



December 31, 2015

Mr. Jeff Tannler
Active Management Area Director
Arizona Department of Water Resources
3550 N. Central Avenue, 2nd Floor
Phoenix, Arizona 85012-2105

Re: Comments on Draft Fourth Management Plan for Tucson Active Management Area

Dear Jeff:

Metropolitan Domestic Water Improvement District (MDWID) appreciates the opportunity to comment on the above-mentioned draft plan from the Arizona Department of Water Resources (ADWR). MDWID is pleased to see a draft Fourth Management Plan issued and appreciates the monumental effort by ADWR staff to generate the report with limited staff. The report is well written and comprehensive.

MDWID supports many of the report's conclusions found in the municipal, water quality, and augmentation & recharge chapters. MDWID's primary comment is a question and suggestion regarding the Fourth Management Plan's characterization of municipal demand. The Plan notes that municipal demand has increased. Specifically, Table 5-1 shows municipal demand to in the TAMA to increase from 112,655 acre-feet in 1985 to 161,916 acre-feet in 2013. This large increase differs from MDWID's experience and that of other large municipal providers in TAMA who are seeing their current demands to be the same as their demands from 20 to 25 years ago. It is recognized that reclaimed water is included in the table; however, the increase denoted still seems quite high. If the calculation is correct, MDWID suggests that the discussion in the text also highlight the potable water demand decrease being seen by large water providers. This is an important component to the TAMA being in safe-yield in recent years and staying in safe-yield in the future.

We have some additional minor edits and suggestions for ADWR's consideration.

Chapter 1 – Introduction

Page 1-5, Renewable Supplies paragraph, the second paragraph should note that implemented and pending recharge and recovery projects that bank CAP water for future shortages will be effective tools for long- or short-term drought conditions.

Page 1-5, last bullet, conservation should also be included as assisting municipalities reach safe-yield.

Chapter 2 – Hydrology

Page 2-37, Metro Water is now the holder of USF Right Number 71-564896. The USF Name is Avra Valley Recharge Project.

Chapter 3 – Water Demands and Supply

Page 3-6, second paragraph, fifth sentence, please add the assumed growth rate in percent. MDWID calculated 4 percent.

Page 3-11, fifth paragraph, add a discussion on the economic conditions within the golf industry, which could cause a future decline in water usage.

Page 3-13, second paragraph, seventh sentence, please check with Pima County on renewal of reclaimed water contract. In September 2011, MDWID executed a reclaimed water contract with Cortaro-Marana Irrigation District (CMID). Last sentence, add Bureau of Reclamation.

Chapter 5 – Municipal

Page 5-4, second paragraph, this section should note that municipal demand over the coming years could also decrease as evidenced by annual reports from water providers and by a municipal use study by Montgomery & Associates (2014).

Table 5-2, change name for provider numbers 56-000068.0001 and 56-000380.0000 to Metropolitan DWID – E&T System and Metropolitan DWID – West System, respectively

Chapter 7 – Water Quality

Page 7-9, under Section 7.4.4.1, add a table listing the seven entities and maximum permitted volume for each of eight poor quality withdrawal permits along with the combined total.

Page 7-16, under Section 7.5.2.2, second paragraph, replace “parameters” with “standards” for consistency with the last sentence in the third paragraph. In the third paragraph, insert “various classes of” before “wastewater” and delete “options.”

Chapter 8 – Augmentation & Recharge

Table 8-4 does not have reclaimed listed as another source water permitted at the CMID GSF.

Section 8.4.2 on Page 8-11 should have additional bullet noting the improvements to the two regional wastewater reclamation plants have doubled in-channel recharge rates.

Page 8-12, does not list the other water providers (MDWID, Town of Oro Valley, Town of Marana, Flowing Wells Irrigation District, and Spanish Trail Water Company) that have a reclaimed water IGA with City of Tucson. Add a paragraph on the CMID Effluent GSF. See

regarding Page 3-13. Third paragraph, last sentence, add that the cost per acre-foot was costly.

Page 8-19, delete reference to Canada del Oro in second paragraph. In April 2014, MDWID's Board of Directors direct MDWID staff to plan, design and construct an annual recharge and recovery project called CAP Recharge, Recovery and Delivery System for Metropolitan DWID Main System. MDWID purchased the Avra Valley Recharge Project from CAWCD in December 2010. A pipeline routing study was completed in early 2014. In 2015, property acquisition for the pipeline and recovery wells were undertaken. Design begins in 2016 with construction planned for 2019.

Page 8-21, first paragraph, last sentence, same comment as above.

Chapter 11 – Projected Budget

Page 11-11, second paragraph references industrial sector demand increasing in part because of future growth of the golf industry. This statement is not supported by the following page's reference to Pima County's prohibition on new golf courses using groundwater. In addition, market projections show a decline for the golf industry. Therefore, the sentence on Page 11-11 could be revised to reflect a less likely increase in this portion of the industrial sector.

Page 11-12, paragraph continued from Page 11-11, last sentence. Recent public opinion indicates a trend of more acceptance to the use of direct potable reuse. The sentence could be rephrased to read "Continual increase in public acceptance will be critical to this strategy."

Page 11-12, section 11.6, second paragraph, second sentence. Conservation efforts could be added to the variety of factors.

Chapter 12 – Water Management Strategy

Page 12-2, Industrial Sector. The Department should consider referencing the possibility of an Industrial GSF as a way for renewable supplies to be used. This is implied as a possibility in the second sentence on Page 12-9 under section 12.3.2.

Page 12-4, Table 12-1. The designation volume for Metro-Main was changed this year to 8,975 acre-feet.

Page 12-5, Section 12.2.2, second paragraph. We are supportive of ADWR acknowledging that further discussion is needed on how the Tucson AMA can best benefit from reclaimed water stored in a managed underground storage facility.

Page 12-7, first paragraph. While it is true that water quality issues related to the direct delivery of CAP water in the early 1990s changed public acceptance for direct delivery, it should be noted in this section or elsewhere under Chapter 12 that there is public acceptance in the TAMA for the use of CAP water through annual storage and recovery. Storage and recovery of CAP water has also benefited the TAMA as a way to be drought resistant by storing excess supplies for future

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storage.

Please call Michael Block at (520) 575-8100, if you have questions on these comments or need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Joseph Olsen", with a long horizontal flourish extending to the right.

Joseph Olsen, P.E.
General Manager

JO/MWB/mwb

c: Warren Tenney
Michael Block