

BEST MANAGEMENT PRACTICE IMPLEMENTATION:

Barriers, Problems, Solutions, and
Work-Around's

Types of “BMP’s”

- “BMP” typically focused on one issue
- “Multiple-benefit” conservation practices (never think of single-function practices)
- Sediment traps (cheap, easy, effective)
- Ponds (+ sediment trap)
- Canal, ditch or levee vegetation
- Grassed waterways/filter strips/veg buffers
- Foothill oak-woodland native grass plantings
- Riparian enhancement







Barriers/Problems

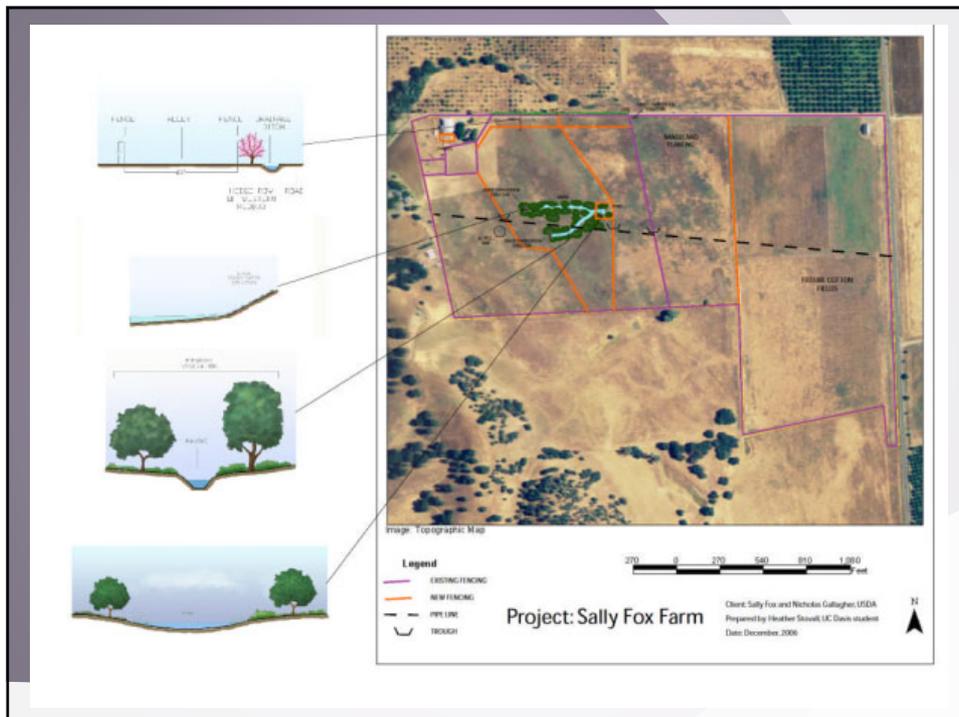
- Inertia
- Space (in the field)
- Know-how (techniques, plant materials)
- Funding (some are expensive, some not)
- Permits (grading, agency)
- Trust, other psychological barriers
- Compatibility with farming
- If grants: lack of understanding: impact of field seasons

Solutions/Workarounds

- Inertia – a matter of prioritization
- Space: unrecognized areas
- Know-how: information geared toward farmers/ranchers; plant lists, sample designs
- Funding: cost-share (NRCS), grants, other organizations
- Permits: YC Permit Coordination Program (SusCon)
 - Time needed to get them (3-year grants)

Solutions/Workarounds-cont'd

- Trust – patience,
 - long-term working relationships
 - Far-sightedness, big-picture thinking
- Farm compatibility- creativity
- Grant managers: education, info, communication
 - Get out in the field to SEE your projects!
 - Build understanding of field practices & conditions



Course Characterization

- “An effective watershed management plan defines and addresses existing and future water quantity and quality problems and provides realistic solutions to these problems for a specific watershed. . . Includes both point and non-point sources.”
- “An effective regulatory watershed management plan. . . “

Make it personal: neighborhood home

- City of Sacramento, not meeting w-quality effluent requirements (impending fines) for fats/oils and surfactants (soaps)
- Legal mandate to target, monitor, enforce pollutant producers: individual homeowners.
- Send contractors into neighborhoods to install automated sampler at home exit pipes with weekly data collection
- Fines levied for exceedances

Solution Options provided by City

- Capture tanks (install at your own expense)
- Oil substitutes suggested, or oil-free cooking recipes
- Shower less often (~ dishwasher, laundry)
- Monitor your own effluent
- No-one asked you what might work for you
- No consideration for the extra time it takes and that you have two young children.

Real-World Characterization

- An effective watershed management plan is one that has a high likelihood of being implemented (not enough public money to cost-share all implementation needed)
- It must solve landowner-identified problems, appeal to and work with their capabilities and resources
- It must not threaten their livelihoods or quality of life

YCRCD Watershed Plans

- Willow Slough Watershed Integrated Resources Management Plan (assessment and Plan)
- Capay Valley Watershed Stewardship Plan
 - Capay Valley Conservation and Restoration Manual
- Hungry Hollow Watershed Stewardship Plan

An Effective Watershed Plan:

- Soil health, stability (erosion)
- Water quality, quantity, availability
- Air quality
- Plant issues: Invasive species: plants (weeds), crop production, habitat
- Animal issues: domestic/wild, invasive species (bird, mammal, reptile, amphibian, insect)
- Human issues: financial viability, quality of life (individual & family), social/community, heritage

BMP Implementation

- Decision approaches & matrices
- Active grant with funding for practice installation: ponds, canal veg, riparian
- Requirement to develop a means for site selection on all practices

YSCP Canal Revegetation Site Selection Criteria				
		Site 1	Site 2	Site 3
	Required characteristics - no weighting (yes/no)			
1	Irrigation District interest in the project			
2	Landowner cooperation with the project.			
3	Adequate match/funding secured for the project			
	*Desired Characteristics - Rate each site 1 - 10 (10 = high) for each criterion; ratings are relative among sites, i.e. best site for each criterion does not have to score a 10			
4	Continuity of habitat			
5	Quality of habitat			
6	Canal stability and potential for leakage			
7	Physical accessibility (road access, staging and bank contouring equipment)			
8	Design complexity			
9	Threatened or Endangered species presence or potential			
10	Permitting issues			
11	Suitability as a Showcase site			

Note: A goal of the water district is to have its entire system of canals vegetated, therefore the relative qualities of each site are more important than strict threshold characteristics.

YSCP Pond Site Selection Criteria FINAL				
	Site 1	Site 2	Site 3	Site 4
Selection Criteria EXISTING PONDS Rate each criterion +/- 0 / - each landowner				
Fits overall project criteria				
size sufficiency				
Interest/cooperativeness of landowner				
Pond Depth				
Presence/condition of existing spawning habitat				
presence/condition of aquatic vegetation				
presence/condition of upland vegetation				
Status of undesirable fish populations				
Extent of excavation required				
Likelihood of maintaining required water depth				
Access to water source for pumping				
Overflow/access to neighboring waterway				
Ease of access by boat or vehicle				
Cost shar \$\$ in place				
Future usefulness for education				
Pesticide use/runoff				
OVERALL RATING				

	Site 5	Sit 6	Site 7	Site 8
Selection Criteria PONDS TO BUILD Rate each criterion +/- 0 / - each landowner				
Fits overall project criteria				
Interest/cooperativeness of landowner				
Likelihood of maintaining required water depth				
Access to water source for pumping				
Overflow/access to neighboring waterway				
Ease of access by boat or vehicle				
Cost share \$\$ in place				
Future usefulness for education				
Pesticide use/runoff				
OVERALL RATING				

YSCP Riparian Revegetation Site Selection Criteria - FINAL					
		Site 1	Site 2	Site 3	Site 4
	Selection Criteria	Rate each criterion 1 - 10 (10 = high), each site			
1	Landowner interest in the project				
2	Landowner goals for the site and the farm				
3	Secured funding, or high potential for funding				
4	Size of habitat or restoration area				
5	Quality of existing habitat or restoration area				
6	Lack of physical barriers or obstacles (narrow bridge, large trees in-channel, etc.) (10 = easiest to work with)				
7	Landowner ability to continue long-term maintenance				
8	Physical accessibility (people, equipment)				
9	Habitat connectivity/adjacent land				
10	Listed species presence or potential				
11	Permitting needs (10 = easiest to work with)				
12	Innovation factor of project				
13	Planned/funding for long-term monitoring				

Reality Check

- Single biggest barrier is finding a willing landowner.

