulatory barriers to maximizing local supplies
4. Foster increased use of reclaimed water
5. Be prepared for climate change and drought

- 2019 Effluent Generation Report (2.4)

Pima County Regional Wastewater Reclamation Department (RWRD) produces approximately 60,000 acre feet (20 billion gallons) of effluent annually at eight water reclamation facilities (WRF). The effluent is highly treated to reclaimed water standards and put to beneficial use by either direct reuse in Tucson Water's reclaimed system, aquifer replenishment in underground

recharge projects or environmental restoration projects. In 2019, the RWRD produced 61,683 acre feet (af) of effluent:

- 57,535 from metropolitan water reclamation facilities
- 4,148 from non-metropolitan facilities

Pima County's share of effluent from its two metropolitan reclamation facilities was 2,933 af: The County utilized 899 af for reclaimed system use, 1,104 af was delivered to the Lower Santa Cruz River Managed Recharge Project (LSCMRP) and 595 af was delivered to Marana High Plains Constructed Recharge Project (MHRP).

Pima County earned 3,184 af of long term storage credits in 2019.

Lower Santa Cruz River Managed Recharge Project	694 acre-feet
Marana High Plains Effluent Recharge Project	587 acre-feet
Black Wash Underground Storage Facility (Avra Valley)	1,507 acre-feet
Corona de Tucson Recharge Facility	395 acre-feet

- LDIG Drought and Climate Update (5.1)

The Pima County Local Drought Impact Group (LDIG) held five meetings in 2020. An advisory board to the County Administrator and Board of Supervisors, federal, state and local agencies and departments participate in monitoring the extent and severity of drought and resultant impacts in Pima County. The National Weather Service and Central Arizona Project routinely present on winter and monsoon weather data and Colorado River and Lake Mead conditions respectively.

LDIG submits an annual drought report of drought conditions in Pima County to the Arizona Department of Water Resources (ADWR) for inclusion in the state's Arizona Drought Preparedness Annual Report. Pima County experienced record warm and below normal precipitation in 2020. The summer monsoon season was the hottest on record and the second driest. The 2020 Pima County LDIG Drought Report can be found on [LDIG's website](#).

LDIG's Drought and Climate Change in Pima County Report can be found on the [Drought Management website](#).

- Water Quality Research (2.3)

Maintaining water quality for the county's water resources is an essential function of Pima County and the region's water providers. Emerging contaminants reduce the water supply as wells exceeding the U.S. Environmental Protection Agency (EPA) health advisory level for PFAS are taken out of production. The EPA has established a non-regulatory health-based guidance level of 70 part per trillion (ppt). PFAS contamination is widespread and the full impact on human health and the environment is not fully understood as scientific research is evolving.

The County commissioned a report authored by Dr. Paloma Beamer and Dr. Marc Verhougstaete of the University of Arizona Environment, Exposure Science and Risk of Assessment Center. *Environmental Toxic Substance Assessment: Per- and Polyfluoroalkyl Substances (PFAS) in Pima County*

Water analyzes the impact to Pima County, drinking water resources and the environment. The report summarizes studies that link exposure to PFAS and health outcomes and provides risk mitigation information.

The report states “PFAS presence in drinking water or its sources is a widespread issue that is not limited to a single county or water provider.” PFAS has been detected in Tucson Water, Metro Water and Marana Water wells though for a vast majority of monitored wells in the Tucson metro area PFAS was not detected. PFAS has been detected in local groundwater in varying concentrations from 12 to 10,000 parts per trillion and none of the wells with these measurable amounts of PFAS served a public water supply system. To protect the health of private well water users, PDEQ screened the private wells that had potential exposure to PFAS and ADEQ conducted the PFAS sampling. Owners of private wells with PFAS above the health-based guidance level were provided bottled water until the property could be added to a public water supply system.

PFAS can be removed by certified home treatment systems using granulated activated carbon (GAC) or reverse osmosis. At the utility scale, the City of Tucson and the Town of Marana are constructing large treatment systems, including two in Marana costing \$16 million, to remove PFAS and other contaminants such as 1,4 dioxane. The City of Tucson’s TARP plant recovering water in the area where PFAS has been detected currently removes PFAS with a GAC system.

Pima County suspended the application of biosolids on agricultural land in 2020 over concern that PFAS in biosolids may lead to groundwater contamination or fugitive dust exposure. The Regional Wastewater Reclamation Department worked with the University of Arizona, Jacobs Engineers and the National Science Foundation to produce *PFAS in Biosolids - A Southern Arizona Case Study*.

According to the study, biosolids contain minute amounts of PFAS, “in the low parts per billion range.” The study comprehensively reviewed samples taken from agricultural land with decades long history of biosolids application with loading ranges from 20-30 tons. These lands were compared to non-agricultural lands and agricultural, non-biosolid lands. The latter showed small amounts of PFAS, less than 3 ppb. Agricultural land using biosolids have small amounts of PFAS as well, ranging from 2ppb to 4 ppb and minimally increased with increased loading. A key conclusion was that 90 percent of PFAS is attenuated within 6’ of the soil. Groundwater depths are typically 150-200’ in the region thus groundwater contamination is highly unlikely. The minimal accumulation of PFAS in soils also make air source contamination improbable.

With this due diligence to ensure public health and limit exposure to PFAS, the County will resume biosolids application given its many environmental and economic benefits.

The EPA health-based guidance level of 70 ppt is for drinking water. There are no similar advisories for wastewater or soils though RWRD has applied this standard in analyzing influent and effluent from its wastewater treatment facilities (WRF). Both influent and effluent sampled in 2016 and 2018 from metropolitan and non-metropolitan WRF’s tested below the advisory level, averaging 6.3 ppt for PFOS and 10.1 ppt for PFOA. Further sampling of surface water in the Santa Cruz River and groundwater along the river tested below the advisory level.

RWRD continues to work with the Pima County Health Department, Department of Environmental Quality and Tucson Water to stay apprised of PFAS research and impacts on the water and wastewater cycle.

- Green Valley Recharge Project (2.1)

The Regional Wastewater Reclamation Department has received an ADWR underground storage facility permit and water storage permit for the Green Valley wastewater treatment facility. The Green Valley Recharge Project can store up to 802 acre feet annually of effluent produced by the facility. The long term storage credits generated accrue to RWRD's storage account and are recoverable providing a renewable water supply for the County that can be used in an Assured Water Supply determination. The addition of this project maximizes non-metropolitan facility recharge and credit generation. Combined with Black Wash/Avra Valley and Corona de Tucson facilities, the County's recharge capacity is 6,400 acre feet annually though actual recharge is less since the facilities are not at full capacity.

- SELC Domestic Water Improvement District (1.2)

The Southeast Employment and Logistics Center (SELC) is a master planned economic development area as part of the Pima County Economic Development Plan. The SELC concept plan is ideal for accommodating large manufacturing and distribution uses and infrastructure improvements are underway or have been completed to improve transportation, flood control and sewer service for the rapidly growing Houghton corridor. Due to the City of Tucson's restrictive water service area policy, the only remaining utility service to establish for the site is reliable water service and the SELC area is outside the Tucson Water service area.

Pima County has approved a Domestic Water Improvement District (DWID) for the SELC area and began the process with the Arizona Department of Water Resources to become a water provider with a Designation of Assured Water Supply. Pima County has more than sufficient water resources and long term storage credits from storage of effluent at the County's recharge projects. Water demand will be minimal given the land use and is estimated at 270 acre feet a year. Well improvements and treatment and distribution systems are in design. The Regional Flood Control District is pursuing surface water rights in order to capture stormwater flows in the Lee Moore Watershed to recharge in detention basins. This could produce up to 250 acre feet a year of renewable water recharged in the SELC area, offsetting the water demand. With over 8 million square feet of manufacturing and logistics space planned on the 2,000 acres, this minimal use of County water resources and establishment of a DWID in order for Pima County to become a water provider has significant economic benefit for the entire region.

DEMAND MANAGEMENT

WISP Goals

1. Increase the effectiveness of conservation programming through coordinated planning and evaluation
2. Establish common water conservation goals and targeted methods
3. Manage demand through the design of the built environment
4. Manage demand through changing behaviors
5. Increase the use of rainwater and stormwater

- 2018-2025 Sustainable Action Plan for County Operations (2.1)

Pima County adopted the Sustainable Action Plan for County Operations (SAPCO) in 2008, integrating sustainability goals with County operations such as facility and fleet maintenance, purchasing and land and water conservation. SAPCO was updated and a new action plan adopted in 2014. The 2018 SAPCO update builds upon previous success by aligning County sustainability programming with the Paris Agreement and increasing the use of renewables, decreasing waste and emissions while saving \$14 million in avoided costs.

In 2020, the Office of Sustainability and Conservation issued the FY 2018/2019 Baseline Sustainability Report to monitor, measure and evaluate the County's performance over the duration of the 2018-2025 SAPCO programming period. Improved analytics will provide a more simplified and accessible delivery while maintaining the inherent complexity of sustainability performance indicators.

The County's baseline performance for new SAPCO targets include water resource policies and programs to reduce the intensity of potable water use in County operations and continue allocating reclaimed water for groundwater recharge. The core areas are facility water use reduction by 15 percent by 2025 and to monitor the use of reclaimed water for groundwater recharge. OSC produced a SAPCO Implementation Plan to organize assigned department directors as Task Force leads, identify key staff Task Force members, collect and report on key performance indicators and prepare implementation plans for each fiscal year in meeting the SAPCO goals and targets.

- Las Milpitas Farm (1.2)

Las Milpitas Farm is a community garden managed and staffed by the Community Food Bank of Southern Arizona, a non-profit traditional food bank that also directs the farm operations and programming as well as providing resources to the community garden. The Community Food Bank has a decades long farm and garden program that has been integrated into the Las Milpitas Farm.

Las Milpitas is a five and half acre community garden located on RFCD property and operating on a no cost lease that allows for a neighborhood resource providing free materials and support to the community to grow food for themselves, making healthy local food available to low income families. Garden plots, supplies, seeds and workshops are offered in exchange for volunteer time.

Pima County and RFCD investigated a pilot project that would expand the rollout of an urban agricultural program leasing County properties for crop production. AutoCASE, a triple bottom line cost benefit analysis tool previously used by RFCD in analyzing LID/GI, weighed the impacts of the farm and monetized the net present value of the economic, environmental and social benefits over the lifetime of the project.

Over a 40-year period, cost to operate the farm is \$6.4 million or \$5.9 million if reclaimed water is used. The farm generates a large social benefit of \$7.1 million and an environmental benefit of \$0.2 million for a positive net present value of \$0.9 million or \$1.5 million with the reclaimed water savings.

- LID/GI Update (5.2)

Post construction controls in the recently approved Pima County AZPDES Municipal Separate Storm Sewer System (MS4) permit require retrofits to existing stormwater structures to address urban runoff from developed sites. A feasibility assessment by the permittee evaluates the stormwater pollutant control measures, feasibility, cost, land owner cooperation and expected improvement of water quality in three areas. With an inventory of potential retrofit sites prioritized, the permittee can implement a retrofit to address a particular water quality problem in a public water body or focus on floodplain or habitat restoration. The post-construction controls the permittee can use as a guide include the 2015 Pima County Design Standards for Stormwater Detention and Retention, which includes LID/GI standards and references, as well as the 2015 Low Impact Development and Green Infrastructure Guidance Manual.

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