

A Water Perspective

by Steve Knell, General Manager

Here's a water fact that might surprise you; 46% of the world's population has no running water in their homes. With no running water in one's house means one would have to "walk" some distance to get water for their daily needs. Another fact; the "average walk to water" for 46% of the world's population is 3.7 miles.

It's these facts about the availability of water in our world that makes me appreciative of living in this great country. Having spent a few years working in different countries my view on water and agriculture is different than most. I thought I would share some of that perspective.

A few weeks back OID hosted a group of Saudi Arabian government officials who wanted to look at the advanced canal control technology OID is implementing in its water delivery system. They are in need of a high level canal control system for water management in their country. Why?

Syria, Iraq, Saudi Arabia and other middle-eastern countries are arid desert regions. Their water supplies come from pumping their underground aquifers. They pump that groundwater into open canals for delivery to farm fields. They are looking at high efficient management systems, which OID has, to improve their water delivery efficiency and reduce canal waste. Why? They are running out of groundwater.

While decades ago, the abundance of their underground aquifers allowed for agricultural expansion in these countries. Today that groundwater-based food bubble is about to burst. Depletion of their aquifers is diminishing their ability to produce food domestically. While 20 years ago Saudi Arabia was wheat self-sufficient, that distinction is ending as aquifers become less productive and more saline. Hence, being more efficient in delivery of water can delay that eventuality.

While middle-eastern country declines in groundwater are noteworthy, the largest groundwater-based food bubbles in the world are in India and China. In a World Food Bank Report, 175 million people in India and 130 million in China are fed domestically from food produced by over-pumped aquifers. Aquifers that are showing a diminished ability to continue as a water source, ergo the World Food Bank's concern who has invested heavily in these regions to develop food self-sufficiency.

Another bit of world news to brighten your day, at tonight's dinner table there will be 219,000 more mouths to feed that weren't

there at last night's meal. That's population growth in our world. We live in world that is seeing more undeveloped countries becoming developed. More developed countries means greater affluence. More affluence means more demand for higher priced meat, milk and egg products (protein sources) and that means more water demands by producers to fill that food void.

As a side note, the explosion in the world's demand for nuts is a reflection on this world demand for protein. What better source of protein, for countries that lack electricity and thus refrigeration, than can be found in almonds, walnuts and pistachios. While some may point fingers at this crop for a variety of reasons, the benefits of this high protein, long shelf life commodity in developing nations has been very nutritionally beneficial.

A long time ago I attended a California Irrigation Institute Conference in which they had a speaker from Europe talk on the subject of Ag and the Environment. He said something that rang true then and which I see today. He said, "Until America experiences the effects of famine it will not come to terms with its environmental issues. Once you experience famine, as European countries have, your national focus on what's important will become clear between the two."

Central Valley agriculture lost 1.2 million acre feet under the 1992 Central Valley Improvement Act for the purpose of improving the delta environment. The delta has only gotten worse. Today, our State Government is attempting to "take" 40% of the unimpaired water flow from the San Joaquin River and 60% from the Sacramento River, totaling 1.0 million more acre feet, in another attempt at improving the delta environment. An environment that some scientist now say is non-recoverable.

The Central Valley is an anomaly of climate, soil, snow fed streams and geography not equaled elsewhere in the world. At a time when food production capabilities need to be expanded and developed in preparation for a challenging food-future we are experiencing a State Government who is diminishing and dismantling that capacity. That should be concerning to everyone.

A strong, vibrant and sustainable agricultural sector, utilizing the latest irrigation and agronomic technologies, in an effort to produce more with less, and a track record of doing so, should be looked at as a national security asset and treated as such. That's my perspective.

HOW MUCH WATER DOES IT TAKE TO GROW OR MAKE...?



1.1 gallon per almond



634 gallons for ¼ pound hamburger



18 gallons for an apple



35 gallons 4 oz. glass of wine

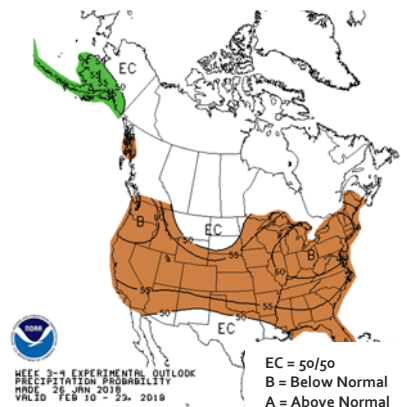


2,866 gallons pair of jeans



39,090 gallons 1 mid-size car

Precipitation Probability February 10th-23rd



New Melones Inflow

October	50,294 acre feet
November	51,083
December	56,645
January	56,506

Total inflow as of February 1, 2018 215,000.
Total inflow is 89% of 15-year average.



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