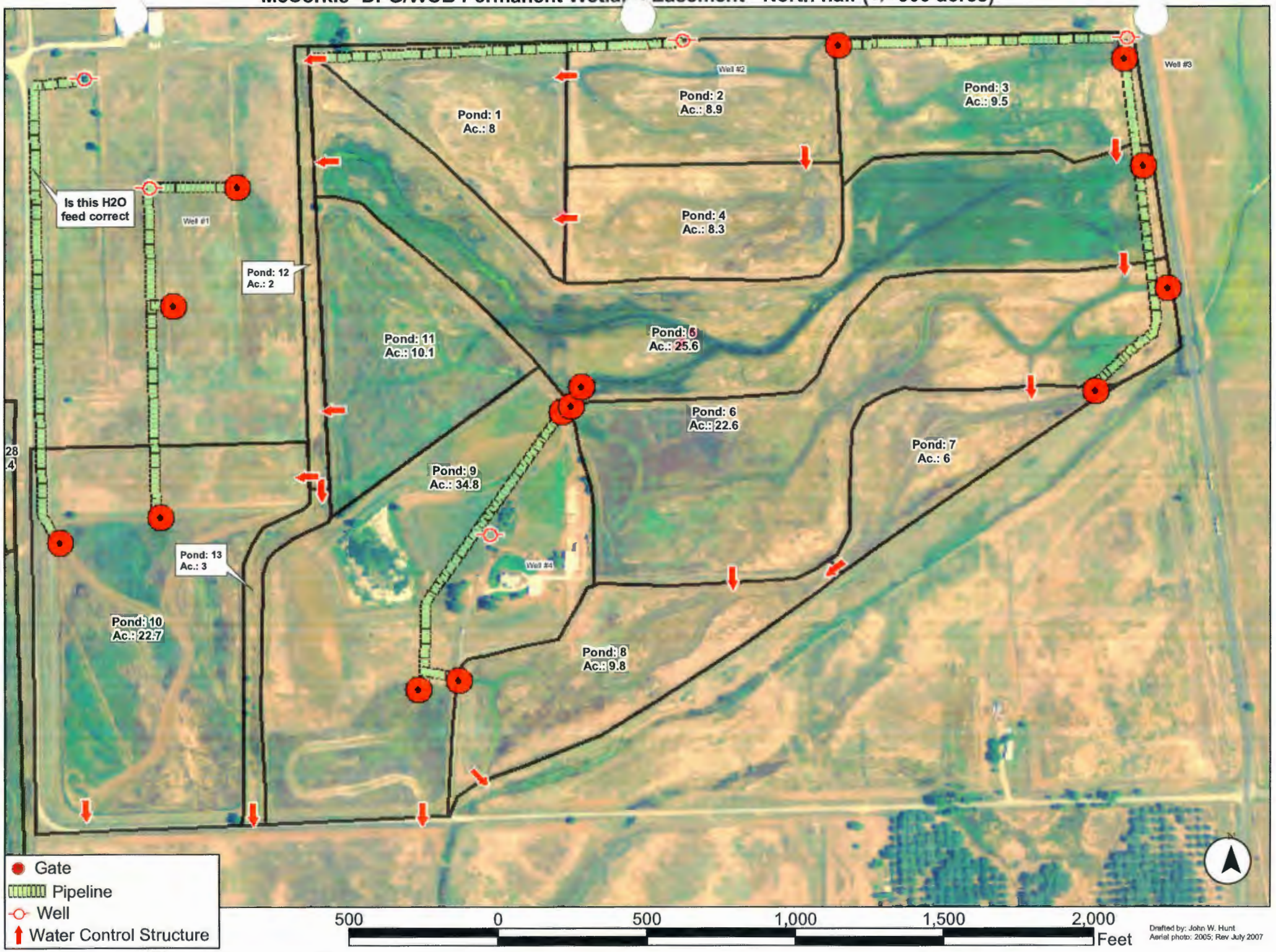
McCorkle- DFG/WCB Permanent Wetland Easement - North half (+/- 300 acres)



Drafted by: John W. Hunt
Aerial photo: 2005; Rev July 2007

To:
Mr. Bo T. Thorenfeldt
1325 Howard Ave., PMB 506
Burlingame, CA 94010

October 16th, 2007

Hi Bo,
Congratulations on your acquisition of the McCorkle Ranch Permanent Wetland Easement. I'm sending this letter as a follow-up to our September 27th site visit and subsequent discussions regarding management of the McCorkle Ranch. During the site visit, Ed Penny (California Department of Fish and Game) and I reviewed with you the requirements and objectives of the "Permanent Wetland Easement Program Management Plan" (Management Plan) for the McCorkle Ranch, the "Annual Work Plan" and the Permanent Wetland Easement Program, as well as the respective roles of the Contractor (landowner) and the State. More specifically, we discussed and agreed upon measures for reducing undesirable species, improving management to promote moist soil plants and enhancing wildlife habitat through tree plantings. Below is an overview of specific points covered during our site visit and subsequent discussions. We look forward to working with you and assisting with habitat management of the McCorkle Ranch.

Discing:
During a follow up site visit on Thursday, Ocober 11th I observed that you are continuing to disc the bottoms of the managed wetland ponds, which will help reduce undesirable species and promote growth of important waterfowl food plants such as watergrass (*Echinochloa crus-galli*) and annual smartweed (*Polygonum* spp.). You also informed me that your work was slowed due to equipment failure, however, work conducted to date looks good. Remember that, when discing, it is important to focus on areas of problem perennial vegetation which may encroach on pond bottoms, such as joint grass (*Paspalum distichum*) and Bermuda grass (*Cynodon dactylon*). Periodically, it will be important open up pockets in wetland vegetation though mowing and discing when perennial wetland vegetation becomes too dense.

Water Management:
Proper water managemen will be key for improving waterfowl habitat at the site. As we discussed, one of the most important strategies in moist soil management will be holding water into spring and conducting slow draw-downs between early April through May. This will encouraging germination of desirable species waterfowl food plants such as smartweed (earier draw-down) and water grass (later draw-down) and discourage germination of undesirable species. At least one flash irrigation (10-14 days) during the early- to mid-summer is required in order to promote optimal seed set of these species.

Uplands:
Uplands occur as various habitat components throughout the site and include: vegetation fringing levees, former crop-land (i.e. the northwest corner of the site) and as grasslands interspersed w/natural seasonal wetlands in the southern and easterly portions of the site. Uplands should be maintained as high quality nesting habitat. Disturbance of uplands during nesting season should be avoided from mid-March 1st through August 15th. Upland nesting habitat at the McCorkle property is important, not only to nesting waterfowl and upland gamebirds, but to a suite of native bird species. The management plan does allow planting of up to 30-acres of food plots within to site.

Natural wetlands and existing riparian areas:
Wetlands and riparian areas are to be maintained at the site. Natural wetlands (as opposed to managed wetlands) at the site occur primarily as seasonal wetlands/vernal pools and swales scattered within grassland habitat in the southern and easterly portions of the site. Riparian areas at the site are limited to a seasonal drainage running southwest from the eastern boundary toward the southwestern corner of the property. Currently, natural wetlands and associated uplands are dominated by nonnative annual grasses, which greatly reduces their biological diversity. As per our conversation, we will examine, and discuss with you, opportunities to improve management of these areas. Common techniques for reducing these weedy species including prescribed grazing and prescribed burning, though either of these may prove difficult or impractical. Furthermore, any practices to address management of weedy species at the site must be coordinated with, and incorporated into, the Management Plan.

Tree planting and riparian habitat improvements:
You also expressed interest in planting trees and shrubs in an effort to improve habitat throughout the property. I have attached a list of native plant species which will benefit wildlife and should do well at the property, as well as contact information for some local nurseries. Please review this list and contact me with any questions you may have. Species which can be propagated by cutting should be readily acquired within you watershed. I can assist you in acquiring either cuttings or nursery stock and provide you with appropriate methods for planting and maintenance.
We will also evaluate and discuss further with you opportunities and limitations for improving habitat along the seasonal drainage which runs southwesterly across the property. Please note, because efforts to modify riparian areas and drainages often affect their biological, structural and hydrologic integrity (either positively or negatively), detailed evaluation of potential modifications must be evaluated, often triggering a state permitting process.

Wetland development:
We briefly discussed your interest in developing wetlands in the northwestern corner of the site on former cropland. The State will evaluate opportunities for, and potential limitations too, wetland development in this area.

Permanent pond improvements:
Lastly, you informed us that you would like to improve the conditions of the small pond immediately west of the house. Measures you would like to take include draining, discing and compacting the pond bottom, followed by flooding up and management as a permanent pond. These practices fall within the realm of normal mainence described in the Management Plan and will help provide both brood water as well as permanent water habitat for non-game species. Periodic opening of vegetation to manage for a hemi-marsh (approximately 50/50 vegetated cover to open water) is recommended to enhance use by waterfowl.

The following is a summary of the Management Plan for the McCorkle Ranch requirements, which will help maintain optimum waterfowl habitat on the property (*Contact me if any problems or issues arise in fulfilling these requirements*):

Fall flooding:
- 30-acres flooded to depth of 4-12-inches by November 15th (may be deeper in swales and during flooding and highwater events)
- 120 acres … by December 15

Spring Drawdowns
Approximately 100-acres fo restored wetlands shall undergo slow drawdown between April and May to encourage germination of moist soil waterfowl food plants such as smartweed and watergrass

Spring Summer Irrigations
Seasonal wetland acreage (approximately 100-acres) shall receive at least one 7-14 day flash irrigation to encourage moist soil waterfowl food plants.

Brood Water
Minimum of 20-acres shall be flooded from March 1st through July 15th each year to maintain brood water. Location of brood pond acreage in any give year is at the discretion of the landowner.

Discing
Amount and location of discing will be conducted based upon bi-annual property visits conducted by the state with the landowner. The state will require annual discing on no more than 1/3 of the wetland acreage in any given year.

Upland Habitat
Uplands shall be managed as high quality nesting habitat. Up to 30-acres of upland areas may be planted as food plots.

Natural Wetlands and Riparian Areas
All natural wetlands and riparian ares shall be maintained in their natural state.

Habitat Modifications and Improvements:
Except for the above stated management practices, habitat modifications and improvements may not be conducted without prior consultation and approval by the State.

Based on our discussions and site visits, it appears you are moving site management in the right direction and have some excellent ideas. Again, please contact us if you have any questions and we look forward to working with you.

Sincerely,

John W. Hunt, Wildlife Biologist
USDA NRCS
150 Chuck Yeager Way, Suite A
Oroville, CA 95965
Office:(530)534-0112 x 117
FAX:(530)533-4936
john.hunt@ca.usda.gov

cc: Ed Penny, California Department of Fish and Game

Partial list of potential native plant species for wildlife habitat improvements at the McCorkle Ranch - shading indicates species with lower potential for successful establishment at site (continued).

Common Name	*Species Name*	Propagation Method	Comments
Shrubs (continued)			
Blue Elderberry	*Sambucus mexicana*	Nursery stock	Associated with Federally listed endangered species - Valley Elderberry Longhorn Beetle (VELB).
Hoary coffeeberry	*Rhamnus tomentella*	Nursery stock	Upland; Riparian
Buck Brush	*Ceanothus cuneatus*	Nursery stock	Upland; Extremely dry conditions
Hollyleaf Cherry	*Prunus ilicifolia*	Nursery stock	Upland; Extremely dry conditions
California Wild Rose	*Rosa californica*	Cuttings; Nursery stock	Riparian
Blackberry, California	*Rubus ursinus*	Runner cuttings; Nursery stock	Riparian
Button Willow	*Cephalanthus occidentalis*	Cuttings; Nursery stock	Moist areas
Vines			
Dutchman's Pipe	*Aristolochia californica*	Nursery stock	Riparian
Chapparal clematis	*Clematis lasiantha*	Cuttings; Nursery stock	Riparian areas in lower foothills along intermittent streams; Seeps and springs in lower foothill chapparal
Virgin's Bower	*Clematis ligusticifolia*	Cuttings; Nursery stock	Riparian; Wetlands
California Wild Grape	*Vitis californica*	Cuttings; Nursery stock	Riparian; Wetlands
Grasses			
Salt Grass	*Distichlis picata*	Direct Seeding; Plug planting	Seasonal wetlands with alkaline soils
Blue Wildrye	*Elymus glaucus*	Direct Seeding; Plug planting	Uplands to Riparian
Slender Wheatgrass	*Elymus trachycaulus*	Direct Seeding; Plug planting	Riparian; Wetlands
Meadow Barley	*Hordeum brachyantherum*	Direct Seeding; Plug planting	Riparian; Wetlands
Creeping Wildrye	*Leymus triticoides*	Direct Seeding; Plug planting	Riparian; Wetlands
Deergrass	*Muhlenbergia rigens*	Direct Seeding; Plug planting	Riparian; Seeps & Springs
Purple Needlegrass	*Nassella pulchra*	Direct Seeding; Plug planting	Uplands to Riparian

List of some commercial nurseries for native plants in the northern Central Valley:

CDF Magalia Reforestation Center
6640 Steiffer Road
Magalia, 95954
(530) 872-6301
cdfnursery@fire.ca.gov

Floral Native Nursery
2511 Floral Avenue
Chico, CA. 95973
(530) 892-2511
http://www.floralnativenursery.com

Native Springs Nursery
P.O. Box 4071
Yankee Hill, CA 95965
(530) 514-8578
http://www.nativespringsnursery.com

Cache Creek Nursery
PO Box 85
Rumsey, CA 95679
(530) 753-7729
http://www.cachecreeknursery.com

Hedgerow Farms
21905 County Road 88
Winters, CA 95694
(530) 662-6847
http://www.hedgerowfarms.com