Water Reclamation

- 65 million gallons per day
- Provides turf irrigation for over 50 parks and 65 schools
- Provides turf irrigation for 18 golf courses
- Enough irrigation water for more than 60,000 homes
- Class A+ water quality extends potential for indoor uses including fire suppression, toilet flushing and cooling towers
Biosolids Production

- Over 10,000 dry tons annually
- Used as a beneficial soil amendment for agriculture
- Displaces approximately 750 tons of commercial fertilizer
- Used to revegetate mine tailings
Biogas Production

- 820,000 – 1,000,000 cf of biogas produced daily
- Generate almost 3 Megawatts of electricity
- Recovered heat used to meet thermal demands for process control including HVAC thermal needs
Opportunities to Meet Sustainability Goals through ROMP

- LEEDs certification for buildings
- Water conservation measures
- Native plant landscaping

Energy
- Bio-gas utilization
- One-megawatt Solar Energy Facility at Water Reclamation Campus
- Supplemental solar power at the Ina Road WRF
Solar Usage

CURRENT TOTAL AVERAGE DEMAND 3,053 W

- INA_DPM82 15 MIN AVE
- SOLAR FEED
- OLD TEP FEED AVE
- POWERHOUSE GENERATION AVE
- TOTAL Watts
TRANSFORMING YOUR UTILITY

Seeking Opportunities for Innovation

PIMA COUNTY WASTEWATER RECLAMATION
Water Campus Creation
Agua Nueva WRF

- 2014 DBIA Excellence in Process
- 2015 Project of the Year
- 2014 DBIA Design Build Project Team
- 2014 APWA Outstanding Environmental Public Works Award
- 2014 AAEE Excellence in Planning
- 2016 Utility of the Future Award
Water Campus Features

- LEED Certified
- 40,000 sq ft in 2012
- 23,000 sq ft in 2015
Water Campus Laboratory Features
Clean Room
Trace Metals Analysis
Staff Development & Conference Features
Building Automation
WEST Center Partnership

EXISTING  NEW

EXISTING  NEW

LABORATORIES

OFFICES

HIGH BAY LABS

ENTRY

NORTH
THE LIFT WATER RESOURCE RECOVERY TEST BED FACILITY NETWORK

The LIFT Water Resource Recovery Test Bed Facility Network (LIFT TBN) assists those developing and piloting technologies for the water sector. It works to connect researchers, new technology providers, and other innovators in the water resource recovery industry with test facilities appropriate for their needs. It also aims to manage risk and accelerate the adoption of innovation by engaging the broader water community.

The test bed network was developed as a result of recommendations from stakeholder meetings and discussions organized by the National Science Foundation (NSF), the U.S. Department of Energy (DOE), the U.S. Environmental Protection Agency (EPA), the Water Environment & Reuse Foundation (WE&RF), the Water Environment Foundation (WEF).

The LIFT TBN aims to amplify work being done at Test Bed Facilities, by addressing three barriers: (1) connecting the right partners for testing, (2) ensuring applicability of test results beyond a small geographic region, or a highly specific facility layout, and (3) acceptance of the testing data to generate market demand. The LIFT TBN does not manage these facilities, but serves as a neutral party helping to coordinate their work and efforts to limit redundancy and wasted effort.

We are always open to assistance in this effort. If you are interested in engaging with the network and are not sure, how please contact Dr. Aaron Fisher: afisher@werf.org.
Level 1: A university or research lab that can assist with bench-scale work but is not dedicated to piloting new technologies

Level 2: A water resource recovery facility that is interested in innovation and willing to host a project, but does not have a dedicated test facility

Level 3: A water resource recovery facility or research lab with a dedicated physical space available for piloting innovative water technology

Level 4: A staffed facility dedicated solely to R&D/piloting of new technologies (can be housed at a functioning WRRF)
Utility of the Future Today

The Water Resources Utility of the Future: A Blueprint for Action
Water Innovation Challenge
Potable Reuse
Energy Saving Opportunities
Energy Saving Opportunities

Centrate Side-Stream Treatment

- 300,000 - 500,000 gpd
- 1,000 – 1,200 mg/L ammonia
- 30% of the daily ammonia load
- Aeration is 60% electrical usage
Research & Innovation

Anaerobic Ammonia Oxidation

An-amm-ox
Bioaugmentation - Enhanced Anammox for Mainstream Nitrogen Removal

$250,000 grant 1705674 award, 2017
Side-Stream Treatment

- 90% reduction in Ammonia
- $350,000 electrical savings annually
- Mainstream possibilities
THANK YOU!

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