

**METROPOLITAN DOMESTIC WATER IMPROVEMENT DISTRICT  
FINANCE OVERSIGHT COMMITTEE**

**Metropolitan Domestic Water Improvement District  
\*\*Board Conference Room\*\*  
6265 N. La Cañada Drive  
Tucson, AZ 85704**

**June 15, 2015**

**MINUTES**

Committee Members Present:           Reb Guillot, Chair  
  Barbara Gelband, Member  
  Lee Harbers, Member  
  Doug Hofmann, Member  
  Lee Mayes, Member  
  Danny Sargent, Member

Committee Members Not Present:    Sheila Bowen, Vice Chair  
  Tom Ruppenthal, Member  
  Robert Shonka, Member

District Staff Present:                Joseph Olsen, General Manager  
  Mike Block, Water Resources Manager  
  Diane Bracken, Chief Financial Officer  
  Charlie Maish, District Engineer  
  Steve Shepard, Utility Superintendent  
  Warren Tenney, Assistant General Manager

**I.     Call to Order and Roll Call**

Mr. Guillot called the Metropolitan Domestic Water Improvement District Finance Oversight Committee (Committee, FOC) meeting to order at 4:00 p.m. Mr. Guillot, Ms. Gelband, Mr. Harbers, Mr. Hofmann, Mr. Mayes, and Mr. Sargent were present. Ms. Bowen, Mr. Ruppenthal, and Mr. Shonka were not present.

**II.    Call to the Public**

There were no comments by the public.

**III.   Approval of Minutes – March 23, 2015 Meeting**

Mr. Harbers made a motion to accept the minutes. Ms. Gelband seconded the motion. Motion passed unanimously.

**IV.    Update on Rate Adjustment and Fiscal Year 2016 Budget**

Mr. Olsen said since the March 23, 2015 FOC meeting, there have been a lot of meetings and discussions on the financial plan, budget, and rates.

A public information meeting was held on May 13, 2015 to explain the FOC recommendation to achieve revenue stability and adjust four fees in accordance with cost of service methodology. The presentation outlined the difference between fixed and variable costs and explained the importance of revenue stability. The discussion focused on how increasing the water availability rate by \$5.00 while simultaneously decreasing the volumetric water consumption charges by approximately \$4.20, less than a one dollar net increase to the average customer, would result in moving the District from 69% fixed cost recovery to 83%. The four fees adjusted were the water connection fees, the inspection fees, fire flow fees, and the plan review fees. Members of the public who attended were understanding and supportive of the changes. Mr. Olsen thanked Sheila Bowen, who attended the information meeting and did an excellent job talking about the FOC deliberations before making the recommendation to the Board. Questions from the public were not solely focused on revenue stability but included such topics as when the RTA Fee will end, how wastewater charges are calculated, and how the drought in California is impacting Arizona. A few members of the public were in attendance.

The public rate hearing was held on May 18, 2015. The same presentation was given to the Board of Directors and members of the public. Mr. Olsen said Reb Guillot did a great job speaking about the FOC deliberations. The Board adopted all of the recommended adjustments and thanked the FOC for its time and effort reviewing a lengthy amount of material.

The District is now much better postured to deal with challenges in volumetric revenue. Fiscal year to date consumption in Metro Hub is currently 9% less than last fiscal year to date and Metro Main is 6% down. With revenue stability, the District is still able to manage its budget effectively and ensure continued maintenance on the system even during large consumption declines. These initiatives have been talked about heavily in the region among water providers and the District is serving as the role model on how to accomplish revenue stability. Other water directors have inquired about how the District has been able to engage the public and perhaps it will result in similar discussions at other water utilities, which would benefit the entire region.

On June 8, 2015, the Board of Directors adopted the Fiscal Year 2016 Budget, which was the exact same budget the FOC discussed on March 23, 2015 with only one clarification. In bringing the water service connection fee into alignment with cost of service methodology and industry standards, a component was eliminated for multi-unit developments that was calculated according to number of units. The fee for multi-unit meters will now be charged according to meter capacity. One multi-unit development prepaid for a number of meters and many meters have not yet been installed, so a refund of overpayment will be appropriate for meters taken after the fee change becomes effective. The size of the refund will not be known until July 1, 2015. In order to exercise fiscal caution, the Hub storage expansion on the capital project list will move through the design phase this fiscal year and will be discussed at the mid-year budget review before construction

commences to make sure development revenue can support construction. If financial resources are not in alignment at the mid-year budget review, the discussion will be brought to the FOC with a recommendation to push the project back one year but no changes were made to the budget. The Board was informed of this matter.

The Fiscal Year 2016 Operating Budget is \$125,000 less than the Fiscal Year 2015 Operating Budget. The priority-driven budget process resulted in significant savings of approximately one million dollars. The Capital Improvement Program will invest \$3.1 million into the system to enhance reliability directly through revenue funding, without any associated loans or debt service. The budgetary culture staff has internalized continues to yield incremental savings that add up.

Ms. Gelband asked if the decline in consumption is a bad thing. Mr. Olsen explained that staff tries to predict how much demand and associated revenue will exist when creating financial plans. The District did plan for a decrease in demand because that is what is happening across the country with enhanced efficiency fixtures but nobody was planning on a 9% decrease. On a macro level, with potential shortage declarations on the Colorado River, conservation is a good thing but it does make budgeting somewhat difficult, which is why it was so important to have the discussion on revenue stability. The District can now significantly mitigate declines in consumption but it is still not 100% revenue stable. Ms. Gelband asked if the District would ever charge people more for using less if consumption continues to decrease, such as what Tucson Electric Power does for solar. Mr. Olsen said the District increased the monthly service charge, or water availability rate, and if demands continue to decline, the District will look at other solutions. If the District became 100% revenue stable, that would mean the monthly service charge would cover all the things that must be paid for regardless of how much water is used and even if demands went to zero, the fixed costs would still be covered on the monthly service charge. The District's move to 83% cost recovery is much more stable than any other water utility in the region. Other water utilities who are less revenue stable have only one recourse, to charge more and more for water as demands decline. The District will continue to look at ways to add stability.

Ms. Gelband asked if Pima County plans to increase sewer fees. Mr. Olsen said they had planned a 3% increase but there was a delay of its consideration.

Mr. Mayes asked how many meters were purchased at the multi-unit development. Mr. Olsen said they purchased large meters that would serve multiple units. Mr. Maish said there were about eight meters, including irrigation meters. Ms. Gelband asked if the apartment complex pre-purchased the meters to try to get them before the fee change. Mr. Olsen said no, they did not know the fee was changing. It is common for developments to pay for all meters at once so they do not have to cut a check every time a meter is installed. After the fee was adjusted, District staff reached out and let the developers know about the change. Mr. Olsen said the Hub storage project will be closely monitored out of an abundance of caution. Ms. Gelband asked where the apartment project is located. Mr. Maish said it is the Encantada apartments at Cortaro and Shannon near Tucson National Golf Resort.

Mr. Guillot said he noticed progress on the two developments, Avilla East and Avilla West, at Cloud Road and Sabino Canyon in the Metro Hub area. He asked if they would have a large impact. Mr. Olsen said adding additional meters will mean additional demand but considering the 9% decline in consumption in Metro Hub, adding those meters will only help mitigate declining demand trends. Connection fees will be closely monitored over the first few months of the fiscal year.

Copies of the adopted Fiscal Year 2016 Budget were provided to the FOC.

## V. Water Security Efforts

### A. Securing Physical and Cyber Assets

Mr. Olsen said the FOC previously requested a presentation on various security initiatives the District is doing to ensure it is able to continue delivering safe reliable drinking water. In deliberating the presentation, staff realized security is not just one particular initiative, so it was broken into four parts. Physical security of plant assets is typically considered standard security, such as fences. Cyber security is the effort to protect against intrusion within the computer/electronic environment, also referred to as the cyber domain. Mr. Block will provide a presentation on water resource security to make sure we have the physical water resources available to meet demand. Mr. Shepard will provide information on some of the collaborative efforts in place, as Chair of the Arizona Water/Wastewater Agency Response Network (AzWARN), which is a group of entities ready to work together to respond to emergency situations. This is an open meeting and staff will give as much information as possible but it has been limited to what can be shared without compromising the security of the District.

The infrastructure that the District has to protect includes five geographically separated service areas, 41 active facilities including wells, boosters, and reservoirs, 400 miles of distribution mains, 2,000 hydrants, and numerous other above-ground appurtenances such as air-release valves, and the District Headquarters. All of those are crucial to ensuring the District is able to meet customer demands 24 hours a day, 365.25 days a year. The most important measure is District staff, who continually demonstrate situational awareness and readiness to respond.

Mr. Olsen showed a picture of a device that was discovered on a District facility just last week. He asked FOC members to guess what the device was. The device had copper wires, electrical tape, and a tube; its appearance was similar to a pipe bomb. An employee noticed it, followed the appropriate protocols and reported it to law enforcement, although it turned out to be a geocache, or a container used in GPS-guided scavenger hunts. Trained staff who notice things and respond accordingly are the best security tool.

Around infrastructure sites the District uses perimeter fencing. Critical components inside sites have secondary fencing. The District uses site intrusion detection systems to detect if someone enters a site or storage tank for contamination prevention and also for safety. Locking mechanisms are used on valves, electrical panels, and ladder access points. Passive and active lighting is

installed on various sites. A Supervisory Control and Data Acquisition (SCADA) alarm notification system is in use to communicate electronically with various sites. Cameras at sites allow the District to record and playback activities so that if anything does happen, staff is able to review the history logs. Ms. Gelband asked how long those are kept, and Mr. Olsen explained different sites have different recording loop times. Staff also visits each site on a regular basis. Hydrants are locked systematically to prevent contamination and water theft but fire agencies still have full access. Cages are placed over certain above-ground infrastructure to prevent theft.

In the Fiscal Year 2016 Budget, the District has increased the investment in physical security by \$20,000, taking the total investment to approximately \$52,000 to continue key upgrades and installations across the service areas. Technology is always changing and the District is always looking to employ additional technology. Mr. Harbers asked if the \$20,000 was budgeted specifically for physical security, and Mr. Olsen confirmed. There is also an additional budgetary line item for cyber security.

Mr. Sargent asked how often the sites are physically checked. Mr. Shepard said regular well runs are minimum of two to three days per week, depending on the site.

Mr. Guillot asked if there has been any evidence of misconduct at District facilities in the last year. Mr. Shepard said over the past year, there was one. A low dollar item was stolen that staff believes was taken for another purpose but was probably not done with intent to harm the District.

Ms. Gelband asked about graffiti. Mr. Olsen said many of the fences are hard to spray graffiti on but block walls sometimes have graffiti. Mr. Sargent noticed the Shannon facility receives quite a bit of graffiti and Mr. Shepard agreed that facility gets hit most often because it is close to the river walk.

Mr. Hofmann asked if alarms go to law enforcement or District staff. Mr. Olsen explained alarms come to staff and next steps are determined from there.

Mr. Sargent asked if reservoirs have hatch intrusion alarms, and Mr. Olsen confirmed.

The District leverages a multi-layered approach to minimize intrusion into any of our cyber capabilities. There is no shortage of hacking attempts or cyber intrusions in the industry and anyone will tell you, no amount of cyber security is 100% effective. If someone is determined to get in, they can ultimately find a way. The most effective approach is to have numerous overlapping layers of passive and active securities and firewalls, which deters hacking and makes it more likely the attacker will move on to an easier target. The District has an Information Technology (IT) Usage and Cyber Security Policy because often times the most frequent intrusions are caused by unintentional actions of staff by accidentally downloading or opening another door to systems. The policy articulates guidelines for staff on user identification, password creation, network access, and remote access. The policy educates staff to get them on a common operating picture on the importance of those key elements and encourages them to take proactive steps when they notice anything unusual. Again, staff is the first layer of defense. The policy includes a list of

authorized software so that software applications can be reviewed first. Steve Glowacka, Network Administrator, performs a detailed review and makes sure software is free of malware and can be used without deleterious impact. All workstations are automatically configured to receive and install critical security updates. Coupled with the software firewall is a hardware firewall where all unnecessary inactive ports are closed. In the event of a critical breakdown of those overlapping security layers, all data is backed up daily. If there is a loss of data, there is a way to rapidly restore. The District's Risk Management insurance has a rider for cyber insurance to assist in recovery of data in the event of a large compromise. There is a line item in the Fiscal Year 2016 budget for \$15,000 to include the purchase and installation of an emergency computer backup system, which will provide even more redundancy, primarily for the customer service database and automatic meter reading functions, so that the District is not impeded in serving its customers.

Mr. Harbers asked if the District does any auditing of XpressBillPay, the District's credit card processing vendor, to ensure their system is secure and in compliance with ours. Ms. Bracken said XpressBillPay recently beefed up its security and blocks international access for online bill payment. Ms. Bracken said there are a few customers who travel internationally and are unable to pay their water bill online through XpressBillPay but the District is working with XpressBillPay to make arrangements for those few customers. Caselle is the billing software used by the District and XpressBillPay is one of the primary vendors that supports that software.

Mr. Hofmann said the main objective of someone trying to get into the system would be to obtain personal, financial, or Social Security information. He asked what kind of protections the District has in place for personal information. Mr. Olsen said there are a couple motivations for breaking into a system, including theft of financial information, a desire to impact water deliveries, or intent to deface websites. The District has overlapping layers of security and can detect attempts to hack into the system. Active and passive measures are in place. Typically data breaches involve a human mistake or an education gap rather than a technology weakness but Mr. Olsen reiterated that if someone is determined to get it, they will find a way. The District is able to see the evidence of attempted intrusions and adjust accordingly. Ms. Bracken said Caselle also encrypts Social Security numbers and credit/debit card numbers.

Mr. Guillot asked how many customers pay with auto-pay through their bank or credit card and Ms. Bracken said about 8,000 customers or 40%. Mr. Guillot said the District is smaller than the companies we have seen on the news that have experienced data breaches but still could be seen as an attractive target for someone wanting to steal information. Mr. Olsen said properly vetting and training staff is also key.

## **B. Securing Water Resources**

Mr. Olsen said the District has built a very diverse water resource portfolio. Mr. Block talked about the long-range water resources for each of the six service areas. Referring to the Long Range Water Resource Plan, he talked about each service area's groundwater table depths, annual rise and decline rates, future water supplies, effluent use, Central Arizona Project (CAP) M&I credits, changes in demand, regional partnerships, and wheeling agreements. The District's portfolio of

Water Resources was shown, with CAP water, recycled water, and groundwater for Fiscal Year 2015 increasing by 3.9% for a total asset value of renewable supplies of \$4.805 million.

Mr. Olsen went over the District's 2015 trajectory in water resources, including long term plans, pending agreements, and partnerships. The CAP Recharge, Recovery, and Delivery System will allow the District to mitigate the challenge of the declining aquifer in Metro Main by replacing about half the groundwater pumpage as renewable water resources to bring the aquifer into balance. The Water Resources Utilization Fee was increased to fund the first phases of that project. The goal is to revenue fund as much as possible rather than take on more debt service. With the potential for CAP shortage declarations and rising energy costs, the cost of water will only increase. Banked water has a value and the District is taking steps to protect its resources for the future. The District is continually augmenting its portfolio via new initiatives.

### C. Regional and State Efforts

Mr. Shepard talked about how the District networks with other utilities, state agencies, and in some cases federal agencies or other states. Water utilities are responsible for providing a constant source of water that meets or exceeds standards. As time goes on, odds increase that some event or issue will stop the District from fulfilling its responsibility. Natural disasters, human-caused disasters, security issues, system failures, and equipment failures are beyond a utility's control but will happen and there is no way one entity can prevent or prepare for everything. The best thing a utility can do is identify potential issues and provide physical asset and cyber security. In a major event, a utility will need outside resources to start the recovery process. The District does respond to emergencies throughout the year, including frozen equipment, main breaks, system failures, and damaged equipment. Staff or contractors can address those types of needs as they arise but as emergencies get larger in scale, it is necessary to reach out to other resources to start the recovery process.

From 1989-1991 the San Francisco Bay Area experienced three significant events that overwhelmed their water and wastewater utilities; an earthquake, a freeze which killed a lot of vegetation, and a firestorm. Lessons were learned during that time about the difficulties utilities face in receiving government aid and the logistical challenges of obtaining the specialized resources utility operators need during emergencies. They determined that other utilities can respond with the necessary resources and mobilize faster than seeking traditional government declarations and the first Water/Wastewater Agency Response Network (WARN) network was formed in California. The California WARN program was successful and the other states followed with their own WARN programs. The AZ Water Utility Council helped get the AzWARN program started, with the City of Phoenix, the City of Tempe, and Metro Water District as its first signatories. Mr. Shepard serves as Chair of the program. AzWARN now has 22 members and the Department of Homeland Security has recognized it as a model for the water sector. The benefits and resources available to the network are numerous. Membership has allowed the District to become familiar with contacts at the Arizona Division of Emergency Management, Pima County Emergency Management, as well as the Environmental Protection Agency (EPA). All states

belong to the Emergency Management Assistance Compact (EMAC) which allows the broadcast of a bulletin of what is needed in a statewide Governor-declared emergency. The EPA created a “WARN Bridge” or diagram of emergencies, which starts locally and spreads from there. While the various government steps are occurring, the WARN network is in motion, communicating and responding to immediate needs.

Mr. Hofmann asked what it takes to become a WARN state. Mr. Shepard said three signatories must enter a mutual aid agreement to become official. The AzWARN mutual aid agreement was established and is still growing.

Mr. Harbers asked if cooperation is restricted state by state. Mr. Shepard said cooperation is national and between states. With various state procurement laws, utilities cannot exchange resources directly with each other across states, the WARN agreement and EMAC system facilitates the exchange of resources. The District can work directly with another utility in-state.

Mr. Olsen noted other cooperative efforts to enhance water resource security include wheeling agreements, which provide an alternate source of water to meet customer demands not just by moving water from one point to another. Other collaborative partnerships include Inter-Active Management Area (Inter-AMA) Firming. The District has partnered with the Cities of Tucson and Phoenix to firm water supplies so that in the event a shortage is declared on the Colorado River, City of Phoenix, which has surface water treatment, is able to have a more stable supply of water and the benefit to the Tucson region is investment into our recharge facilities. There are many collaborative benefits that add security to water resources and enhance the ability to meet demands. The shortage declaration on the Colorado River is coming, although it is uncertain what year it will take place. When the first or even the third shortage declaration occurs, the District’s water supply is not affected. The District is, however, impacted financially by shortage declarations because when CAP’s deliveries go down, they will have to still cover their fixed costs, just as the District must do. The unit cost would increase substantially in the event of a shortage declaration. Those discussions will continue into future financial cycles.

## **VI. Future Meeting Dates and Agenda Items**

Mr. Olsen said the next meeting is scheduled for Monday, January 25, 2016 at 4:00 pm for the mid-year budget review.

## **VII. Call to the Public**

There were no comments by the public.

## **VIII. Adjournment**

The meeting adjourned at 5:19 pm.

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Reb Guillot, Chair  
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