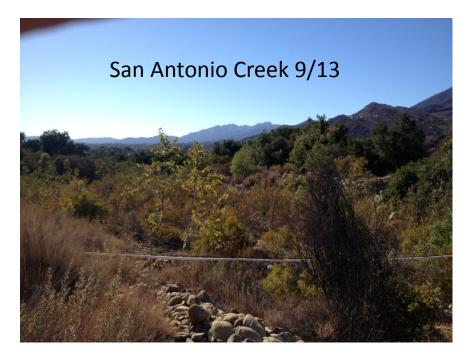


Ventura River Watershed

Challenges and issues for Ojai's citrus growers

Challenges

- Our crops use water
- Day to Day and Costs
- Reliability of Sources
- Ojai farmers adapt
- Hopes and Wishes
- The Future



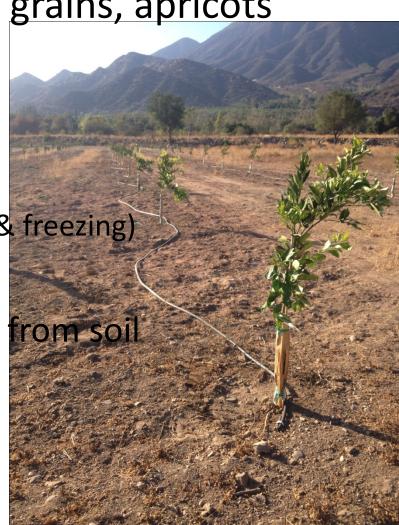


Our crops need irrigation

Previous dry-farmed crops; grains, apricots

Not economical, rocky soil

- How much: It depends!
 - Weather;
 - rain, wind, temperature (hot & freezing)
 - Age of trees
 - Soil type; need to flush salts from soil
 - Crop load on tree



Day to Day & Costs

- Hope to not irrigate November through March
- Irrigation costs— labor: we check EVERY sprinkler (one per tree; 140+ per acre); water cost, stress. \$= water, electricity
- Stress= irrigation system breakdowns; pumps, wildlife (ants, weeds, snails, coyotes, wild pigs), broken hoses, dogs, people and sand from wells
- International pressure

Water system for "medium sized" citrus farm in Spain, 2012!!



Reliability of our water sources

- Quality & Quantity
- Local water only
 - The sky, Lake, Streams/springs, groundwater
- Cropland change over years
 - Acreage under irrigation
 - 1932; 1,721 acres of citrus and avocados
 - 2013: 3,428 acres of citrus and avocados
 - Population of county > 9x
 - Citrus water use per acre =2-6 acre feet per acre per year household=1af/year

A typical medium sized well (irrigates 17 acres)



Ojai Farmers Adapt

- Farmers have reduced water use Switched to microsprinklers (vs. river diversion, furrow irrigation)
- More reliance on wells
- Citrus uses less water than vegetable (row crops), strawberries, avocados
- Current drought
 --45% reduction in use?

Hopes and Wishes

- That it will rain!
 - 2 inches every 10 days from November through April with a few bigger storms thrown in to fill the aquifers.



- That pumps didn't go out, coyote pups could chew on something else, the invasive species (ants, snails and psyllids) would disappear
- A more lucrative, less water consuming land use?

The Future

- Land owners expect to earn an income from the land they own
- Less farms, more water for those left?
- Subdivisions?
- Change is inevitable, but to what crop?







1969: Flood damage to east-end groves





Fordyce Road property, San Antonio creek jumped the bank and flowed through the orchard, taking soil away and deposting and exposing rock. Elmer Friend claims to have moved every rock on his land not once but twice....





Reeves Road property where Thacher Creek jumped the banks and took many of the citrus trees with it. This creek has jumped out in 1978 and 2005 as well.

Ideas?



Southern Spain, 2012



Camarillo



Dry land/ future bulldozer operators



Greenhouses