Water Supply Update Report to City Council

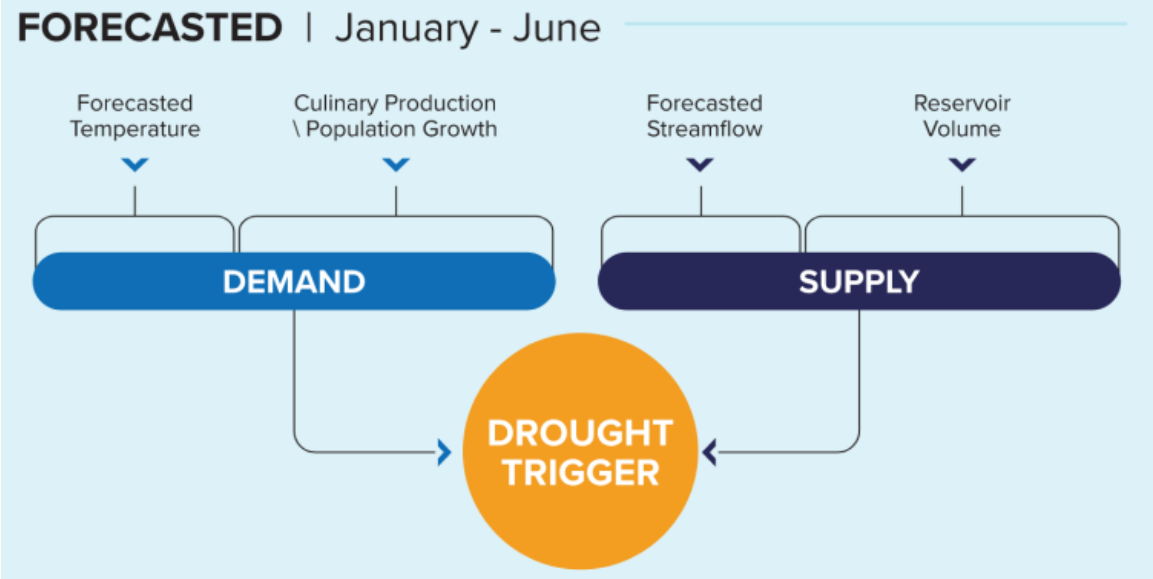
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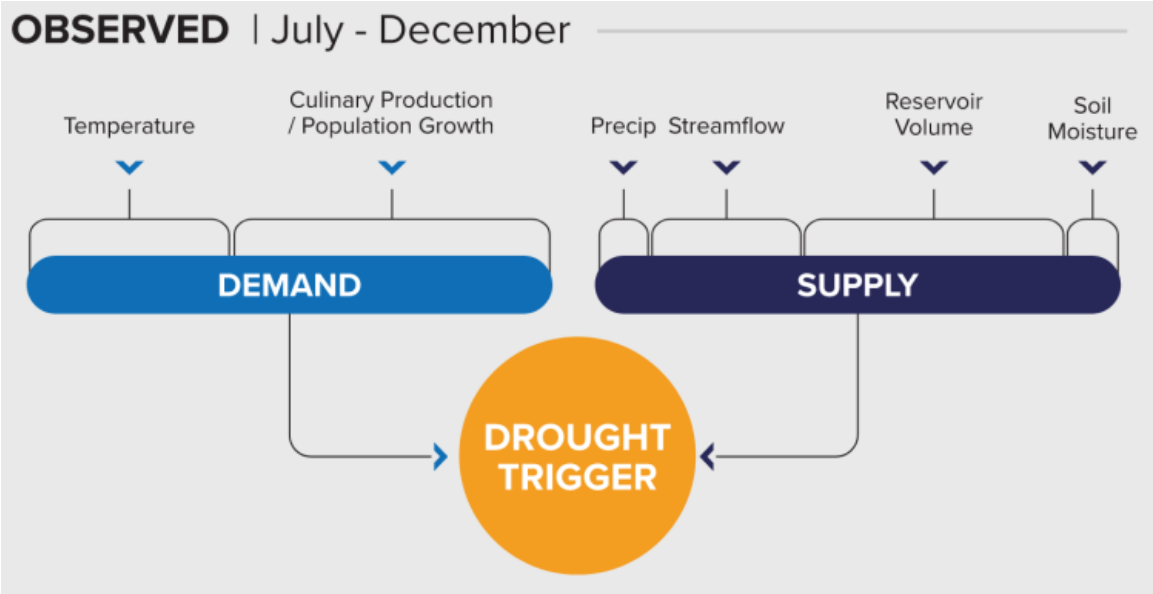
The Water Work Group met again on February 3rd. Then on February 6th there was an Administrative Advisory Committee (AAC) meeting. This is a quarterly meeting for city managers, mayors, and staff from all the RWSA municipalities. The AAC meeting received a presentation from the consultant that prepared the drought contingency plan with opportunities to provide feedback. After the AAC, the Mayors retired to a separate meeting to discuss the final numbers of units that were submitted to the District that have different levels of approvals.

Drought Contingency Plan discussion at AAC

The AAC was briefed on the details of the Drought Contingency Plan. Here are some highlights of what was covered.

The consultant spent a lot of time discussing how they came up with the drought monitoring computer model. (Chapter 5 of the Plan) The inputs into the model are shown in the following figures (Figure 5-1 and 5-2 of the Plan):





It monitors demand with the inputs of temperature and population growth, then compares the demand to potential supplies based on streamflows, precipitation, and reservoir volumes. This is demonstrated in two figures since it uses different supply inputs for the first 6 months of the year where the supply values are forecasted versus the last 6 months where the supply values are based on observed data. The figures show the relative weights of the inputs by the length of the bars.

There are 5 drought stages that are proposed:

WATER AVAILABILITY AND RESPONSE STAGES					
	Stage 0	**Stage 1**	**Stage 2**	**Stage 3**	**Stage 4**
	Normal Sustainable Supply	**Abnormally Dry** Decreasing Supply	**Prolonged Drought** Diminished Supply	**Escalated Drought** Deteriorated Supply	**Extreme Drought** Depleted Supply
Response Stage	**Conserve**	**Caution**	**Concern**	**Alarm**	**Crisis**

Here is the action plan that is proposed (Table 7-1 of the plan):

Water Availability and Response Stages			
Drought Stage	**Residential**	**Local Municipality**	**District**
Stage 0 Conserve	Follow the district's recommended seasonal irrigation schedule. No irrigation in the summer between 10 a.m. and 8 p.m. Repair leaks and water use inefficiencies. Participate in district rebate programs and free community classes.	Encourage / incentivize water wise landscaping. Communicate water consumption data to residents. Model sustainable water use strategies. Encourage restaurants to serve water by request only. Minimize hotel laundry use by encouraging patrons to reuse linens and towels.	Consistently communicate water conservation objectives. Provide public communication materials to all communities. Reinforce sustainable use messaging. Conserve and secure additional water sources for population growth. Develop and maintain infrastructure. Identify and repair leaks. Plan and prepare for future drought.
Stage 1 Caution	Reduce irrigation frequency and/or duration. Raise lawn mower blades to 3-4 inches. Voluntary limit indoor water use.	Reduce irrigation of public facilities by 20%. Communicate drought conditions to the public. Target indoor conservation messaging to high water users.	Update communications for drought stage. Focus water management to maintain reservoir and aquifer levels. Increase water user education through smart, comparative billing. Monitor groundwater use to avoid depletion.
Stage 2 Concern	Follow mandatory irrigation schedule; irrigation of only trees and shrubs recommended. Grass installation prohibited. Enhanced monitoring for failing to comply with irrigation schedule and/or other water waste activities. Car washing restricted to commercial facilities. Non-essential draining and refilling of swimming pools prohibited. Reduce indoor water use by 10%.	Reduce irrigation of public facilities by 40%. Restrict construction water use. Prohibit use of misting systems. Prohibit use of ornamental fountains. Raise tiered water rates. Designate staff to assist with enforcement and public outreach.	Provide communication materials to communication severity of drought stage. Petition State for limitation on aquifer drawdown. Increase leak detection and repair efforts. Begin voluntary transfers of irrigation water rights to potable use. Implement indoor water audit incentive program. Suspend non-essential system maintenance activities, including flushing.
Stage 3 Crisis	Grass irrigation prohibited; irrigation of trees and shrubs only allowed via drip irrigation or by hand watering. Discourage new landscaping. Conduct water audits. Reduce indoor water use by 20%.	Prohibit irrigation of non-functional grass. Implement enforcement measures for failure to comply with conservation measures. Turn off outdoor water features, including recreational water splash pads. Provide indoor water audits. Restrict high commercial water use. Institute a temporary building moratorium. Prohibit use of water for dust control, except as required to protect public health.	Provide crisis communication and enforcement support to municipalities. Rebalance water deliveries by population not limited by delivery contract. Actively negotiate temporary transition of municipal irrigation water rights to supplement potable water supplies.
Stage 4 Catastrophic	No outdoor water use. Reduce indoor water use by 30%.	Eliminate all outdoor irrigation. Prohibit recreational water use. Aggressive enforcement including water shutoffs.	Provide emergency communication services. Limit contract water deliveries.

If there is any reason that you think that the City Council could agree to these responses, then please make those comments now and changes may potentially be made to the plan before it is finalized.

Final Numbers of Lots Approved by Municipalities at Mayors Meeting

Here are the final numbers of lots with varying levels of approvals:

City	Number of Projected Lots (or ERCs) in PID	Number of Lots (or ERCs) in Development Agreements	Number of Lots in Approved Preliminary Plans	Number of Lots in Approved Final Plats with No Building Permit Yet	Total
Ivins		130	1,320	493	1,943
Hurricane	7,627	10,247	5,083	1,968	24,925
St George		20,365	3,260	2,568	26,193
La Verkin		-	-	99	99
Santa Clara		2,386	346	395	3,127
Toquerville		6,381	131	85	6,597
Washington		5,647	2,235	2,013	9,895
Total	**7,627**	**45,156**	**12,375**	**7,621**	**72,779**

ERC: Equivalent Residential Connection, PID: Public Infrastructure (Bonding) District

These are number of lots that are at varying levels of approvals in each of the cities. Here is a description of each column.

Column 1 is Number of Projected Lots (or ERCs) in PID. PID stands for public infrastructure district, meaning that the City has approved for the developer to establish a PID to payback bonds that were acquired for the installation of public infrastructure. Even though Ivins has a PID in Black Desert, we do not show any units in this category since the Black Desert units have an approved CUP which we consider to be equivalent to a preliminary plan, so these units are in Column 3.

Column 2 is Number of Lots in Development Agreements. Many cities make developers sign development agreements at the time of rezoning. These agreements to not explicitly commit water, and some of the more recent agreements signed by many cities, explicitly do not guarantee water. Ivins City does not do development agreements prior to preliminary plan approvals. However, we have made a settlement agreement with the Comanche Cliffs subdivision in 2006 for them to develop 130 lots on that property, when they challenged the legality of our sensitive lands ordinance.

Column 3 is Number of Lots in Approved Preliminary Plans. This list includes commercial projects with approved conditional use permits along with subdivisions that approved preliminary plans.

Column 4 is Number of Lots in Approved Final Plats with No Building Permit Yet. In other words, vacant platted lots. Ivins City included in these numbers large and small agricultural or fallowed lots that are allowed to build at least one home.

Ivins City numbers do not include the lots that are included in KWU Inc. private water system supplier in Kayenta since that system is not part of the RWSA agreement at this time.

District Response to Numbers

The District said that they were surprised by these numbers. They were worried that they would be in the 20,000 range, not 3.5 times more than that! Now many of these projects are 25-year projects and thus we should not expect to see all these lots develop over the next couple years. Last year 3,000 homes were constructed here. This year will be much less.

The District said that it is comfortable with adding 6,000 ERCs to the system with the current water development projects that are being constructed. Beyond that the District needs help from the municipalities. The District even said that they believe that they can supply water to all 72,779 lots. Here is their action plan:

- District to acquire all available water rights in the County.
    - This includes protecting existing water rights.
- Develop new supplies.
    - Water reuse projects are the most significant source of new supplies.
    - Other projects as mentioned in previous memos.
- Lead water conservation.
    - Water conservation is the cheapest and quickest way to free up water supplies.

This is the specific list of items that the District is asking that municipalities cooperate in executing the action plan:

- Don’t compete for water acquisition.
- Assist in achieving the 0.59 acre-foot per unit water usage for all new construction.
    - Hurricane and Toquerville have yet to fulling pass the landscape ordinance. However, both mayors said that they think they can get their councils there.
    - There was some discussion of the District might consider imposing the targets with consequential actions rather than imposing specific ordinances on the cities.
- Adopt the drought contingency plan.
    - If we adopt the drought contingency plan, we can push our water supplies a bit further since we know that water usage will decrease in times when water supplies are threatened by climate variations.
- Set water budgets for high water users.
    - 10 percent of the users use, 25 percent of the water. The District wants there to be more efforts targeting these users and encouraging them to reduce use.
- Prohibit high water use developments.
    - There are some developments that are coming in with plans to build private artificial lakes for the exclusive use of the surrounding property

owners. Cities need to consider banning or adding enough disincentives to prevent these types of development.

- Protect the Sand Hollow Aquifer.
    - This issue is discussed more extensively in Memo No. 2.

The State seems to sense that our region is potentially still not united enough for the State to commit the funding that our region is requesting. The District supplicated that the cities get a reuse agreement signed as soon as possible to show this unity. This District is working on the agreement now.

There are still risk factors that have been discussed before. Perhaps the biggest one is the one proposed by Metropolitan Water District of Southern California.

As for now there was no discussion of imposing an immediate moratorium on development, rezoning, or building permits.