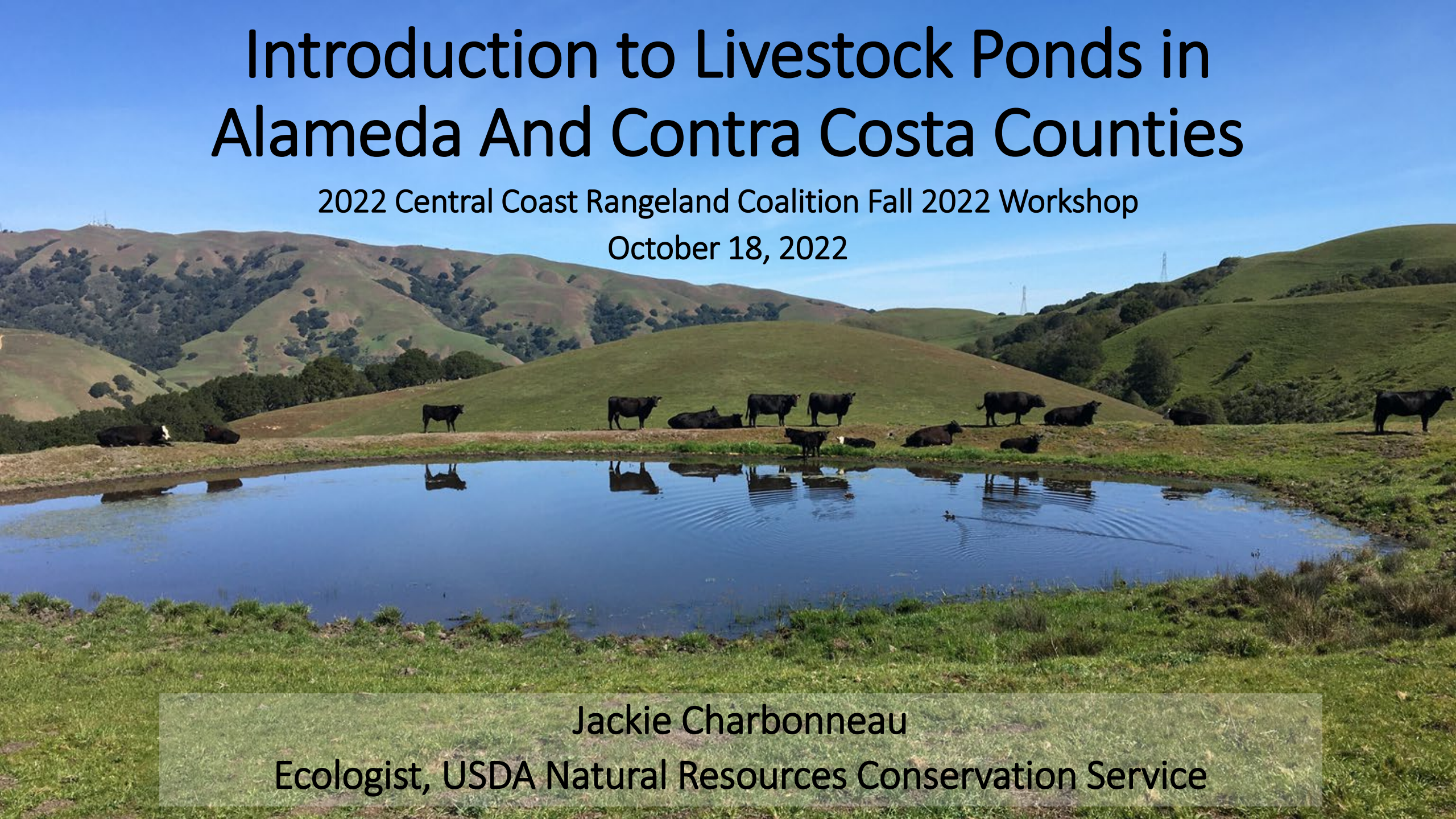
Introduction to Livestock Ponds in Alameda And Contra Costa Counties

2022 Central Coast Rangeland Coalition Fall 2022 Workshop

October 18, 2022



Jackie Charbonneau

Ecologist, USDA Natural Resources Conservation Service

Ponds in Alameda County and Contra Costa Counties History

- **Majority built between 1950s-1970s for livestock water**
- **Most designed and funded by NRCS (Soil Conservation Service)**

WITH GOVERNMENT HELP

Stock Ponds Put Arid Livermore Hills To Good Use

By HERB BODDY
Information Specialist
Soil Conservation Service

What can ranchers do when there's lots of good summer feed but nary a lick of stock water?

California stockmen are finding the answer today in low-cost storage ponds, handy to upland and mountain meadow grazing. Spurred on by their soil conservation district's technical assistance program, they've dug around 7,500 water "holes" in high country.

Many more ponds are needed before cattle can be turned loose on large acreages of little-grazed grasslands over the state.

One of the real bright spots in pond-building is in Alameda County where since 1952, the Soil Conservation Service has helped farmers and ranchers put in nearly 300 storage reservoirs. Stockmen outside the districts installed another 40 to 50 ponds.

To get the facts about ponds, we looked up Art Carns, who from his Livermore SCS office, has helped ranchers in the Eastern and Western Alameda SCD's work out many tough water problems.

Carns told us, "With livestock water from wells and springs so short, ponds are the rancher's of capsule size when compared to big lakes, helps in its way to stave off floods in normal and high intensity runoff seasons.

It's estimated that the 350 small dams in use in the county store about 1,000 acre feet of water or enough to cover a thousand acres one foot deep.

Ponds also provide ranchers and the Alameda County Fire Patrol with water for controlling grass fires.

And pond owners aren't overlooking the recreational values of their reservoirs. Fishing is good in 40 of these ponds.

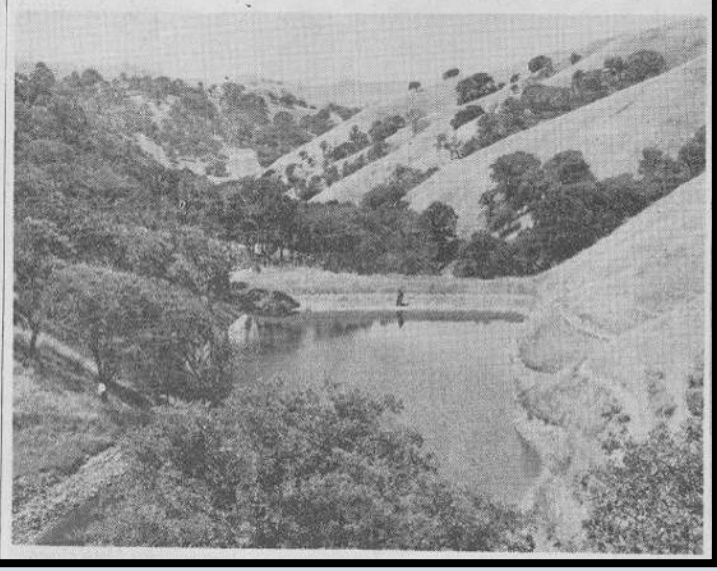
HOW TO DO IT

Let's say you want to build a pond.

First thing to do, says Carns, is to pick a suitable site for your dam.

He explains, "By a suitable site, I mean a place where there's soil material for holding water. A clay loam is best because it compacts well and doesn't leak.

"You'll want to find out, too, if your dam will store enough water. Supposing 400 cattle are going to use the water supply for eight months. At the rate of 10 gallons of water per cow per day, you would need a pond storing 960,000 gallons, or about three acre feet.



Water Holes for Cattle

By HERB BODDY
Soil Conservation Service

WHAT can ranchers do when there's lots of good summer feed but nary a lick of stock water?

California stockmen are finding the answer today in low-cost storage ponds, handy upland and mountain meadow grazing. Spurred on by their soil conservation districts' technical assistance program, they've dug around 7500 "water holes" in high range country.

ONE BRIGHT SPOT in pond-building is in Alameda County, where the Soil Conservation Service has helped farmers put in nearly 300 storage reservoirs since 1952. Stockmen outside the districts installed another 40 to 50 ponds.

Most Alameda County cattlemen run a cow-calf outfit, though some buy feeder calves and stick by a "stocker" form of ranching. In either case, stock ponds are a big help, especially for those storing water for both winter and summer use. All-season dams, of course, need to be built larger.

Rancher William Brockman, left, and A. G. Carns, Soil Conservation Service technician, check conservation farm plan at rim of $1000, three-acre-foot stock pond east of Livermore. Dam has 4000 cubic yard fill, serves 300 acres and waters 50 cows and 200 sheep.

Dams are needed in winter, you say?

YES SIR, because on steep rangelands runoff from heavy rains is rapid and live streams don't last very long.

Along with new ponds come miles of access roads. These range "freeways" shorten the travel time for cattle in reaching grasslands and make for more uniform use of feed.

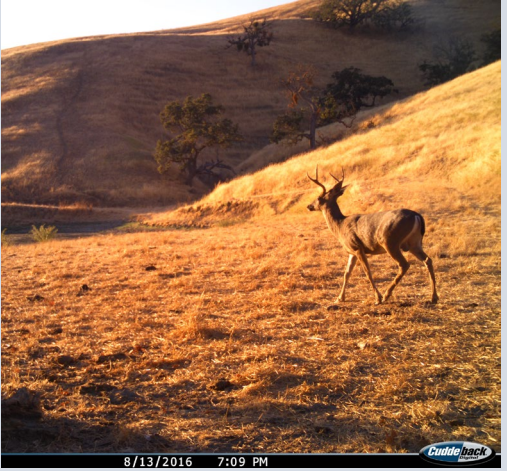
Water stored in ponds, though of capsule size when compared to big

Types of ponds

- Perennial
- Seasonal
- Emergent Vegetation
- Submergent Vegetation
- Springfed
- Rainfed
- Human-made
- Very Few “natural”

An Incidental Benefit

Livestock ponds built for cattle now provide important habitat for many species



An Incidental Benefit

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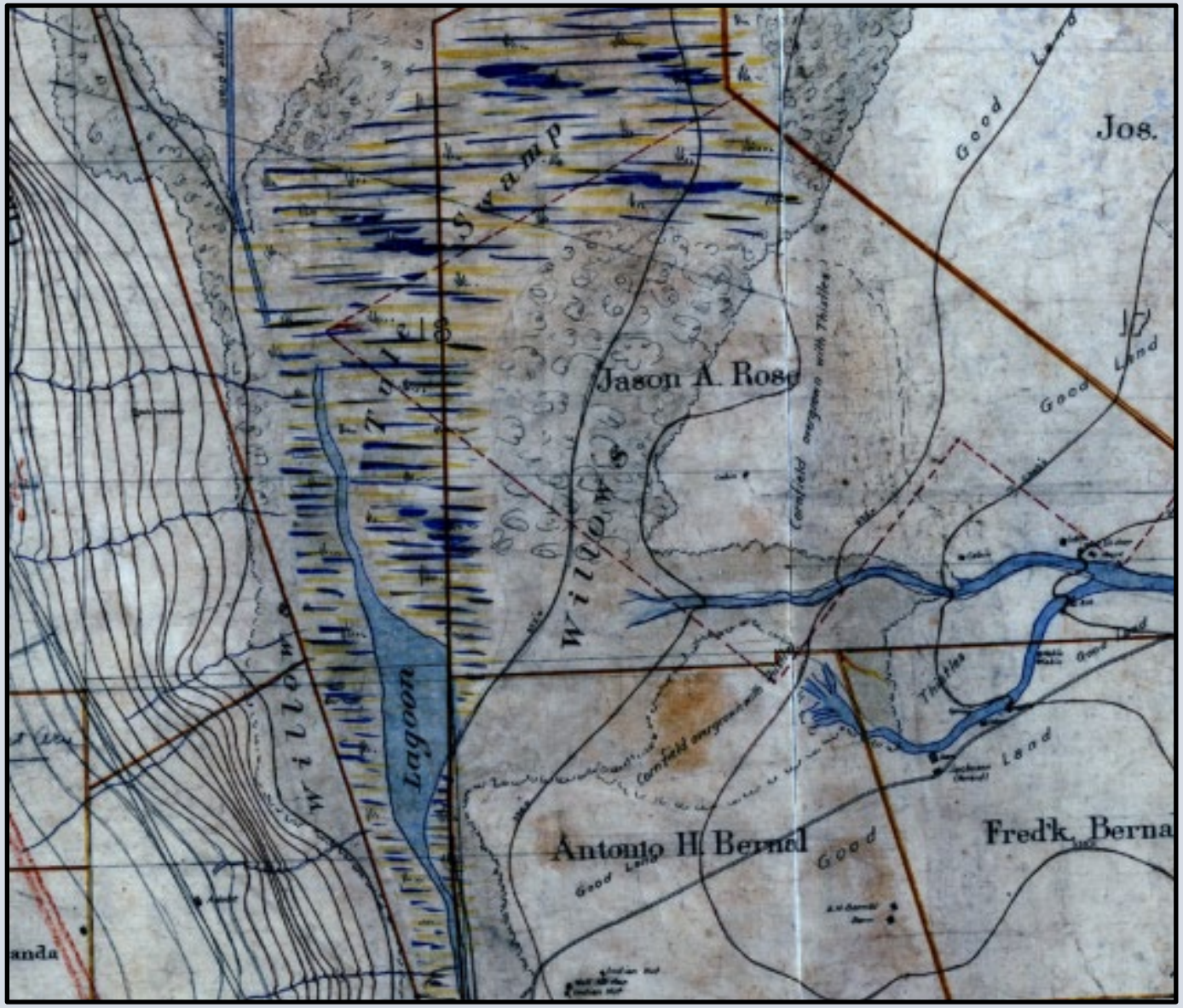
Replacement Habitat

- Historical habitat
  - Slow-moving creeks
  - Wetlands

- More habitat now because of livestock ponds?



Livestock Use Today

- Species Compatibility
- Critical during drought
- Grazing distribution
- Back up for livestock water systems

Ponds Today

What We Are Doing

- Working collaboratively with ranchers and partners
- Utilizing learned information to inform project-related decision making
- Funding
- Regulatory coordination
- Engineering to ensure longevity

Brief Overview of Process

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