

AVOIDING THE PITFALLS OF DAIRY EXPANSION

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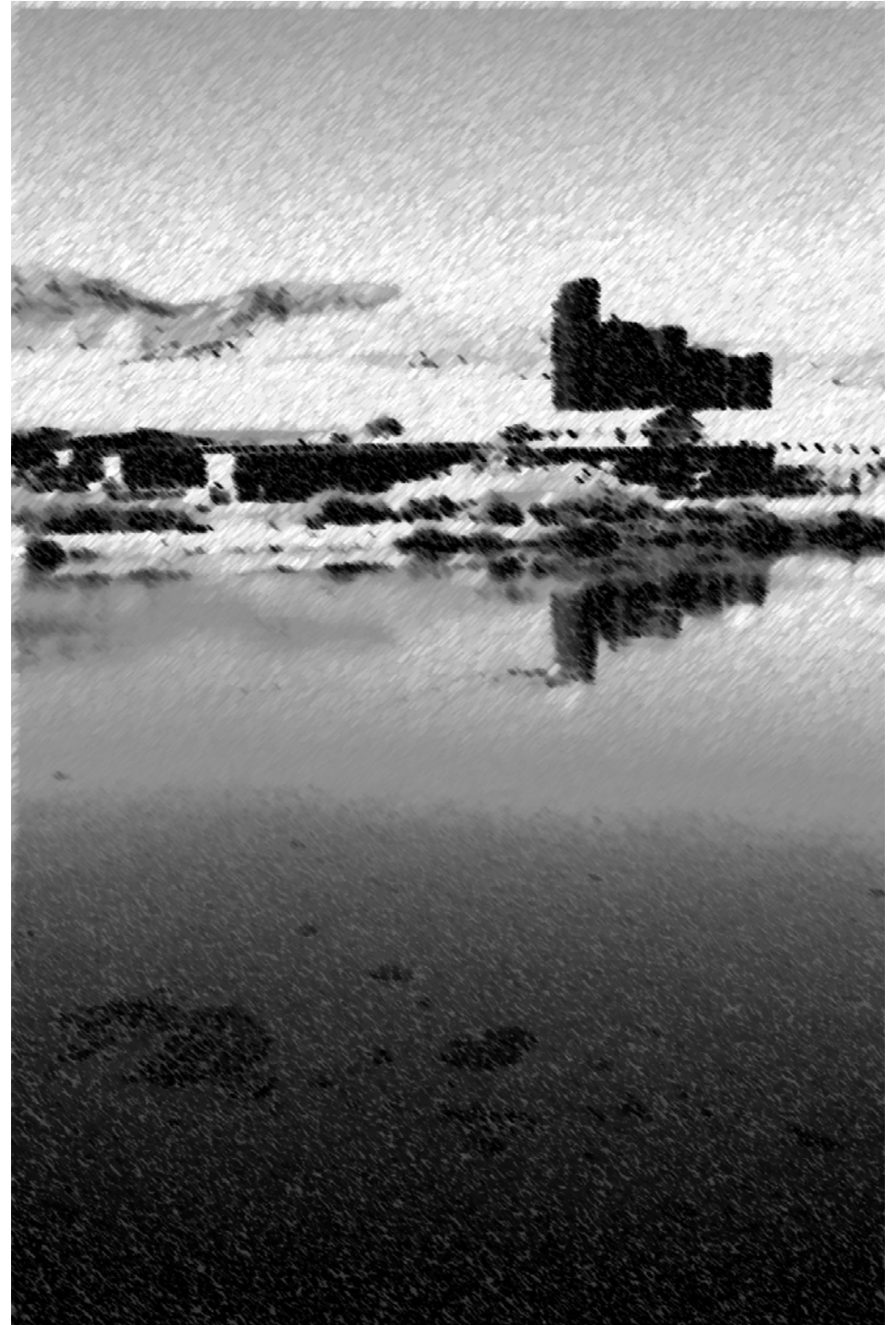


KEEPING YOUR HEAD ABOVE
WATER AND YOURSELF OUT OF
COURT!!



OUTLINE

1. Develop progressive promotions
2. Enhance collaborations and education
3. Scrutinize farm siting and design
4. Use the right technology for you
5. Take complaints seriously



1. DEVELOP PROGRESSIVE PROMOTIONS

○ *Green Sells*

- Highly educated and environmentally aware consumers, especially along Colorado's front-range
- Consumers feel that buying locally is more “environmentally sound”
- Organic milk is still a strong niche



What's your carbon footprint?



DEVELOP PROGRESSIVE PROMOTIONS

- *Green Sells*
- Produce “Name Brands” products
 - Citizens are less likely to persecute industries that they have a vested industry in
 - Perception: *no extra jobs in community*
 - Perception: *no additional money being spent or invested in community*
 - Negative – Idaho’s generic cheese production



POSITIVE PROMOTIONS



2. ENHANCE COLLABORATIONS AND EDUCATIONAL PROGRAMS

- Communicate with regulatory agencies
- Work closely with other western dairy associations and Western States Dairy Producers Trade Association (WSDPTA)
- Start dialogue with local citizen and environmental groups
- Educate your Association Board members and all members



3. SCRUTINIZE FARM SITTING AND DESIGN



You can't make a silk purse out of a sow's ear



THINK ABOUT THE DESIGN OF YOUR MANURE MANAGEMENT SYSTEM AS MUCH AS YOU DO YOUR NEW MILKING PARLOR.



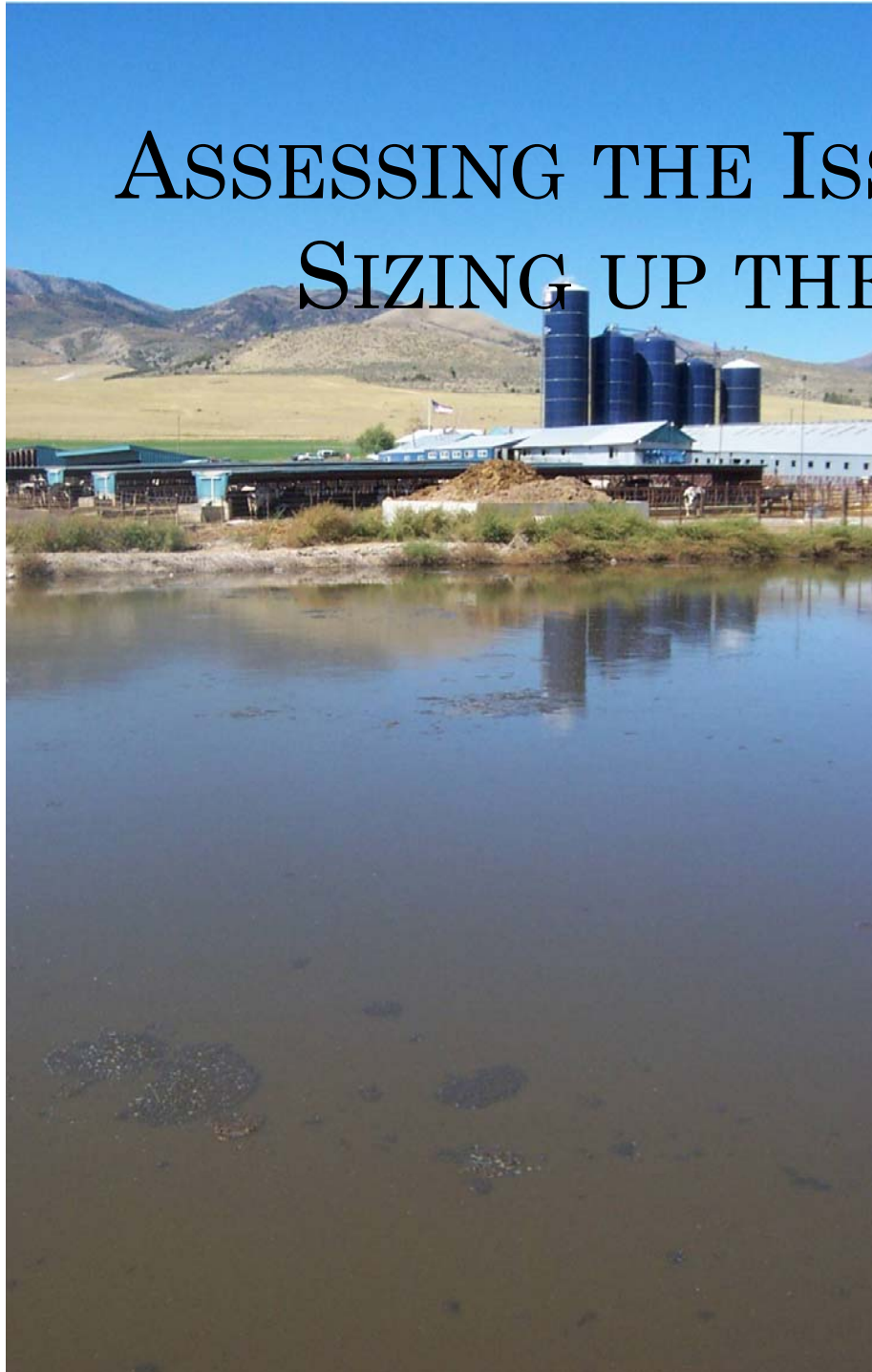
SCRUTINIZE FARM SITTING AND DESIGN

- Seek assistance of professionals, and neighbors



ASSESSING THE ISSUE

SIZING UP THE PROBLEM.....



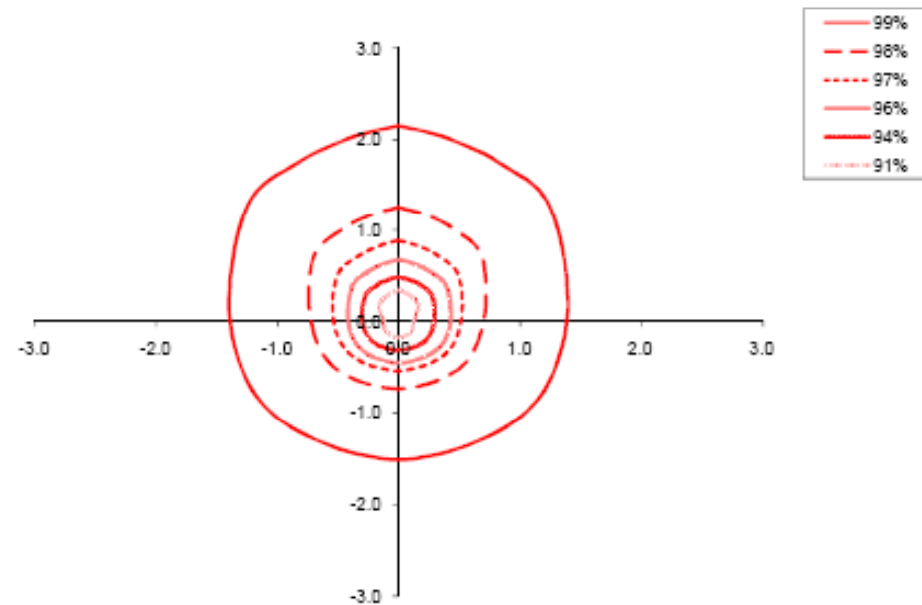
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USE SMART PLANNING TOOLS

- OFFSET
- OFT

- Estimate odor influence given implemented technologies and local weather conditions
- Based on scientific data



DUMB BUFFER



USE SMART BUFFERS



- Target odor transport
- New or expanding construction
- Develop scientific procedures to reduce occurrence not arbitrary distances
- Work with state and local governments to mirror setback for new “Non-Ag” construction



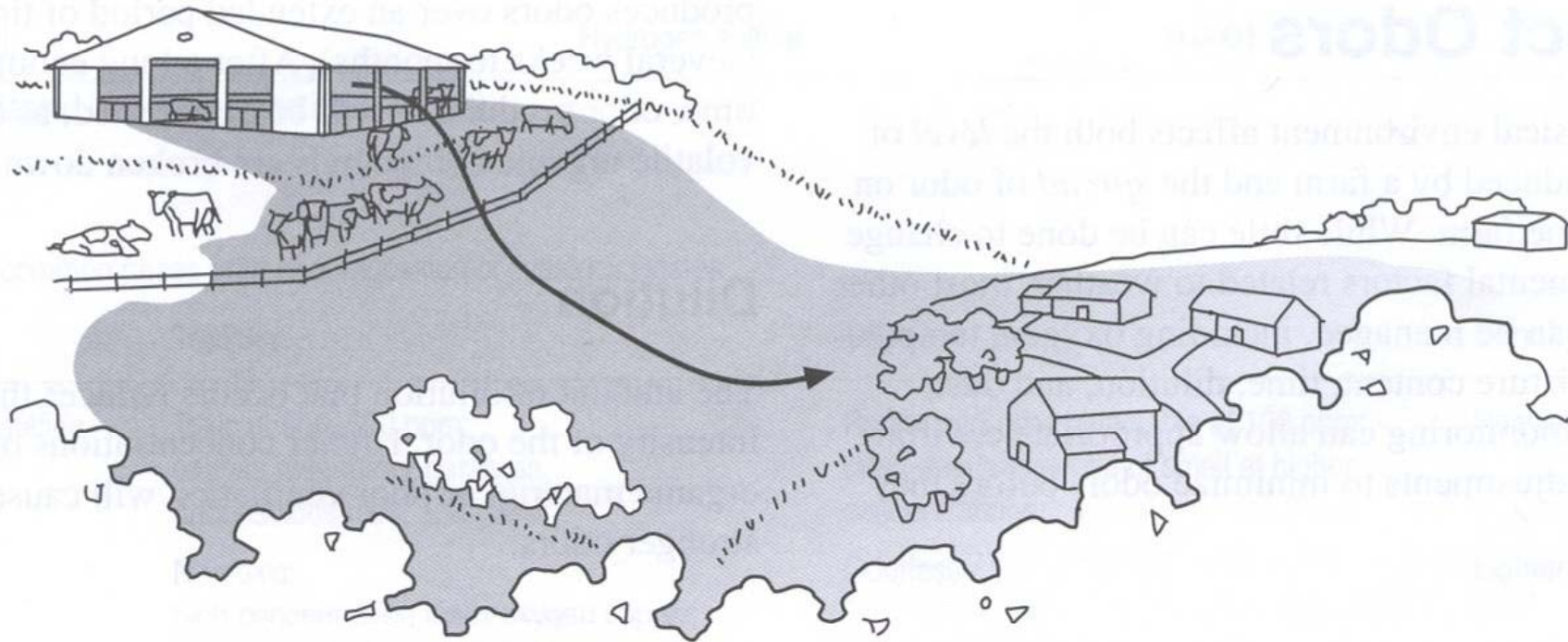
TECHNOLOGIES TO CONTROL ODOR



- *Prevent* odor generation
- *Capture or destroy* odors before any release to the atmosphere
- *Dispersion* or disguise of odors



SCRUTINIZE FARM SITTING AND DESIGN



- Heavy odors will “FLOW” downhill at night
- Never check if a farm has an odor problem in the afternoon



SUGGESTION 1:

SEEK ALTERNATIVES TO COPPER SULFATE

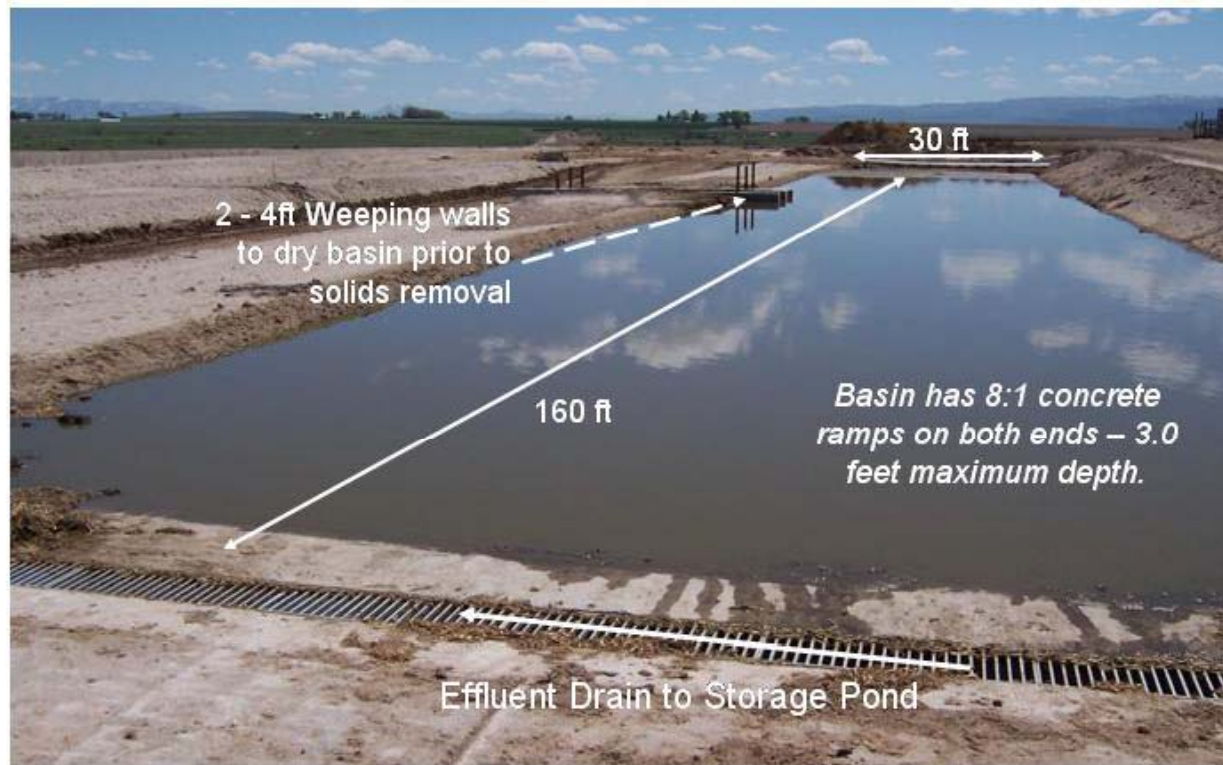


1. *Copper kills beneficial bacteria in lagoons*
2. *Sulfur converts to H_2S under anaerobic conditions in lagoon*



SUGGESTION 2: CONSIDER GRAVITY SEPARATION

Dual Stage Gravity Separator: *Quesnell-East Dairy*



1. *Not as convenient as mechanical separation*
2. *Significantly more efficient than any mechanical system*
3. *Need to be cleaned as designed to prevent odors and overflow*

