



Big Sandy Substation to Green Valley Substation

| Category Ranks | Alternative - Segments | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|--|--|--|--|---|--|--|---|---|---|--|---|---|---|---|---|--|--|---|---|--|--|---|---|--|--|---|--|--|--|--|--|---|---|--|--|---|--|--|--|----|---|----|
| | 82 - L1, L3, L5, L8, L9, L15, L17, L22, L24 | 83 - L2, L3, L5, L8, L9, L15, L17, L22, L24 | 84 - L1, L3, L5, L8, L9, L15, L16, L21, L22, L24 | 85 - L2, L3, L5, L8, L9, L15, L16, L21, L22, L24 | 86 - L1, L3, L5, L8, L9, L15, L16, L21, L22, L24 | 87 - L2, L3, L5, L8, L9, L15, L16, L21, L22, L24 | 88 - L1, L3, L5, L8, L9, L15, L16, L23, L24 | 89 - L2, L3, L5, L8, L11, L12, L14, L15, L16, L23, L24 | 90 - L1, L3, L5, L8, L11, L12, L14, L15, L17, L22, L24 | 91 - L2, L3, L5, L8, L11, L12, L14, L15, L16, L21, L22, L24 | 92 - L1, L3, L5, L8, L11, L12, L14, L15, L16, L21, L22, L24 | 93 - L2, L3, L5, L8, L11, L12, L14, L15, L16, L21, L22, L24 | 94 - L1, L3, L5, L8, L11, L12, L14, L15, L16, L23, L24 | 95 - L2, L3, L5, L8, L11, L12, L13, L21, L22, L24 | 96 - L1, L3, L5, L8, L11, L12, L13, L21, L22, L24 | 97 - L2, L3, L5, L8, L11, L12, L13, L21, L22, L24 | 98 - L1, L3, L4, L7, L8, L9, L15, L17, L22, L24 | 99 - L2, L3, L4, L7, L8, L9, L15, L17, L22, L24 | 100 - L1, L3, L4, L7, L8, L9, L15, L17, L22, L24 | 101 - L2, L3, L4, L7, L8, L9, L15, L17, L22, L24 | 102 - L1, L3, L4, L7, L8, L9, L15, L16, L21, L22, L24 | 103 - L2, L3, L4, L7, L8, L9, L15, L16, L21, L22, L24 | 104 - L1, L3, L4, L7, L8, L9, L15, L16, L23, L24 | 105 - L2, L3, L4, L7, L8, L9, L15, L16, L23, L24 | 106 - L1, L3, L4, L7, L8, L11, L12, L14, L15, L17, L22, L24 | 107 - L2, L3, L4, L7, L8, L11, L12, L14, L15, L17, L22, L24 | 108 - L1, L3, L4, L7, L8, L11, L12, L14, L15, L16, L21, L22, L24 | 109 - L2, L3, L4, L7, L8, L11, L12, L14, L15, L16, L21, L22, L24 | 110 - L1, L3, L4, L7, L8, L11, L12, L14, L15, L16, L23, L24 | 111 - L2, L3, L4, L7, L8, L11, L12, L13, L21, L22, L24 | 112 - L1, L3, L4, L7, L8, L11, L12, L13, L21, L22, L24 | 113 - L2, L3, L4, L7, L8, L11, L12, L13, L21, L22, L24 | 114 - L1, L3, L4, L7, L8, L11, L12, L13, L21, L22, L24 | 115 - L2, L3, L4, L7, L8, L11, L12, L13, L21, L22, L24 | 116 - L1, L3, L4, L7, L8, L11, L12, L14, L15, L17, L22, L24 | 117 - L2, L3, L4, L7, L8, L11, L12, L14, L15, L17, L22, L24 | 118 - L1, L3, L4, L7, L8, L11, L12, L14, L15, L16, L21, L22, L24 | 119 - L2, L3, L4, L7, L8, L11, L12, L14, L15, L16, L21, L22, L24 | 120 - L1, L3, L4, L7, L8, L11, L12, L14, L15, L16, L23, L24 | 121 - L2, L3, L4, L7, L8, L11, L12, L13, L21, L22, L24 | 122 - L1, L3, L4, L7, L8, L11, L12, L13, L21, L22, L24 | 123 - L2, L3, L4, L7, L8, L11, L12, L13, L21, L22, L24 | | | |
| Engineering | 27 | 35 | 40 | 41 | 13 | 19 | 16 | 21 | 25 | 33 | 4 | 10 | 23 | 33 | 1 | 7 | 26 | 38 | 39 | 42 | 9 | 18 | 17 | 28 | 29 | 37 | 4 | 13 | 29 | 36 | 3 | 10 | 15 | 20 | 23 | 31 | 4 | 10 | 22 | 31 | 1 | 7 | | | |
| Geology and Soils | 29 | 16 | 35 | 19 | 23 | 13 | 39 | 29 | 42 | 26 | 34 | 19 | 13 | 6 | 8 | 2 | 29 | 15 | 35 | 17 | 23 | 12 | 40 | 28 | 41 | 25 | 32 | 18 | 10 | 4 | 5 | 1 | 37 | 27 | 38 | 22 | 33 | 19 | 10 | 8 | 6 | 3 | | | |
| Water Resources | 17 | 23 | 17 | 23 | 36 | 37 | 13 | 25 | 13 | 25 | 33 | 39 | 1 | 4 | 7 | 10 | 21 | 27 | 21 | 27 | 37 | 42 | 15 | 29 | 15 | 29 | 34 | 40 | 2 | 5 | 8 | 11 | 19 | 31 | 19 | 31 | 35 | 41 | 3 | 6 | 9 | 12 | | | |
| Vegetation | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| Wildlife | 22 | 1 | 22 | 1 | 22 | 1 | 22 | 1 | 22 | 1 | 22 | 1 | 22 | 1 | 22 | 1 | 22 | 1 | 22 | 1 | 22 | 1 | 22 | 1 | 22 | 1 | 22 | 1 | 22 | 1 | 22 | 1 | 22 | 1 | 22 | 1 | 22 | 1 | 22 | 1 | 22 | 1 | 22 | 1 | 22 |
| Land Use | 5 | 1 | 24 | 13 | 21 | 12 | 7 | 3 | 23 | 10 | 13 | 4 | 38 | 36 | 32 | 26 | 8 | 2 | 26 | 16 | 22 | 15 | 11 | 6 | 25 | 17 | 20 | 9 | 41 | 38 | 35 | 31 | 29 | 19 | 34 | 30 | 26 | 18 | 42 | 40 | 37 | 33 | | | |
| Cultural Resources | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| Category Rank Total | 102 | 78 | 140 | 99 | 117 | 84 | 99 | 81 | 127 | 97 | 108 | 75 | 99 | 82 | 72 | 48 | 108 | 85 | 145 | 105 | 115 | 90 | 107 | 94 | 134 | 111 | 114 | 83 | 106 | 86 | 75 | 56 | 124 | 100 | 138 | 117 | 122 | 91 | 101 | 88 | 77 | 58 | | | |
| Alternative Rank | 25 | 8 | 41 | 20 | 34 | 12 | 20 | 9 | 38 | 19 | 29 | 5 | 20 | 10 | 4 | 1 | 29 | 13 | 42 | 26 | 33 | 16 | 28 | 18 | 39 | 31 | 32 | 11 | 27 | 14 | 5 | 2 | 37 | 23 | 40 | 34 | 36 | 17 | 24 | 15 | 7 | 3 | | | |

Description & Results

The Big Sandy Substation to Green Valley Substation transmission line would be approximately 83 miles in length. The transmission line would begin at the existing Big Sandy Substation, cross U.S. Highway 36 near the town of Byers, Colorado, and end at the existing Green Valley Substation.

Route refinement moved segment L2 to minimize effects to cropland. Segments L4 through L24 received significant alterations and route additions in response to public comments and aerial surveys. Specifically, land use changes and residential development are occurring rapidly in this area.

The area in Adams and Arapahoe Counties, Colorado near the towns of Strasburg and Byers is being subdivided and rapidly developed. The many segments identified for this area are an acknowledgement that development may outpace planning efforts for the EPTP and cause a need for continued adjustment to the proposed route. Alternative route 83 was identified as the proposed route because it would minimize effects to homes. Routes 82, 96, 97, 113, and 123 were chosen as alternatives to maximize the variation between the routing options in the face of rapidly changing land uses. Each alternative route takes advantage of a different path in the areas of most concentrated use.

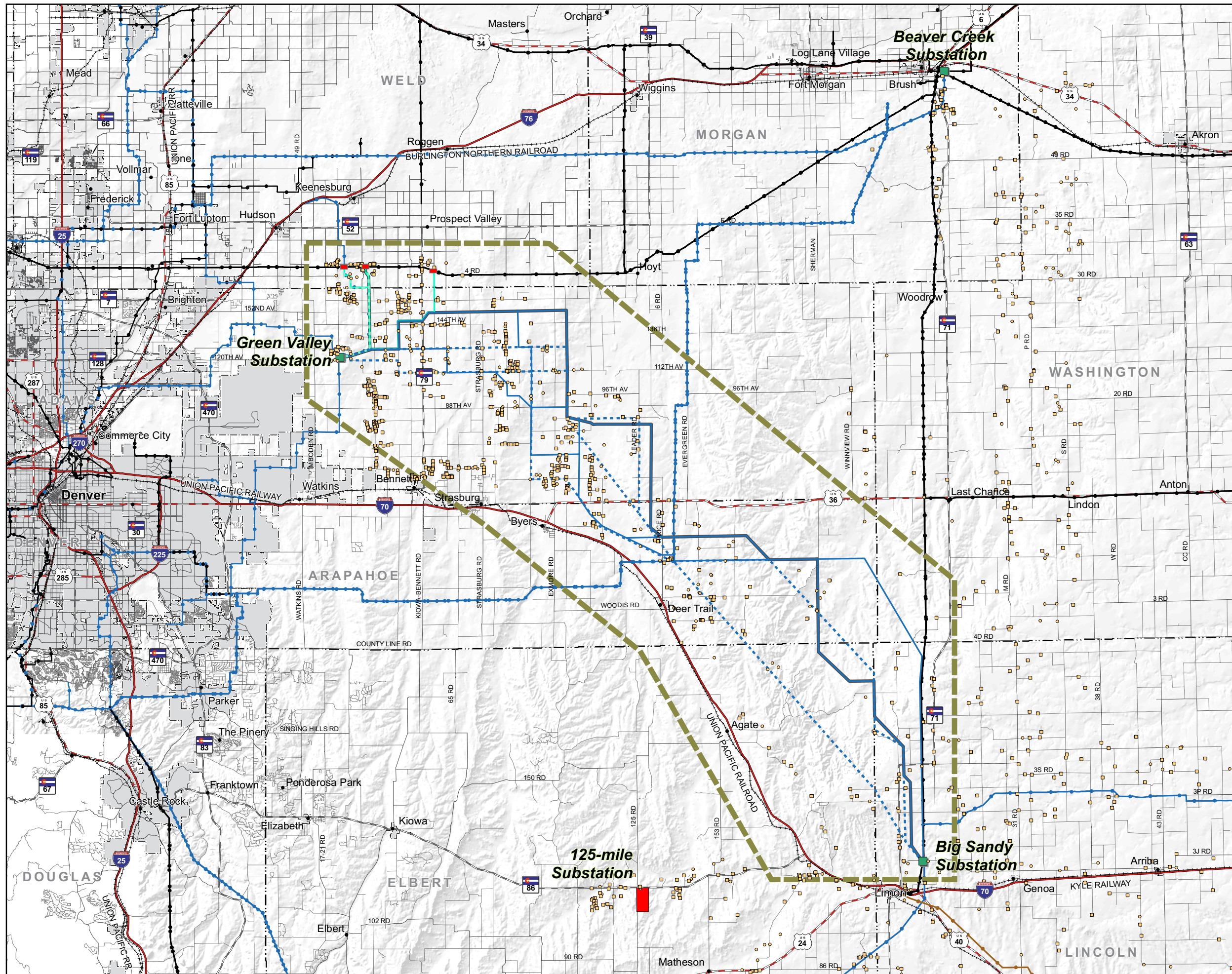
Siting Considerations

The proposed and alternative routes respond to scoping comments and additional ground and aerial surveillance. Several of the routes between substations were re-labeled for the sake of organization and consistency. The segments between Big Sandy Substation and Green Valley Substation were re-labeled from "K" to "L".

Route-specific comments from scoping included the following:

- Move K2 out of field and along highway
- Prefer K13 route to the north
- If K12 used, consider moving it south (between 112th Avenue and 104th Avenue to avoid residences)
- Prefers K2 to K3
- Avoid K2
- Prefers K3 to K2 (effects to farmland)
- Move K4 west to 144th Avenue (to avoid residences)





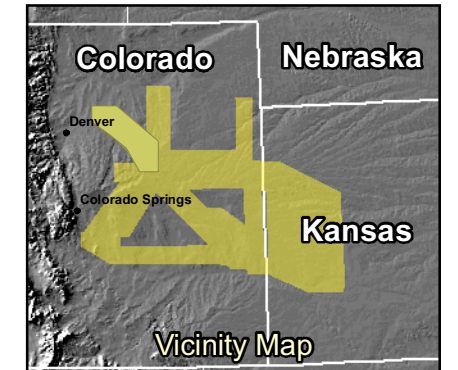
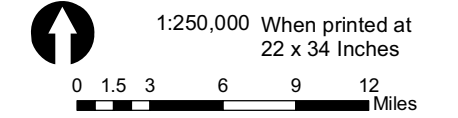
Base Map

Big Sandy to Green Valley and Green Valley to Beaver Creek-Erie Tap

Legend

- Substations**
 - Existing Substation
 - Proposed Substation Siting Area
- Analysis Area**
 - Big Sandy to Green Valley
- Transportation**
 - Interstate Highway
 - State Highway
 - - - U.S. Highway
 - Minor Road
 - Major Road
 - - - Railroad
- Existing Transmission Lines**
 - 115-kV Transmission Line
 - 230-kV Transmission Line
 - 345-kV Transmission Line
 - 69-kV Transmission Line
- Routes**
 - Green Valley to Big Sandy**
 - Proposed (345-kV)
 - Alternative (500-kV)
 - - - Previous (500-kV)
 - Green Valley to Beaver Creek-Erie Tap**
 - Proposed (230-kV)
 - Alternative (230-kV)
 - - - Previous (230-kV)
- Structures** (Digitized from aerial photography)
 - Residence
 - Other Structure

Source Data: ESRI (Cities), NED (Hillshade), BTS (Highways), National Atlas (States), CDOT (CO Roads, Rails, City/County Boundaries), Xcel, Western (Transmission Lines)



Last Revised: 01/25/07
 MXD Path: P:\2006\06180035.01\GIS\Layouts\Green_Valley_Big_Sandy\Second_Public_Meeting\greenvalley_bigsandy_base_Matrix
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Eastern Plains Transmission Project

