

Water/Wastewater Glossary & Acronyms

Glossary

Acre-foot: A unit of water volume measurement. One acre-foot of water will cover an area of one acre to a depth of one foot and equals 43,560 cubic feet, 1,233 cubic meters, or 325,851 gallons. An acre-foot is enough water to meet the needs of three average Tucson families for one year.

Active Management Area (AMA): A geographical region in Arizona subject to regulation under the Groundwater Management Act. Five active management areas currently exist in the State.

ADD Water Process: An intensive on-going stakeholder process being conducted by the Central Arizona Project to develop its Acquisition, Development and Delivery Water Program. If successful, the process will result in the development of a program to acquire and convey additional water supplies to areas within Maricopa, Pinal and Pima Counties.

Appropriative Right: A water right based on moving water from a stream to a point of use for beneficial use.

Areal: Pertaining to an area. Not to be confused with *aerial*.

Aquifer: A body of rock or sediments that is sufficiently permeable to conduct groundwater and to yield economically significant quantities of water to wells and springs.

Aquifer Augmentation: Using an available water resource to replenish/recharge the aquifer.

Arizona Department of Environmental Quality (ADEQ): A department of state government responsible for groundwater quality protection, water quality standards, and wastewater reclamation and reuse permits.

Arizona Department of Water Resources (ADWR): A department of state government responsible for water management and administration of water-related programs within the State.

Arizona Water Banking Authority (Water Bank): A department of state government established in 1996 by the Legislature to help secure the State's full entitlement of Colorado River water through the Central Arizona Project. The Water Bank recharges and stores Colorado River water to develop long-term storage credits for times of shortage on the Colorado River, meet the management plan objectives of the Arizona Groundwater Code, assist in the settlement of Native American water rights claims, and exchange water to assist Colorado River communities.

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Arizona Water Banking Program: The Arizona Water Banking Authority (AWBA; Water Bank) was established in 1996 to increase utilization of the state's Colorado River entitlement and develop long-term storage credits for the state. AWBA stores or "banks" Arizona's unused Colorado River water to be later used in times of shortage to firm (or secure) water supplies for specified water users in Arizona. Each year, the AWBA pays the delivery and storage costs to bring Colorado River water into central and southern Arizona through the CAP canal. The water is stored in aquifers by direct recharge or is used by irrigation districts in lieu of pumping groundwater (indirect or in-lieu recharge). AWBA accrues groundwater credits that can be redeemed in the future when Arizona's communities need this backup water supply.

Assured Water Supply (AWS) Program: An ADWR requirement that all new developments in Active Management Areas must demonstrate a 100-year water supply that is of adequate quality, continuously available, consistent with the management plan and management goal of the AMA, and that there is financial capability to construct the water facilities available for the proposed use.

At the Tap: A 1997 Tucson Water program that involved extensive research and taste tests in preparation for the use of Colorado River water.

Beat the Peak: A Tucson Water public information and awareness program that was originally developed in 1977 to reduce the Utility's peak hour water demands during the peak use months of June, July, and August. Ratepayers supported the program so strongly that *Beat the Peak* came to include a summer water conservation education program.

Benchmarking: A process in which organizations evaluate various aspects of themselves against other organizations and/or industry best practices to identify the most efficient (least amount of effort) and effective (best results) practices using specific indicators.

Booster Station: A facility within a water distribution system that pumps water to a higher elevation.

Brine: Water that has a high dissolved mineral content.

Ccf: A water billing unit that equals 100 cubic feet or 748 gallons.

Central Arizona Groundwater Replenishment District (CAGRDR): Created by the State Legislature in 1993 to replenish groundwater in Pima, Pinal, and Maricopa counties. CAGRDR's purpose is to provide a mechanism for water providers and landowners to demonstrate an Assured Water Supply. The Central Arizona Water Conservation District operates the CAGRDR. (See also *Central Arizona Water Conservation District, CAWCD*.)

Central Arizona Project (CAP): A federal water project designed to bring water from the Colorado River to central and southern Arizona. The Central Arizona Project includes 336 miles of canal and pipeline and 14 pump stations.

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Central Arizona Water Conservation District (CAWCD): The State's contracting agent with the U.S. Department of the Interior for Central Arizona Project water supply. Responsibilities include operation and maintenance of the Central Arizona Project system and repayment of capital costs.

Citizens' Water Advisory Committee (CWAC): An advisory group appointed by the City of Tucson Mayor and Council and City Manager to make policy recommendations to Tucson Water on water issues.

City of Tucson Interim Water Policy: In December 2007, the City implemented an interim water service policy stating that Tucson Water will not provide water service outside of its Obligated Area until further guidance is provided by the City/County Water and Wastewater Study and by the Mayor and Council.

Class "A" Reclaimed Water: Treated wastewater that meets the "A" designation established by the Arizona Department of Environmental Quality. Class A water is suitable for outdoor watering and certain industrial uses.

Class A+ Reclaimed Water: Means wastewater that has undergone secondary treatment, filtration, disinfection, and has total nitrogen less than 10 mg/l.

Colorado River Water: For purposes of the Tucson Water *Water Plan: 2000-2050*, the term "Colorado River water" is used for all water that is currently delivered to Tucson Water via the Central Arizona Project.

Conjunctive Use: The planned and coordinated use of surface water and groundwater supplies to improve water supply reliability.

Conservation: Techniques for saving water that reduce demand.

Conservation Effluent Pool: A quantity of effluent set aside each year pursuant to an intergovernmental agreement between the City of Tucson and Pima County in 2000 for use in riparian restoration projects. The initial 5,000 acre-feet of effluent set aside by the agreement expands over time to a total of 10,000 acre-feet. Use of the conservation effluent pool is subject to specific terms that are under negotiation by the City and the County.

Conservation Lands System: A document that provides a regional framework for preserving or protecting the most biologically important areas of Pima County and for identifying areas most suitable for development.

Conserve To Enhance: An innovative municipal water conservation program that aims to develop a source of water for environmental restoration projects by connecting residential water conservation and environmental enhancement. Residential water customers who reduce their water consumption are given the option of agreeing to continue paying for water at their previous, higher rate of consumption. The money paid for conserved water would then be used to purchase water to meet the needs of environmental enhancement projects.

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Constructed Recharge: A facility that is designed and constructed in channel or off channel to artificially recharge and store water underground pursuant to permits issued by ADWR. To qualify as a constructed in-channel facility, the natural channel would have to be modified in order to significantly enhance recharge rates above what would otherwise occur in an unmodified channel.

Direct Treatment: Process through which Colorado River water is diverted from the Central Arizona Project and is then directly treated and served to customers for potable supply. This process is in contrast to indirect treatment where Colorado River water is diverted from the Central Arizona Project, recharged at underground storage facilities, and then recovered before being delivered to customers for potable use.

Desalination: Specific treatment processes to demineralize sea water or brackish (saline) water for use.

Disinfection: The treatment of water to inactivate, destroy, and/or remove disease-producing bacteria, viruses, and other microorganisms to make it safe for human consumption.

Effluent: Treated municipal wastewater.

Enhanced Treatment: Additional treatment measures to further improve water quality above the capabilities of conventional water treatment plants.

Emerging Contaminants: Constituents of potential concern from a water-quality perspective that are not currently regulated.

EMPACT: *Environmental Monitoring for Public Access and Community Tracking* program is intended to provide public access to clearly communicated, time-relevant, useful, and accurate environmental monitoring data to assist the public in day-to-day decision-making about their health and the environment.

Environmental Protection Agency (EPA): A federal agency formed by Congress in 1970 in response to growing public demand for cleaner water, air, and soil.

Environmental Restoration: (also referred to as Riparian Restoration, Riparian Enhancement, or Habitat Restoration): Environmental restoration means enhancing existing ecosystems or creating new habitat. Water, land, and native species are usually key factors. The goal of restoration is recovery of some functional characteristics of the ecosystem being replicated including plant communities and habitat structure. In most instances replication of historical ecosystems isn't possible given the current geomorphic and hydrologic conditions within the Tucson Basin. However, enhancing vegetation can result in sustainable habitat that helps restore ecosystem function and its support for wildlife and increased biodiversity. Enhancements may also include erosion control, improved [water quality](#) and achieving a self-sustaining, functional [flow](#) regime. Restoration efforts may address various interdependent components within a watershed such as the channel, distributary flow zones, over bank and floodplain areas, adjacent upland areas, and even shallow groundwater.

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Externalities: Refers to either costs (negative externalities) or benefits (positive externalities) experienced by an entity that is not directly using or benefitting from the water in question.

Firming: The act of securing Colorado River water supplies by recharging and storing available excess supply in order to meet anticipated future declared shortages on the Colorado River.

Geographical Information System (GIS): A computer-based information system that integrates, stores, edits, analyzes, manages, and displays geographic data. GIS applications are tools that allow users to create interactive queries (user create searches), analyze spatial information, edit data, maps, and present the results.

Graywater: Wastewater that is intercepted before it can reach the sewer system that originates from a clothes washer, bathtub, shower, and sink, but does not include wastewater from a kitchen sink, dishwasher, or toilet. A resident whose home is suitably equipped can divert graywater for use in accordance with ADEQ provisions.

Groundwater Management Act of 1980 (GMA): Landmark legislation that established the Arizona Department of Water Resources as well as rules and policies that govern water usage within the state with special emphasis in Active Management Areas.

Groundwater: That portion of water beneath the surface of the earth that can be recovered with wells or that flows naturally to the earth's surface via seeps or springs.

Groundwater Overdraft: The condition that occurs as a result of withdrawing more groundwater than is replenished through natural, incidental, or artificial recharge.

Groundwater Savings Facility (GSF): A facility, commonly a farm, where a renewable water supply is used in lieu of pumping groundwater.

Hydrologic Cycle: The natural recycling process in which water flows over and through the surface of the earth; collects in groundwater aquifers, lakes, and oceans; evaporates into the atmosphere; condenses; and returns to the earth as rain and snow.

Hydro-riparian: One of three classifications for riparian habitat in Tucson and Pima County. This habitat is generally associated with perennial watercourses and/or springs. Plant communities are dominated by obligate or preferential wetland plant species such as willow and cottonwood.

Incidental Recharge: Water that infiltrates the aquifer from routine losses from a water distribution system.

Increasing Block Rates: A form of water rate design in which the price per unit of water increases in a stair-step fashion according to the level of usage.

Indirect potable reuse: In the greater Tucson region, this occurs where reclaimed water is recharged into an aquifer for storage and is later pumped from the aquifer for potable supply. The term "in-direct" is used to draw an important distinction from "direct potable reuse" where

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reclaimed water is treated and “directly” used (without recharge and aquifer storage) for potable supply, an activity prohibited in Arizona by the Arizona Department of Environmental Quality (ADEQ) regulation.

In-Lieu Mitigation: In the place of providing on site riparian vegetation plantings to replace damage to riparian habitat caused by development, mitigation requirements may be met by contributing funds for public acquisition of riparian areas of equivalent value to the habitat lost.

In Stream Use: Use of water with a river or stream, such as providing habitat for aquatic and riparian life, sport fishing, river rafting or scenic beauty.

Intergovernmental Agreement (IGA): An agreement authorized by state statute between two or more governmental entities that provides for joint action or joint exercise of governmental powers.

Lost and Unaccounted for Water: A comparison of a water user's annual production to its annual water deliveries. The difference is considered lost and unaccounted for water. Sources of lost and unaccounted for water may include meter error, leaks, and theft.

Management Plan: A document produced by Arizona Department of Water Resources in accordance with the requirements of the 1980 Groundwater Management Act. It addresses water supply augmentation, water quality, and water conservation plans for all agricultural, municipal, and industrial users in an Active Management Area.

Managed Recharge: A facility that is designed and operated to utilize the unmodified natural channel of a stream to artificially recharge and store water underground in an aquifer pursuant to permits issued by ADWR.

Meso-riparian: One of three classifications for riparian habitat in Tucson and Pima County. This habitat is generally associated with perennial or intermittent watercourses or shallow groundwater. Plant communities may be dominated by species that are also found in drier habitats (e.g., mesquite); but contain some preferential riparian plant species such as Ash or Netleaf Hackberry.

Milligrams per Liter (mg/L): A unit of measure that equates to parts per million.

Mined Groundwater: Groundwater that is pumped from the aquifer and is not replenished.

Nonpoint Source Pollution: Water pollution caused by diffuse sources of runoff from farm fields, urban areas, construction sites and other sources.

Non-Potable Reuse: Treated municipal effluent that receives additional filtration and disinfection to meet state water-quality standards for irrigation and certain industrial applications. This use conserves higher quality sources of supply for potable use. See also *Reclaimed Water*.

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Point Source Pollution: Water pollution with a distinct, identifiable source point, such as discharge from a pipe.

Potable Water: Water that meets the U.S. Environmental Protection Agency and/or the State's drinking water (water-quality) standards.

Present worth: An engineering economic analysis conducted to compare potential projects by converting all cost calculations to a common point in time.

Recharge: Water that replenishes an aquifer by surface infiltration or by other natural or induced means.

Reclaimed Water: Treated effluent that is used for turf irrigation and certain industrial uses.

Regional (Centralized) Wastewater Reclamation Facility: This term refers to any of the three metropolitan wastewater reclamation facilities operated by RWRD: Ina Rd, Roger Rd, and Randolph Park.

Renewable Groundwater: The amount of groundwater naturally replenished that could be annually withdrawn without causing significant water-level declines.

Renewable Supply: A water source that is continuously replenished. Renewable supplies currently available for use in the Tucson Active Management Area are Colorado River water and effluent.

Resource Development Fee: See *Water-Resource Development Fee*.

Resource Reliability: Refers to the need to ensure adequate resources are available to meet already committed needs in times of shortage. The shortage could be caused by planned or unplanned system infrastructure outages or to longer term shortages in the CAP supply due to extensive drought in the Colorado River Watershed.

Riparian: Pertaining to or situated on the bank of a body of water, especially a river.

Riparian Right: A water right based on the ownership of land bordering a river or waterway.

Safe Yield: A management goal of the 1980 Groundwater Management Act intended to balance groundwater withdrawals with natural and artificial recharge in selected Active Management Areas.

Scenario Planning: Scenario planning is a disciplined method of addressing future uncertainties by envisioning and preparing for a range of possible futures in order to maximize flexibility and adaptability in a dynamic planning environment.

Smart Growth: An urban planning and transportation theory that concentrates growth in built areas of a city to avoid urban sprawl and advocates compact, transit-oriented, walkable, bicycle-friendly development, including neighborhood schools, mixed-use development, and a range of housing choices.

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Soil-Aquifer Treatment: Use of the physical, chemical, and/or microbiological properties of the soil and the aquifer to provide treatment of water introduced into the groundwater system.

Southern Arizona Water Rights Settlement Act (SAWRSA): 1982 federal legislation enacted to settle water-rights claims of the Tohono O’odham Nation against the City of Tucson and several other parties.

Spatial-Distribution: Within this document, spatial-distribution refers to how population and/or water demand is distributed over a specific geographic area.

Specific Yield: An estimate of the amount of recoverable groundwater in an aquifer.

Sub-regional (Decentralized) Wastewater Reclamation Facility: A treatment plant having its own localized wastewater collection system that is separate from the collection system serving the majority of the Tucson metro area. These facilities serve sub-regional areas of Eastern Pima County, and include Arivaca Junction WRF, Avra Valley WRF, Corona de Tucson WRF, Fairgrounds WRF, Green Valley WRF, Marana WRF, Mount Lemmon WRF, and Rillito Vista WRF. Future facilities such as one planned for the Southlands area fall into this category.

Surface Water: Water that is on the Earth’s surface, such as in a stream, river, lake, or reservoir.

System Equity Fee: A fee that is charged to new ratepayers to recoup prior expenditures used to expand Tucson Water’s potable system in anticipation of increasing demand. A fee of this type is considered a “backward-looking” fee.

Total Demand: The volume of water a water provider is required to produce to meet the needs of all potable and nonpotable customers.

Total Dissolved Solids (TDS): A term that expresses the quantity of dissolved material in a sample of water measured in milligrams per liter (mg/L).

Total Gallons per Capita per Day: A measure of average water usage calculated by dividing the total water deliveries by a provider’s service area population.

Tucson Active Management Area (Tucson AMA): One of the original areas in Arizona that were designated for regulation by Arizona Department of Water Resources.

Tucson Water “Checkbook”: A procedure used by Tucson Water to quantitatively compare its annually available renewable supplies to the sum of existing and proposed annual water demands. The sum of the demands includes the annual water demand of existing Tucson Water customers and the potential annual additions associated with new developments and rezonings within the Utility’s Obligated Service Area.

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Tucson Water Obligated Service Area: The area where Tucson Water is legally obligated to provide water service which includes: 1) areas within the Tucson city limits; 2) areas where the City is contractually obligated to serve such as Continental Ranch, Dove Mountain and Corona de Tucson; and 3) infill within the existing service area.

Urban Form: The types of land uses, density of development, design of buildings, pattern of streets, and arrangement of infrastructure in an area.

Water Bank: See *Arizona Water Banking Authority*.

Water Harvesting: The process of intercepting stormwater from a surface such as a roof, parking area, or land surface, and putting it to beneficial use.

Water Recycling: The treatment and reuse of wastewater to produce water of suitable quality for additional use.

Water-Resource Development Fee: A fee implemented to pay for future Tucson Water system improvements and/or acquisition of additional sources of supply. This type of fee is known as a “forward-looking” fee.

Watershed: Region or land area drained by a river. Also called a drainage basin.

Wet-water supplies: Water supplies that are physically delivered to and utilized by water users for a range of purposes. In contrast, “paper water” refers to the legal/regulatory accounting and tracking of water that is utilized by water users.

Wheeled Water or Water Wheeling: Water transferred between two agencies whereby one agency uses its system infrastructure to treat and/or convey water that is owned by the receiving agency.

Wildcat Development or Lot splitting: The proliferation of new residential parcels without the benefit of subdivision regulation. Often these areas are devoid of any basic infrastructure, standard environmental regulation, subdivision standards, or infrastructure requirements. Such items are commonplace in the regulation of subdivided land.

Xero-riparian: One of three classifications for riparian habitat in Tucson and Pima County. This habitat is generally associated with an ephemeral water supply. Plant communities typically contain plant species also found in upland habitats; however, these plants are typically larger and/or occur at higher densities than adjacent uplands. Xero-riparian habitats are further subdivided based on bank-side vegetative volume as High, Intermediate, and Low (or A, B, C, and D).

Zanjero: The zanjero, or “water master” as he was known in pioneering times, was a powerful person who controlled the allotment of water to fields. Tucson Water’s *Zanjero Program* offers free residential water audits to ratepayers to help them eliminate waste and to reduce water bills.

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Acronyms

A&W	Aquatic and Wildlife Protected Use
A&We	Aquatic and Wildlife Ephemeral
ABF	Activated Biofilter
ABS	Acrylonitrile Butadiene Styrene
ACC	Arizona Corporation Commission
ACOE	Army Corps of Engineers
ACP	Asbestos Concrete Pipe
ADEQ	Arizona Department of Environmental Quality
ADF	Average Daily Flow
ADWF	Average Dry Weather Flow
ADWR	Arizona Department of Water Resources
AF	Acre Feet
AGI	Agricultural Irrigation Protected Use
AGL	Agricultural Livestock Watering Protected Use
AL	Alert Level
AMA	Active Management Area
AMSA	Association of Metropolitan Sewerage Agencies
AMSL	Above Mean Sea Level
APO	Administrative Penalty Orders
APP	Aquifer Protection Permit
AQL	Acceptable Quality Level
AS	Arsenic
AS/NTF	Activated Sludge/Nitrifying Trickling Filter
AT	Aeration Tank
AWS	Assured Water Supplier
AWBA	Arizona Water Banking Authority (Water Bank)
AWQS	Aquifer Water Quality Standards
AWWQRP	Arid West Water Quality Research Project
AZPDES	Arizona Pollutant Discharge Elimination System
BACT	Best Available Control Technology
BADCT	Best Available Demonstrated Control Technology
BAF	Biological Aerated Filter
BAN	Bond Anticipation Note
BER	Biosolids Enrichment and Recycling
BF/AS	Biofilter/Activated Sludge
BF/SC	Biofilter/Solids Contact Process
BFP	Belt Filter Press
Bid-build	Design-Bid-Build
Bio-P	Biological Phosphorus
BLM	Bureau of Land Management (U.S. Department of Interior)
BMPs	Best Management Practices
BNR	Biological Nutrient Removal
BNRAS	Biological Nutrient Removal Activated Sludge
BNROD	Biological Nutrient Removal Oxidation Ditch

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BOD	Biochemical Oxygen Demand
BOD₅	5-day Biochemical Oxygen Demand
BOO	Build/Own/Operate
BOOL	Build/Own/Operate/Lease
BOOT	Build/Own/Operate/Transfer
BT/NAS	Biotowers/Nitrifying Activated Sludge
BTU/lb	British Thermal Unit/Pound
CAB	Capital Appreciation Bond
CAGR	Central Arizona Groundwater Replenishment District
CAP	Central Arizona Project
CASS	Central Arizona Salinity Study
CAVSARP	Central Avra Valley Storage and Recovery Project
CAWCD	Central Arizona Water Conservation District
CDU	Chemical Dosing Unit
CEC	Cation Exchange Capacity
CEP	Conservation Effluent Pool
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
cf	Cubic Feet
cfs	Cubic Feet per Second
cfm	Cubic Feet Per Minute
CFR	Code of Federal Regulations (Register)
CFU	Colony Forming Units
CG-85	Construction Grants 1985
Chem-P	Chemical Phosphorus
CHP	Combined Heat & Power
CIP	Capital Improvement Program
CIPP	Cured in Place Pipe
Cl₂	Chlorine
CMAR	Construction-Manager-At-Risk
CMID	Cortaro-Marana Irrigation District
CMMS	Computerized Maintenance Management System
CMOM	Capacity, Management, Operations & Maintenance
CO	Carbon Monoxide
COD	Chemical Oxygen Demand
COP	Certificates Of Participation
CRRPS	Continental Ranch Regional Pump Station
CrVI	Chromium – Valence 6
CRWWPS	Continental Ranch Wastewater Pump Station
CTP	Central Treatment Plant
CW	Campbell Wash
CWA	Clean Water Act
CWAC	Citizens' Water Advisory Committee
d/D	Depth to Diameter Ratio
DAF	Dissolved Air Flotation
D/B	Design/Build
D-B-B	Design-Bid-Build

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D/B/O	Design/Build/Operate
DEM	Digital Elevation Map
DEQ	Department of Environmental Quality
DHI	Danish Hydraulic Institute
DI	Deionized
DI	Ductile Iron
DIP	Ductile Iron Pipe
DMA	Designated Management Agency
DO	Dissolved Oxygen
DPA	Designated Planning Agency
DPF	Daily Peak Flow
DUPF	Diurnal Peaking Factor
DWP	Dewatering Pump
E. coli	Escherichia coli
EDW	Effluent Dependant Water
EIS	Environmental Impact Statement
EMPACT	Environmental Monitoring for Public Access & Community Tracking
EMS	Environmental Management System
ENS	Engineering News Record
EPA	U.S. Environmental Protection Agency
EQ	Equalization
EQA	Environmental Quality Act
ER	Emergency Response
ESA	Endangered Species Act
FASL	Feet Above Sea Level
FBC	Full Body Contact Protected Use
FEP	Facullative/Evaporation Pond
fps	Feet Per Second
GASB	General Accounting Standards Board
GBT	Gravity Belt Thickener
GDC	Generator Distribution Center
GIS	Geographic Information System
GMA	Groundwater Management Act
GPCD	Gallons Per Capita Per Day
GPD	Gallons Per Day
GPM	Gallons Per Minute
GPM/SF	Gallons Per Minute Per Square Foot
GSF	Groundwater Savings Facility
GT	Gravity Thickener
GV	Green Valley
H₂S	Hydrogen Sulfide
HAA	Halo Acetic Acid
HAMP	Houghton Area Master Plan
HAP	Hazardous (halogenated) Air Pollution
HCU	Heating & Cooling Use
HDPE	High-Density Polyethylene

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HEX	Heat Exhaust
hp	Horsepower
HPF	Hourly Peak Flow
HPO	High Purity Oxygen
HRT	Hydraulic Retention Time
HUC	Hydrologic Unit Code
HVAC	Heating, Ventilation, Air Conditioning
Hw	Hot Water
I&C	Instrumentation & Control
IC	Internal Combustion
IFAS	Integrated Fixed Film Activated Sludge
IGA	Intergovernmental Agreement
IHC	Incidental Human Contact Protected Use
I/I	Infiltration/Inflow
I/O	Input/Output
IOU	Investor-Owned Water Utilities
IR	Ina Road
IWC	Industrial Wastewater Control
KERP	Kino Environmental Restoration Project
kV	Kilovolt
kVA	Kilo-Volt Ampere
kW	Kilowatt
kWh	Kilowatt hour
LOX	Liquid Oxygen
LSCMRP	Lower Santa Cruz River Managed Recharge Project
MACT	Maximum Achievable Control Technology
MADF	Maximum Average Daily Flow
MBBR	Moving Bed Bioreactor
MBR	Membrane Bioreactor
MBH	1,000 BTUs/hour
MBTA	Migratory Bird Treaty Act
MCC	Motor Control Center
MCL	Maximum Contaminant Level
MCRT	Mean Cell Retention Time
MDWID	Metropolitan Domestic Water Improvement District
MG	Million Gallons
mgd	Million Gallons Per Day
mg/L	Milligrams Per Liter
MH	Manhole
M & I	Municipal & Industrial
MLE	Modified Ludzack-Ettinger
MLR	Mixed Liquor Recycle
MLSS	Mixed Liquor Suspended Solids
MPC	Municipal Property Corporation
MPF	Monthly Peak Flow
MPN	Most Probable Number

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MSGP	Multi-Sector General Permit
MSL	Mean Sea Level
NAAQS	National Ambient Air Quality Standards
NASSCO	National Association of Sewer Service Companies
ND	Non Detect
NdeN	Nitrification/Denitrification
NDMA	N-nitrosodimethylamine
NEMA	National Electrical Manufacturer's Association
NEPA	National Environmental Policy Act
ng/L	Nano-Grams Per Liter
NH₄-N	Ammonium as Nitrogen
Nitrate-N	Nitrate as Nitrogen
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPPO	Native Plant Protection Ordinance
NTU	Nephelometric Turbidity Units
ORP	Oxidation Reduction Potential
OSHA	Occupational Safety & Health Act
PAB	Private Activity Bonds
PAG	Pima Association of Governments
PBC	Partial Body Contact
PCB	Polychlorinated Biphenyls
PCFCD	Pima County Flood Control District
PCRFCDD	Pima County Regional Flood Control District
PCWMD	Pima County Wastewater Management Department
PDWF	Peak Dry Weather Flow
PE	Population Equivalent
PF	Peaking Factor
PFdw	Dry Weather Peaking Factor
PFRP	Process To Further Reduce Pathogens
PFww	Wet Weather Peaking Factor
pH	Measure of Acidity & Alkalinity
PHF	Peak Hourly Flow
PLC	Programmable Logic Controller
PM10	Particulate Matter Less than Nanometers
POC	Point of Compliance
Ppb	Parts Per Billion
Ppbv	Parts Per Billion By Volume
Ppm	Parts Per Million
PQL	Practical Quantitation Level
PSA	Pressure Swing Absorption
PSI/Psig	Pounds Per Square Inch
PSP	Primary Sludge Pump
PSRP	Process to Significantly Reduce Pathogens
PVC	Polyvinyl Chloride
PW	Present Worth

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PWWF	Peak Wet Weather Flow
Q_{50%}	Median Peak Daily Flow
QA/QC	Quality Assurance & Quality Control
Q_{ADF}	Average Daily Dry Weather Flow
RAN	Revenue Anticipation Notes
RAS	Return Activated Sludge
RBC	Rotating Biological Contractor
RBC	Rotating Biological Contractor
RCP	Reinforced Concrete Pipe
RCRA	Resource Conservation & Recovery Act
REC	Recognized Environmental Condition
RFEI	Request For Expression of Interest
ROMP	Regional Optimization Master Plan
R.O.W.	Right Of Way
rpm	Revolutions Per Minute
RR	Roger Road
RTU	Remote Terminal Unit
SAR	Specific Absorption Rate
SARA	Superfund Amendments & Reauthorization Act
SAWRSA	Southern Arizona Water Rights Settlement Act
sBOD₅	Soluble 5-Day Biochemical Oxygen Demand
SCADA	Supervisor Control & Data Acquisition
scfm	Standard Cubic Feet Per Minute
SCI	Santa Cruz Interceptor
SDCP	Sonoran Desert Conservation Plan
SDF	System Development Fund
SDWA	Safe Drinking Water Act
sf	Square Feet
SO_x	Sulfur Oxides
SROG	Sub regional Operating Group
SRT	Sludge Retention Time
SSIP	Sanitary Sewer Inspection & Inventory Project
SSO	Sanitary Sewer Overflow
SWI	Southwest Interceptor
SWIP	Southwest Infrastructure Plan
TAN	Tax Anticipation Notes
TAZ	Traffic Analysis Zones
TCLP	Toxicity Characteristics Leachate Procedure
TDS	Total Dissolved Solids
THM	Trihalomethane
TKN	Total Kjeldahl Nitrogen
TMDL	Total Maximum Daily Loads
TN	Total Nitrogen
TOC	Total Organic Carbon
TP	Total Phosphorus
TPAD	Temperature Phased Anaerobic Digestion

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tpd	Tons Per Day
TPU	Third Party Use
TRAN	Tax & Revenue Anticipation Note
TSCA	Toxic Substances Control Act
TSP	Total Suspended Particles
TSS	Total Suspended Solids
Tucson AMA	Tucson Active Management Area
TVSS	Transient Voltage Surge Suppression
TWAS	Thickened Waste Activated Sludge
UCMR	Unregulated Contaminant Monitoring Rule
USACE	U.S. Army Corps of Engineers
USBR	U.S. Bureau of Reclamation
USCMRP	Upper Santa Cruz Managed Recharge Project
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
UV	Ultra-Violet
V	Volt
VA	Vulnerability Assessment
VCP	Vitrified Clay Pipe
VFD	Variable Frequency Drive
VOC	Volatile Organic Carbon
VRDO	Variable Tax-Exempt Debt
VSS	Volatile Suspended Solids
WAS	Waste Activated Sludge
Water Bank	Arizona Water Banking Authority
WERF	Water Environment Research Foundation
WET	Whole Effluent Toxicity
WF	Weighting Factor
WIFA	Wastewater Infrastructure Projects
WMAC	Wastewater Management Advisory Committee
WPCF	Water Pollution Control Facility
WRC	Reclamation Campus
WRF	Water Reclamation Facility
WWPS	Wastewater Pump Station
WWTF	Wastewater Treatment Facility
WWTP	Wastewater Treatment Plant
°C	Degrees Celsius
µg/L	Micrograms Per Liter
2006 Facility Plan	Pima County Wastewater Management Department's 2006 Metropolitan Facility Plan Update