

Meeting #32
April 8, 2015
MEETING SUMMARY

Meeting Attendees

Community Working Group members present:

Nancy Vogler – LOST Trail
Fred Gaudet – Arizona Trail Association alternate
Rick Cartier – Superior Chamber of Commerce alternate
Pam Bennett – Queen Valley Homeowners Association
Roy Chavez - Concerned Citizens and Retired Miners
Bill Vogler – Superior Copper Alliance
Bruce Wittig – Queen Valley Water Board
Michael Lira – Central Arizona College
George Martin – JF Ranch
Lynn Martin – JF Ranch
JoAnn Besich – Superior Optimist Club
Mark Siegwarth – Boyce Thompson Arboretum
Jeff Bunkelmann – Central Arizona College
Pamela Rabago – Superior Chamber of Commerce
Hank Gutierrez - Superior Copper Alliance
Cecil Fendley – Queen Valley Water Board
Anthony Huerta – Town of Superior

Community Working Group members not present:

Matt Nelson – Arizona Trail Association
Kiki Peralta – Superior Rotary Club
Nina Crowder – Superior Rotary Club alternate
Patrick O'Donnell – Superior Unified School District #15
Mark Nipp – Town of Superior
Evelyn Vargas – Cobre Valley Regional Medical Center
Neal Jensen - Cobre Valley Regional Medical Center

Resolution Copper Company:

Ian Edgar – Studies Manager
Jim Schenk – Manager for Communities & Social Performance
Bryan Seppala – Globe resident, Resolution Copper Company

Facilitators – Godec, Randall & Associates (GRA)

John Godec
Debra Duerr

Guest Speakers:

Grady Gammage, Jr.

Public Guests:

Jim Rutul – Superior Historical Society
Holly Mutchie – Superior Historical Society
Ronald Long – Superior Historical Society
Richard Hing – Superior Historical Society
Jacqui Smith – Arizona Water Company

Introductions & Housekeeping

John Godec welcomed everyone to the April meeting of this group, which is the 32nd meeting. He thanked Mr. Hank Gutierrez for joining as the CWG's newest member representing Superior Copper Alliance. Guests tonight include Jacquie Smith from Arizona Water Company, and Richard Hing and several others from the Superior Historical Society.

Pam Bennett reported on the most recent Queen Valley Homeowners Association meeting, saying that there was dissention among their Board about this project and whether the HOA should take a position on the tailings site. Although it was a very close vote, the Board voted to not take any position on controversial issues, since they are a social organization. Consequently, they will remain neutral on this subject. However, Ms. Bennett asked that her designation be changed to Queen Valley Community Liaison from president of the HOA. She noted that she does not routinely report on these meetings at their HOA meetings. She emphasized that she wants to remain neutral in her community, and not be in a position of representing the community.

Godec said the facilitators and Resolution Copper are sensitive to the fact that some members of this group are under scrutiny or in a delicate position in the community about their participation in the CWG. That is one reason we strive to make these meetings factual and balanced, and invite the community to attend.

Resolution has suggested that additional topic-focused subcommittees might be appropriate, and the CWG agreed. One would deal with access and recreational impacts. Lynn Martin informed the group that a new Tonto National Forest Travel Management Plan will be coming out July 1, so that will change access significantly as well, mostly for "user-created" roads rather than Forest Service numbered roads.

- Pam Bennett and Nancy Vogler volunteered to organize this committee.

Another task force that has been suggested would deal with historic preservation.

- Pamela Rabago and Lynn Martin volunteered for this group.

Debra Duerr will contact the volunteers for the additional task forces to discuss the next steps.

In an effort to publicize the Community Working Group meetings more broadly, the facilitators suggested posting notices in public places around town. Nancy Vogler volunteered to distribute these before the monthly meetings.

Community Investment Subcommittee Report

Bill Vogler & Bruce Wittig

Bruce Wittig reported that he and Bill Vogler had met to talk about concepts for a community investment vehicle, including setting up a foundation or trust or tying in with an existing fund. Possible purposes, structure, and operating processes were discussed. Wittig and Vogler believe that the scope of this effort should include the Copper Triangle region and Queen Valley, as well as Superior, because the Resolution Copper Project will affect everyone. For the

next step, the subcommittee would like to invite the mayors or other representatives from nearby communities, mainly to talk about structure for a board of directors. Some legal assistance may also be needed.

Godec noted that Resolution is also working on this, and Jim Schenk reported that he and Dave Richins are exploring options. These efforts will need to be coordinated.

Water Supply & Water Policy Issues

Presenter: Grady Gammage, Jr.

Gammage & Burnham

As an introduction to this discussion on water issues, Godec showed a short video by the *Beyond the Mirage* organization that has recently been formed, spearheaded by the University of Arizona. This organization was the winning submittal in the just-awarded \$100,000 competitive grant from the Arizona Community Foundation, a Phoenix-based philanthropic organization, to heighten awareness of Arizona's water challenges. Their concept is to ask individuals, groups, and organizations to create their own videos about water, using a "clip stack".

Godec then summarized the group's previous explorations of the water topic. He introduced the guest speaker, Grady Gammage, who is an attorney specializing in real estate development issues. Gammage is the author of the book *Phoenix in Perspective* and numerous articles on land use and growth issues. He is also recognized as an authority on water policy issues in Arizona. In addition to authoring many papers on water, Gammage served on the Central Arizona Project Board of Directors for 12 years. He also has extensive experience in the Pinal County general planning process and State Land issues through his practice and his work with the Morrison Institute at Arizona State University. His report *Watering the Sun Corridor* was issued by the Morrison Institute in 2011.

Gammage said that the most frequently-asked question most people have is "*Do we have enough water, and when will we run out?*" He equated this with the question "*Do you have enough money?*" It depends on how you use it, what you need, what you want to do with it, and how you manage it. He noted that Arizona is not at all in the same position as California with regard to water policy. California just adopted a groundwater management act this month, but it does not apply to agriculture. He also contrasted Arizona to Nevada, which is sometimes held up as a good water management state. The reasons we are in a better position than our neighbor states is that we made early investments in water management, decades ago, and we have mechanisms to shift use from agriculture in times of shortage. He described the reservoir system as a method of regulating water supply, and described the water banking system the state has put in place. Climate change will likely exacerbate the situation. Atlanta has 28 days of storage five years ago, because they assume it will always rain; Phoenix plans for at least a 5-year storage capacity. We are, therefore, better off than any of the other drought-affected Western states.

In his report *Watering the Sun Corridor*, the assumption was that supply would be reduced by about 15%; today it could be estimated to be about 25%. In the Sun Corridor – an area roughly from Prescott to Tucson – aggregate water supply inputs are about 2.2 million acre feet per year (af/year), and we use about 3 million acre feet, primarily because Pinal County “mines” groundwater. Of this, 2/3 is used for farming and 1/3 is used for urban applications. [Note: 1 acre foot = 325,000 gallons]

Public education about water issues is often too simplistic and does not address the ‘big picture’ issue, which is about choices. Choices about residential water conservation can make a big difference, for example; landscaping including pools uses 50-80% of water. Tucson has aggressive block pricing, so the more you use the more expensive it is, using the concept that you get the water you need to live on for a cheap price but the extras cost more. Tempe is planning to put excess water in a “bank” that can be used for a variety of things like Tempe Town Lake. Water consumption in the Phoenix area has been reduced by 15% in the last 15 years, mainly through public education.

The Kyle Center for Water Policy was started at ASU last year to tackle 3 big issues:

- to jumpstart completing the various ongoing water rights adjudications, primarily about agricultural pumping, so everyone knows how much water they have
- to evaluate how we use the water we have
- to explore ways of augmenting the water supply

Gammage thinks that the problem with competitions like the one mentioned is that they want to just skip to the third step because they want to avoid the tough issues of adjudications and reallocations.

The group had a wide-ranging discussion about many aspects of the water landscape in response to the various issues and facts outlined by Mr. Gammage. A summary of the main points and questions follows:

Regarding Water Supply & Uses

- *Do we have enough water, and when will we run out?* This is like asking, “Do you have enough money?” It depends on how you use it, what you need, what you want to do with it, and how you manage it.
- U.S. water consumption is about 150 gallons per day (gpd) per household. In China, it’s only about 22 gpd, and in Australia is about 50 gpd. Consumption in Arizona’s “Sun Corridor” (mainly Maricopa and Pinal counties) is 200 gpd, in Tucson only 100 gpd, and new developments use about 150 gpd.
- Public education about water issues is often too simplistic and does not address the big picture issue, which is about **choices**.
- The State of Arizona uses about the same amount of water we used in 1950. We have a lot less agriculture, and residential consumption has dropped about 20% in the past decades.

- Water consumption in the Phoenix area has dropped by 15% in the last 15 years.
- Landscaping, including pools, accounts for 50-80% of urban water consumption in Phoenix.
- Non-residential water uses include mainly agriculture as well as mining and other industries like data centers (which are water-intensive compared to their employment level).
- Arizona is well-positioned compared to other Western states because:
 - We started making investments in water conservation and management decades ago.
 - We have mechanisms for shifting water from agricultural uses in times of shortage.
 - We have the Groundwater Management Act, which established Active Management Areas to regulate and conserve the use of groundwater in designated areas.
 - We practice groundwater banking.
 - Phoenix plans for at least a 5-year storage capacity.
- In the Sun Corridor, water supply inputs are about 2.2 million acre feet per year (af/yr), and we use about 3 million af/yr, primarily because Pinal County mines groundwater. Of this, 2 million af/yr is used for agriculture and 1 million af/yr goes to urban uses.
- Main water supplies include:
 - Water banking – represents a 3-year supply for agriculture and a 7-year supply for urban uses.
 - Salt and Verde River reservoirs store about 2.2 million acre feet.
 - On the Colorado River and Central Arizona Project (CAP) system, Lake Pleasant stores about 700,000 acre feet, and Lake Mead and Lake Powell store about 15 million acre feet each.
- Some new technologies and ideas about new water sources, like desalination and cloud seeding, are being explored but are not yet viable on a large scale.
- *If CAP doesn't get its full allocation in 2017, what does that mean?* Farmers may not get their entire allocation. The CAP deliveries would need to be cut in half before it affects cities, but if this happened, cities may begin to use some groundwater.
- Water banking mainly consists of direct recharge (letting water seep into the ground). This is a way of storing CAP water, which Arizona started doing to “keep it away from California”.
- *How much of banked water is lost?* The law requires a 10% cut to the aquifer. We don't know if or how much of the actual water is lost.
- How do you know the water that's banked is really there?
 - It's unlikely that it could be stolen, but it may migrate away from the injection site. This is being monitored. Another question is what happens to it chemically; sometimes the banked water quality is not as good as groundwater, and sometimes the groundwater may have contaminants; we don't really know for sure.
- There is also an issue with transporting banked water long distances to where it's needed. For example, there are very large aquifers in Harquahala Valley and Butler Valley, for which the water may be pumped at great expense to places like Superstition Vistas. To date, Arizona hasn't had the kind of “water wars” that have occurred in California.
- The Superstition Vistas development could ultimately house a population of 800,000. At the current rate of consumption, this would require about 400,000 acre feet of water per year. New subdivisions tend to be more water-conserving than older ones, however. A new

planned 25,000-home development near Tucson, for example, will use 60% less water than the current use (pecan orchard).

- *Should we just buy food from China and other countries rather than grow it here? Is agriculture not as important as other uses?* Until agriculture can make rational decisions based on the price of water, we won't be growing the right crops. We have no policies in Arizona to preserve agriculture; the de facto policy is that agriculture will eventually go away. But there will always be agriculture because of the Native American communities. Agriculture is a heritage use, going back thousands of years.
- *Wouldn't the best thing be to control land development and population growth?* There was debate about this among the group. Gammage noted that if it weren't for immigration, there would be a negative population growth in the U.S. In Arizona, sunshine, cheap land, and cheap houses have driven development here. We are able to attract industries like call centers because of low costs and low wages. Also, our weather is conducive to 24-hour/7-day operations.
- The group talked about choices. An observation is that the new Apple \$4-billion data center will have about 200 employees, versus the Resolution Copper Mine that will employ about 1,500 people. The data center jobs are relatively high paying, but there aren't as many.
- Regarding Salt River Project flood irrigation used in metro Phoenix, is it true that they will stop doing that? Gammage hasn't heard that, although SRP has worked with cities to give incentives to get off flooding. The remnant flood irrigation systems have a cultural and historic character that we may want to preserve because of that.

Regarding Resolution Copper Project (RCP)

- The amount of water the Resolution Copper Project needs (18,000 acre feet) is significant but not huge in the large scheme of water use in Arizona, and should be able to be solved. This equates to enough water for 36,000 families, or 3 Tempe Town Lakes. By comparison, agriculture uses 2 million af/yr, or 5-6 af per acre per year. Golf courses use 1 million gallons per day, or 3-4,000 af, so this project would use about as much water as 6 golf courses.
- The RCP is within the Phoenix Active Management Area (AMA) for groundwater, so AMA requirements apply to mine water use.
- The tailings operation does not use groundwater, so AMA requirements are not applicable.
- If the RCP overpumps water or pollutes groundwater, the Arizona Dept. of Water Resources would have jurisdiction over regulatory compliance.
- *How much of the pumped water from the mine is being sent to new Magma Irrigation District?* 1000 gallons per minute. This is less than 5% of what the farmers are using.
- Superior's water problem will not be the mine, but will be the growth in metro Phoenix, with which this area will be competing.
- This project will not affect water supply in Phoenix.
- *Some members of the CWG would like to see the tailings site on State Land at Superstition Vistas.* According to Gammage, it will never be placed on State Land. All of this land is slated for potential development, and this use would blight surrounding properties. The State Land Department regards their one permitted landfill as the worst decision they ever made. The only way it would happen is if the Governor ordered it.

- *Will there be a time when we can't mine copper because of water supply?* We won't stop mining copper due to water use, because the value of the copper is far greater than the value of the water used. If there is a locally-significant reason why some water source isn't suitable, then choices need to be made. New technologies may affect this situation, as well.
- *What can the Community Working Group do going forward to convey accurate information?* Gammage suggested that when people say we're running out of water, try using the financial analogy noted at the beginning of this summary. It's about choices, and if we make the right choices we will not likely run out of water.

Public Questions & Comments

Visitors had the following questions and comments:

- Does mining take about 10% of the state's water?
 - That percent goes to all industrial uses, not for agriculture or municipal uses.
- A visitor said that a friend of hers in Phoenix is afraid that the Resolution project will affect water supply in Phoenix.
 - That will never happen. The water sources are completely separated.
- Is the way Israel grows things applicable to Arizona?
 - Sharon Megdal at University of Arizona is an expert in this topic of arid land agriculture. We are more efficient than California, but nowhere near as efficient as the Middle East.
- Will this project have a negative impact on anybody's water?
 - Gammage doesn't know enough about this project to answer that. If there are other uses in the same aquifer as the mine, they may be affected, since "the biggest straw wins".

A representative of the Superior Historical Society invited participants to an event on April 25, when there will be a dedication of an ore cart at the food court at 11:00, and at 1:00 in the caboose park.

Future Meeting Planning

Next Meeting:

5:30 PM

Wednesday, May 13, 2015

Superior Chamber of Commerce

Bill Carter, the author of the book *Boom, Bust, Boom*, has been invited as our guest speaker.