



Reflections: A Reexamination of Past Water Wishes

by Sharon B. Megdal

01/15/2021

Prior to beginning my series of *Reflections* essays, I published a column in each issue of the now-discontinued WRRC *Arizona Water Resource* newsletter. Because these short columns addressed relevant current-day water issues, I ask students in my graduate class, Water Policy in Arizona and Semi-arid Regions, to read the 75 columns I wrote between 2002 and 2018 and prepare some questions for discussion. In reviewing the columns before our first class meeting on January 15, I was reminded of my “15 Water Wishes for 2015” from six years ago. I decided to revisit these wishes and look at whether they were fulfilled. The column can be found in the [compendium](#) available on the WRRC website. Below, I reproduce my 15 wishes and provide brief updates and/or commentary on each.

1. *I wish that people both inside and outside the professional water community would watch the movie shown at the CRWUA opening plenary session. Entitled “Challenged but Unbroken: Sustaining the Colorado River,” this 9-minute movie effectively captures the essence of where we are with Colorado River supply and demand. It discusses the long-term drought, the structural deficit, and the growing demands associated with growth.*

Of course, I do not know who watched the [video](#). Having watched it again, I stand by my recommendation and plan to assign viewing it to my students. Six years later, the video’s appeal for conservation, augmentation, investments, and cooperative efforts are only amplified.

2. *I wish to see the general public get excited but not alarmed about water. Actions will be required in Arizona and the Colorado River Basin to close the gap between demand and supply. Some of the paths to addressing the gap are long-term and will be expensive. An informed public will assist decision makers in selecting among options.*

Six years later, the need for a water-informed public remains and efforts to share information are more important than ever. While we do not know if 2021 will be as extremely hot and dry as 2020, we do know that Arizona experienced official cutback in Central Arizona Project water deliveries in 2020 and will again experience [Tier Zero](#) cutbacks in 2021. The near future may very well involve greater cutbacks, imposing more significant burdens on Central Arizona. The public will need to understand the many implications of suggested options for addressing the imbalance between water demands and supplies.

3. *I wish to see additional public information and education campaigns, including the new video-based project we are working on at the WRRC called ClipStack™.*

This wish has been largely fulfilled, although the need continues. The ClipStack™ effort evolved into “Beyond the Mirage,” an award-winning program that included a [documentary](#) shown nationwide on public television stations and an online [platform](#) for viewing and creating short informational videos. It would be an interesting and instructive exercise to catalogue the many subsequent informational campaigns and documentaries.

4. *I wish to explore developing an electronic billboard campaign that shows Lake Mead elevation levels and links to sources of information about what these levels mean for Central Arizona Project water deliveries. It could be an interesting way to engage the public.*

I did try to generate interest in this idea, which was borrowed from San Antonio's efforts to keep people informed about groundwater levels, and I think it would have even more impact now. My thought was that if people saw a billboard showing Lake Mead elevation, which is so important to the determination of cutbacks, they would ask, "Why is this important?" and seek additional information, such as visiting a website. This effort would be most effective if coordinated with a broader, multi-faceted informational and branded campaign.

5. *I wish for good precipitation in Arizona and the Colorado River Basin so that Lake Mead and Lake Powell levels rise and our lands are not so parched.*

With a few exceptions, most notably the winter of 2018-2019, the Colorado River Basin remains parched. Wishing for precipitation is not a sound preparedness strategy.

6. *I wish to see continued efforts to publicize and build upon the great cooperation associated with the Minute 319 Colorado River Pulse Flow, because it demonstrated how the partners, working with the International Boundary and Water Commission, enabled something not thought doable just a few years ago. It showed the great power of binational collaboration across NGO and academic communities, water suppliers, and governments. I recommend people watch the Robert Redford narrated movie, *Renewal – A Reborn Colorado River Once Again Finds Her Path to the Sea*. It can be accessed [here](#).*

Here the story six years later is encouraging. [Minute 323](#), which was adopted at the expiration of Minute 319, builds upon the prior cooperation and sets the framework for binational sharing of shortage and surplus through 2026, when current guidelines for sharing Colorado River shortages among the basin states will expire. Pursuant to Minute 323, [binational study](#) of opportunities for seawater desalination in the Sea of Cortez has been undertaken.

7. *I wish that each and every water user, regardless of size and type of water use, conserves water. There is great opportunity to use water more efficiently. Conservation should be part of every region's approach to closing the gap between supply and demand.*

Per capita water use has decreased in cities across the Western United States. A [recent study](#) by Richter et al. found that residential water use in several cities declined over the study period. This finding is consistent with data that have been presented for many Arizona communities. Conservation in other sectors has been documented as well. It is recognized, however, that conservation alone will not solve the water imbalances noted above.

8. *I wish to build on the extensive engagement effort involved in formulating the "Roadmap for Considering Water for Arizona's Natural Areas"...Developing pathways requires creativity and cooperation across water-using sectors. This WRRC project benefitted from extensive input and engagement of many, including our very dedicated project steering committee. We should keep putting our heads together to identify voluntary options for addressing the water needs of our state's natural areas. While documenting ongoing efforts to consider water to support our valuable natural areas is beyond the scope of this essay, I recommend readers view Kristen Wolfe's October 2020 seminar, [Water for Nature](#), to get a sense of the work that has been done and still needs to be done.*

9. *I wish for a productive dialogue on Arizona's Strategic Vision for Water Supply Sustainability. The vision document released by Arizona Department of Water Resources in January 2014 can [now] be accessed [here](#).*

The dialogue on Arizona's efforts for water supply sustainability continues on many fronts, including most notably the deliberations of the [Governor's Water Augmentation, Conservation and Innovation Council](#) and its committees, along with the more recently formed [Arizona Reconsultation Committee](#), to formulate Arizona's positions related to basin-wide renegotiation of the shortage sharing guidelines due to expire in 2026. In addition, deliberations on the management plans for the Active Management Areas and regional meetings to look at options for certain groundwater basins outside Active Management Areas continue. Working on water sustainability is high priority throughout Arizona.

10. *I wish that we determine our solution paths here in Arizona and throughout the Colorado River Basin before a crisis develops. It might take some event(s), however, such as a shortage declaration on the Colorado River, to interest the general public and spur action. Although we do know a shortage declaration is likely, even without one, Arizona will voluntarily use less Colorado River water over the next three years pursuant to the recently signed Memorandum of Understanding to leave water in Lake Mead with the hopes of forestalling a shortage declaration.*

Here is a brief update. In mid-2018, after a period of some discord within the water community, the prognosis for 2019 and beyond looked bleak. Arizona water interests put aside some differences and came together to work on Arizona's

approach to drought contingency planning. Arizona water interests came to agreement so that, in January 2019, legislation was signed that enabled Arizona to join with the other six Colorado River Basin states in supporting the Drought Contingency Plans for the Upper and Lower Colorado River Basins. It was worry about a potential crisis that spurred action. Throughout 2018, when the hard work was ongoing, we did not know that Spring 2019 runoff would be above average, due to the ample winter precipitation mentioned above. The crisis did not occur in calendar year 2019, when the DCPs were approved by the federal government, but 2020 was not so kind. Here we are in 2021, hoping to avoid another abysmal precipitation year, better prepared for the possibility. Though it will not be pleasant, we know what the rules of engagement are through 2026. The good precipitation of 2018-2019 enabled us to avoid the hardship of a Tier One curtailment – or worse. We may not be so fortunate over the upcoming few years, thus finding solutions is still essential.

11. *I wish that the students enrolled in my graduate class in Arizona Water Policy are highly inquisitive and interested in water resources as a key component of their careers.*

I enjoy teaching my course, now entitled Water Policy in Arizona and Semi-Arid Regions, each spring. It is gratifying to watch the next generation of water professionals and leaders progress as students, with many focusing on water careers.

12. *I wish for an informative and stimulating WRRC 2015 annual conference, which will focus on Tribal water management and be held June 9-10, 2015.*

This wish was granted. In June 2015, the WRRC hosted the conference, Indigenous Perspectives on Sustainable Water Practices, for which we posted the [recordings](#) of the presentations and published a summary as our [Fall 2015 Arizona Water Resource Newsletter](#). I am excited to report that we are planning the 2021 WRRC annual conference, which will again focus on Indigenous perspectives. We expect to hold the conference, most likely virtually, in the summer or fall. Please follow our [Weekly Wave](#) for more information on the conference and other aspects of our Indigenous Water Dialogues effort.

13. *I wish to continue and expand WRRC partnerships in the coming year. Partnerships are essential to everything we do. Please look at the partnership metrics we compiled as part of our annual strategic planning metrics reporting. The WRRC's strategic plan and metrics, along with our Annual Reports, can be found at <https://wrrc.arizona.edu/about>.*

We at the WRRC work in earnest with existing partners and look forward to enhancing and expanding partnerships. We report on our activities every year through our Annual Report and strategic planning metrics and are in the process of compiling our reports for 2020. Despite the pandemic and moving our programming to virtual platforms, the WRRC was very active and productive.

14. *I wish for continued success of the WRRC's many programs, projects, and activities. Please visit our web site or contact us to learn how you can become engaged.*

Of course, this wish is a constant for us at the WRRC, and I wish each and every one of you great success!

15. *And, of course, I wish every water stakeholder (everyone) a healthy and productive 2015!!*

Looking back, I am glad to see that I wished everyone a healthy year six years ago. Of course, concern for everyone's health has been *the* primary concern for all of us as the pandemic took hold. This past year underscored the fact that none of us can take good health for granted. So, for 2021 and beyond, I will restate my wish of six years ago. I wish everyone good health first and foremost.

In closing, I thank those of you who have traveled down this short memory lane with me. My take-away from this exercise is that, though things change, many of the same challenges remain. This is not surprising given the 'wicked' nature of our water problems. Only by working collectively and diligently over time will we identify pathways to solutions.



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