COMPARING THE CURRENT AND PROPOSED REVISED WATER POLICY TEXTS

Here, we compare our proposed draft with the provisions of the current water policy.
New elements introduced in this revised policy which do not appear in the current policy are noted with an asterisk (*). "Bullet points" refer to bulleted statements in the current policy.

General Principles

- We emphasize *sustainability* as the overarching goal of state water management. This concept is in the current policy, in the first bullet point, but linked in an unclear way to "reasonable costs", which is a subjective and undefinable baseline.
- We endorse extending science-based water management *across all watersheds in the state**, such that withdrawals do not exceed inputs into the local water ecosystem and so that groundwater levels cease to decline.* This is implied in the current policy, in bullet point 6, but not clearly stated.
- We clearly *link water availability to climate*, drought, and system-wide challenges.*
- We acknowledge that increasing human use (including increasing large-scale agricultural operations), the over-allocation of the Colorado River, and the long-term drought across the Western US are all factors in our current water crisis.* [1]
- We urge the state government to take *immediate action* to address water challenges.* We believe that we must start now to craft policies that will address long-term sustainability. Changes will take time to implement, and entrenched interests will work to undermine our progress. Even now, some areas are encountering serious problems.

Water Resources and Supply

- We call for explicit acknowledgement that *groundwater and surface water are part of a single hydrological system and are jointly responding to climate change.** This link between is hydrological systems is mentioned in the current policy in bullet point 9, but we develop this idea more fully and specifically include climate change.
- We emphasize the need for *comprehensive monitoring* of all aquifers and watersheds, including *monitoring of pumping volumes* by new and existing water wells *in all parts of the state*. This is in current policy, bullet points 6, 17, and 18, but we explicitly extend it to the entire state.
- We emphasize the critical need for allocating sufficient *water to natural landscapes* to preserve and restore our riparian and aquatic habitats. These statements are modified from the current policy, in bullet points 13, 14, and 16. However, we emphasize the need to protect riparian habitats much more strongly, here and elsewhere in the text.
- We argue that water *data must be accessible* to citizens, to ensure that they understand the scientific basis for water management decisions. This also provides data-based information for developing water policy in newly-created management areas. Public

[1] Data make clear that population growth in and of itself is *not* a driver of increased water use. In urban settings like Phoenix and Tucson, population has continued to grow over the past 20 years, but water withdrawals for municipal uses are more or less stable. This is good news. It means that households have reduced their daily water use in response to calls for water conservation. However, agriculture, which is a major driver of water use, is a human endeavor, so in this sense it is accurate to say that human uses, across all sectors, are a major factor in our declining water tables.

access to data is addressed in the current policy in bullet point 6, but linking this to decision-making* is new, as is the emphasis on science-based* information.[2]

- We specify that *data-based hydrological modeling of water scenarios* should be used to make predictions on water resource availability.* [3]
- We recommend that proposals for water *augmentation**should be approached thoughtfully and be evaluated based on monetary cost, energy cost, feasibility, lack of environmental problems, and the affordability of the resource. Policy regarding augmentation is new; the current policy invokes cost and energy, but in unspecified ways. Water augmentation is likely to be a major issue in the near future; it includes water recycling, potable reuse, water markets, water importation, desalination, and at some level, water conservation. [4]
- We argue that "growth should pay for growth.* If we must import water ("augmentation") from elsewhere to support growth (in housing or industry or agriculture) then those who will benefit from that growth should pay for those water augmentation efforts.
- We explicitly recommend *water reuse and recycling and stormwater capture*, as well as direct potable reuse, as elements of effectively increasing our water supply.*

Water Rights

- We specifically recommend taking action to speed up the adjudication of surface water rights in Arizona.* This is critical for management, because water users need to understand the resources they have available, and planners must know the current demands on surface water resources.
- We assert that establishment or transfer of water rights should not undermine regional efforts to achieve long-term sustainability in water resources.*
- We concur with the current policy in ensuring that in-stream flow rights be maintained and secured, but our policy language protecting riparian habitats is stronger than in the current policy. In particular, we note that groundwater pumping near streams should be avoided so as not to reduce in-stream flows.*
- We support quantifying not only surface rights (which are currently quantified under a permitting system) but also all groundwater withdrawals. Currently, groundwater outside of AMA boundaries is unregulated, and thus no permit is issued which awards

---

[2] We note that lots of water data are already available, both at ADWR and in other locations (such as at Arizona Water Blueprint, https://azwaterblueprint.asu.edu/) but we want to ensure that this continues to be the case.

[3] Historically, the Arizona Department of Water Resources (ADWR) has refused requests by some rural jurisdictions (counties or municipalities) to help them implement water management, because ADWR argues that the law prohibits them from acting until the data show that water supplies are actually in crisis. They cannot use "predictive models" that warn of impending shortages to implement regulation before things are dire. This ignores the value and the accuracy of modern modeling tools and abandons jurisdictions to simply sit by and wait until the crisis arrives. We believe that this is neither scientifically nor politically justifiable and that it impedes the possibility of achieving local water sustainability.)

[4] Implied in this statement is the idea (which we endorse) that we should focus on using our existing water supplies thoughtfully and sustainability, and not depend on supporting a profligate way of life by simply importing water from somewhere else. As a state, we may need to pursue augmentation at some point, but first we should work to manage what we have thoughtfully and intentionally.

users a specific, quantified allotment. Without control of groundwater pumping in all aquifers, we cannot prevent dropping water tables and groundwater overdraft. This is implied in current text bullet point 11, but not clearly articulated.

- We recommend *a priority system* to address water access in times of shortage and to mediate water claims among different users within a single aquifer.* This includes bullet points 19 and 20, which link use to shortages, but ensuring equitable access to users of a common aquifer* is new.

Water Planning and Management

- We recommend *expanding active water management to all watersheds and aquifers* in all regions of the state.* This is probably our most significant recommendation, one which underpins other recommendations and endorsements. It is not addressed in the current water policy. Statewide active management should be achieved by creating water management entities which correspond to the major aquifer basins of the state.* They could take a variety of forms, but would share a common goal of achieving a sustainable surface and groundwater supply. The state would provide oversight, but implementation and enforcement would be local.*
- We recommend that the state develop a comprehensive water plan that outlines current challenges and recommends steps toward achieving sustainability goals. * This plan should be revised at intervals, and serve as a guideline for management decisions within regional water authorities.*
- We strongly recommend that the *state budget adequately fund water agencies* to permit them to do their job effectively.* The importance of adequate funding is absent from the current policy. This has been an impediment for ADWR in addressing issues in a timely and comprehensive manner and in paying competitive wages to their staff.
- We also call for *increased state funding* to speed up the General Stream Adjudication process.* This is not part of the current policy. As noted above, reconciling rights and priorities among surface water users is instrumental in planning.
- The *Groundwater Management Act should be updated* and amended to include groundwater management in all groundwater basins statewide.* Amendments should address existing problems, such as grandfathered wells, that have kept legacy Active Management Areas (AMAs) from reaching their safe-yield goals over the past 45 years.* The current policy makes no reference to the GMA, which needs to be re-authorized beyond 2025, expanded, and applied across the entire state.
- We argue that regional management authorities should create a *timetable* for their management goals and report their progress regularly to the Legislature and citizens of the state.*
- We recommend a *strong permitting process for all water users* in all parts of the state, with authority for *allocations to be modified* if necessary to achieve sustainable water use.* This is partly implied in bullet point 11, but not in terms of a permitting system that can be adjusted when necessary, as we recommend.
- We also seek to ensure that regional water management plans allocate sufficient water in their water budgets to maintain and restore riparian habitats in their aquifer basins.*
- We urge all users to be incentivized or, if necessary, mandated to practice *robust water conservation.* Conservation is included in the current policy in bullet points 3 and 23; our

language combines these elements and invokes intensive, systemic conservation practices by individuals as well as large water users.

- We assert that new development must meet high standards of conservation, and that development or changes in land use should be *approved only where adequate water is demonstrated to be available.** This is nominally required now within the existing AMAs but not in the rest of the state, and the methods for determining adequate water availability are subject to many loopholes and disconnects from reality.

Government Process

- We argue that water management decisions should be *transparent* and should be based on public input. Furthermore, decision-makers should actively invite comments from all stakeholders, to ensure that policies are equitable and comprehensive.* Current policy encourages public participation in bullet point 8 but does not address the need to actively include all stakeholders.
- We support *equitable access* to water and *fair cost sharing** among stakeholders in making clean water available. Current policy bullet point 2 also argues for equitable access; fair cost sharing is new.
- We encourage *cooperation* between all levels of government, including Tribal governments.* Current policy supports cooperation in bullet point 5 but does not include Tribal governments as stakeholders.

We believe that Arizona should participate actively in the renegotiation of the 1922 Colorado River Compact and should work with other Basin states to *adjust our use of the Colorado River to the ecological and physical realities of a warming world.** The current policy makes no reference to the Colorado River and its role in Arizona water supplies.[5]

NOTES

[5] Water from the Central Arizona Project will be important to the water budgets of those three legacy AMAs that receive CAP allocations: Phoenix, Pinal, and Tucson. CAP water has been used in these areas in large part to recharge groundwater aquifers. Declines in CAP allocations with declines in Colorado River flow will also impact farmers along the main stem of the river, but will have little effect on aquifers and management areas away from the CAP canal. Even now, Prescott, Santa Cruz and Douglas AMAs receive no CAP water.