

June 15, 2010

[JAMES KANELOS STATEMENT ON WATER ISSUES]

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June 15, 2010 Arizona Corporation Commission

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Distinguished members of the committee.

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My name is James Kanelos, I live in Sacramento Valley, Mohave County, Arizona. I am a member of the Mohave County Local Drought Impact Group, Northwest Arizona Watershed Council, Arizona Geological & Hydrological Societies, also a member of the American Solar Energy Association, the oldest and largest professional solar energy organization in the United States, founded in 1954. I, like many others believe that investments, from the "private sector" in renewable energy sources is vital to our nations future. Solar is one of those sources.

As you have heard from the public in general, at your last series of hearings, the major concerns in Mohave County, both with this project now before you and others pending is water usage. I will not take up your valuable time repeating those concerns. What I wish to present to you is a basic outline of the problems I see, not so much from the view point of pro's and con's of this project but the system itself. The Arizona water rules and regulations are archaic, dysfunctional, and basically inequitable to both the public in general and solar energy industry.

The problems occur due to the fact there is NO scientifically substantiated data available on "water usage", "water availability", "aquifer recharge rates" and for industry NO water usage monitoring.

The current systems of determining these factors, "modeling", "numeric projections", is nothing more than smoke and mirrors pseudo science. It is based on very little definitive data, lots of conjecture, questionable projections, and inductive formulations that defy the rules of definitive formulation math and physics. Worse yet, the hydrological community knows all of this. Yet they continue. This is partially, but not exclusively due to established state regulations. Under the current system a number of speculative "modeling" for a particular aquifer are compared, cross referenced, and then by total guess work, non-linear math, non-definitive results are produced. It's like, adding $2+2+2+2$ and coming up with 7 or maybe 12.

Recently, the Arizona Department of Water Resources (ADWR), released an incomplete, "water availability" and "water usage" report for the Hualapai Basin and Sacramento Valley Basin. Within two weeks, ADWR stated they could not use those numbers for any considerations for "water availability". Their own numbers, which our tax payers paid for. We're back to "crystal ball" estimates. This is NOT fair to the industrial-commercial water users, the farmer-ranchers, municipalities-utilities, or the residential users. Further, THIS project began it's "water availability", based on agricultural usage, raising crops. Then it became a housing development. And now a solar heated energy plant. From apples to oranges to bananas. What seems to be missed here, is it doesn't matter how much water is determined "available". There is NO means or authority of ANY

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government agency to actually monitor the water usage. Once in place the industry is free to use all of the water they want! They pay NO tax or fee on the water they use. There is NO penalty for over usage. There is No means to curtail usage, or limit usage during drought conditions, or water shortages. There is NO legal requirement for the company to recycle water. Even the Arizona Corporation Commission's authority ends, once they approve the project. With all the terms and conditions they may attach, reporting water usage is NOT legally one of their options. NOT YET! Hopefully in the very near future, this can be changed. ADWR has NO monitoring authority on industrial wells, and even if they did, they currently can not even monitor their own established Active Management Areas.

Municipalities, counties and the state are faced with hard core problems when it comes to "water usage" issues. Not just here in Mohave County but throughout the state. And not just our state, but throughout the southwest, and even many other states including Oklahoma, Arkansas, parts of Florida and more. With the current economic decline all levels of government are seeking more growth to cover dwindling revenues, and build infrastructure. Unfortunately the Mohave County Government has chosen a "*it's not our problem*", approach and has determined that they would follow whatever guidelines the Arizona Department of Water Resources, the Arizona Corporation Commission, and to some extent the Arizona Department of Environmental Quality. None of these agencies have "guidelines" for assessing growth factors versus water availability or usage, within the county. And what little guidance is available to county governments comes from "reports" that

not even the publishers support. The county has stated it would follow the ADWR 1200 ft water level guide, which proves that the county government has no concept of what this "arbitrary" water level number means, or how it is applied. Further, the 1200 ft water level was established as a "guideline" to alert government agencies of significant water depletion, and NOT a legal nor enforceable standard. It has nothing to do with the actual water available in any particular basins. For decades the "water buffalos" (an affectionate term used within the governments hydrological community of ADWR and other taxpayer supported agencies), have been using these "alert" numbers to justify ever on going studies, without any factual or definitive results. The results of any one study are specifically designed to trigger further study, not produce scientific conclusions. The 100 year "water supply" concept, has been proven to be illusionary in less than 40 years.

This is NOT a case of the blind leading the blind. It's far worse. At least with that old phrase, it can be assumed that there is a destination. How can there be a destination if we don't even know where we're starting from, and no idea where we want to go?

A friend of mine, told me that his grandfather advised him once, "If you don't have an answer. Don't present the problem." I hope I have sufficiently outline the basic problems, of a very complex issue, and I submit these partial answers.

First: We must scrap the archaic rules and regulations. Hopefully the Governors Blue Ribbon Panel on Water can accomplish this. Legislation is required to fix the problems. Both the ACC and ADWR are bending and often cross their respective lines of granted legislative authority to deal with these

issue. This is understandable, as there is no agency that currently has such authority. It most certainly can not be placed in the hands of the legislature itself. The obvious choice would be the ACC as they are elected by the people.

Second: The hoodoo, mystical, "water modeling" formulas now in use by ADWR will be replaced with definitive, linear math, approaching something close to real science. Real math would be even better. It would be refreshing if ADWR could add 2+2 and come up with "4".

Third: That comparative "water usage" analysis be initiated in ALL applications for "adequate water supply" and change of usage. Alfalfa has absolutely nothing to do with housing and neither has anything to do with solar energy usage.

Fourth: The good of the people MUST be first priority of municipal, county and state government, far above "revenue generation". Local government entities have to accept their responsibilities to protect the interests of their citizens. Not pass the buck. County and city governments by and through their General Plans and amendments have the sole authority when dealing with the uses proposed on private property, and that is inclusive of water usage. This authority is completely separate from the subdivision approvals subject to SB 1575 language adoption.

Fifth: When there is doubt, all agencies should act on the side of reason and caution. Don't throw the baby out with the bath water... find a way to keep them both. It can be done.

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Sixth: This is the United States of America, the most innovative, creative nation on the planet.

There is NO challenge we can not meet, if we set our collective minds on it. There are means to obtain the factual, scientific data we need for proper determination of water issues. They exist **NOW!**

And everyone in the geological-hydrological community know it.

Growth? Yes!

Renewable Energy? Yes!

Sustainable water usage? Yes!

It can be done! With proper planning! With caution! With cooperation! And using the proper scientific method.

Thank you for your time and consideration.

I am James Kanelos, Arizona Master Watershed Steward

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