

PLAN EDITS AND PUBLIC COMMENTS LOG

Draft One Water 2100 Plan

Section or Page Number	Edits and Comments	Date	Response Codes (1 = Incorporated, 2 = Personal response, 3 = Not Applicable, 4 = Forwarded to another organization)
p. 19	Double check list of appendices and remove the periods at the end of each TM. I'm not sure if we need to list all of them on this page but we should double check that the letters for smart metering, the stakeholder list, and the statistically significant survey are correct throughout the draft plan.	9/12/2023	1
	Include references to infill as a way to keep GPCD low and maximize the benefits of existing infrastructure	9/12/2023	1
Ch. 4	Please double check that the latest versions of the scenerio projections are in the final draft	9/12/2023	1
2.1.2, page 2-2	Replace the term growth with the term innovation in guiding principle 3	1-Jun-23	1
	Table 6.5 should be incentive implementation actions	5-Jun-23	1
	Remove references to upcoming dates that have passed	30-May-23	1
	Concern about water quality as water deeper in the aquifer gets pumped out	30-May-23	1
	Local rivers and riparian areas are in a guiding principle but not thoroughly addressed in the strategies	7-Jun-23	1
	Concern about higher salts in treated effluent	7-Jun-23	1
	Highlight low impact development and the other new M&C ordinances	7-Jun-23	1
Executive summary?	Make the point that we are trying to use each drop of water more than once. This means using less potable (and potentially reclaimed) on landscaping. That water can be increasingly offset by harvested rain and stormwater.	7-Jun-23	1
5.8	Make sure a the main line replacement program gets	8-	1

	mentioned	Jun-23	
4.12	Water use projections for the scenarios don't match the original water use projections in appendix J	7-Jun-23	1
Page 1-6	Use the most current water service area map that has "major parks" in the legend	7-Jun-23	1
Pages 1-5 and 1-6	Please state that new services must comply with the water service area policy and list the wheeling agreements.	7-Jun-23	1
Page 3-7 figure 3.8	Please mention that some aquifer levels are still declining because those areas depend on a mix of renewable Colorado River water and groundwater.	7-Jun-23	1
Page 3-6	Please mention that we are in the Tucson Active Management Area on p. 3-6 and tie that into the Active Management Area description on p. 3-8. Please introduce the topic of safe yield here.	7-Jun-23	1
Page 4-2	Please correct the labels for potable and residential GPCD throughout the plan	7-Jun-23	1
Page 5-13	Please add "For example, Mayor and Council have directed City staff to research a Net Zero Water policy, or water offsets for new development, similar to polices currently enacted in other regions."	22-Jun-23	1
Chapter 4	The color of the LTSCs in the legend is difficult to differentiate from the dark blue groundwater. Could we make the hatched area look more like alternating lines of CAP (light blue) and recycled water (purple)? These colors should also match the style guide. The orange and yellow are also hard to differentiate. Advise from your graphic design team would be helpful with these charts.	22-Jun-23	1
Chapter 4, page 67	Add tiered commercial rates to the policy responses and more detail about what nonfunctional turf means. I forwarded an email from Silvia with the Mayor and Council memo that describes commercial tiered rates.	5-Jul-23	1
Chapters 5 & 6?	Add a statement about Tucson Water being a partner in the Santa Cruz Watershed Collaborative to further these recommendations in collaboration with other water related organizations to support GW-1 and all the strategies for Guiding Principle 3	20-Jul-23	1
Chapter 5 & 6?	Site the number of city solar installations and how many are on water properties to show how serious we are about the energy water nexus	20-Jul-23	1
Footnote on p. 2-2	Define equity	21-Jul-23	1

5 - 8, 5 - 9	Replace the term advertising with community outreach for the S-3 and I-1 examples	21-Jul-23	1
53, 54, and 56	Colors in the water supply and demand projections - our comments about this from the previous draft were not incorporated into this draft	25-Jul-23	1
59	Please use a different font in the sticky notes graphic	25-Jul-23	1
p. 76 and all of Chapter 6	Proper labels for the strategy and action tables	25-Jul-23	1
p.4	There is too much white space on this page	25-Jul-23	1
p. 14 & 46	Update the historic graph to 2022	25-Jul-22	1
Acknowledgements	Please add staff titles and new logos. We need to add a page for all the organizations that participated in the stakeholder workshops and submitted comments. There is another comment in row 39 that relates to this. SAHBA, Metro Chamber, WMG, SCWC, and the Tortolita Alliance submitted comments and should be listed in the acknowledgements.	25-Jul-22	1
Page footers and several places throughout the document	Please remove the word "Tucson" from references the One Water 2100 Plan. It is just called the One Water 2100 Plan.	25-Jul-22	1
p. 14 and several other places throughout the document	The call out on this page should state "Demand Management - Incentive, Monitoring and Mandates, and Education Strategies"	25-Jul-22	1
p. 22	Please add the City's Parks & Recreation department. Storm 2 Shade has sites in City parks and is planning more.	25-Jul-22	1
p. 19	Please don't bold the text every time One Water is used in the body of the text. I can see why you did that when the One Water approach was described but that should be the only section we do that in. It definitely should not be used in the plan's full title or appendices.	25-Jul-22	1

p 35	Please re-title the section as stakeholder workshops. We held a conservation workshop in 2019, the scenario planning workshops in 2020 and 2021 and the strategy workshops in 2022. All those organizations need to be listed in the acknowledgements.	25-Jul-22	1
p 37	Please update the number of website visits (13K)	25-Jul-22	1
p 12	This is a map of the Tucson Water service area. There are no potential service areas.	25-Jul-22	1
p 46, 49 (p. 31 of the	At the end of the CAGR summary please state that this water is included in the groundwater resource represented in the scenario projections on p. 53 (that page number is on the draft and not in the Adobe page numbers). We need to relabel firming as Arizona Water Bank in the scenario projections. Please don't note any volumes for either of these two water resources. Please rewrite the last two sentences of the Arizona Water Banking Authority as "Based on our population, we anticipate that the majority of water stored in the Tucson AMA water bank will be available to us if needed."	25-Jul-22	1
p 69	Make a clear distinction between the scenario projections in the plan and the water use projections in the appendix. We could call them scenario projections as opposed to water use projections?	25-Jul-22	1
p 56	Maybe this is the best page to state that the water use projections in the appendix are for hydraulic modeling purposes?	25-Jul-22	1
p 61	The text and graphic should be aligned. The text has too much margin on the right side again.	25-Jul-22	1
p 62	The GPCD chart needs labels for the 2022 numbers at the ends of the lines	25-Jul-22	1
p 68	Change the title of the section to scenario projections	25-Jul-22	1
p 69	Change the title on this page to Future water supplies and demands	25-Jul-22	1
p 70	Change the title on this page to Comparing Scenario Projections	25-Jul-22	1
p 73	Unused CAP / future LTSCs in the bar graphs	25-Jul-22	1

p 83	The example for RW-2 isn't right	25-Jul-22	1
p 85	The titles for the demand management strategies should include the term "Demand Management"	25-Jul-22	1
Starting on p 89	Should we use a darker green color for Tucson Resilient Together strategies? The green you are using looks like the green we use for stormwater	25-Jul-22	1
P. 92	"Supply" in the title of this section, not supplies? The plural version doesn't seem grammatically correct. You word it this way on p. 93	25-Jul-22	1
p. 96	Remove "Why One Water?" title. This text wasn't titled in the previous draft and it doesn't need a title in this draft. The introductory paragraphs for other chapters may not need new titles either.	25-Jul-22	1
p. 101	Monitoring and mandates	25-Jul-22	1
p 105	The last two bullet points are repetitive. Smart meters provided targeted leak notifications. They are just one example of innovative demand management technologies.	25-Jul-22	1
p 112	Please use the City & Tucson Water logo from the brand guide	25-Jul-22	1
p. 6 & 7	Is there a way to add the sections back to the table of contents? I really like having bookmarks in the pdf that link the table of contents to specific pages.	25-Jul-22	1
p. 27	Spell out the One Water 2100 Plan on this page because Plan Tucson and "The Plan" could be confused	25-Jul-22	1
p. 32	Please take uncertainties out of the list of drivers because it is repetitive. I would prefer that you use table 3-1 p. 24 in the scenario planning tech memo but we need to change the uncertainties cell for economic variability. When we discussed that in the workshop we talked about rapid changes in the economy like the housing bubble and crash as well as the initial slump in the beginning of the pandemic. Please remove the term business connections. You can keep the aging workforce. You can also add that people entering the workforce and higher education are not choosing the trade professions.	25-Jul-22	1
p.5	Add the scenario projections to the executive summary. Rename "supply and demand comparison" title to "Tucson's Water Future"	25-Jul-22	1

p. 383 of the appendix	Please fix the error statement on this page of the tech memo. I don't remember that being in the final version of this tech memo.	25-Jul-22	1
p. 32	" <i>understand critical drivers of risk and uncertainties</i> "	25-Jul-22	1
p. 37	Add a short section that summaries the public comment period. Over 80 people and organizations submitted comments.	25-Jul-22	1
p. 66	Non-revenue water losses vary from 6-9% on an annual basis	25-Jul-22	1
	TARP to reclaimed language update	25-Jul-22	1
p. 47	remove "new programs targeting commercial customers" sentence.	25-Jul-22	1
p. 61	Add a statement about how three factors have been a key to "decoupling"; improvements to the building code have made new buildings more water efficient, our water conservation program, and our community's strong conservation ethic.	25-Jul-22	1
p. 46	Please update the TARP statement - it is currently being sent into the reclaimed system. It is only being discharged intermittently.	25-Jul-22	1
p. 81	Add a footnote that states that there is no large scale agriculture in our service area and we don't have any mining customers. Both SAHBA and Metro Chamber have asked us to make an important distinction about new development. We made the point about decoupling on p 61, so new development is typically more water efficient. Can we make a footnote here about how the projections about new development assume the water efficiency trend will continue?	25-Jul-22	1
p. 15	Reference the metrics table in the "Key metrics" sentence	25-Jul-22	1
Chapter 1	Water management or About Tucson Water - include an ancestral lands statement	25-Jul-22	1
p. 20	Move geographic settings title to this page. It seems out of place as a subtitle on p. 20	25-Jul-22	1
p. 57	Add indirect and direct potable reuse as a future opportunity	25-Jul-22	1
p. 65	Add smart metering tech memo to the appendices and	25-Jul-22	1

	refer to it as needed throughout the plan	Jul-22	
p. 85	Note that the residential base rate will always be developed with affordability in mind.	25-Jul-22	1
P. 11	ADWR and ADEQ are reversed	31-Jul-23	1
p. 37	Remove ecosystem restoration title and sweetwater wetlands vs. the whole site (60 acres)	31-Jul-23	1
p. 40	Don't interchange CAP and recovered Colorado river water	31-Jul-23	1
P. 6	Please change the first sentence of the reporting section to "An annual progress report will be shared with the public to provide a progress update on the implementation of the Plan recommendations"	31-Jul-23	1
p. 9	Is Mesa a larger City? Might want to say second largest metropolitan area in AZ	31-Jul-23	1
p. 9	Please change the second sentence on the right side to "The National Climate Assessment attributes the increasing temperatures to both climate change and the urban heat island effect (when temperatures increase because of solar energy being absorbed by pavement and other building materials)."	31-Jul-23	1
p. 25	Typo with "create known" in the Tucson's One Water Cycle section. I would suggest taking groundwater savings facility statement out of that section entirely. I think it is too much detail for the short overview at the beginning of the chapter. Please use this sentence to the AWBA section on p. 31 to replace the second sentence "The AWBA stores Colorado River water, delivered directly through the CAP, in groundwater savings facilities. This is an indirect recharge facility that uses surface water instead of pumped groundwater."	31-Jul-23	1
p. 27	Please make this change in the first paragraph "Of that, Tucson Water has the single largest municipal allocation of CAP water at just over 10 percent with 144,000 acre-feet per year (AFY)."	31-Jul-23	1
p. 28	In the graphic, the Pima Mine Road Recharge Project should be located next to the CAP because they are connected.	31-Jul-23	1
p. 37	Change subtitle to "Sweetwater Wetlands and Recharge Facilities"	31-Jul-23	1

p. 40	Please change the first part of the last paragraph on the left side of the page to "Stormwater could further offset the use of potable water and reduce flooding in larger GSI projects. Tucson Water has been working closely with the Pima County Regional Flood Control District to take on the maintenance of larger GSI projects that the District designs and builds within the City limits".	31-Jul-23	1
p. 41	Please change the second sentence on the right side to "Another step in expanding the use of stormwater may be the created of a comprehensive stormwater utility..."	31-Jul-23	1
p. 42	You may have already changed this but I wouldn't use "CAP supplies". End the second sentence after "distributed sources". Change the end of the third sentence to "...help offset the use of potable water." Change the fourth sentence to "The scenario planning process also created recommendations to protect the existing allocation of Colorado River water by actively participating in regulatory discussions while continuing to maximize water savings by reducing demand"	31-Jul-23	1
P. 50	The future water demand vulnerabilities call out needs to be rewritten. Please remove "potential for TW to acquire other service areas" and the final phrase in that statement about the incentives. Providing better conservation programs for the commercial customers should be an opportunity not a vulnerability? Only population increases and land use changes that buck the current trend of decoupling would lead to an increase in water demand.	31-Jul-23	1
p. 56	LSTC typo in the graphs	31-Jul-23	1
p. 59	Monitory typo on the sticky note	31-Jul-23	1
p. 62	Add the term recovered to the example for GW-4	31-Jul-23	1
p. 65	S-4 example; please change to "Example: Expand the City's existing stormwater fee to fund more green stormwater infrastructure projects"	31-Jul-23	1
p. 72	Remove the phrase "from adverse impacts of the City's drought responses"	31-Jul-23	1
P. 82	The description of annual groundwater savings should just be LTSCs, CAGR, and AWBA volumes. Reflect this wording on p. 84 in the Quantitative Triggers	31-Jul-23	1
p. 14	Add City of Tucson Planning and Development Services Department	8/14/2023	1

Acknowledgements	Please make sure PAG is on the list of acknowledgements	8/14/2023	1
p. 23	Replace "The supply assumptions in this Plan all test Tucson Water's resilience against long-term shortage conditions for the City's Colorado River water allocation." with "The City of Tucson has a representative on the Reconsultation Committee. The City will work with other members the committee to develop a unified approach to the State of Arizona's negotiations with other users of Colorado River water and the Bureau of Reclamation."	8/15/2023	1
	This was an issue I brought up during the stakeholder meetings at the very beginning of this process, as well: The Thirsty Desert scenario pictured in Figure 4.16 on page 4-16 is not the worst case scenario. The worst case scenario would be dead pool in Lake Mead when the CAP allocation would be ZERO, not 70,000 AFY.	7/21/2023 22:02	2
	Action I-2C in Table 6.5 on page 6-7 is confusing. It seems to say that customers with high levels of water use and significant discretionary or outdoor water use would be incentivized. Surely that's not the case?	7/22/2023 22:02	2
	Strategy E-2 on page 6-8 should really be a high priority. It's a relatively simple and inexpensive strategy with significant potential for reducing demand.	7/23/2023 22:02	2
	Shouldn't the quantitative trigger in Table 6.10 on page 6-11 be "annual allocation of Colorado River water being LESS than potable demand."	7/24/2023 22:02	2
Paragraph 3.4.1, Page 3-12	As a Tucson native, I am pleased to see that Tucson Water is taking a wholistic look and approach to what is sure to become one of the most important societal issues of our lifetimes. After reviewing the One Water plan, I'd like to submit the following comments. Paragraph 3.4.1, Page 3-12 "...minimal opportunities for additional irrigation customers" Has the city considered moving beyond direct irrigation as the only end use for reclaimed water?	7/21/2023 21:07	2
	Businesses such as car washes or landscaping/nurseries come to mind as a possible use for reclaimed water. Or work to use reclaimed water specifically to preserve and restore other shallow groundwater areas within the Tucson area (Tanque Verde, Sabino, Rillito Creeks).	7/21/2023 21:07	2
Paragraph 5.3.1 - Surface Water, Page 5-4.	Surface water of concern is not just water in the Colorado River to be used as a potable water resource for residents. Within the Tucson area, there are several areas of perennial flow. Their presence is an expression of a healthy groundwater table. Protection and restoration of these riparian areas should be a priority for the Tucson community.		2

	Additionally, there is no mention of the cost of importing Colorado River water to Tucson, ecologically and through the power required to pump the water hundreds of miles. The City of Tucson should be focusing on radically reducing demand from the Colorado River, not just assuming that we'll be able to legally siphon our allocation perpetually.	7/21/ 2023 21:07	2
Paragraphs 6.1.1 and 6.1.2 - pages 6-3 - 6-8	Missing from the implementation and scenario planning are specific goals, related to each strategy and action. While cost and effort are useful metrics, the actual expected benefit to either demand reduction or supply increase is not indicated.	7/21/ 2023 21:07	2
	One final comment, though listed as a participant of the Santa Cruz Watershed Collaborative, there was little mention of how many of the City of Tucson's initiatives intersect with the Tucson Water's plans. Continued support of the strategies in the "Watershed Restoration Plan" need to be explicitly noted in the OneWater 2100 Plan.	7/21/ 2023 21:07	1
	I recently moved to Tucson with my three teens for better opportunities, and I have spent a lot of time hiking and exploring local cienegas and riparian areas over the last year, so I care deeply about this water plan. Without sustainable practices, a water plan is not complete, and our future generations will not have what they need. A plan also needs to have specific and detailed information on how goals will be achieved. I am so appreciative of the people who worked so hard on this drastically important plan, and I would like to offer a few additional suggestions for making it more holistic such as the Los Angeles water plan.	7/21/ 2023 1:43	2
	Page 53 does not include a plan to restore riparian areas. It is crucial to include restoration of riparian areas, shade canopies, storm water recharge, recycled water, water catchment, water use and water harvesting education for the community, and to source water in other ways besides the Colorado river. Water is life, and the natural sources of water that have been depleted or nearly depleted should be a priority in this plan.	7/21/ 2023 1:43	2
	There is a saying that one can feed a man one meal or one can teach a man to fish. We need to learn to restore and grow water, to use less water through education, to work together to protect our water, and to use water in a sustainable way. We can't afford to assume we will have water if we do not take care of the very sources of it.	7/21/ 2023 1:43	2

	<p>Thank you for considering public comments on this critical water plan. I feel excited to join the beautiful community of Tucson. Together, we can create a sustainable water plan and preserve water for future generations. What better gift can we share? Let's make our plan sustainable for the people of Tucson, and for all ecosystems and life in our beautiful area.</p>	<p>7/21/ 2023 1:43</p>	<p>2</p>
	<p>Provided current subscribers of Tucson Water prioritise and conserve their annual water usage, will that water quantity be utilized for their future use, or will demand by new subscriber population allowances absorb previously conserved water. In short, is new growth to be benefited from previous conservation?</p>	<p>7/20/ 2023 18:46</p>	<p>2</p>
	<p>Encourage the State Dept. of Water Resources to expedite the research required to educate and outline what is actually available in real time.</p>	<p>7/20/ 2023 18:46</p>	<p>2</p>
	<p>Incentivize and monitor current apartment complexes and rental landlords to repair leaks, eliminate turf, replace fixtures for water conserving and add grey water usage to their complexes.</p>	<p>7/20/ 2023 18:46</p>	<p>2</p>
	<p>Incentivize residents to cover or re-purpose swimming pools for water harvesting underground cisterns.</p>	<p>7/20/ 2023 18:46</p>	<p>2</p>
	<p>Currently a large number of new car wash businesses are being allowed through planning and zoning regulations. Reduce these and incentivize those currently existing to utilize rainwater harvested from their roof tops and through filtering using their drain water.</p>	<p>7/20/ 2023 18:46</p>	<p>2</p>
	<p>The Tucson One Water 2100 Plan is a commendable step forward, but should be improved during this review process. I will limit my comments to one issue. The plan has a very brief discussion of Tucson Water's Non-Revenue Water Management Program (p. 4-8), but I am puzzled by why that is not a prominent part of this plan. This deals with system losses of potable water. That's water which has already been received, treated, and moved into pipelines for delivery to customers, but which leaks out of the pipes in transit. As of 2020, Lost and Unaccounted for Water comprised 8.22% of total production, meaning about 10,000 acre-feet were lost in a single year. That was real water, already acquired and almost delivered. The volume is significant on the scale of annual supply and demand components for our system. I understand that Tucson Water has been working to reduce that number, and that this is relatively good performance for a US water utility. But we live in a desert, with uncertain supplies and a hotter future. Tucson should strive to set an example for careful</p>	<p>7/20/ 2023 18:28</p>	<p>2</p>

	management of water. Reducing lost water should be explicitly called out in a Strategy or Action, and included as part of the metrics for progress.		
Under section 53.2 and 6.1 "Groundwater Strategies"	I hope the plan will include a robust effort to protect and restore riparian areas to allow for recharge and to save these threatened areas and the wildlife corridors they support. Development like the recently passed Quail Ridge in Pima Wash is short sighted. This plan needs to be responsive to climate and the long term. Think local!	7/20/2023 15:19	2
	Pertaining to chapters 5 & 6: There is not enough recognition of the potential for utilizing existing surface water flows from within the Tucson area from rain and snow melt. Much emphasis has been placed on flash flood mitigation while ignoring how useful harvested storm waters would be. It's not wise to think that there will always be CAP water available to Tucson. The plan needs to include specific actions to harvest and retain the rain and snow melt that is available at our feet. There is not enough emphasis on this in the current plan. The plan relies too heavily on the use of CAP water.	7/17/2023 17:10	2
	i appreciate the detailed information in this plan - there is so much information to digest. i believe it is very important to provide financial assistance to lower income community members to secure rain harvesting (passive and active) systems in order to increase their awareness of the importance of water conservation, harvesting and storage.	7/17/2023 1:56	2
	one area that is of importance to me is the removal of invasive species such as buffelgrass and arundo which not only deprives natives plants of their water requirements but also increases the potential for wildfires, using our previous water resources.	7/17/2023 1:56	2
	I emailed comments directly to John Kmiec at john.kmiec@tucsonaz.gov. We worked together on a previous Tucson Water project. Please acknowledge that I have the correct email address. Thanks	7/16/2023 23:17	2
	In the One Water Plan for Tucson, I'm thrilled to see on pg. 19 that this plan marks a shift towards a more integrated and collaborative approach to water management. What's missing here, in my opinion, are	7/16/2023 20:18	2

	specific details on what such collaboration might look like. For instance, Tucson Water is already a part of the Santa Cruz Watershed Collaborative		
	Congratulations and thanks for this comprehensive document. It is impressive in both its depth and breadth. The level of community engagement is most impressive. And it is re-assuring to learn that Tucson Water has done so much to ensure Tucson's water future. I learned that we're in good hands.	7/15/ 2023 19:46	2
	The document seems disinclined to learn from other cities. We don't need to re-invent proven strategies. Learn from that other city (Las Vegas) that is also solely dependent on Colorado River water.		2
	Not enough focus on developing potable water-re-use.	7/15/ 2023 19:46	2
	Not enough consideration of the likely price of future water and how price will affect demand.	7/15/ 2023 19:46	2
	The apparent lack of interest in active engagement on post-2026 Colorado River guidelines Don't leave everything up to ADWR.	7/15/ 2023 19:46	2
	Page ES-1 managing Tucson's water supply under changing and uncertain conditions Comment: We can be confident that the change will be toward less available water, though we are uncertain about just how much less. "changing and uncertain conditions" is not just uninformative, it is misleading. Be frank about the situation.		2
	Page 1-2 that encourages innovation and supports alternative and decentralized approaches to integrated water management. Comment: Why is "decentralized" important? Why not write "diverse"?	7/15/ 2023 19:46	2
	Comment: There is nothing here so far about any new knowledge needed that might facilitate progress toward the goals. What about research needed?		2
	Page 1-7 stored available excess CAP water for the future. Colorado River water stored underground in the Avra Valley has become a "savings account," a backup supply to draw on in drier years □Comment: How much of the water stored underground can be recovered? Is there any loss from such storage? Whenever I ask a groundwater hydrologist this question, the answer is "It depends". OK, so what does Tucson Water answer?	7/15/ 2023 19:46	2
	Page 2-8 to a more diverse mix of water supplies in the early 2000s □Comment: Yes, it is more diverse (2 is more diverse than 1) and that's good. However, if the	7/15/ 2023 19:46	2

	proportions shown here for 2022 were like those in a stock portfolio, no fund manager would call them "diverse". We depend on Colorado River water. Period. Some delivered directly, some recycled.		
	Page 1-10 The Drought Preparedness and Response Plan may need to be updated if the Drought Contingency Plan is no longer the operational guidance for shortage sharing on the Colorado River. Comment: Indeed, the DCP is no longer the operational guidance. Conditions are changing faster than policy.	7/15/ 2023 19:46	2
	Page 2-8 Tucson Water customers have among the lowest water consumption rates in the Desert Southwest. Comment: Can this be documented in a table somewhere in this report. Or can a citation be provided? If we knew what cities did better, we could learn from them.	7/15/ 2023 19:46	2
	Page 3-1 This blended water is then recovered using wells and delivered to homes and businesses. Comment: What % of the water recharged is recovered? Same question posed earlier.	7/15/ 2023 19:46	2
	Page 3-3: long term reductions in the available Colorado River supplies are considered likely. These will almost certainly extend beyond the currently defined shortage levels in the DCP. These reductions are likely to significantly impact all Colorado River water users. Comment: Boldface? Good to dissuade readers from thinking that the "drought" will be over or even that there will be a new, lower "normal". CO river supplies will continue to decrease toward 2100.	7/15/ 2023 19:46	2
	Page 3-3 The future management of the river is being addressed through the federal reconsultation process. More information about the work of the Arizona Reconsultation Committee can be found on ADWR's website. Comment: Tucson Water should be engaged in these conversations. Tucson Water should not simply be a passive recipient of decisions made elsewhere in the state or the Basin. Tucson Water can and should be part of an overall solution. In the past, the Basin negotiators got us into the trouble we are in " the issue is not climate change alone, it is willful over-allocation. Why should we expect them to do better for the future? Engage!	7/15/ 2023 19:46	2
	Page 3-3, 3-4 Brock Reservoir, which improves water supply reliability by reducing excess flows to Mexico, as well as desalination and brackish groundwater projects like the Yuma Desalting Plant, and the proposed binational desalination project with Mexico.. Comment: This sentence refers to a mix of realized projects (Brock	7/15/ 2023 19:46	2

	Reservoir) to now out-dated white elephants built and not operated (Yuma plant) to dreams of "a" or "the" (which one?) de-sal plant in Mexico.		
	Page 3-4 . These are known as long term storage credits (LTSCs) Comment: This sounds like paper water to me. Is it?	7/15/2023 19:46	2
	Page 3-12 Future uses of the Reclaimed Water System are captured as offsetting potable water supplies and therefore reducing the potable per capita water use. Comment: Any estimates of how much of an offset of potable water supplies is possible?	7/15/2023 19:46	2
	Page 3-13: A portion of the City's wastewater entitlement is discharged to Santa Cruz River where much of this resource leaves the basin without earning LTSCs. Comment: Good. Important to keep setting aside some water for riparian restoration.	7/15/2023 19:46	2
	Page 3-14 Santa Cruz River Heritage Project Comment: Good!	7/15/2023 19:46	2
	Page 3-16. SHARP is open to the public and provides green space for walking, running, and biking. This facility also provides educational opportunities for students through a partnership with APA. Comment: Looks bleak and uninviting. Any efforts to plant vegetation?	7/15/2023 19:46	2
	Page 3-17 Direct and Indirect Potable Reuse Comment: Vital for the future! Tucson should follow the lead of efforts in Carlsbad, CA and Scottsdale, Az. Needs lots of \$ and time to implement.	7/15/2023 19:46	2
	Page 3-17 Rain and stormwater harvesting Comment: Any estimates of how much water is harvested?	7/15/2023 19:46	2
	Page 3-19: The absence of a unified approach to GSI contributes to the difficulty in quantifying the saving and benefits derived from these types of projects. Comment: How can this be addressed?	7/15/2023 19:46	2
	Page 3-19 . As stormwater is difficult to quantify, the expansion of stormwater resources is included in the supply assumptions in the Plan as an approach to reducing the long-term per capita water by offsetting potable water supplies for irrigation. Comment: Meaning unclear. How does this avoid the difficulty in quantification?	7/15/2023 19:46	2
	Page 3-21: Figure caption 3-24 Comment: what do the numbers on this figure refer to?	7/15/2023 19:46	2
	Page 4-3 . Tucson has among the lowest per capita water use of the cities in the southwestern U.S.	7/15/2023	2

	Comment: Can this be demonstrated/shown with a table? It might be useful to see the cities that use even less.	19:46	
	Page 4-4 use while seasonal demands correspond to outdoor or other temperature driven water demands. Comment: Interesting that seasonal use as a % is less than in other municipal areas (e.g. Phoenix area) where outdoor use can approach 50%. That said, some non-seasonal use is outdoor use, is it not?	7/15/ 2023 19:46	2
	Page 4-8 Advanced Metering Infrastructure. Comment: Excellent and essential. Please implement or start by making such meters available on a voluntary basis.	7/15/ 2023 19:46	2
	Page 4-8 Non-revenue or unaccounted-for-water (aka water loss) is the difference between potable water production □Comment: What % water is lost through such leaks?	7/15/ 2023 19:46	2
	Page 4-10 , population increases and land use changes □Comment: There is a link to housing and housing development here. Multi-family housing will result in lower per capita use.	7/15/ 2023 19:46	2
	Page 4-10 and economic factors such as the incentive programs targeting commercial customers □Comment: Do you mean economic incentives to attract water-using commerce?	7/15/ 2023 19:46	2
	Page 4-12 Decreasing supply availability Comment: this is more likely	7/15/ 2023 19:46	2
	Page 5-13 separate economic growth and water demand can also be used to support the quality of life guiding principle. For example, Mayor and Council have directed City staff to research a Net Zero Water policy, similar to polices currently enacted in other regions. □Comment: Excellent! What other regions ae enacting such policies?	7/15/ 2023 19:46	2
	Page 5-14 commitment to prioritizing equitable and affordable service for all community members □	7/15/ 2023 19:46	2
	Comment: Where in this document is a projection of the costs of pursuing scenarios that might include greater water re-use and de-sal? How much demand is reduced with increased costs/ steeper tiering?		2
section 6-2	Comment: I understand the need to indicate relative expense. At some point however, dollars are dollars. When one projected solution will double the water bill and other will triple it, real costs become a factor in implementation. Is \$3000 per acre foot via de-sal a better deal than \$4000 per acre foot via re-use?		2
	Comment: How much water could we reasonably store		2

	in the aquifer above the natural recharge that takes place during/after storms?		
Appendix A p. 1	Precip increase Comment: True enough, but the studies also show that any precip changed will not be enough to compensate for the increase evap or evapotranspiration.		2
	Page 1. Water harvesting Comment: volumes unknown.	7/15/ 2023 19:46	2
	Comment: Yes, historic trends are important as baselines. However, research is showing that "stationarity" - the assumption that the future will be similar to the past is no longer valid.		2
p.5	Comment: The past 20 years and modeling are critical to CRB projections. Mention them!		2
	Page 5. Long term trend in river flows is increasing Comment: "increasing" Not according to the data that I've seen.	7/15/ 2023	2
p. 16	Comment: This figure and analysis is now more than 12 years old. We now know that the projected water supply line will not be flat, it will have a negative slope.		2
p. 25	Comment: We are already beyond the capacity of the DCP to deal with the river's decreasing flow and the lower basin's increasing demand.		2
	Post-2026 guidelines and tribal settlements will have a bigger impact.		2
p. 26	Comment: Lookit. There will be less water available. Period. The only questions are how much less and the priorities. This text is too much waffling.	7/15/ 2023	2
p. 26	Comment: "A large portion" is a massive understatement. We depend on its supply.		2
p. 33	Comment: well-said. Tucson Water needs to engage at all levels.		2
	*Incentive water collecting with rebates on water bills.	7/15/ 2023 6:51	2
	*Cut curbs to let water flow onto city property everywhere. This will make the million (lol) tree program work much better, and without long term maintenance and water usage.	7/15/ 2023 6:51	2
	*Show how and incentivize collecting air-conditioning condensation water.	7/15/ 2023 6:51	2
	*Send out teams to help citizens set up their property for water and solar collection. Solar installation is ridiculously expensive, considering how easy it is.	7/15/ 2023 6:51	2
	*Create a simple 1k watt solar panel system that can be installed in a couple of hours. Install those everywhere.	7/15/ 2023	2

		6:51	
	*Charge wealthy people more for water and power if they do not collect water and solar.	7/15/ 2023 6:51	2
	*Buy used solar panels in bulk.	7/15/ 2023 6:51	2
	Start a program to use DC powered devices. Take advantage of economies of size because it's a city, to bring the price of such devices down.	7/15/ 2023 6:51	3
	*Plug those devices into the 1k solar systems your teams have been installing.	7/15/ 2023 6:51	2
	*Help aircondition businesses to do these things.	7/15/ 2023 6:51	3
	*Charge businesses more for water and energy who do not act responsibly regarding water use and water collection.	7/15/ 2023 6:51	2
	*Experiment with wind tower cooling. (Middle east, build these in parks and schools)	7/15/ 2023 6:51	2
	*Experiment with existing desert architecture ideas to cool structures and collect water.	7/15/ 2023 6:51	2
	*Offer an insane amount of solar powered electric vehicle charging stations. Make those free to park where there is metered parking.	7/15/ 2023 6:51	3
	*Make deals with private parking structures to put solar on roof and charge vehicles.	7/15/ 2023 6:51	3
	*Shut down the dumb coal power station during the day that pollutes our lives and force TEP to use solar. Or compete with TEP and build our own solar arrays.	7/15/ 2023 6:51	2
	*See if it's possible to use Reservation lands for solar, in exchange for desired tribal outcomes, such as free power for aircon and water.	7/15/ 2023 6:51	2
	Please consider the need for electricity to pump water. Power outages cause water pressure to drop. If we get into a situation where we have rolling blackouts, we could have water shortages. Does Tucson water need to invest more on pumps or its own electricity source like solar?	7/14/ 2023 20:19	2
	We should do what Brad Lancaster suggests: live within the water budget supplied to us in the form of rain. It has already been proven that we get enough rain water to supply our region. So instead of depleting our aquifer and importing surface water from other watersheds, why	7/14/ 2023 15:40	2

	don't we actually honor our local hero by listening to what he has to say and implement his vision for a sustainable water future.		
	Thanks for this plan, I'm so glad to see that this One Water plan is in the works!! And thanks for the opportunity to comment. Some things I would advocate for expanding in this plan:	7/13/ 2023 19:52	2
	-Let's set targets for further water conservation among residential consumers. It's true we've made conservation progress, but there's so much more we can and should do, as we have the technology! I recently had to replace our old clothes washer, and I was stunned to see how much less water is used by my new high efficiency washer. We need to find ways to help especially lower income residents to replace water wasteful washers, toilets, etc ... we should be able to reduce our usage significantly.	7/13/ 2023 19:52	2
	Include concrete actions to help protect our local surface and ground water supplies and enhance recharge, especially in those areas where ground water is relatively close to the surface.	7/13/ 2023 19:52	2
	I'm thrilled to see planning for green stormwater infrastructure to make use of our seasonally abundant rainfall. This is so important!	7/13/ 2023 19:52	2
	In the One Water Plan for Tucson, I'm thrilled to see on pg. 19 that this plan marks a shift towards a more integrated and collaborative approach to water management. What's missing here, in my opinion, are specific details on what such collaboration might look like. For instance, Tucson Water is already a part of the Santa Cruz Watershed Collaborative, which recently adopted a Watershed Restoration Plan. By detailing participation in this collaborative and engagement with its plan, the One Water Plan would more effectively carve a path forward for the integrated approach it's seeking to chart. Not doing so could leave the One Water Plan in the position of paying lip service to collaboration without spurring on the steps that would make it a more robust reality.	7/13/ 2023 19:48	2
	I'm so happy to see this One Water Plan in development! It marks a major step forward in the water stewardship of our community, and I'm grateful to Tucson Water for its leadership in this domain. There is one area of the plan that I think would be very important to strengthen.	7/13/ 2023 19:40	2

	When it comes to surface water (sections 5.3.1 and 6.1.1), the focus in the plan is on how water usage in Tucson is related to the surface water of the Colorado River. This is crucial, yet within Tucson we also have surface water that very directly impacts our community and its water resources. There are creeks, like Sabino and Tanque Verde, which frequently flow, and parts of the Santa Cruz and Rillito Rivers which historically had surface water for much or all of the year. Protecting existing, local surface water and restoring historical flows would be of tremendous benefit to our community's water security and overall connection with water.	7/13/ 2023 19:40	2
	For instance, by protecting and restoring riparian habitat along these water courses, we would diminish erosion and slow down water when it does flow, leading to improved aquifer recharge. This win-win-win situation would lead to significant ecological, aesthetic, cultural, and water supply benefits.	7/13/ 2023 19:40	2
	By including in the plan local examples of surface water "even if intermittent "you would prioritize these significant water resources. Moreover, by including specific steps that could be implemented to protect and restore these streams and rivers, you'd lay an important pathway towards a more water-rich community.	7/13/ 2023 19:40	2
	obviously i care about managing the water resources here in tucson since i'm commenting;please tell my how the 'one water' plan benefits my family and community, as we live in picture rocks and get our water from avra water co-op. i admittedly did not thoroughly read the documents but i skimmed through the pages and did not see any mention of avra co-op when listing partners of the program. thank you:)	7/13/ 2023 17:29	2
	Under section 5.3.1 and 6.1.1. Surface Water □, I'd like to see specific actions on how to protect and restore local surface waters, like Sabino and Tanque Verde Creek as well as the Rillito and Santa Cruz Rivers (not just actions related to the Colorado River surface flows).	7/13/ 2023 15:53	2
	Under section 5.3.2 and 6.1 Groundwater Strategies □, I'd like to see actions to protect sensitive shallow groundwater areas that support our riparian ecosystems, as a priority for local groundwater restoration. Actions would include enhanced recharge, targeted conservation programs, and more recycled water opportunities in shallow groundwater areas.	7/13/ 2023 15:53	2
Under sections 5.3.1 &	Add specific actions on how to protect and restore local surface waters like Sabino Canyon and Tanque Verde as well as the Santa Cruz and Rillito surface flows	7/13/ 2023	2

6.1.1:			
	Add actions to protect, sensitive, shallow, groundwater areas that support our riparian ecosystems as a priority for local groundwater restoration		2
	actions would include 1) enhanced, stormwater recharge near shallow, Groundwater areas 2) creating targeted conservation programs for people living in shallow groundwater areas and 3) developing recycled water opportunities in shallow groundwater areas		2
	The plan does not recognize that there are seasonal and perennial flowing rivers in the Tucson basin.		2
	Help protect shallow groundwater areas and their historic and current surface flows	7/13/2023	2
	Enhance stormwater infiltration in arroyos and shallow ground water areas (page 54 & 61 of SCWC)		2
	Review and update floodplain preservation policy to enhance floodplain infiltration for groundwater recharge opportunities (pg 55 & 62 of SCWC)	7/13/2023 15:25	2
	Balance not maximize the Benefits of our Colorado river allocation For Tucson with the health of the Colorado river itself		2
	Support environmental local flow policy development (pg 66 of SCWC)		2
	Groundwater (page 99) Partner with Santa Cruz, watershed, collaborative to implement watershed restoration plan Partner with Santa Cruz, watershed, collaborative to implement watershed restoration plan Work with water, providers, and other water Utilities, using groundwater to develop shortage, sharing agreements during periods of local drought	7/13/2023 15:25	2
	1. First, we must all recognize and congratulate Tucson's leadership in reality-based water resource planning over many decades. Based on recent updates of Active Management Area plans we can see that our neighbors to the north have land-use expectations that cannot be met with foreseeable supplies. This has resulted in recent advice by Moody Analytics regarding real-estate expectations in certain parts of the Phoenix AMA.	7/13/2023 12:37	2
	Good leadership has come from past City Council members, citizen organizations, and water professionals within and outside the municipality. It has run on a current of goodwill, trust and sharing of information. Over the past decades, I have seen Tucson Water repair damages to public trust, but I've seen little improvement in sharing of information regarding status of water		2

	resources with the public. So the plan should affirm the need for maintaining trust and improve the sharing of water-resource information beyond the mandated requirements.		
	2. Tucson relied on CAP to achieve safe yield, and CAP storage for others to supplement the budget. Today, CAP curtailment jeopardizes a sustainable future for the Tucson basin, if not the city itself. I am glad the City has seen fit to husband its resources through the service area policy.	7/13/ 2023 12:37	2
	3. The Plan should acknowledge that the City of Tucson derives its land and groundwater from the dispossession of ancestral lands and waters of the Tohono O'odham. This in turn led to the Southern Arizona Water Rights Settlement Act (SAWRSA) and spurred an extension of the Central Arizona Project to San Xavier District. Prior to the construction of the Central Arizona Project, groundwater diversions by City of Tucson non-Indian water users drastically undermined the Nation's federal reserved rights in Avra and Santa Cruz valleys, and damaged or destroyed related cultural, environmental, and agricultural uses of this water especially at San Xavier District. SAWRSA settled the Tohono O'odham Nation's water rights claims to a little over 100,000 acres - less than 1/20th of the reservation lands, but it did not address all of the inequities caused by prior pumping. The Nation is currently in negotiations with the United States and others to settle the rest of the Nation's water rights.	7/13/ 2023 12:37	1
	4. The significant reductions in water deliveries from Lake Mead contemplated under some Plan scenarios and the Proposed SEIS action alternatives may lead Tucson, Sahuarita, and Avra Valley farmers to a return to the previous status quo, with impacts to federal reserved rights that meet or exceed the historic damage suffered by the Nation. The Plan should commit to minimize any further impacts to the Tohono O'odham Nation's federal reserved rights.	7/13/ 2023 12:37	2

	<p>5. Except with regard to the very important service area policy, the One Water Plan seems to ignore transportation, wastewater, land use and density decisions on water infrastructure and supply. We know from Plan Tucson that roadway and land-use planning decisions can greatly affect the spatial dimensions of the city and hence the water-supply investments needed in the future. The recent Lower Santa Cruz Basin study also indicates that urban form and growth rates have a powerful effect on future water demand, such that a slower rate of growth and a more urban form can partially reduce the impact of increased temperatures on water demand. We also know from studies funded by Tucson Water and studies by Pima County Regional Flood Control District that the past decrease in average lot size has helped reduce Tucson's gallons per capita per day (GPCD) water use. On the other hand, commercial land-use decisions can increase migration rates and depending on the nature of the business, greatly affect water demand. Consider also that the State maintains it has separate authority for its land-use decisions on state trust lands, many of which lie within the City's service area. For all these reasons, the Plan should be more explicit about the relationships between land use and density decisions in relation to water supply and infrastructure consequences.</p>	<p>7/13/ 2023 12:37</p>	<p>2</p>
	<p>6. The residential sector has shown a declining GPCD and continued decline can be projected based on lot size reductions and improved efficiency of appliances. I support a focus on demand management in the non-residential sector. Tucson should not rely only on service area policy and individual rezoning conditions for controlling commercial demand.</p>	<p>7/13/ 2023 12:37</p>	<p>2</p>
	<p>7. The placement of new wastewater conveyances and treatment facilities by Pima County in southern part of the Tucson Basin will affect land use and the future conditions under which reclaimed water will be available. Tucson should be more involved in wastewater planning with Pima County.</p>	<p>7/13/ 2023 12:37</p>	<p>2</p>
	<p>8. Pollution of groundwater is foreclosing future opportunities to use parts of the aquifer. Each City supply well that is shut down costs over \$1 million to replace.</p>	<p>7/13/ 2023 12:37</p>	<p>2</p>

	<p>This plan identifies ADEQ as being responsible for water quality protection. That's a mistake. Continued collapse of Clean Water Act (CWA) protections under the Supreme Court's Sackett and Rapanos decisions will jeopardize future water supplies in both the Tucson and Avra Basins. As a result, in the future some existing as well as new commercial and industrial point-source discharge facilities will lack ADEQ or federal CWA requirements. The Court decisions undermine the Corps' 2008 designation of the Santa Cruz River as a Traditional Navigable Water. When that falls, there will no longer be a Clean Water Act requirement for the continuation of the City and County stormwater program, nor a federal basis for Pima County's industrial pre-treatment program. The Supreme Court decisions also undermine PAG's authority as the CWA Section 208 water quality process referee for new wastewater treatment systems.</p>	<p>7/13/ 2023 12:37</p>	<p>2</p>
	<p>The new state program for surface water quality does not, indeed cannot extend to any ephemeral tributary of the Santa Cruz River due to legislative provisions. The scope of the state's aquifer protection program is also extremely limited. Our community's recent realization of widespread PFAS contamination should also remind us that the state and federal programs were inadequate anyway for preventing contamination via land-surface disposal.</p>	<p>7/13/ 2023 12:37</p>	<p>2</p>
	<p>The whole system of water quality protection needs to be re-examined at the local level to safeguard our underground water supplies in the Tucson and Avra Basins. Tucson Water is extremely vigilant about water supply at the wellhead and the tap, but vigilance must be improved at the local level where land uses are authorized. What's Tucson's plan for closing this gap between pollutant discharges and aquifer protection?</p>	<p>7/13/ 2023 12:37</p>	<p>2</p>
	<p>9. As a result of all these outside factors and the fact that aquifers are a shared resource, City should, among other activities, work with other entities to strengthen local protections around land-surface disposal of contaminants. A good place to start would be to engage a variety of community representatives and professionals to consider ways to improve local protections using local authorities. This could eventually provide a basis for re-affirming certain existing measures and inaugurating new measures. Could this occur through re-invigoration of a regional water quality effort through PAG, under the present PAG leadership? I have my doubts; I have seen is a progressive disinvestment, even quashing, of the function of watershed planning by</p>	<p>7/13/ 2023 12:37</p>	<p>2</p>

	PAG's leadership. In the short-term, at a minimum Tucson should encourage Pima County to reaffirm industrial pre-treatment based on authorities outside the Clean Water Act.		
	10. Regional entities are increasing the use of stormwater and graywater for land-surface irrigation and effluent for on-site reuse. While the vast majority of pollutants in surface disposal systems do not present aquifer risks, it is important to consider locations, volumes, and the types of chemistries being disposed. In some cases, it may be still be better to have sewer disposal and treatment of pollutants than risk land-based disposal methods. These kinds of issues should be further studied by City and County, with potential implications for the stormwater detention / retention and LID manuals.	7/13/2023 12:37	2
	11. The City's floodplain management program has withered over the decades. Recent re-mapping of floodplains in the City by Pima County Regional Flood Control District and various developers has revealed many areas are susceptible to flooding from local washes. And storm intensity can be expected to rise in the future. The Plan should establish a foundation for identifying locations, when flooded, might pose hazards to surface water and aquifer contamination? What strategies might help ensure protection of water supplies against contamination?	7/13/2023 12:37	2
	12. City Council has recently moved to restrict new, ornamental turf. Consideration is being given to lawn removal programs, and much turf has already been removed by action of increasingly expensive water. Meanwhile, decades of the ongoing drought, increasingly high temperatures, deficit watering strategies, saline reclaimed water and lack of investment in City parks and local schools have diminished the quality of the remaining turf in school turf and parks. These municipal facilities are de facto cooling stations for Tucsonans, where all residents periodically seek a cooler, greener oasis for respite. Therefore I recommend that Tucson enhance its attention to the vigor of the remaining City turf and trees as part of the One Water strategy, rather than just considering it in the context of individual bonds and maintenance budgets.	7/13/2023 12:37	2
	13. Continued evaluation of the rainwater-harvesting rebates as a means of homeowner conservation is also	7/13/2023	2

	needed. Even passive earthworks may not yield water conservation benefits at the homeowner scale. While there are certainly climate benefits, not all homeowners really need the monetary incentives provided by rebates.	12:37	
	14. I commend the City for its endorsement of water for natural environment, but it needs specifically embrace maintaining shallow groundwater areas. This is especially important as City turns on more wells in the future and annexes more land. The City's Heritage and TARP disposal projects on the Santa Cruz River are laudable, and much enjoyed by local residents. However, the City should not rely only on these projects. The San Xavier District has a flowing reach which has recovered due to indirect recharge of CAP. Given the historic impairment of this river reach, Tucson should commit to helping minimize any impacts to the groundwater in that area. PAG identified other shallow groundwater areas. The Sonoran Desert Conservation Plan and the Santa Cruz Watershed Restoration Plan each target shallow groundwater areas along Sabino Creek and Tanque Verde Creek for restoration.	7/13/ 2023 12:37	2
	15. On p. 41, the Plan talks as though all of the region's perennial and intermittent streams are gone, which is not true. The Plan should list the intermittent streams which exist in the service area.	7/13/ 2023 12:37	2
	16. Real ecological progress has been made by the City along Tanque Verde Creek: my analysis of the National Land Cover Dataset shows this as the only significant increase of riparian woodland during the megadrought within the Tucson Basin. Continued management will be needed to sustain that progress. The City should re-affirm the last-on, first-off policy for operation of the City's wells in the Tanque Verde and its commitment to reducing aquifer stress through the use of reclaimed water at Forty-Niner's golf course and surrounding area.	7/13/ 2023 12:37	2
	17. Tucson should consider acquiring the Metro-Hub service area if Metro is willing to sell. The area is largely built-out and additional water conservation here might help Sabino Creek.	7/13/ 2023 12:37	2
	18. Another strategy that could be used to restore water for the natural environment would be to identify and secure wells known to have cascading water along the Tanque Verde Creek.	7/13/ 2023 12:37	2
	19. In comment #1, I mention trust. Trust comes, in part, from equitable arrangements. What to do about the lack of representation for the 29% of customers living in unincorporated areas, and 6% living in other incorporated areas or jurisdictions? More than a third of	7/13/ 2023 12:37	2

	<p>Tucson Water's customers cannot vote for a Council member, and now Pima County has taken it upon itself to represent their interests with a lawsuit concerning City water rates. Without taking a position on the merits of that case, I do ask: are better mechanisms for representation of the interests of customer base outside the City needed?</p>		
	<p>20. In a recent memorandum to the Board, Pima County reports that the City identified three objectives for the increased revenues generated by differential rates: (1) infrastructure projects to enhance water delivery from the City limits to outside City limits □;5 (2) climate resiliency, water sustainability, and tree canopy projects throughout the entire Tucson water system □;(3) financial assistance to eligible Tucson Water customers by expanding a low-income program and paying down delinquent accounts impacted by COVID-19. I support these objectives, however it sounds like objective 3 has been underfunded. For instance, in FY22, the County says that City spent \$1.5 million in differential revenues for purposes of expanding the low-income program and paying off delinquent accounts. By comparison, the City has spent only \$7,000 on infrastructure projects. One measure that might be appropriate would be to facilitate connections for small exempt and non-exempt well users located outside the City (and inside the service area), if they relinquish use of pumped groundwater. There are for instance, a number of users who drink from Tucson's piped supply, but use their own pumped groundwater for irrigation, livestock watering or other purposes. Subsidizing infrastructure costs might induce them to give up the pump and reduce overall water use. Along the Tanque Verde Creek, this could also yield benefits to natural groundwater supply for the riparian environment.</p>	<p>7/13/ 2023 12:37</p>	<p>2</p>
	<p>21. Is there a role for continued acquisition and retirement of agriculture as a means of safeguarding a municipal supply? Long ago, it was thought that by now most of the agricultural areas would have been developed. Actual rates of conversion remain remarkably slow, such that groundwater-based agriculture remains a significant land use in the Tucson Active Management Area. However, for the most part, it may be the location of such agriculture is not well-situated with respect to the City's future demands, except perhaps in the Sahuarita area, where opportunities to acquire farmland are already foreclosed. Because of the proximity of Sahuarita to City</p>	<p>7/13/ 2023 12:37</p>	<p>2</p>

	groundwater supplies, it may be in the City's interest to work closely with Sahuarita on future land- and water-resource planning.		
	22. Support Pima County Regional Flood Control District's Floodprone Land Acquisition program. This program is acquiring lands within the Tucson Water service area that help safeguard recharge zones and riparian areas and protect critical infrastructure, particularly along the Black and Brawley Wash systems where much of Tucson's water supply infrastructure is located. Other opportunities for City-County collaboration may exist in the periphery of the Santa Cruz River floodplain outside San Xavier District. Tucson could identify potential acquisition targets for consideration that also help meet its municipal goals, help fund the program, and cooperate with land management strategies.	7/13/2023 12:37	2
	23. On page 52 of 110, the draft Plan states that much of the City's wastewater entitlement is leaving the Basin without earning long-term storage credits. I think this is an overstatement based on old information "could you check?"	7/13/2023 12:37	2
	24. This plan (see preceding comment) establishes a basis for future diversions of effluent from the Santa Cruz River. I don't support this. Instead of diverting more effluent from the river, Tucson could extend the managed recharge project downstream. The last stream gage is located at Trico Road, and the City's managed recharge project ends there. Downstream of that is a riparian restoration project on City land (at Simpson Farm) that benefits from the continued flows of effluent. I note that there is a large wetland just north of the County line that also benefits from a little effluent, though it largely relies on stormwater and a little ag runoff as well. This would require devising a means to gage the remaining effluent flows at a more northerly location so that the continued riparian benefits to City land north to the Tucson Active Management Area boundary could be maintained while generating additional credits. The reason that there is not a gage downstream of Trico Road is the lack of a well-controlled cross-section (like a bridge) to monitor flows. There are, however, other ways to measure seepage loss downstream of Trico Road that might meet ADWR's requirements for generating long-term storage credits	7/13/2023 12:37	2

	<p>through extension of the managed recharge project. Devising a means to monitor flows near the terminus of the Tucson Active Management Area would be much cheaper than building and running a constructed recharge project, and it does not foreclose future options the way expensive off-channel recharge basins do.</p>		
	<p>25. I do not support direct potable reuse (DPR) for Tucson. The history of treating TARP and effluent water shows that we are not smart enough to deal with the wide variety of chemical constituents that now characterize municipal and industrial effluents. The experience of Tucson Water with direct potable use of water from the CAP canal showed that treatment and delivery of even river water can be botched, and this was a much simpler task. The treatment trains for DPR are extremely complex to design and maintain. System problems can release contaminants to the delivered water unless there are sophisticated and reliable means to detect and divert water. Real-time monitoring and detection is hard and unlikely to be able to respond to the constantly changing mix of chemical constituents supplied by customers. We all understand that treatment effectiveness varies, that standards and detection tests do not exist for all contaminants, and that our understanding of health risks of new chemicals often lags far behind the rate of innovation. For these reasons, I am not sanguine about the potential for avoiding human health risks from unregulated or poorly detectable chemical constituents of effluents treated for potable use. Indirect potable reuse is less problematic, less costly and more reliable than DPR but some of the latter problems mentioned above also affect IPR</p>	<p>7/13/ 2023 12:37</p>	<p>2</p>
	<p>26. I would rather recharge treated effluent to support riparian areas or minimize subsidence rather than directly treated and served back to the public.</p>	<p>7/13/ 2023 12:37</p>	<p>2</p>
	<p>27. I endorse efforts to reduce water lost in the Tucson Water system. This should include capital improvements to replace old systems, not just maintenance and repairs.</p>	<p>7/13/ 2023 12:37</p>	<p>2</p>
	<p>28. I do not favor a stormwater utility fee. Tucson has been successful in raising revenues in a variety of ways that do not invoke a stormwater utility.</p>	<p>7/13/ 2023 12:37</p>	<p>2</p>

	I am a member of the Sustainable Tucson Water Committee and I would like to see the following updates in the Tucson One Water Plan: 1. specifics on riparian and groundwater restoration action plans	7/12/ 2023 21:53	2
	2. recognition that there are seasonal and perennial flowing rivers in the Tucson basin	7/12/ 2023 21:53	2
	3. removal of the term "renewable resource" from the Colorado River - it is only renewable with the proper management which needs vast improvements	7/12/ 2023 21:53	2
	4. specific strategies for teaming with the variety of very capable local organizations and the community to achieve plan goals (i.e., the Santa Cruz Watershed Collaborative, Watershed Management Group, and many others)	7/12/ 2023 21:53	2
	5. more details on how to help protect and restore shallow groundwater areas and their corresponding historic and current surface flows (e.g. Sabino, Tanque Verde, Cienega, Rincon)	7/12/ 2023 21:53	2
	6. Enhance stormwater infiltration in arroyos and shallow groundwater areas (p 54 and 61 of SCWC plan)	7/12/ 2023 21:53	2
	7. Review and update floodplain preservation policy to enhance floodplain infiltration for groundwater recharge opportunities	7/12/ 2023 21:53	2
	8. Balance (NOT maximize) the benefits of our Colorado River allocation for Tucson with the health of the CO river itself	7/12/ 2023 21:53	2
	9. Support environmental flow local policy development	7/12/ 2023 21:53	2
	10. Partner with Santa Cruz Watershed Collaborative to implement Watershed Restoration Plan	7/12/ 2023 21:53	2
	11. Work with water providers and other water utilities using groundwater to develop "shortage sharing agreements" during periods of local drought	7/12/ 2023 21:53	2
	12. Support development of groundwater conservation incentives for other shared groundwater users	7/12/ 2023 21:53	2
	13. Treat and manage recycled waters to support riparian systems and shallow groundwater recharge	7/12/ 2023 21:53	2

	<p>This plan is a fantastic start! Relying on Colorado CAP water should not continue to be the major plan. Local rivers supported the indigenous peoples that lived here since time immemorial and if we focus on restoring and maintaining our Santa Cruz as well as harvesting rainwater, we can create a resilient water plan that does not rely on water from Colorado. The mountains here are the origin of water and that needs to be a major focus as well. I would recommend focusing more on expanding the Ecosystem Restoration component within the plan. This should include how constituents will be educated on passive rainwater harvesting and surface water runoff. The survey example under, Educate the community about using rain and stormwater for landscaping:</p>	<p>7/12/ 2023 21:42</p>	<p>2</p>
	<p>"Example: An advertising campaign that teaches the public about how to support native plants and trees with rain and stormwater harvesting" (pg. 87) is confusing because an advertising campaign feels very different from the rainwater harvesting that the community has engaged in and has support for from UofA and ASU and many other partners. Education is generally seen as the solution and needs to be a bigger part of the plan.</p>		<p>1</p>
	<p>Urban sprawl with the building permitting process was not addressed. Will someone re-look at the current building permits to make sure the builders are not fudging the 100 year water supply numbers for their subdivisions? When will the City of Tucson and Tucson Water speak up about the city blindly issuing permits in a region facing water supply shortages. The permitting process is contributing greatly to the metro areas heat island effect. And planting trees in urban areas competes with the city encouraging filling in the infill plots with buildings. Why was a "future sight of Mister car wash: approved off of Houghton? This document is nice and shiny but the plan needs less "wokeness" and more of a commonsense approach by addressing the hypocritical messaging the City gives out by its actions. If you can reconcile the conflicts separate departments are creating (as in examples given) then perhaps I could take the City and Tucson Water serious about what they want to achieve. Thank you.</p>	<p>7/12/ 2023 16:32</p>	<p>2</p>
	<p>Please make recycling and serving treated wastewater a priority. Tucson Water/City/Region needs to invest in the technology and infrastructure to do this today. Other countries and US communities are doing this!</p>	<p>7/9/2 023 20:04</p>	<p>2</p>

	<p>Please Note: Purifics offers Single-Pass, Multi-Contaminate Removal, Membrane Treatment Water Technology WITH ZERO LIQUID DISCHARGE capability. The system is capable of treating most water contaminates, does not require backwash or CIP cleaning and recovers 99.99% of all raw water pumped. The Silica Carbide Membranes operate for greater than 25-years with no serviceable parts. This Skid Mounted Technology has 0.1 to 15 mgd per skid, can be installed indoor or outdoor and is currently being deployed in various areas of the Great State of Arizona. This technology can be used on Groundwater, Surface water, Reuse water, Wastewater or impaired Superfund water, saving billions of gallons of mined water resources...</p>	<p>7/8/2 023 13:14</p>	<p>2</p>
	<p>The word "Equity" and the term "Social Justice" are not universal in definition. As a result, both should be defined somewhere within the document.</p>	<p>7/6/2 023 14:57</p>	<p>1</p>
	<p>Two suggestions to help home owners: involve landscape architect students from UA to analyze and design water saving landscapes for homeowners.</p>	<p>7/3/2 023 20:36</p>	<p>2</p>
	<p>And, with many people eliminating their old backyard swimming pools, offer free pumping of water from the pool so that the water can be recycled or used in other ways (like dust mitigation on road construction).</p>	<p>7/3/2 023 20:36</p>	<p>2</p>
	<p>My concern is why does Pima County and Tucson, AZ continue to develop new homes, new businesses, new mines? Where is the leveling out?</p>	<p>7/3/2 023 17:02</p>	<p>2</p>
	<p>Consider covering exposed water with solar panels to reduce evaporation while simultaneously generating electricity via agreements with TEP.</p>	<p>7/3/2 023 15:47</p>	<p>2</p>
	<p>Does the 2100 plan support the mayor's plan to plant a million trees?</p>	<p>7/3/2 023 14:54</p>	<p>2</p>
	<p>I read the plan for OneWater. My comment relates to the use of reclaimed water. My understanding is that the TARP water that remediated is going into the reclaim system. Consequently the City May have more reclaimed water to use. Placing more water into the Santa Cruz from the Irvington site along with the outflow close to 22nd St will create problems with aquifer level intersecting the A Mountain Landfill. So more reclaimed water into SCR is not a good option. I propose doing a comprehensive study of large commercial users of portable water to assess the possibility of their use of reclaimed water. Will require delivery and separate water meters but in the long term we will save on portable water use.</p>	<p>7/3/2 023 14:30</p>	<p>2</p>
	<p>Great job! How do I get into the smart water metering</p>	<p>7/3/2</p>	<p>2</p>

	pilot/test group? Thanks, Nancy Kowalski	023 12:50	
	I have five pages of comments. Please let me know how to send them to you.	6/30/ 2023 18:42	2
	I don't see any reference to a stormwater reservoir where the Santa Cruz, Rillito River and Canyon del Oro washes converge. It's an important idea to capture that runoff that just ends up in Pinal County. It could be used for gray water or with enough filtration, potable water.	6/22/ 2023 3:58	2
	Capturing rainwater is honestly our only option for another water source. Conservation only goes so far. We can't conserve ourselves a new water source. Most major cities have reservoirs. Tucson is one of the only major metropolitan cities that does not. Phoenix has 7 dams and reservoirs with Roosevelt being the largest. Doesn't seem like Tucson planners in the early 20th century were very forward-thinking. Since it would be highly unpopular to create any kind of upper watershed dam filling a canyon...a downward stormwater catch-all reservoir seems plausible and would add a beautification element to the city. It might even spawn more economic growth in that area if we have what appears to be a beautiful lake in the city.	6/22/ 2023 3:58	2
	I feel dumb asking this, but nobody I've asked has an answer. What happens to all of the water in the Rillito during monsoons? Is it stored in some way? Does it simply flow out into the desert? I tried to read the entire report but couldn't get through it all. Thank you.	6/21/ 2023 23:40	2
	I believe that storm water harvesting is the most important future water supply for Tucson. With 3 months of monsoons, this underutilized resource needs to be captured, revised to potable condition and stored on a large scale. Is it possible to estimate how much storm water is generated each year? Thanks	6/21/ 2023 9:02	2
	is there any concern about Tucson's groundwater being contaminated by the PCB (polychlorinated biphenols) Tucson Electric Power has buried on their Irvington property? Should that be remediated prior to it possibly spreading?	6/21/ 2023 7:31	2
	Outlaw grass!!! We don't need grass in front of every Office complex !!!		2
	I'd like to see specific actions on how to protect and restore local surface waters, like Sabino and Tanque Verde Creek as well as the Rillito and Santa Cruz Rivers. Currently the plan only has actions related to the Colorado River surface flows.	6/20/ 2023 11:45	2

	<p>Under section 5.3.2 and 6.1 Groundwater Strategies □, we'd like to see actions to protect sensitive shallow groundwater areas that support our riparian ecosystems, as a priority for local groundwater restoration. Actions would include enhanced recharge, targeted conservation programs, and more recycled water opportunities in shallow groundwater areas.</p>	<p>6/20/ 2023 11:45</p>	<p>2</p>
	<p>Please consider outfitting homes with water-from-air devices. Although not useful during periods of low humidity, the devices could provide all of a home's water supply during rainy seasons. https://us.watergen.com/</p>	<p>6/20/ 2023 10:57</p>	<p>2</p>
	<p>In section 5.3.1 and 6.1.1. Surface Water □, I'd like to see specific actions on how to protect and restore local surface waters, like Sabino and Tanque Verde Creek as well as the Rillito and Santa Cruz Rivers. Currently the plan only has actions related to the Colorado River surface flows.</p>	<p>6/20/ 2023 10:45</p>	<p>2</p>
	<p>Under section 5.3.2 and 6.1 Groundwater Strategies □, I'd like to see actions to protect sensitive shallow groundwater areas that support our riparian ecosystems, as a priority for local groundwater restoration. Actions would include enhanced recharge, targeted conservation programs, and more recycled water opportunities in shallow groundwater areas.</p>	<p>6/20/ 2023 10:45</p>	<p>2</p>
	<p>My suggestions: As someone who has been trying to conserve water at my residence for decades I can say the biggest impact by far has been using gray water. The current rebates are great but under utilized.</p>	<p>6/20/ 2023 9:38</p>	<p>2</p>
	<p>Also, I recycle the majority of my household water for outdoor landscaping yet I still get charged as if I used the city's sewer system. Why do I get charged for sewer use based on water use if I'm only putting a portion of that water into the sewer system? If the sewer system is reliant on wasteful practices to operate, that needs to change. Money talks....if you want customers to conserve water provide an incentive. Either reduce cost for those of us who use very little water, or raise cost for those who waste it. Golf courses should pay for their environmental impact. Homeowner's who conserve should be rewarded.</p>	<p>6/20/ 2023 9:38</p>	<p>2</p>
	<p>Stop bringing big corporations to Az, we don't have the resources to apply for another big company coming to Tucson, vail, sahuarita, marana, corona de Tucson, Rita areas with enough water supplies for people, let alone a big corporation. Or the Rosemont mine..If we had some kind of program to get free water drums more people would apply water conservation. Since it is expensive to</p>	<p>6/20/ 2023 1:06</p>	<p>2</p>

	buy these drums, tanks alot of people don't buy them including myself. If I could afford some I definitely would have several running through my roof to water plants with conserved water. Thank You!		
	I would like to know about the strategy 5.3.3 of recycling water to drinking water standards. How does Tucson Water plan to detect and remove prions from the water supply? Prions resist disinfection and have been associated with a variety of neurodegenerative diseases.	6/19/ 2023 23:58	2
	Here's a perfect example of top-heavy bureaucracy in action. We're supposed to read a 110 page plan? Of course not, and the people responsible know this. They want to discourage feedback and transparency.	6/19/ 2023 21:35	2
	1) Reduce/eliminate lawns and grass areas. Assess grass areas in public parks to come up with an optimal size of grass area for public use. Restrict grass use in private areas.	6/19/ 2023 20:19	2
	2) Better use of rainwater runoff from streets for residential plant use.	6/19/ 2023 20:19	2
	3) Make Winterhaven accountable for well water use to water lawns.	6/19/ 2023 20:19	2
	4) Subsidies for existing homeowners to remove existing pools.	6/19/ 2023 20:19	2
	5) Make the administrative cost of putting in new pools too expensive.	6/19/ 2023 20:19	2
	6) The city has to be a major partner in any water reductions. Serious discussion on growth. No more 'kicking the can' down the road.	6/19/ 2023 20:19	2
	After perusing pages and pages of the same 'ol planning dogma, I realize you don't face the reality that continued growth and weak conservation incentives will exponentially dry up Tucson. Strong mandates are needed to outlaw non Sonoran plants, ornamental grass landscaping and oleanders (which are poisonous and not for composting). No new large developments. Be bold and get it done. Thank you.	6/19/ 2023 19:32	2

	<p>I don't live "IN" the city, even though I "moved to TUCSON" ... choose your own geographical boundaries or landmarks ... back in 1971. Over 50 years ago, everyone "HERE" knew that there was a water problem and that it not only was brewing, it was here. A book published by Univ. of Arizona Press, written by hydrologists Kelso, Martin, and Mack decried Central Arizona Project (CAP) as a calculated 'error' made when CAP based the upcoming existence of such a massive water delivery project on a flood stage of the Colorado River that never was duplicated. 'Banking' water back into the aquifer or switching to a desert 'xeroscape' are more recent solutions as opposed to what should have been done in the early 1970s. Back then, environmental truth died on this topic;as did that of solar energy ... killed in the AZ legislature by oil-loving elected AZ officials. Today's "hurry up, we have to solve this problem" now includes many other states in trouble. Hustle won't solve the present water dilemma, anymore than will similar non-plans to alter climate change save polar bears. Iconic polar bears now face the 'cold, hard truth' that their cold, hard habitat has been destroyed. Polar bears are being forced into extinction ... on OUR watch. Humans had better stop and wonder what else of life on this planet, here or in the far north, will be lost because of human inaction. The planet will survive and reset. As for the rest ... human, animal, fish, and fowl ... who knows?</p>	<p>6/19/ 2023 19:15</p>	<p>2</p>
	<p>Stop Arabi water use west of Phoenix. Also since 1982 who is making money from the Arabi water usage</p>	<p>6/19/ 2023 19:14</p>	<p>2</p>
	<p>I can relate to you my experiences regarding water here in the SW. I visited Az in 2020 and stayed in a senior retirement community trailer park in Mesa for the month of January. When the temp got close to 32*, they put a flyer on everyones door instructing them to rum their water faucet in a stream the size of a pencil overnight. I am guessing there were about 300 units in that park I am also guessing there are dozens of parks like that in the Mesa area alone.</p>	<p>6/19/ 2023 18:28</p>	<p>2</p>
	<p>That's a lot of water. I live in Casa Adobes. There are roughly 100 homes in my area. They are all of a like size and footprint. When I moved here, I soon found that you could turn on the hot water in the shower and go to McDonald's and get breakfast and come home when the water is hot. The water heater is in the exact opposite location from the master bathroom. I solved the problem by putting in a recirculation pump. Instant hot</p>		<p>2</p>

	<p>water in the shower, no waste. So many homes built just like mine in the 70's. I stayed at a Best Western in SantaFe NM in 20012. Taking a shower, the water gushed out faster than the drain could handle. No water saving shower head at the Best Western I complained to the hotel that I did not like standing in my own rinse water never heard from them. I think there are a lot of ways to start saving water. It starts with common sense and incentives. My incentive was a 40% increase in the Tucson water rate.</p>		
	<p>Stop building and support what we have. We need the farmers but the growth in building is depleting what we have. There are other places for people to go that can be supported with water they have. Therefore, don't line your pockets with contractors money but support the population you have.</p>	<p>6/19/ 2023 18:00</p>	<p>2</p>
	<p>STOP ALL NEW WATER USERS! WE NEED TO STOP NEW DEVELOPMENT AS THERE IS NOT GOING TO WATER FOR IT!!!!</p>	<p>6/19/ 2023 17:51</p>	<p>2</p>
	<p>Unfortunately most of us are unlikely to trust politicians and government officials, both at the federal and state level. We recently learned that our former governor was somewhat duplicitous in his communications about our water supply. We are definitely at risk of water shortages, yet building continues. Developers build, take their profits and move on. Residents, businesses and farmers are left with the glass not half full but almost empty. This is not a new problem. We live in a desert. Wait and see what happens to our local economy, the value of our homes and overall well-being unless the water supply issues are taken seriously.</p>	<p>6/19/ 2023 17:36</p>	<p>2</p>
	<p>I don't believe we have a major water shortage. Mt. Lemmon provides millions of gallon to both sides of the mountain. The major river that runs underneath the city of Tucson will prove this. Secondly the CAP water is abounded. Build large reserves around Tucson and get off raising the water rates. Wages and retirement is the main focus of increasing water rates.</p>	<p>6/19/ 2023 17:00</p>	<p>2</p>
	<p>Stop building new houses unless they implement water plans in building them we don't have enough water for all these new houses they're building</p>	<p>6/19/ 2023 16:57</p>	<p>2</p>
	<p>The plan is interesting. Things that might be considered is to have all newly constructed homes built so that gray water from washers can be recycled for outside used on desert plans which may need irrigation.</p>	<p>6/19/ 2023 14:54</p>	<p>2</p>

	<p>Additionally, have water restrictions whereby residential and commercial properties can only water on odd or even numbered days. These days would be coordinated with the property address. i.e. A property that has an even street number can only do outside watering such as sprinkler systems/irrigation on even numbered calendar days. Properties with odd street numbers can only water on calendar days with odd numbers. This could be implemented seasonally, or become a regular ordinance. It might help reduce strain on the water systems.</p>	6/19/2023 14:54	2
	<p>Build earthen dams on our waterways! Orange County does this on the Santa Ana river to sink water into the aquifer!</p>	6/19/2023 14:43	2
	<p>desalination desalination desalination I cannot stress this enough.</p>	6/19/2023 14:42	2
	<p>also fog catchers</p>		2
	<p>To start with, let's stop building and start destroying the clap-trap homes that are sucking us alive. Stop allowing the CCP/Saudis from buying our land and sucking up our water. Stop the illegals crossing our borders by the millions to return, thus not sucking up more water. Build more dams to rein in the monsoon rain!</p>	6/19/2023 13:44	2
	<p>Arizona has MILES of open aqueducts. These sections lose hundreds of THOUSANDS of GALLONS/year to evaporation. COVER the open aqueducts and Arizona can SAVE those hundreds of thousands of gallons per year . . . BONUS! To provide this stupendous amount of COUNTED BUT UN USED water only costs a 1 TIME INFUSION OF CASH to build and apply the coverings.</p>	6/19/2023 13:27	4
	<p>First, my overall impression is that Tucson Water and its customers are leaders in responsible water management and implementation of this plan will continue that leadership. Thank you for producing and communicating such a strong plan for Tucson's water future in such uncertain times. Specific comments follow:</p>	6/19/2023 12:17	2
Section 3.3	<p>Section 3.3 Groundwater " Somewhere in the Plan should be a definitive statement of intent to continue the recovery of groundwater levels throughout the aquifers that are the subject of this plan. Understanding that groundwater is used as a secondary or backup water supply during certain times and that groundwater use by others is beyond the authority of Tucson Water, one long term goal of this plan should be " through reduced demand, increased use of recycled and storm water, and other strategies " to continue the recovery of</p>	6/19/2023 12:17	1

	groundwater aquifer levels throughout the area. There are two purposes for this " 1) to enhance groundwater resources in case they are needed and 2) to improve the chances of free-flowing surface water during longer periods of the year.		
Section 5.3.1	Surface Water Strategies " Work with the CAP to protect the canal from evaporation by shading it with photovoltaic panels. This is not a new idea but as solar technology continues to improve in economic efficiency and demand for renewables continues to rise, the time for this action will come sooner rather than later and would have the effect of reducing evaporative loss of ever more valuable water that the CAP supplies. I understand this proposed action may be beyond the scope of Tucson Water's authority but taking an advocacy position for such an action and working collaboratively with partners to achieve it would not be. Such an action could be considered an additional water supply for the CAP.	6/19/ 2023 12:17	4
5.3.3	Section 5.3.3 Recycled Water " As more and more recycled water is produced, add the expansion of discharge sites for local stream flow to the list of priorities for how to utilize this resource. Whether direct discharge or injection into shallow aquifers, enhancing more riparian areas with longer seasons of free-flowing surface water would be a community enhancement at least on par with golf course and municipal park irrigation.	6/19/ 2023 12:17	2
	Section 5.4.1 Incentive Strategies " If Strategy I-2 intends to include incentives for homeowners to invest in retrofits that would capture shower water (or other difficult and costly plumbing retrofits) for on-site irrigation reuse, or to utilize rainwater for laundry or toilet flushing, count me in. If not, please consider such incentives.	6/19/ 2023 12:17	2
	Section 5.5.1 Monitoring and Mandates " If Strategy MM-1 means that my meter, which only counts in units of 100cf, would be replaced with something that's more fine-tuned to allow me to monitor use in smaller increments " like 1 gallon or 1cf " I'm all for it. Demand reduction is difficult to monitor in units of 100cf on a low use residential scale.	6/19/ 2023 12:17	2
	I would like to see specific actions on how to protect and restore local surface waters, like Sabino and Tanque Verde Creek as well as the Rillito and Santa Cruz Rivers. I would also like to see actions to protect sensitive shallow groundwater areas that support our riparian	6/16/ 2023 13:46	2

	ecosystems, as a priority for local groundwater restoration. Actions would include enhanced recharge, targeted conservation programs, and more recycled water opportunities in shallow groundwater areas.		
3.17	pg 3.17 -stormwater section talks about creating wildlife habitat, but the Mayor and City council continue to allow developers to destroy wildlife habitat. Why do they work against this plan by allowing development on existing open spaces? There should be NO new developments that destroy existing open space. This will also help with water runoff issues if the existing wild areas and wildlife habitats are not touched. Use abandoned retail spaces for new developments.	6/15/ 2023 14:10	2
4.1	Pg 4.1 - Since single family homes use the most water, all new development should be required to be either condos or townhouses or apartments and no single family homes.	6/15/ 2023 14:10	2
	#1 A plan to decarbonize CAP-related pumping (and other related activities). Is this under discussion? It is my understanding that energy production via coal is the primary source currently used for CAP-related pumping and that this uses large amounts of water (a somewhat hidden factor - perhaps we could see this figure in the Plan), and may significantly affect climate change. Can the water usage by TEP and other utilities involved in CAP (and in general), and their CO2 production be shown in detail as well?	6/16/ 2023 21:58	4
	#2 I would love to see Tucson relying less on CAP through time if possible and to also increase focus on the other sustainable water supply types beyond CAP.	6/14/ 2023 21:58	2
	#3 And perhaps most importantly, to continue to promote *using less water for all activities* - residential, commercial, farming, etc:	6/14/ 2023 21:58	2
	The 2 inhabitants of our modest home on .3 acres currently each use roughly half the average of 130 gallons per person per day outlined in the Plan. We do not take drastic measures and also have a large dog! We don't have the most efficient appliances or toilets, for example. Once our recently planted hand watered native shrubs and trees take hold and we purchase a more efficient washing machine etc our water usage should decrease significantly, hopefully down to 40 gallons per person per day. I am curious why the average is still so high and what the primary factors are - is it watering the yard/garden? pools? swamp coolers? excessive showers, washing machine use, and old toilets? Perhaps the city could work to address the most problematic uses in an efficient way and incentivize changes even further. Other	6/15/ 2023 21:58	2

	<p>ideas: Can pools be eliminated in new residential builds - favoring community pool usage? Can Tucson require rainwater harvesting and various other conservation/efficiency techniques for new builds (residential, commercial) and retrofit all existing homes to make them more thrifty by design, and more sustainable?</p>		
	<p>#4 And to echo what I've learned from Watershed Management Group: Under section 5.3.1 and 6.1.1. Surface Water ☐, I'd like to see specific actions on how to protect and restore local surface waters, like Sabino and Tanque Verde Creek as well as the Rillito and Santa Cruz Rivers (not just actions related to the Colorado River surface flows).</p>	<p>6/14/ 2023 21:58</p>	<p>2</p>
	<p>Under section 5.3.2 and 6.1 Groundwater Strategies ☐, I'd like to see actions to protect sensitive shallow groundwater areas that support our riparian ecosystems, as a priority for local groundwater restoration. Actions would include enhanced recharge, targeted conservation programs, and more recycled water opportunities in shallow groundwater areas.</p>	<p>6/14/ 2023 21:58</p>	<p>2</p>
	<p>#5 Make it easy for many more homes and businesses to have solar panels installed, through further incentives, partnerships, and programs. After ours were installed on our home by Technicians for Sustainability I couldn't believe the figures they shared on the long term water savings (via using less TEP coal based power) - somewhat more impressive even than the energy production/savings. It was estimated that approximately 500 gallons of water would be saved per month and nearly 27k lbs. CO2 would be offset per year. What we pay per month matches what our electric bill would be and due to the offsets from excess production we usually have a \$0 TEP bill. The added benefit of having our nearest neighbors use our excess electricity generation has many benefits as well. And as more homes and businesses use electric vehicles, charging them via solar panels seems like a great idea.</p>	<p>6/14/ 2023 21:58</p>	<p>3</p>
	<p>Thank you for the opportunity to review and comment on the draft. I have a few broad suggestions. First, having first moved to Tucson in 1958, I respect and appreciate the efforts Tucson Water has made over the years to serve its customers safely, reliably and cost-effectively. That being said, there is a structural governance issue that I recommend be addressed in the plan. Specifically, as stated in section 1.3.3 Water Service Area, almost 60% of the current service area</p>	<p>6/13/ 2023 12:43</p>	<p>2</p>

	<p>does not have elected representation in the governance of Tucson Water because customers outside the City Limits do not vote for the City Council positions that govern Tucson Water. I recommend that the City work with Pima County and other jurisdictions to develop a strategy to strengthen the governance of Tucson Water and make it more representative of its customers.</p>		
	<p>Second, the building and zoning codes that could increase Onewater effectiveness and sustainability are not consistent across the jurisdictions in the existing service area and are not as effective as they could be. I recommend that the plan include strategies for normalizing those pertinent regulations not only across the Tucson Water service area, but also those served by other water purveyors within the County.</p>	<p>6/13/ 2023 12:43</p>	<p>2</p>
	<p>I also recommend that the plan consider a process of amending those codes to ultimately require rainwater harvesting and greywater reuse for landscape irrigation, swimming pools, fountains and any other non-potable demands. The technologies of green stormwater infrastructure that can maximize the irrigation and infiltration benefits of rainfall while reducing the magnitude of discharges to stormdrains and the transport of trash into washes and rivers are also worth uniformly requiring. Those requirements would also ultimately apply, at least in some form, to all land uses, not solely residential.</p>	<p>6/13/ 2023 12:43</p>	<p>2</p>
	<p>Finally, Tucson Water's customers are not the only stakeholders in this planning process. I recommend that all of the water purveyors, wastewater collection and treatment operators, well-owners, tribes and land managers in the areas where Tucson Water withdraws, stores or serves water be encouraged to develop a collaborative approach to identifying, prioritizing, funding and implementing strategies to continuously improve our water resource management and stewardship. This would include the portions of the Santa Cruz River watershed in Sonora.</p>	<p>6/13/ 2023 12:43</p>	<p>2</p>
	<p>Upon a cursory review, I only see impacts. I don't see any planning. What are we going to do? What are the action items, who is responsible for them, how will they be measured to be successful? What is the timeline for the plan? Again, I only see data showing projections of impacts. Thanks.</p>	<p>6/10/ 2023 11:18</p>	<p>2</p>
	<p>Please enact the same as Phoenix. No new developments or add ons to existing developments unless they prove where they will get their water to sustain them. Tucson cannot handle any less water. It's</p>	<p>6/9/2 023 12:00</p>	<p>2</p>

	not fair to those of us on fixed incomes and/or lived here for most of our lives.		
	Please consider disinfecting water with alternatives to chlorine, such as GRAPEFRUIT SEED EXTRACT. Citricidal-type extracts are full-spectrum, and have been lab-tested against bacteria-resistant behaviors. These products are now getting used in Hospitals, which need more reliable products to maintain high disinfection standards.	6/2/2023 17:11	2
	This is a wonderful plan that I support. One change I would recommend would be a small change of the guiding principles 2.1.2 on page 2-2. At the end of principle #3 Enhancing the Communities quality of life, I would replace supporting economic GROWTH with supporting economic INNOVATION. If we change our metric for measuring economic success from growth to innovation and include the metrics for wellbeing such as life expectancy and rates of premature death we will not be bullied by the idea that growth will reduce poverty or provide meaningful work.	6/1/2023 15:36	2
	I feel it would be useful for the City of Tucson to involve the community by requesting that we all incorporate certain water rules for efficient outdoor water use, which would include watering during cool times of the day;2-3 times a week in summer;not spraying water on concrete/asphalt or washing one's car, etc.	6/1/2023 15:18	2
	The most useful request, however, would be to ask all Tucsonians to water based on a "Stage 2 Watering Calendar:" Odd Number Addresses water on Green Square Days & Even Number Addresses water on Blue Square Days from June-September. After living in Colorado 30 years, where this program is routinely implemented, I can really see how it would benefit Tucson as well. We all need to limit our water use and be made aware of our personal responsibility in conserving our resources and making Tucson a better place to live for ourselves and our children.	6/2/2023 15:18	2
	Excellent report, very thorough and focused on the future. I live in Dove Mt and my home is 5 years old. I was surprised to see that none of the home built here or ones being built now have any requirements for instant hot water at the sink/shower end. I can only imagine how much water is lost by running the water until the water gets hot. An affordable program to incentivize homeowners to install something to provide hot water at the faucet would save an enormous amount of water. Secondly, you should require all builders to install these types of systems in all new construction. Quite frankly, I	5/26/2023 18:26	2

	am amazed homes in my area are not required to have such systems installed from the start.		
	And lastly, new construction building permits should be tied to our water allocation. In Marana we have almost double the projected building permits than our allocation. This cannot get us to the future water needs of our community. Thank you for allowing me to comment on this excellent plan.	5/26/ 2023	2