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CHECKLIST ENVIRONMENTAL ASSESSMENT

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Project Name: Turner Enterprises, Incorporated Bison Fencing Project

Implementation Date: Summer 2004

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Proponent: Turner Enterprises, Incorporated (TEI)

Type and Purpose of Action: In February 2004, the Montana Department of Natural Resources and Conservation received a request from Turner Enterprises, Inc. (TEI) to construct approximately 2.3 miles of new 5 wire high tensile electric fence lines to create a boundary between TEI bison and Ledford Creek Grazing Associations (LCGA) cattle on adjacent State Trust Land leases. TEI and LCGA recently exchanged state leases or portions of leases to improve management and cut down on annual paperwork.

LEGISLATIVE ENVIRONMENTAL POLICY OFFICE

The State Trust Lands that would be affected by this proposal include Sections 4, 8, and 9, T9S R4W. The purpose of the new fence is to contain TEI Bison by fencing DNRC lands leased by Turner Enterprises, Inc. from adjacent Department of Fish, Wildlife, and Parks controlled lands located on the Robb-Ledford Wildlife Management Area and to divide pastures for grazing management purposes within TEI leased and fee titled properties.

The proposed fencing project was a topic of a tour conducted with the Department of Fish, Wildlife and Parks, TEI, DNRC, members of the Ledford Creek Grazing Association, Skyline Sportsman's Association members, and Jack Atcheson and Jack Jones of the Montana Coalition for the Appropriate Management of State Land, United States Forest Service, and Bureau of Land Management representatives on May 20, 2004. The primary concern regarding both the existing fence lines and the proposed fence lines were directed at big game movement and whether the fence design would create a barrier to wildlife. TEI's current proposal is a five-wire fence design consisting of a lower top wire than their previous six-wire design.

Wood posts will be used at a spacing of 30' between posts. A 0.75" x 54" fiberglass wire stay would be centered between the posts. The wire spacing would be:

- Top wire: 52"
- Fourth wire: 42"
- Third wire: 32"
- Second wire: 24"
- Bottom wire: 18"

The bottom wire, third wire, and top wire would be capable of being electrified but would only be charged when livestock are present in or adjoining to the pastures the fence would be located in. All wires on brace and corner posts would be firmly fastened and would remain intact year-round. On designated segments, the five wires would be capable of being bundled together using heavy wire ties to allow for improved wildlife movement during the winter or when livestock or bison are not present in either pasture divided by the respective fence. The wires would be bundled at approximately the third wire height of 32". Vehicle gates would be installed on all access roads. The gates would be 16-foot tubular steel swinging style with chain latches. The gates and letdown fences would be opened/bundled when livestock are not present.

The lessee, TEI, is responsible to contain TEI bison, while excluding adjacent cattle from trespassing onto TEI controlled lands.

Location: Sec. 4, 8, 9, T9S R4W

County: Madison

I. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED: Provide a brief chronology of the scoping and ongoing	Curt Alt and Fred King of the Montana Department of Fish, Wildlife, and Parks, Tony Schoonen of the Public Lands Access Association, Jack Jones and Jack Atcheson
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involvement for this project.	of The Montana Coalition for Appropriate Management of State Land. Dave Dixon of TEI. In past fencing requests, Margie Taylor of TEI contacted Bison producers Mike Duncan of Diamond Tail Ranch, John Flocchini of the Derham Ranch, Peter Thieriot of the Elk Mountain Ranch, and Sam May of the Antler Ranch, who all provided first-hand input and experience in bison fence design and associated management problems.
2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:	Montana Department of Fish, Wildlife, and Parks (DFWP) own land near the proposed project. TEI has been working with DFWP's Fred King to mitigate wildlife concerns on the Robb-Ledford Wildlife Management Area.
3. ALTERNATIVES CONSIDERED:	1) No action - TEI would continue to have difficulty containing bison on the ranch and would not be able to utilize the state lease. 2) Allow installation of a 52" high five wire fence as proposed by TEI

II. IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS N = Not Present or No Impact will Y = Impacts may occur (explain below)
4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are fragile, compactible or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations? Are cumulative impacts likely to occur as a result of this proposed action?	[N] Soil disturbance by the project will be minimal.
5. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality? Are cumulative impacts likely to occur as a result of this proposed action?	[N] Ledford Creek and Robb Creek are near the proposed project area. No increase in sediment load is expected to result from this project.
6. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)? Are cumulative impacts likely to occur as a result of this proposed action?	[N]
7. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently	[N]

II. IMPACTS ON THE PHYSICAL ENVIRONMENT	
altered? Are any rare plants or cover types present? Are cumulative impacts likely to occur as a result of this proposed action?	
8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish? Are cumulative impacts likely to occur as a result of this proposed action?	[Y] The Robb-Ledford area is year round habitat for a variety of big game species including elk, mule deer, whitetail deer, black bear, antelope, and mountain lions. Avian species include sage grouse, forest grouse, various raptor species, songbirds. Recreational fishing occurs on Ledford Creek which contains rainbow trout and brown trout. There is concern the proposed fence project would restrict wildlife movement between TEI ranch property and the Robb-Ledford Wildlife Management Area. See Attachment A for discussion.
9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Sensitive Species or Species of special concern? Are cumulative impacts likely to occur as a result of this proposed action?	[Y] Wolves are known to inhabit the general area around the proposal but wolf numbers and range are not known at this time. The area also contains bald and golden eagles. These species should not be affected by the fencing project. Sage grouse and West Slope cutthroat trout are currently being reviewed for possible listing under the Endangered Species Act. These species are present on the project area, but should not be adversely impacted by the proposal.
10. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[n] There are no known sites in the vicinity of the proposed project.
11. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light? Are cumulative impacts likely to occur as a result of this proposed action?	[Y] A small portion of the proposed fence is located along Ledford Creek Road. This road is one of the primary access roads for recreational users of the Robb-Ledford Wildlife Management Area. The Trust Lands located in this area receive a high amount of recreational use.
12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project? Are cumulative impacts likely to occur as a result of this proposed action?	[N]
13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA: Are there other studies, plans or projects on this tract? Are cumulative impacts likely to occur as a result of other private, state or federal actions that are under MEPA review (scoping) or permitting review by any state agency w/n	[Y] The Montana Department of Fish, Wildlife, and Parks reintroduced Bighorn sheep to the Greenhorn Mountains adjacent to the Robb-Ledford Wildlife Management Area. These sheep are currently restricted to the general area around the release site in the Greenhorn Mountains, if they stray

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

<p>the analysis area?</p>	<p>too far West, the DFWP attempts to haze the bighorns back to the Greenhorns. If the hazing fails to work, the sheep are killed to avoid contact with domestic sheep located on private land West of the project area. The project area is outside of the area the bighorns are currently allowed to use.</p> <p>The 2002 TEI Fencing Project Environmental Assessment and Finding.</p>
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III. IMPACTS ON THE HUMAN POPULATION

RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
<p>14. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?</p>	<p>[Y] The health and safety risks associated with the project are related to recreational use and electric fences. The issue of liability and potential for injury to sportsman from the fence has been raised. Electric fence is commonly used throughout the state in a variety of locations and there is no record of liability or significant injury resulting from electric fence use in the state. The lessee would post warning signs along the fence line approximately 300 yards apart.</p>
<p>15. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?</p>	<p>[N] The area has been historically grazed by bison or cattle. Use of the tract will remain as grazing land. No increase or decrease in agricultural production should occur as a result of this project.</p>
<p>16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number. Are cumulative impacts likely to occur as a result of this proposed action?</p>	<p>[N]</p>
<p>17. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue? Are cumulative impacts likely to occur as a result of this proposed action?</p>	<p>[N]</p>
<p>18. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc) be needed? Are cumulative impacts likely to occur as a result of this proposed action?</p>	<p>[N]</p>
<p>19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or</p>	<p>[N]</p>

management plans in effect?	
20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract? Are cumulative impacts likely to occur as a result of this proposed action?	[Y] The Robb-Ledford Wildlife Management Area is used extensively by sportsmen for the purpose of hunting and fishing. The issue has been raised that the proposed fencing project will restrict wildlife movement between pastures and thereby affect the recreational opportunities of the general public in this area. See discussion in Attachment A.
21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing? Are cumulative impacts likely to occur as a result of this proposed action?	[N]
22. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N]
23. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N]
24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES: Are cumulative impacts likely to occur as a result of this proposed action?	[N]

EA Checklist Prepared By: Charles Maddox Land Use Specialist 6/21/04
Name Title Date

Attachment A-TEI Bison Fence EA

During the process of evaluating the fencing proposal, meeting with interested sportsmen and distributing scoping notices for comment, three primary issues of concern surfaced regarding the proposed fencing project.

- 1) There is concern the proposed fence would present a barrier to wildlife and unnecessary hindrance to migration routes from the state grazing lease to the Robb-Ledford Wildlife Management Area (RLWMA).
- 2) Concern was expressed by adjacent landowners and the proponent that the fence, if constructed, be effective in the containment of bison and to restrict other livestock from the bison pasture.
- 3) An opinion was expressed that only fence legally defined under 81-4-101 be authorized for use.

Background:

The RLWMA and surrounding state, private and federal land provides year round habitat for a wide variety of wildlife and important winter range for deer and elk. The RLWMA was purchased by the Montana Department of Fish Wildlife and Parks primarily for its value as elk winter range. Winter surveys conducted by DFWP have indicated more than 2500 elk congregate on the RLWMA and adjacent Blacktail Game Range during the winter months. Elk that winter in the area typically migrate seasonally, becoming more concentrated on the RLWMA in the winter and disperse over a large area to higher elevations primarily to the east and south over the spring and summer months.

The state and private land in the area has been grazed by livestock for many years and the portions owned or leased by TEI have been grazed by bison since 1994. There are existing fence lines used to contain livestock throughout the area. The existing fence lines are typically 4-wire barbed fences constructed to a height of 42 to 48 inches or a combination of barbed wire with a woven wire base. There are currently no existing fences along the proposed route due to the change of lease-hold interest between the parties. A new boundary has been formed between TEI and LCGA due to a trading of leases to improve management and record keeping between the 2 parties and to conform with current state rules and regulations regarding the sublease or pasturing of trust land leases between parties.

Potential Effects of Proposed Improvements

No Action (deny improvement request): If the request to construct the fencing project is denied, the lessee will be unable to use the trust land lease, or an adjoining landowner could use the lease without DNRC authorization, creating an illegal sublease situation.

5-wire, 52" fence design: The 5-wire fence would be constructed with wood line posts (8' X 4.5" to 5") spaced 30 feet apart with a bottom wire height of 18 inches and a top wire height of approximately 52 inches. The fence would have the capability of being electrified when bison are present in the pasture. The five wires of the fence would be lowered to a height of 32 inches in 3 to 4 sites per mile and at identified heavy wildlife crossing areas which would be bunched when bison and/or cattle are not in adjacent pastures to facilitate wildlife movement.

Installation of the 5-wire fence would not impede migration between the fenced pastures and the RLWMA for those species that prefer to cross under the fence such as antelope and young calves and some deer. The bottom wire height of 18 inches conforms to most biologist recommendations for minimum bottom wire height. The total fence height of 52" is higher than most barbed and woven fence designs and would be more of a hindrance than a typical barbed or woven fence for those species that would normally jump over a fence such as elk. Elk in particular are physically capable of jumping a 52" fence but may hesitate and

delay doing so depending on the animal's motivation to cross the fence. The DFWP worked with TEI to identify locations for the proposed game crossings that would be bunched when bison are not in the pasture and cattle are not present in the adjacent pasture(s). Generally bison are grazed in this area from July through August and occasionally in the first half of September when elk are usually widely dispersed in higher elevations. The game crossings would therefore typically be bunched to a height of 32 inches during the period from September through June when the majority of the migration and congregation of elk occur on the winter range.

The 5-wire design provides a physical and psychological barrier to the bison. It has been used in other parts of the ranch and proven to be much more effective in containing bison than the typical 4 to 5-wire barbed and woven fence design located around this area. Bison however have been known to jump a 6-foot fence if they desire and are capable of going through even the strongest fence designs (Bison Breeders Handbook, American Bison Association, 1993). Electrifying the fence would increase it's effectiveness in containing bison. Bison hair is similar to cattle in that it does not provide good protection from electrical shock. Bison if not sufficiently motivated to cross an electrical fence will avoid the fence after being trained by the electric shocks. Deer, elk and antelope on the other hand have hollow guard hairs having good insulating qualities and generally are not shocked by an electric fence unless they press hard enough to ground against the skin (Karhu and Anderson, 2002).

The five-wire design does not present quite as substantial a physical barrier for containment of bison as the 6-wire design historically requested by TEI but relies substantially on the psychological barrier associated with electrification. Studies conducted in Wyoming (Karhu and Anderson, 2002) indicate electrification may be effective in containing bison particularly if bison are content with their location. However further study and documentation needs to be conducted regarding bison containment to be conclusive.

Legal fences defined by statute:

Montana Code Annotated 81-4-101 states that "any one of the following, if not less than 44 inches or more than 48 inches in height, shall be a legal fence in the state of Montana...". The statute is contained within a title of law relating to livestock and specifically Chapter 4 "containment of Livestock". The statute does not prohibit other types of fence from being constructed and used within the state. Numerous Montana Supreme Court rulings have addressed the interpretation of 81-4-101 and held that no duty is imposed upon an individual to maintain a legal fence as defined by the statute. However, anyone not constructing a fence as described by 81-4-101 is liable for all damages caused by injury to livestock. The statute therefore does not define what can legally be constructed but rather what can be subjected to liability if injury to livestock owned by others occurs.

References:

Karhu, Rory and Anderson, Stanley. 2002. Evaluation of High Tensile Electric Fence Designs on Big Game Movements and Livestock Containment. Final Report Wyoming Cooperative Fish and Wildlife Research Unit, University of Wyoming, Laramie. 31 pages

American Bison Association. 1993. Bison Breeders Handbook, Third Edition. Denver Colorado.

Finding:

I have reviewed the Environmental Assessment prepared for the fencing improvement request proposed by Turner Enterprises Inc. (TEI) for the sections of state land leased by TEI in Township 9 South, Range 4 West. I have also reviewed the comments submitted by interested sportsmen, wildlife biologists with the Montana Department of Fish Wildlife and Parks, results of studies conducted by the Wyoming Cooperative Fish and Wildlife Research Unit (Karhu and Anderson) relating to the evaluation of high tensile electric fence designs on big game movement and discussed the proposal with Montana Department of Fish, Wildlife and Parks representatives, ranch managers with TEI, and sportsmen representatives. The purpose of my review was to approve or deny the fencing improvement requested by TEI and to determine if significant impacts are likely to occur as a result of the proposed activity on state land.

I have decided to approve the improvement request proposed by TEI, a 5-wire electric fence on the sections that border the Ledford Creek Grazing Association leases and private land. I have also concluded that significant impacts are not likely to occur as a result of the proposed activity and therefore an Environmental Impact Statement is not required. The basis for my decision is as follows:

- 1) TEI has a clear legal responsibility to contain its livestock under Montana law on its fee land and state leased land. Montana Codes Annotated 84-2-201 through 84-4-220 describe the responsibilities of livestock owners to prevent livestock from running at large and trespassing on other properties and the liability of trespass. Montana codes 77-6-301 allow lessees of state land to construct improvements such as fencing on the leased land. There is no statute prohibiting any of the fence designs proposed by TEI for this project.
- 2) Wildlife biologists with the Montana Department of Fish, Wildlife and Parks (DFWP) have worked closely with TEI to ensure wildlife interests are considered in the design and location of the proposed fence. Wildlife mitigations such as installing gates at road crossings, maintaining the bottom wire 18 inches off the ground, at wildlife crossings, bundling all 5 fence wires together at the middle wire height of 32 inches during periods when bison are not present, and locating the fence out of drainage bottoms where feasible have been incorporated in the project design at the request of DFWP. The DFWP as an adjacent landowner and agency responsible for wildlife management activities in the state has a responsibility to ensure the proposed fence is effective in containing the bison from the Robb-Ledford Wildlife Management Area and wildlife have the ability to migrate across the fence.
- 3) TEI considered alternative fence designs upon receiving input from sportsmen and discussing the issue with Rory Karhu of the Wyoming Cooperative Fish and Wildlife Research Unit and with operators of several bison ranches in Wyoming. The result of the input is the proposed use of the experimental design on segments bordering the Wildlife Management Area. While other

fence designs may indeed hinder wildlife to a lesser degree, there is insufficient data and application of those designs regarding their effectiveness to contain bison. If and when lower fence designs are proven to effectively contain bison, these designs will be given serious consideration in future fence construction.

- 4) Under current management, bison utilize the pastures within the project area for a two to three month period during the summer. The fence wires will be bundled to a 32-inch height at approximately 1/3 to 1/4 mile intervals, at obvious wildlife crossings, and the road gates will be opened for the remaining 9 to 10 months of the year. The period of bison use is during the time of year when elk are generally dispersed at higher elevations and when migration across the property boundaries is generally not occurring to a great extent.
- 5) While studies indicate wildlife species such as deer and elk are hindered by higher fence designs, they do have the capability to jump fences similar to those proposed in this project if sufficient motivation exists. When the proposed fences are lowered to the 32-inch height, wildlife would have the capability to cross the fence either over or under with minimal hindrance.

Upon execution, this Finding becomes part of the Final EA for the fencing improvement project proposed by Turner Enterprises on state land in Township 9, Range 4 West in Madison County.

Signed:

Dated:

Richard A. Moore

6/30/04

Richard A. Moore
Unit Manager
Dillon Unit

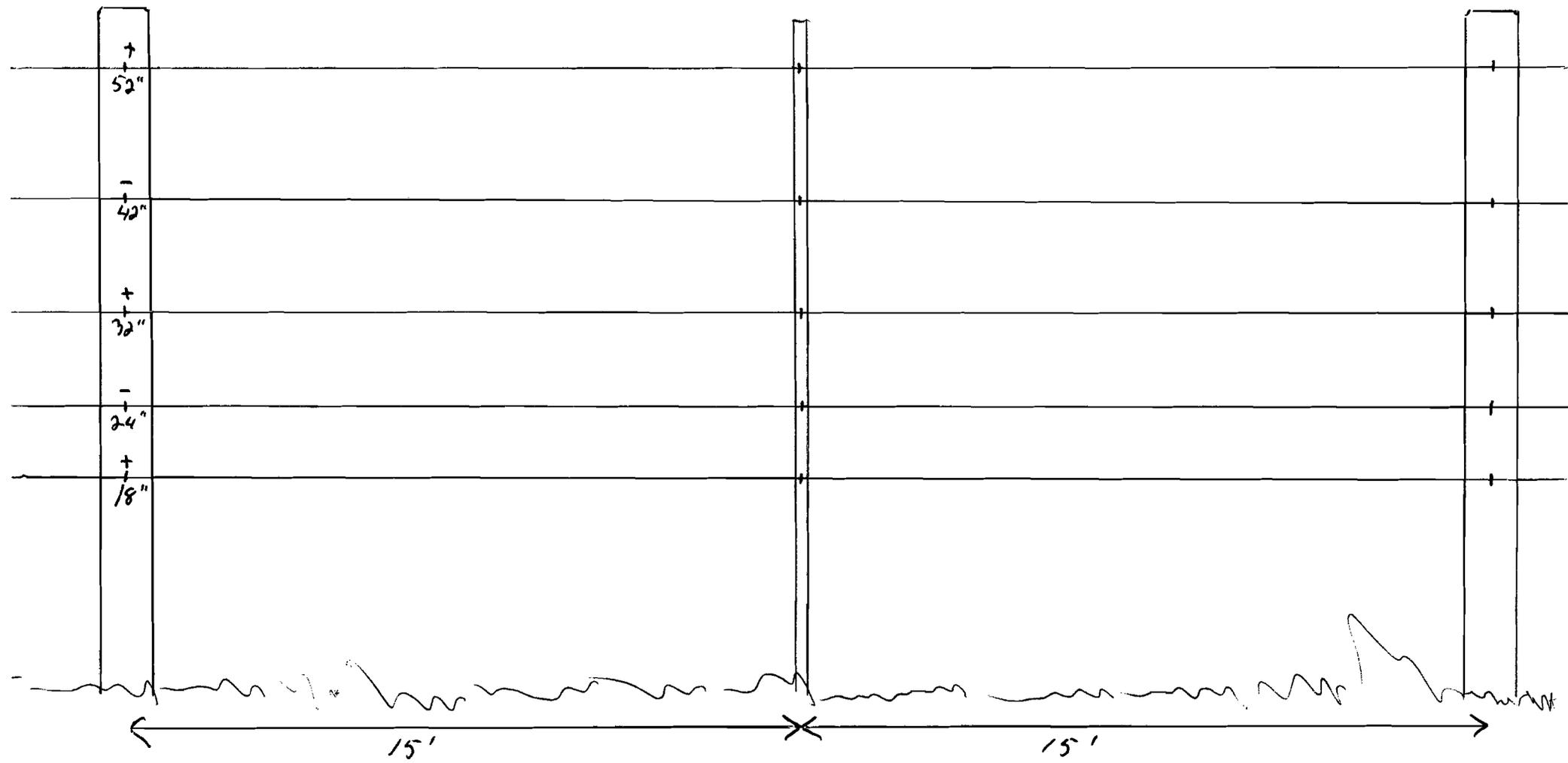
Proposed Fence Description

The fence will be constructed with 5 high tensile smooth wires. The brace points will be constructed with 4.5" to 5"X 8' pointed, fully treated, wood drive posts. The fence will be constructed with 3.5" to 4"X 7' pointed, fully treated, wood drive posts, spaced at 30' centers. Centered between the wood drive posts will be one 3/4"X54" fiberglass stay.

The height of the wires, starting at ground level, will be: 1st or bottom wire- 18", 2nd wire -24", 3rd wire-32", 4th wire- 42", 5th wire-52". The 1st, 3rd, and 5th wires will be electrified.

The fence will be constructed using game crossings in obvious game use areas, or at least every 1/4 mile of fence. These crossings will be 60' in width, consisting of 4-1 1/2"X 6' fiberglass posts with letdown type clips that will allow all 5 wires to be bundled together at the 32" height clip. These posts will be spaced at 15' to give the 60' crossing width. The game crossings will be open or in the bundled position when livestock are not using the adjoining pastures. The fence will be electrified only when livestock are present.

The access gates will be 16' in width, 60" in height, steel pipe, swing type gate.



Game Crossing

4 posts at 15' centers for a 60' crossing
(only 2 posts are shown in the drawing)

