TABLE 6-1 (Cont'd)

CRITERIA	ALTERNATIVE ROUTES							
	1A	2A	3A	4A	5A	6A	7A	8A
Number of FM and county road crossings	20	19	20	19	19	18	16	20
Number of FAA-listed airfields within 10,000 ft of ROW centerline	0	0	0	0	0	0	0	0
Number of commercial AM radio transmitters within 10,000 ft of ROW centerline	0	0	0	0	0	0	0	0
Number of FM radio transmitters, microwave towers, etc. within 2,000 ft of ROW centerline	1	1	2	2	2	2	2	2
AESTHETICS								
Estimated length of ROW within foreground visual zone[2] of U.S. and State highways	133,440	134,890	64,450	65,900	97,400	98,850	3,100	120,300
Estimated length of ROW within foreground visual zone[2] of recreational or park areas	12,880	12,880	7,600	7,600	7,600	7,600	2,100	12,880
Estimated length of ROW within foreground visual zone[2] of churches, schools, hospitals, and cemeteries	0	0	4,000	4,000	0	0	4,000	0
ECOLOGY								
Length of ROW through upland brushland/woodland	29,300	29,300	41,500	41,500	41,100	41,100	27,200	31,300
Length of ROW through bottomland/riparian woodland	3,200	3,150	2,700	2,650	3,500	3,450	3,250	3,600
Length of ROW across wetlands	250	250	250	250	250	250	350	300
Length of ROW across known habitat of endangered/threatened species	0	0	0	0	0	0	0	0
Length of ROW across open water (lakes, ponds)	0	0	0	0	0	0	0	0
Number of stream crossings	15	15	13	18	14	14	23	16

TABLE 6-1 (Concluded)

CRITERIA	ALTERNATIVE ROUTES 1A	2A	3A	4A	5A	6A	7A	8A
Number of river crossings	1	1	1	1	1	1	1	1
Length of ROW parallel (within 100 ft) to streams	2,500	0	5,500	3,000	7,000	4,500	3,800	2,500
CULTURAL RESOURCES								
Number of recorded historic or prehistoric sites crossed	0	0	0	0	0	0	0	0
Number of recorded historic or prehistoric sites within 1,000 ft of ROW centerline	0	0	0	0	0	0	0	0
Number of National Register listed or determined eligible sites crossed	0	0	0	0	0	0	0	0
Number of National Register listed or determined eligible sites within 1,000 ft of ROW centerline	0	0	0	0	0	0	0	0
Length of ROW through areas of high archaeological/historic site potential	29,150	26,050	39,550	38,350	35,400	34,200	42,900	29,150

[1] Residences, businesses, schools, churches, cemeteries, hospitals, nursing homes, etc.
[2] One-half mile, unobstructed
NOTE: All length measurements in feet

TABLE 6-2

ENVIRONMENTAL DATA FOR
TRANSMISSION LINE EVALUATION
SNYDER-ROBY 69-KV PROJECT
SEGMENT B (SN TX-37TH STREET)

CRITERIA	ALTERNATIVE ROUTES			
	1B	2B	3B	4B
LAND USE				
Length of alternative route	18,600	18,400	16,900	18,700
Number of habitable structures[1] within 200 ft of ROW centerline	4	2	4	6
Length of ROW parallel to existing ROW (transmission line, pipeline, roads, etc.)	7,150	5,550	3,450	5,050
Length of ROW through recreational areas	0	0	0	0
Number of parks and/or recreational areas within 1,000 ft of ROW centerline	0	0	0	0
Length of ROW through cropland	3,500	4,800	4,600	3,700
Length of ROW through grazingland/rangeland	8,700	10,400	10,000	9,100
Length of ROW through irrigated pasture or cropland	0	0	0	0
Length of ROW across prime farmland soils	0	0	0	0
Length of ROW across gravel pits, mines or quarries	0	0	0	0
Number of pipeline crossings	0	0	0	0
Number of transmission line crossings	0	0	0	0
Number of U.S. and State highway crossings	3	3	3	3
Number of FM and county road crossings	3	3	3	3

TABLE 6-2 (Cont'd)

CRITERIA	ALTERNATIVE ROUTES 1B	2B	3B	4B
Number of FAA-listed airfields within 10,000 ft of ROW centerline	0	0	0	0
Number of commercial AM radio transmitters within 10,000 ft of ROW centerline	0	0	0	0
Number of FM radio transmitters, microwave towers, etc. within 2,000 ft of ROW centerline	0	0	0	0
AESTHETICS				
Estimated length of ROW within foreground visual zone[2] of U.S. and State highways	6,500	10,100	10,600	8,400
Estimated length of ROW within foreground visual zone[2] of recreational or park areas	0	0	0	0
Estimated length of ROW within foreground visual zone[2] of churches, schools, hospitals and cemeteries	2,000	3,600	4,900	4,700
ECOLOGY				
Length of ROW through upland brushland/woodland	5,300	5,300	5,300	5,300
Length of ROW through bottomland/riparian woodland	5,000	1,650	1,500	5,150
Length of ROW across wetlands	50	50	50	50
Length across known habitat of endangered/threatened species	0	0	0	0
Length of ROW across open water (lakes, ponds)	0	0	0	0
Number of stream crossings	8	4	3	9
Number of river crossings	0	0	0	0
Length of ROW parallel (within 100 ft) to streams	4,800	1,300	1,300	3,500

TABLE 6-2 (Concluded)

CRITERIA	ALTERNATIVE ROUTES 1B	2B	3B	4B
CULTURAL RESOURCES				
Number of recorded historic or prehistoric sites crossed	0	0	0	0
Number of recorded historic or prehistoric sites within 1,000 ft of ROW centerline	0	0	0	0
Number of National Register listed or determined eligible sites crossed	0	0	0	0
Number of National Register listed or determined eligible sites within 1,000 ft of ROW centerline	0	0	0	0
Length of ROW through areas of high archaeological/historic site potential	10,850	9,450	8,650	10,050

[1] Residences, businesses, schools, churches, cemeteries, hospitals, nursing homes, etc.
[2] One-half mile, unobstructed
NOTE: All length measurements in feet

Segment A (Roby to Plainview)

Because of statements by a majority of open-house attendees that the two most important factors to consider in the selection of a preferred route were potential impacts to residences and cultivated land, the land use evaluation was based primarily on these criteria.

Regarding the cropland issue, EH&A felt that Route 7A (due to its location) ran through too many cultivated fields, rather than along field edges or road ROW, and thus would have a greater impact to farming operations. EH&A therefore dropped this route from further consideration as the preferred route. That still left seven alternatives, and among these Route 5A crosses the least amount of cropland, and was preferred in this category. Looking at the number of habitable structures (with the exclusion of Route 7A) Route 5A also was preferred, with the fewest number within 200 ft (14). Routes which parallel existing ROW are generally considered to have less impact on adjacent land uses, and in this category Route 8A was preferred, paralleling existing road or highway ROW for approximately 95% of its length.

Looking at potential visual impacts, especially in the more sensitive area of visibility from parks, churches, schools, etc., routes 5A and 6A are superior to the other alternatives. Route 3A would be the least visible alternative from U.S. and State highways.

With regard to potential ecological impacts, none of the proposed routes would have a significant effect on biological resources. Wetlands and bottomlands are very limited within the study area and can usually be spanned by the proposed line. The ecological evaluation thus focused on length across upland brushland/woodland and (excluding Route 7A) Route 2A crossed the least amount (tying Route 1A). In addition, Route 2A had the least length (0) parallel to streams.

Potential cultural resources impacts are normally judged by the number of known sites within the proposed ROW or within 1,000 ft of the ROW centerline. Since there was only one recorded site in the entire study area (not within 1,000 ft of any route), potential impacts to predicted high-probability areas was the only factor in this evaluation. Route 2A was preferred, crossing the least high probability areas among the eight alternatives.

Following the evaluation by each discipline, the group discussed the relative importance and sensitivity of the various criteria as they applied to the alternative routes under consideration and selected a preferred route to recommend to WTU. The group decided that, for Segment A,

environmental and cultural resources impacts would be minimal and that therefore land use considerations should receive the greatest emphasis in selecting a preferred route. Among the alternatives considered for Segment A, it was the decision of the group that Route 5A would be EH&A's recommended route based primarily on the following advantages:

- is the shortest alternative route
- has the least number of habitable structures
- crosses the least amount of cropland
- crosses the least amount of prime farmland soils
- has the least visual impact to parks, churches, schools, etc.

And, in common with all the other primary alternatives, Route 5A:

- has no recorded cultural resources sites within 1,000 ft
- crosses no designated habitat of endangered or threatened species

EH&A believes that Route 8A is the next most environmentally acceptable alternative for Segment A of the proposed project and would provide distinct advantages if selected.

Segment B (SN TX to 37th Street)

Due to its location in a more developed area south and east of Snyder, the major land use considerations for Segment B were habitable structures and amount of existing ROW followed. Although the alternatives do not exhibit a wide range, Route 2B has the least number of structures within 200 ft (two) while Route 4B has six. Routes 1B and 3B fall in the middle with four habitable structures each. Route 1B paralleled the most existing ROW (primarily road and railroad) and Route 3B paralleled the least. With regard to potential visual impacts, Route 1B was best overall in the three categories (visibility to highways; parks; and churches, schools, etc.). Route 3B had the most visibility.

As in Segment A, there were no critical ecological constraints along any of the three alternatives. However, looking at potential impacts to bottomland/riparian woodlands, number of stream crossings, and length of ROW parallel to streams, Route 3B was best in each (tied with 2B on length parallel to streams). Route 4B was worst in potential impacts to bottomlands and number of stream crossings, while Route 1B was the worst in distance parallel to streams.

The cultural resources evaluation was also similar to that of Segment A. There are no known recorded sites anywhere near the project alternatives and so the selection of a preferred route was made based on length of ROW across potential areas of high probability for cultural resources. In this determination, Route 3B crossed the least such areas, while 1B crossed the most.

Following their individual assessments, the group again discussed the relative importance and weight among the various criteria in order to select a consensus preferred route. The group agreed that, as was the case with Segment A, land use considerations should be given the greatest weight in the overall evaluation. With that decided the group agreed that Route 2B would be EH&A's recommended route for Segment B, based on the following advantages:

- least number of habitable structures within 200 ft
- greatest length through grazingland
- least length parallel to streams (tied with 3B)

and, in common with the other two primary alternatives, Route 2B:

- has no recorded cultural resources sites within 1,000 ft
- crosses no designated habitat of endangered or threatened species
- has no parks/recreation areas within 1,000 ft
- crosses no FWS-designated wetlands

The group of EH&A evaluators further believed that Route 3B would be the recommended alternate route for Segment B.

6.2 PREFERRED ROUTE SELECTION

Following EH&A's environmental evaluation, WTU was provided with a draft of the environmental assessment report. This document included EH&A's environmental evaluation of the alternatives and a recommended and alternate transmission line route. In addition to reviewing EH&A's environmental evaluation, WTU also undertook an internal engineering review of the primary alternative routes based on cost, design, construction, operation, and ROW factors. WTU concluded, after considering a wide range of factors including potential environmental impacts, monetary costs, landowner and agency concerns, engineering requirements, construction and ROW needs, that Route 5A is the preferred route for Segment A and Route 1B is preferred for Segment B of the proposed Snyder to Roby

69-kV transmission line project. This decision was based on a systematic and comprehensive analysis of potential impacts, both positive and negative, short- and long-term, for the group of primary alternative routes. WTU selected Route 1B (Segment B) for their preferred route because of concerns (and associated costs) raised by the developers of the SN TX Industrial Park with routes 2B and 3B.

WTU's preferred and alternate routes are shown on figures 6-1a and 6-1b (map pocket). These figures also indicate the location of habitable structures and other land use features in the vicinity of the preferred routes. These structures/features are described for the preferred routes (5A and 1B) in tables 6-3 and 6-4. Tables 6-5 through 6-14 describe habitable structures and land use features along the seven alternate routes for Segment A and the three alternate routes for Segment B.

TABLE 6-3

HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF WTU'S PREFERRED TRANSMISSION LINE ROUTE

ROUTE 5A

SEGMENT A (ROBY-PLAINVIEW)

Map Number*	Type of Feature	Approximate Distance from Centerline
1	L.K. Terry Baseball Park	500 ft east
2	Single-family residence (abandoned)	130 ft east
3	Commercial building (abandoned)	30 ft west
3a	Single-family residence	175 ft west
4	Single-family residence	100 ft west
5	Fisher County Farm Supply	80 ft west
5a	Radio dispatch antenna	100 ft west
6	Single-family residence (vacant)	100 ft south
8	Roby Municipal Park	600 ft south
9	Single-family residence (vacant)	125 ft north
9a	Single-family residence (abandoned)	110 ft north
23	TxDOT roadside park	120 ft south
24	Single-family residence	175 ft south
26	Single-family residence	150 ft north
44	Single-family residence	180 ft south
45	Single-family residence	100 ft south
46	Northeast Scurry County Community Center	65 ft north
47	AT&T microwave tower	200 ft south
48	Single-family residence	105 ft south

* see figures 6-1a and 6-1b (map pocket)

TABLE 6-4

HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF WTU'S PREFERRED TRANSMISSION LINE ROUTE

ROUTE 1B

SEGMENT B (SN TX-37TH STREET)

Map Number*	Type of Feature	Approximate Distance from Centerline	
53	Single-family residence	160 ft	southeast
54	Single-family residence	200 ft	southeast
57	Mobile home	165 ft	east
58	Commercial building (vacant)	100 ft	northeast

* see figures 6-1a and 6-1b (map pocket)

TABLE 6-5

HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF WTU'S ALTERNATE TRANSMISSION LINE ROUTE

ROUTE 1A

SEGMENT A (ROBY-PLAINVIEW)

Map Number*	Type of Feature	Approximate Distance from Centerline
1	L.K. Terry Baseball Park	500 ft east
2	Single-family residence (abandoned)	130 ft east
3	Commercial building (abandoned)	30 ft west
3a	Single-family residence	175 ft west
4	Single-family residence	100 ft west
5	Fisher County Farm Supply	80 ft west
5a	Radio dispatch antenna	100 ft west
6	Single-family residence (vacant)	100 ft south
8	Roby Municipal Park	600 ft south
9	Single-family residence (vacant)	125 ft north
9a	Single-family residence (abandoned)	110 ft north
23	TxDOT roadside park	120 ft south
24	Single-family residence	175 ft south
26	Single-family residence	150 ft north
27	Single-family residence	180 ft south
28	Roadside fruit stand	150 ft north
29	Mobile home	200 ft north
30	Commercial building (abandoned)	40 ft north
31	TxDOT roadside park	75 ft south
32	Single-family residence	80 ft north
33	Single-family residence	200 ft north

TABLE 6-5 (Concluded)

Map Number*	Type of Feature	Approximate Distance from Centerline
33b	Single-family residence	200 ft north
34	Mobile home	100 ft south
35	Single-family residence	200 ft north
36	Single-family residence	200 ft north
37	Single-family residence	150 ft east

* see figures 6-1a and 6-1b (map pocket)

TABLE 6-6

HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF WTU'S ALTERNATE TRANSMISSION LINE ROUTE

ROUTE 2A

SEGMENT A (ROBY-PLAINVIEW)

Map Number*	Type of Feature	Approximate Distance from Centerline
1	L.K. Terry Baseball Park	500 ft east
2	Single-family residence (abandoned)	130 ft east
3	Commercial building (abandoned)	30 ft west
3a	Single-family residence	175 ft west
4	Single-family residence	100 ft west
5	Fisher County Farm Supply	80 ft west
5a	Radio dispatch antenna	100 ft west
6	Single-family residence (vacant)	100 ft south
8	Roby Municipal Park	600 ft south
10	Single-family residence	100 ft east
11	Single-family residence	80 ft east
12	Oasis Motel (abandoned)	60 ft east
13	Green's concrete construction and monuments	185 ft southeast
14	Commercial building (abandoned)	30 ft northwest
15	Yeat's Pecan Farm and Mission Rocks	165 ft south
16	Blue Haven Motel	125 ft south
17	TCI Agricultural Agency	150 ft south
18	Midwest Electric Cooperative (pole yard)	130 ft south
19	Midwest Electric Cooperative (offices)	145 ft south
20	Single-family residence	180 ft south
21	Single-family residence	175 ft south

TABLE 6-6 (Concluded)

Map Number*	Type of Feature	Approximate Distance from Centerline
22	TxDOT Area Engineer's Office	190 ft south
23	TxDOT roadside park	120 ft south
24	Single-family residence	175 ft south
26	Single-family residence	150 ft north
27	Single-family residence	180 ft south
28	Roadside fruit stand	150 ft north
29	Mobile home	200 ft north
30	Commercial building (abandoned)	40 ft north
31	TxDOT roadside park	75 ft south
32	Single-family residence	80 ft north
33	Single-family residence	200 ft north
33b	Single-family residence	200 ft north
34	Mobile home	100 ft south
35	Single-family residence	200 ft north
36	Single-family residence	200 ft north
37	Single-family residence	150 ft east

* see figures 6-1a and 6-1b (map pocket)

TABLE 6-7

HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF WTU'S ALTERNATE TRANSMISSION LINE ROUTE

ROUTE 3A

SEGMENT A (ROBY-PLAINVIEW)

Map Number*	Type of Feature	Approximate Distance from Centerline	
1	L.K. Terry Baseball Park	500 ft	east
2	Single-family residence (abandoned)	130 ft	east
3	Commercial building (abandoned)	30 ft	west
3a	Single-family residence	175 ft	west
4	Single-family residence	100 ft	west
5	Fisher County Farm Supply	80 ft	west
5a	Radio dispatch antenna	100 ft	west
6	Single-family residence (vacant)	100 ft	south
8	Roby Municipal Park	600 ft	south
9	Single-family residence (vacant)	125 ft	north
9a	Single-family residence (abandoned)	110 ft	north
23	TxDOT roadside park	120 ft	south
24	Single-family residence	175 ft	south
26	Single-family residence	150 ft	north
39	Single-family residence	100 ft	east
44	Single-family residence	180 ft	south
45	Single-family residence	100 ft	south
46	Northeast Scurry County Community Center	65 ft	north
47	AT&T microwave tower	200 ft	south
48	Single-family residence	105 ft	south

* see figures 6-1a and 6-1b (map pocket)

TABLE 6-8

HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF WTU'S ALTERNATE TRANSMISSION LINE ROUTE

ROUTE 4A

SEGMENT A (ROBY-PLAINVIEW)

Map Number*	Type of Feature	Approximate Distance from Centerline	
1	L.K. Terry Baseball Park	500 ft	east
2	Single-family residence (abandoned)	130 ft	east
3	Commercial building (abandoned)	30 ft	west
3a	Single-family residence	175 ft	west
4	Single-family residence	100 ft	west
5	Fisher County Farm Supply	80 ft	west
5a	Radio dispatch antenna	100 ft	west
6	Single-family residence (vacant)	100 ft	south
8	Roby Municipal Park	600 ft	south
10	Single-family residence	100 ft	east
11	Single-family residence	80 ft	east
12	Oasis Motel (abandoned)	60 ft	east
13	Green's concrete construction and monuments	185 ft	southeast
14	Commercial building (abandoned)	30 ft	northwest
15	Yeat's Pecan Farm and Mission Rocks	165 ft	south
16	Blue Haven Motel	125 ft	south
17	TCI Agricultural Agency	150 ft	south
18	Midwest Electric Cooperative (pole yard)	130 ft	south
19	Midwest Electric Cooperative (offices)	145 ft	south
20	Single-family residence	180 ft	south
21	Single-family residence	175 ft	south

TABLE 6-8 (Concluded)

Map Number*	Type of Feature	Approximate Distance from Centerline
22	TxDOT Area Engineer's Office	190 ft south
23	TxDOT roadside park	120 ft south
24	Single-family residence	175 ft south
26	Single-family residence	150 ft north
39	Single-family residence	100 ft east
44	Single-family residence	180 ft south
45	Single-family residence	100 ft south
46	Northeast Scurry County Community Center	65 ft north
47	AT&T microwave tower	200 ft south
48	Single-family residence	105 ft south

* see figures 6-1a and 6-1b (map pocket)

TABLE 6-9

HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF WTU'S ALTERNATE TRANSMISSION LINE ROUTE

ROUTE 6A

SEGMENT A (ROBY-PLAINVIEW)

Map Number*	Type of Feature	Approximate Distance from Centerline	
1	L.K. Terry Baseball Park	500 ft	east
2	Single-family residence (abandoned)	130 ft	east
3	Commercial building (abandoned)	30 ft	west
3a	Single-family residence	175 ft	west
4	Single-family residence	100 ft	west
5	Fisher County Farm Supply	80 ft	west
5a	Radio dispatch antenna	100 ft	west
6	Single-family residence (vacant)	100 ft	south
8	Roby Municipal Park	600 ft	south
10	Single-family residence	100 ft	east
11	Single-family residence	80 ft	east
12	Oasis Motel (abandoned)	60 ft	east
13	Green's concrete construction and monuments	185 ft	southeast
14	Commercial building (abandoned)	30 ft	northwest
15	Yeat's Pecan Farm and Mission Rocks	165 ft	south
16	Blue Haven Motel	125 ft	south
17	TCI Agricultural Agency	150 ft	south
18	Midwest Electric Cooperative (pole yard)	130 ft	south
19	Midwest Electric Cooperative (offices)	145 ft	south
20	Single-family residence	180 ft	south
21	Single-family residence	175 ft	south

TABLE 6-9 (Concluded)

Map Number*	Type of Feature	Approximate Distance from Centerline
22	TxDOT Area Engineer's Office	190 ft south
23	TxDOT roadside park	120 ft south
24	Single-family residence	175 ft south
26	Single-family residence	150 ft north
44	Single-family residence	180 ft south
45	Single-family residence	100 ft south
46	Northeast Scurry County Community Center	65 ft north
47	AT&T microwave tower	200 ft south
48	Single-family residence	105 ft south

* see figures 6-1a and 6-1b (map pocket)

TABLE 6-10

HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF WTU'S ALTERNATE TRANSMISSION LINE ROUTE

ROUTE 7A

SEGMENT A (ROBY-PLAINVIEW)

Map Number*	Type of Feature	Approximate Distance from Centerline
1	L.K. Terry Baseball Park	500 ft east
2	Single-family residence (abandoned)	130 ft east
3	Commercial building (abandoned)	30 ft west
3a	Single-family residence	175 ft west
4	Single-family residence	100 ft west
5	Fisher County Farm Supply	80 ft west
5a	Radio dispatch antenna	100 ft west
6	Single-family residence (vacant)	100 ft south
8	Roby Municipal Park	600 ft south
40	Single-family residence	80 ft north
41	Single-family residence	90 ft north
44	Single-family residence	180 ft south
45	Single-family residence	100 ft south
46	Northeast Scurry County Community Center	65 ft north
47	AT&T microwave tower	200 ft south
48	Single-family residence	105 ft south

* see figures 6-1a and 6-1b (map pocket)

TABLE 6-11

HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF WTU'S ALTERNATE TRANSMISSION LINE ROUTE

ROUTE 8A

SEGMENT A (ROBY-PLAINVIEW)

Map Number*	Type of Feature	Approximate Distance from Centerline
1	L.K. Terry Baseball Park	500 ft east
2	Single-family residence (abandoned)	130 ft east
3	Commercial building (abandoned)	30 ft west
3a	Single-family residence	175 ft west
4	Single-family residence	100 ft west
5	Fisher County Farm Supply	80 ft west
5a	Radio dispatch antenna	100 ft west
6	Single-family residence (vacant)	100 ft south
8	Roby Municipal Park	600 ft south
9	Single-family residence (vacant)	125 ft north
9a	Single-family residence (abandoned)	110 ft north
23	TxDOT roadside park	120 ft south
24	Single-family residence	175 ft south
26	Single-family residence	150 ft north
27	Single-family residence	180 ft south
28	Roadside fruit stand	150 ft north
29	Mobile home	200 ft north
30	Commercial building (abandoned)	40 ft north
31	TxDOT roadside park	75 ft south
32	Single-family residence	80 ft north
32a	Single-family residence	150 ft west

TABLE 6-11 (Concluded)

Map Number*	Type of Feature	Approximate Distance from Centerline
32b	Single-family residence	100 ft east
33b	Single-family residence	200 ft west
46	Northeast Scurry County Community Center	65 ft north
47	AT&T microwave tower	200 ft south
48	Single-family residence	105 ft south

* see figures 6-1a and 6-1b (map pocket)

TABLE 6-12

HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF WTU'S ALTERNATE TRANSMISSION LINE ROUTE

ROUTE 2B

SEGMENT B (37th STREET - SN TX)

Map Number*	Type of Feature	Approximate Distance from Centerline
57	Mobile home	165 ft east
58	Commercial building (vacant)	100 ft northeast

* see figures 6-1a and 6-1b (map pocket)

TABLE 6-13

HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF WTU'S ALTERNATE TRANSMISSION LINE ROUTE

ROUTE 3B

SEGMENT B (37th STREET - SN TX)

Map Number*	Type of Feature	Approximate Distance from Centerline	
55	Single-family residence	80 ft	north
56	Single-family residence	150 ft	south
57	Mobile home	165 ft	east
58	Commercial building (vacant)	100 ft	northeast

* see figures 6-1a and 6-1b (map pocket)

TABLE 6-14

HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF WTU'S ALTERNATE TRANSMISSION LINE ROUTE

ROUTE 4B

SEGMENT B (37th STREET - SN TX)

Map Number*	Type of Feature	Approximate Distance from Centerline	
53	Single-family residence	160 ft	southeast
54	Single-family residence	200 ft	southeast
55	Single-family residence	80 ft	north
56	Single-family residence	150 ft	south
57	Mobile home	165 ft	east
58	Commercial building (vacant)	100 ft	northeast

* see figures 6-1a and 6-1b (map pocket)

7.0 REFERENCES

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APPENDIX A
AGENCY CORRESPONDENCE

Federal Emergency Management Agency

Region VI
Federal Regional Center
800 North Loop 288
Denton, TX 76201-3698

June 19, 1996

Mr. Rob R. Reid
Project Manager/Vice President
Espey, Huston & Associates, Inc.
P.O. Box 519
Austin, Texas 78767-0519

RE: EH&A Job No. 17653

Dear Mr. Reid:

We are in receipt of your letter dated June 13, 1996, regarding the proposed construction of new electric transmission facilities in Fisher and Scurry Counties, Texas. Thank you for the opportunity to review and comment on the proposed project.

According to our records, Fisher County is not currently participating in the National Flood Insurance Program (NFIP), nor has it been mapped by this agency. Therefore, no Federal requirements for flood insurance or floodplain management exist for the county. Scurry County is also not currently participating in the NFIP. However, a special flood hazard area has been identified on the Flood Hazard Boundary Map (FHBM) for the county dated May 10, 1978. Although the county does not participate in the NFIP, we recommend that local officials be contacted to review this project to determine if any special flood hazard requirements exist or if any other building requirements may apply.

If we can be of further assistance, please contact this office at (817) 898-5380.

Sincerely,

Kathy R. Hand
Hazard Mitigation Specialist

U.S. Department
of Transportation
**Federal Aviation
Administration**

Southwest Region
Arkansas, Louisiana,
New Mexico Oklahoma
Texas

Fort Worth, Texas 76193-0000

June 20, 1996

Mr. Rob R. Reid
Project Manager/Vice President
Espy Huston & Associates
P.O. Box 519
Austin, TX 78767-0519

Dear Mr. Reid:

We have received your letter dated, June 13, 1996, requesting the Federal Aviation Administration's (FAA's) comments regarding the Environmental Assessment for the proposed transmission line project.

We are presently unaware of any particular environmental concerns that would require FAA involvement. However, we have enclosed FAA Form 7460-1, Notice of Proposed Construction or Alteration, for your review. In the event that the transmission line towers meet the criteria established under Federal Aviation Regulation (FAR) Part 77, please complete the form and mail it to the following address:

Southwest Regional Office.
Air Traffic Division, ASW-530
2601 Meacham Blvd.
Fort Worth, TX. 76137-4298

If you have any questions regarding this matter, you may contact the FAA Air Traffic Division at (817) 222-5531, or me at (817) 222-5658.

Sincerely,

Ralph B. Christian III
Program Manager
Texas Airport Development Office

Enclosures

United States
Department of
Agriculture

Soil
Conservation
Service

101 South Main Street
Temple, Texas
76501-7682

June 28, 1996

Mr. Rob R. Reid
Project Manager/Vice President
P.O. Box 519
Austin, Texas 78767-0519

Dear Mr. Reid:

We have reviewed the location of the area of interest associated with West Texas Utilities Company and Midwest Electric Cooperative's proposed construction of electric transmission facilities project in Fisher and Scurry Counties, Texas (EH&A Job No. 17653).

It is our opinion this project will have no significant adverse impacts on agricultural lands.

Sincerely,

Harry W Oneth

HARRY W. ONETH
State Conservationist

cc: Mickey Black, ASTC for Field Operations, NRCS, Lubbock
Charles R. Terrell, Natl. Env. Coord., Washington, DC

TEXAS
HISTORICAL
COMMISSION

George W. Bush • *Governor*
John L. Nau, III • *Chairman*
Curtis Tunnell • *Executive Director*

The State Agency for Historic Preservation

July 2, 1996

Mr. Rob R. Reid
Espey, Huston & Associates, Inc.
206 Wild Basin Road, Suite 300
Austin, Texas 78746-3343

Re: West Texas Utilities Company proposed new electric transmission facilities in Fisher and Scurry Counties, Texas (RUS, F2, F10)

Dear Mr. Ried:

Thank you for the opportunity to review the project referenced above. We note that there are no proposed routes for most of the transmission line, and that several alternative routes will be proposed in an environmental assessment and alternative route analysis document. An archeological survey may be warranted for portions of this project that do not follow existing transmission line right-of-ways or easements; an antiquities permit application will be necessary if any alternative routes are located within public property. Upon selection of the alternative routes for this federal undertaking, please clearly plot these alternative routes and associated right-of-ways on a USGS topographic map and submit this information to our office for review.

If you have any questions, please contact Sergio Iruegas of our staff at 512/463-5865.

Sincerely,

James E. Bruseth, Ph.D.
Deputy State Historic Preservation Officer

Timothy K. Perttula, Ph.D.
Associate Director for Antiquities Review

JEB/TKP/SI

Texas Department of Transportation

AVIATION DIVISION

125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • 512/416-4500 • FAX 512/416-4510

July 8, 1996

Mr. Rob R. Reid
Vice President
Espey, Huston & Associates, Inc.
P.O. Box 519
Austin, Texas 78767-0519

Dear Mr. Reid:

We have received your letter dated June 13, 1996, concerning the Midwest Electric Cooperative's, Inc. proposed 69-kilovolt (kV) electric transmission line to be constructed in Scurry and Fisher Counties, Texas, EH&A Project No. 17653.

This office would have no comments concerning the environmental aspects of the proposed project; however, Part 77 of the Federal Aviation Administration's (FAA) Federal Aviation Regulations (FAR) requires notice to the FAA if the proposed transmission line would fit either of the below listed conditions:

1. Any construction or alteration which obstructs a slope of one foot of vertical height for each 100' of horizontal distance out to a total distance of 20,000' from the nearest point on any public use runway, existing or planned, of more than 3200' in actual length; or

2. Any construction or alteration of more than 200' above the surface of the ground at its location.

There are two public use airports shown on the aeronautical charts inside or within 20,000' of the study boundaries: Winston Field, Snyder, Texas and Fisher County Airport, Rotan/Roby, Texas. Both airports have at least one runway more than 3200' in length. If the proposed transmission line, the poles or the wire extended between the poles, fits either of the notice requirements listed above, the FAA must be notified using FAA Form 7460-1, "Notice of Proposed Construction or Alteration."

Other than the notification requirements listed above, this office requires no other coordination for this proposed project. Should you have any further questions, please feel free to contact me.

Sincerely,

Jim Cummins
Airport Planner

Texas Department of Transportation

DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

July 8, 1996

Mr. Rob R. Reid
Project Manager/Vice President
Espey, Huston & Associates, Inc.
P.O. Box 519 Austin, Texas 78767

Electric Transmission Lines in Fisher and Scurry Counties

Dear Mr. Reid:

In reference to your request for comments transmitted by your letter of June 13, 1996, the following information was received from the Abilene District:

"Please be aware that 37th Street in Snyder is scheduled for widening in 1999. The existing roadway will be widened to four lanes with shoulders. The existing substation on 37th Street is outside the current 120 foot right-of-way and no new right-of-way will be required for the proposed widening. Espey, Huston and Associates (EH&A) may need to consider the proposed project and any possible conflict with the utility pole location. EH&A should consider coordinating with Mr. Mike Taylor, P.E., the Snyder Area Engineer, who is in the early development stage of the proposed widening and may be contacted at (915) 573-0143."

Please do not hesitate to contact Kammy McInerney of my staff, at (512) 416-2785, if additional information is required.

Sincerely,

Dianna F. Noble

Dianna F. Noble, P.E.
Director of Environmental Affairs

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Stadium Centre Building
711 Stadium Drive East, Suite 252
Arlington, Texas 76011

2-12-96-I-254

July 9, 1996

Mr. Rob R. Reid
Espey, Huston and Associates, Inc.
P.O. Box 519
Austin, Texas 78767-0519

Dear Mr. Reid:

This responds to your June 13, 1996, letter requesting comments on the proposed construction of new electric transmission facilities in Fisher and Scurry Counties, Texas. The proposed project would include a 69-kilovolt transmission line from the West Texas Utilities Company (WTU) Roby substation to Texas Utilities Electric Company's 37th Street Substation in Snyder, Texas, which will utilize a portion of an existing Midwest Electric Cooperative (MEC) line to its Plainview Substation. WTU will construct the portion of the line from the 37th Street Substation to a new MEC substation (SnyTx1) that will be constructed in an industrial park east of Snyder, and the portion of the line from MEC's Plainview Substation to WTU's Roby Substation. MEC will construct the portion of the line from its new SnyTx1 Substation to its existing transmission line, to its Plainview Substation. No routes are proposed at this time; only a general project area is proposed (EH&A Job No. 17653).

Threatened and Endangered Species

There are no federally listed threatened, endangered, or candidate species known to occur in Fisher or Scurry Counties, Texas.

For information regarding State listed species, contact the Texas Parks and Wildlife Department, Texas Biological and Conservation Data System, 3000 South IH-35, Suite 100, Austin, Texas 78744, or call them at (512) 912-7011.

Wetlands and Wildlife Habitat

A review of the National Wetlands Inventory maps for the proposed general project area indicates the presence of numerous creeks, their tributaries and riparian corridors, ponds, and isolated wetlands (including playa lakes).

Wetlands and riparian corridors are high priority fish and wildlife habitat, serving as important sources of food, cover, and habitat for numerous species of fish and wildlife. Waterfowl and other migratory birds use wetlands and riparian corridors as stopover, feeding, and nesting areas. We recommend that proposed routes be designed to avoid and/or minimize impacts to these areas. However, if you anticipate that there will be unavoidable impacts to wetlands or riparian areas, Federal policy provides that these impacts be minimized and losses mitigated to restore lost habitat values of equal or greater value to fish and wildlife resources. This includes restoring or creating areas that retain the primary hydrological characteristics of the affected wetlands and revegetating the disturbed land with native plant species appropriate to habitat type.

To aid in route analysis, the Environmental Assessment for the proposed project should include a qualification and quantification of all impacts to fish and wildlife resources (especially to wetland, riparian, and upland forested areas) for each proposed route. A mitigation plan should be developed early in the project planning process, and subsequently reviewed by the resource agencies, which demonstrates how impacts to fish and wildlife resources would be avoided, how impacts would be minimized, and plans developed to rectify/compensate for project related impacts.

Thank you for the opportunity to comment on the proposed project. If you have any questions, please contact Don Wilhelm at (817) 885-7830.

Sincerely,

Don R Wilhelm

for Robert M. Short
Field Supervisor

TEXAS
PARKS AND WILDLIFE DEPARTMENT
4200 Smith School Road • Austin, Texas 78744 • 512-389-4800

July 15, 1996

Mr. Rob R. Reid
Espey, Huston & Associates, Inc.
P.O. Box 519
Austin, Texas 78767-0519

Re: Proposed electric transmission facilities by West Texas Utilities/Midwest Electric Cooperative, Inc , Fisher and Scurry Counties.

Dear Mr. Reid:

The following information is provided in response to your letter of June 13, 1996 concerning the above referenced project.

A search of the Texas Biological and Conservation Data System (BCD) revealed no known occurrences of special species or natural communities in the immediate vicinity of the proposed transmission line facilities in Fisher and Scurry counties. However, following are species that may occur if appropriate habitat is available. Close attention should be paid to underlying soils with regard to Texas poppy-mallow.

Federal and State Endangered--

Callirhoe scabriuscula (Texas poppy-mallow) G2 S2 - endemic; deep loose sands (Tivoli Soil Series) on ancient and contemporary river terraces; presently only found along the Colorado River above the confluence with the Concho River; flowering (April-) May-June.

State Threatened--

Phrynosoma cornutum (Texas Horned Lizard) G5 S4 - open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September

Other Species of Concern--

Athene cunicularia hypugaea (Western Burrowing Owl) G4TU S3B - open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows

The BCD information included here is based on the best data currently available to the state regarding threatened, endangered, or otherwise sensitive species. However, these data do not provide a definite statement as to the presence or absence of special species or natural communities within your project area, nor can these data substitute for an on-site evaluation by qualified biologists. This information is intended to assist you in avoiding harm to species that occur on your site. **Please contact one of the Texas Parks and Wildlife Department's BCD Information Managers before publishing printout data or otherwise disseminating any specific locality information.**

Important wildlife habitats within this region would include wooded or partially wooded riparian creek corridors and the occurrence of any upland woods or brush. Such areas should be avoided by alteration of line routes or by spanning the transmission lines over the sensitive areas.

Impacts to existing wildlife habitat can be further reduced by incorporating the attached recommended measures into the project plans.

Thank you for providing the opportunity to comment.

Sincerely,

Kathy Boydston for

Roy G. Frye
Wildlife Habitat Assessment Program
Wildlife Division

RGF:dab

TPWD Recommendations for Electrical Transmission Line Design and Construction

Construction of the line should be performed to avoid adverse environmental impact and to restore or enhance environmental quality to the greatest extent practical. In order to minimize the possible project effects upon wildlife, the following measures are recommended:

1. Use wood or non-conducting crossarms to minimize the possibility of electrical contact with perching birds.

2. When possible, install electrical equipment on the bottom crossarm to allow top crossarm for perching.

3. To protect raptors, procedures should be followed as outlined in:
   "Suggested Practices for Raptor Protection on Power Lines, the State of the Art in 1981," by Richard R. Olendorff, A. Dean Miller and Robert N. Lehman; distributed by the Raptor Research Foundation Incorporated, for Edison Electric Institute.
   REA Bulletin 61-10, "Protection of Bald and Golden Eagles from Power Lines."
   USDI-EPA report entitled "Impacts of Transmission Lines on Birds in Flight," (FWS/OBS-78/48).

4. Construction should avoid identified wetland areas. Coordination with appropriate agencies should be accomplished to ensure regulatory compliance. Construction should occur during dry periods.

5. Construction should attempt to minimize the amount of flora and fauna disturbed. Reclamation of construction sites should emphasize replanting with native grasses and leguminous forbs.

6. Existing rights-of-way should be used to upgrade facilities, where possible, in order to avoid additional clearing and prevent adverse impacts associated with habitat loss and fragmentation of existing blocks of wooded habitat.

7. Because forest and woody areas provide food and cover for wildlife, these cover types should be preserved. Mature trees, particularly those which produce nuts or acorns, should be retained. Shrubs and trees should be trimmed rather than cleared.

8. All pole design should be single phase (without arms), where possible, to preserve the aesthetics of the area.

9. Lines should be buried, when practical.