2013 Grizzly Bear Conflict Prevention and Management Summary

for Pondera Colony, Valier, Montana

MFWP Region Four Bear Management personnel S. Thompson and M. Madel met with Pondera Colony Section Managers on several occasions between July and the end of December 2013, in order to minimize or prevent conflicts between Colony residents, farm/ranch operations, and grizzly bears inhabiting lands in the area. The Pondera Colony is located in Pondera County, approximately ten miles southwest of Valier, MT. Numerous trips by vehicle were made from the MFWP Choteau Field Office to the Pondera Colony in response to complaints regarding grizzly bear observations or bear sign found on Colony-owned lands during the spring, summer, and fall months. Based on all field investigations, MFWP confirmed that while grizzly bears did seasonally occupy Pondera Colony lands there were no conflicts between bears and Colony residents, livestock, or farm operations in 2013.

MFWP worked cooperatively with the Pondera Colony residents in 2013 to prevent grizzly bears from accessing two primary food attractant sites on their lands; one being a large refuse site containing domestic garbage and animal butcher by-products; the second site being a recently constructed manure/carcass compost facility. The colony refuse pit had been discovered by grizzly bears for at least the three previous years, and concerns had been voiced by MFWP to Colony managers regarding either discontinuing use of the dump near Dupuyer Creek, or fencing the site, due to the negative effects of attracting bears near to Colony residential buildings and the potential impacts of causing food-conditioned behavior in bears and other scavenging wildlife.

In July, 2013 MFWP provided assistance to the Colony towards the construction of effective electric fence systems designed to exclude bears from foraging at the refuse pit and compost facility. MFWP spent time and expertise designing and mapping these two electric fence projects, meeting with Colony members, developing cost-share agreements between the Pondera Colony, MFWP, and U.S. Fish & Wildlife Service, purchasing and delivering fence materials, and assisting in fence construction. A permanent solar-powered electric fence system enclosing the refuse site was completed by the Colony and MFWP in August, 2013 (8/21/2013, see Figure 1). A portable AC-powered electric fence system was installed and completed by MFWP at the Colony's compost facility in September, 2013 (9/20/2013, see Figure 2).

Prior to fence installation in July 2013, MFWP documented that grizzly bears were actively feeding in the Pondera Colony refuse pit after being called by Colony farm supervisor David Waldner. Upon completion of the refuse pit electric fence project in August 2013, grizzly bears were entirely excluded from the site and from foraging on human foods the remainder of the year. In addition, during the month of September, there was obvious evidence of bears receiving negative shock stimulus during unsuccessful attempts to crawl through the fence's 7-electric alternating hot/ground wires to access refuse foods.

Again, in September 2013 the Pondera Colony requested assistance with possible methods of excluding bears from a large pivot field of ripening silage corn. This was the same unprotected cornfield in 2012 within which grizzly bears and other wildlife (deer and raccoon) were feeding and causing damage to the ripening corn stalks. Due to the limited amount of time prior to 2013 corn harvest, MFWP set up two

propane-operated scareguns mounted on swiveling tripods at strategic locations adjacent to the cornfield to function as temporary sound-deterrents. The propane guns were effective in deterring bear access to corn in 2013. In addition MFWP spent time with Pondera Colony designing, mapping out, and estimating costs for an effective large-scale temporary/portable electric fence system for this corn field (see *Pondera Colony Fence Planning Worksheet*, Attachment A). As of December 2013, Pondera Colony had made no decision regarding whether they were willing to cost-share into this project.

In summary, the MFWP-Region Four Grizzly Bear Management provided the following services to the Pondera Colony in 2013:

1. Bear management personnel hours responding to bear observations or bear sign complaints; implementing preventative methods, designing and developing effective bear deterrent electric fence systems fence: total 85 hours (approximately $1500.00 in personnel costs).
2. Mileage specifically to the Pondera Colony related to bear management operations: 880 miles ($422.00 in state mileage costs)
3. Electric fence materials, fence energizer, Deep-cycle 12V batteries; propane; 4 cans of capsaicin bear spray: $360.00
4. Total MFWP-state monetary contribution: $2282.00

The following contributions were made by the USFWS and Pondera Colony towards grizzly bear conflict preventative projects on Colony lands:

1. Cost-share paid by the USFWS Grizzly Bear Recovery Office towards electric fence materials for the Pondera Colony refuse site permanent-electric fence system: $1800.00
2. The Pondera Colony provide labor and heavy equipment towards construction of the refuse site permanent electric fence system: 2 men for 3days (approximately 8hrs/day x 2 men x 3days) = 48 labor hours ($20.00/hr) = $960.00, including 2 days of post-pounder/tractor use = $500.00 for a total contribution of $1460.00.

Prepared by: Mike Madel, MFWP Grizzly Bear Management Specialist, Region Four

January 21, 2014

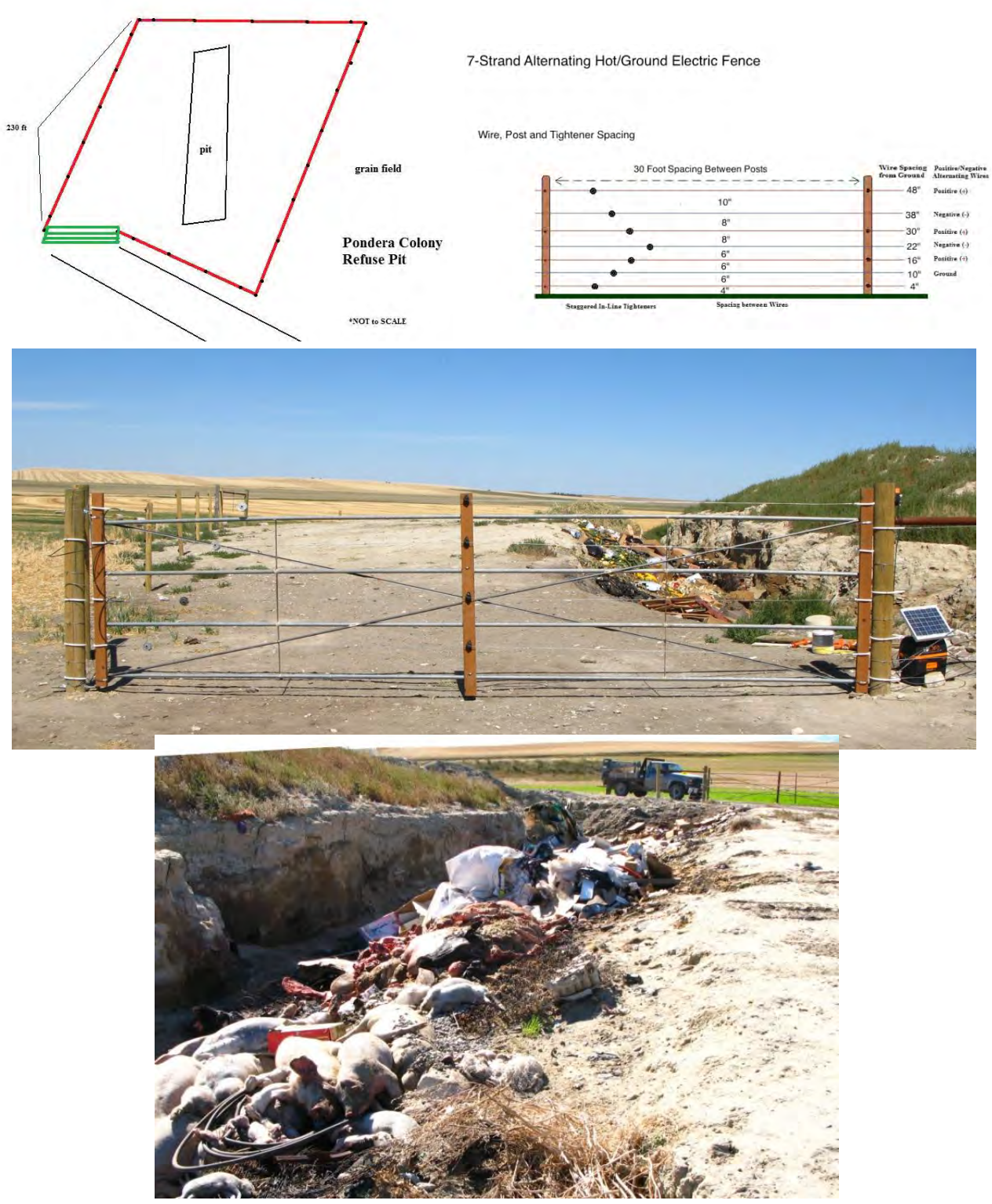

Figure 1. Design and completion of a permanent solar-powered electric fence system to prevent grizzly bear access to the Pondera Colony refuse site, 8/21/2013.

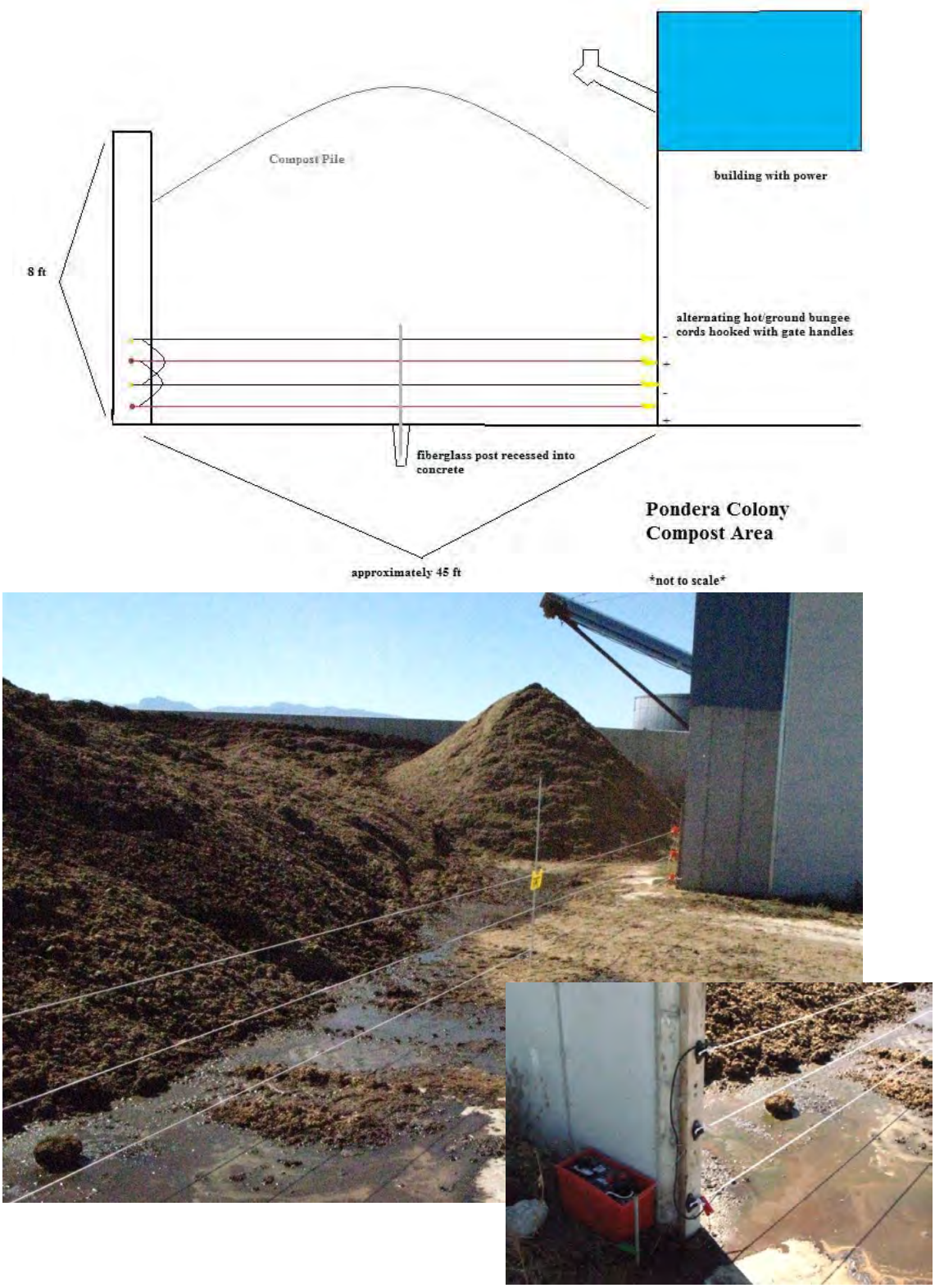

Figure 2. Design and installation of a portable 12v-converted to AC powered electric fence system to deter grizzly bear access into the Pondera Colony livestock carcass compost facility, 9/20/2013.

Attachment A:

Fence planning and estimating worksheet for the Pondera Colony corn pivot temporary electric fence system.

FENCE PLANNING AND ESTIMATING WORKSHEET

PLANNING — Pondera Colony- Silage Corn Pivot Temporary Electric Fence

FENCE PURPOSE	primary: exclude grizzly bears from cornfields secondary:
TYPE OF ANIMAL(S)	Grizzly Bear
SITE INFORMATION	topography: mostly flat to rolling soil types: loose, cultivated agricultural fields accessibility: excellent watercourses: none snow: n/a vegetation: wildlife: heavy use by whitetail deer visual impact:
TYPE OF FENCE	☐ permanent ☑ temporary (moveable) ☐ boundary (legal) requirements

☐ non-electric design	☑ electric design
type of wire:	type of wire: Turbowire
number of wires:	number of wires: 3
wire spacing:	wire spacing: 8", 12", 12"
top wire height:	wires electrified: 2
bottom wire height:	wires grounded: 1
post spacing:	type of insulators: Insulclips
dropper spacing:	post spacing: 30'
	dropper spacing:

COMMENTS	Electric Fence design and estimate by Seth Thompson, MFWP Bear Management Technician, 9/15/2013

RIGHT-OF-WAY CONSTRUCTION

METHOD	☐ by hand ☐ by machine	Size:____ feet long X _____ feet wide
WOODWASTE	☐ piled to burn ☐ cut & left to rot	Fence Location:
DISTURBED GROUND	☐ seeded ☐ left as is	_____ feet from either side of right of way

COMMENTS	Montana Fish Wildlife and Parks R4 Grizzly Bear Management Program for expertise towards electric fence design and construction oversight; value of $1000 All labor and equipment required towards construction and maintenance provided by Pondera Colony. Contact Biologist: Mike Madel, MFWP Grizzly Bear Management Specialist 406-788-4755

Prepared by Seth Thompson, MFWP R4 Bear Management Technician, 9/2013.

ESTIMATING MATERIAL COSTS

NONELECTRIC FENCE MATERIALS		Size	Quantity	$ Each	$ Total
BRACE ASSEMBLY MATERIALS posts and rails ☐ treated ☐ pointed ☐ domed	**END BRACE:** how many?: existing Design: Refer to Figure 1, page 4 for graphic design of 3-wire portable electric fence. post rail nail or pin				
nail type spike nail pin type brace wire type	**CORNER BRACE:** how many?: 15 Design: post rail nail or pin	4.5"x6.5' 6" spike	45 45	$5.50 10 pounds	$247.50 $30
	INLINE BRACE: how many?: Design: post rail nail or pin				
LINE POSTS	material: 1" Fiberglass Posts-drilled 30' spacing if wood: ☐ treated ☐ pointed ☐ domed	1"x48"	350	$9.50	$3325
WIRE	material: Turbowire (# rolls = ft. fence x #strands ÷ ft. per roll)	2,624 ft/roll	13 rolls	$140	$1820
STAPLES	staples – type: Insultimber short clips (# staples = # posts x #strands ÷ # per box)	100/bag	11 bags	$14.00	$154
CONNECTORS	splices – mechanical connectors? ☐ Y ☐ N (# connectors = # per splice x # wire rolls x 2)				
TENSIONERS	tie-offs – mechanical connectors? ☑ Y ☐ N (# connectors = # per tie-off x # tie-offs) In Line Strainers-for brace feet		30	$3.00	$90
	Tensioners – used? ☑ Y ☐ N (# tensionsers = # strands x # braced sections) Gallagher Ratchet Spools	5/bag	2 bags	$14.00	$28

		Size	Quantity	$ Each	$ Total
DROPPERS	used? ☐ Y ☐ N type: _____ (total droppers = # per panel x # line posts)				
GATES	How many: _____ Type of gate: _____ Size: _____ Type of hinge: _____ Type of latch: _____				

TOTAL NONELECTRIC FENCE MATERIAL COSTS $

ELECTRIC FENCE MATERIALS

CONTROLLER	☐ utility power: make: _____ model: _____ ☑ battery powered: B200 Solar Unit with battery make: _____ model: _____ voltage: 12 volt ☐ wet cell battery: voltage: _____ capacity: _____ ☐ solar panel: with unit make: _____ model: _____ wattage: _____	B200	with battery		$670
GROUNDING SYSTEM	☑ Ground rods material: ☐ Ground wire material:	3 rods/kit	1 kit	$50	$50
INSULATORS	line post wooden in line/corner posts (# insulators = # hot wires x # line posts) material: _____ type: _____				
	tie off (# insulators = # hot wires x # brace sections x 2) material: _____ type: _____		4 bags	$13.00	$52
	offset (# insulators = # offset wires x # line posts) material: _____ type: _____				

TOTAL ELECTRIC FENCE MATERIALS COSTS $6466.50

MATERIAL COSTS PER FOOT Fence length _____ feet Materials cost $ _____ $/ft. _____

ESTIMATING LABOUR COSTS

Labour costs vary for many reasons (terrain, accessibility, etc.,) but they will be between one and two times the material costs. MATERIALS $/ft_____EST. LABOUR $/ft. _____to

ESTIMATING TOTAL COSTS

For estimating total costs, a labour cost must be selected from the range above.

MATERIALS $/ft._____ + LABOUR $/ft._____ = **TOTAL $/ft.**_____

FENCE LENGTH_____ft. **X** TOTAL $/ft._____ = **TOTAL** $_____

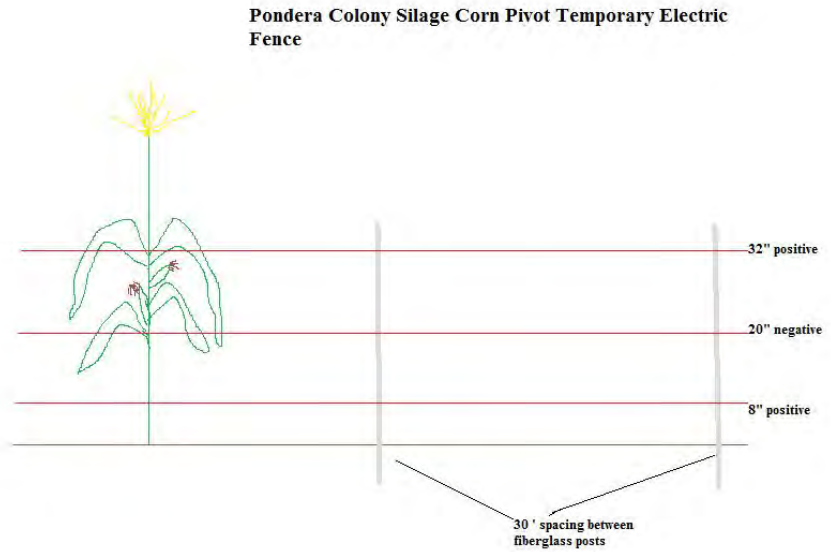

Figure 1. Portable/temporary electric fence design to deter grizzly bear access to Pondera Colony silage cornfields.