

# APPENDIX H

## SURFACE DISTURBANCE AND RECLAMATION CALCULATIONS

Number of Active Wells	-	1,080
Number of Abandoned Locations Being Reclaimed	-	125
Miles of Paved Road	-	52
Miles of Improved Road	-	540
Miles of Unimproved Road	-	30
Miles of Unnecessary Road To Be Reclaimed	-	110

### PERMANENT DISTURBANCE AND OTHER RELEVANT CALCULATIONS

#### Linear Disturbances:

Paved Roads using a 40-foot estimated width of disturbance

$$52 \text{ miles} \times 4.85 \text{ acres/mile} \times 0.67 \text{ BLM} = 252 \text{ acres}$$

Improved Roads using a 24-foot estimated width of disturbance

$$540 \text{ miles} \times 2.91 \text{ acres/mile} \times = 1,571 \text{ acres}$$

Unimproved Roads using an 8-foot. estimated width of disturbance

$$30 \text{ miles} \times 0.97 \text{ acres/mile} = 29 \text{ acres}$$

Unnecessary Roads using an 16-foot average estimated width of disturbance

$$110 \text{ miles} \times 1.91 \text{ acres/mile} = 210 \text{ acres}$$

**SUB TOTAL FOR LINEAR DISTURBANCE = 2,062 acres**

#### Polygon Shaped Disturbances

1,080 Active Wells using a 1.25 acre of permanent disturbance per well pad

$$1,080 \text{ wells} \times 1.25 \text{ acres/well} = 1,350 \text{ acres}$$

TOTAL PERMANENT DISTURBANCE = 1,350 acres + 2,062 acres

**SUB TOTAL PERMANENT DISTURBANCE = 3,412 acres**

### AVERAGE PERMANENT DISTURBANCE PER ACTIVE WELL

3,412 acres of permanent disturbance

1,080 active wells on BLM-administered lands (as of 1990)

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### AVERAGE PERMANENT DISTURBANCE PER ACTIVE WELL = 3 acres RECLAMATION OPPORTUNITIES

Potential to reclaim roads using a 16-foot estimated width of disturbance:

$$110 \text{ miles} \times 1.9 \text{ acres/mile} = 210 \text{ acres}$$

### TOTAL ACRES HABITAT TO BE LOST TO ENERGY DEVELOPMENT OVER THE NEXT 10 YEARS WITHIN THE CAP AREA BY ALTERNATIVE

#### ALTERNATIVE A:

300 wells drilled x 3 acres/well	= 900 acres lost
200 wells abandoned x 3 acres/well	= 600 acres gained
110 miles of road reclaimed x 1.9 acres/mile	= 210 acres gained

**Net loss/gain habitat for ten year period = - 90**

#### ALTERNATIVE B AND C:

600 wells drilled x 3 acres/well	= 1,800 acres lost
200 wells abandoned x 3 acres/well	= 600 acres gained
110 miles of road reclaimed x 1.9 acres/mile	= 210 acres gained

**Net loss/gain habitat for ten year period = - 990**

#### ALTERNATIVE D AND E:

900 wells drilled x 3 acres/well	= 2,700 acres lost
200 wells abandoned x 3 acres/well	= 600 acres gained
110 miles of road reclaimed x 1.9 acres/mile	= 210 acres gained

**Net loss/gain habitat for ten year period = - 1890**

#### ALTERNATIVE F:

200 wells drilled x 3 acres/well	= 600 acres lost
200 wells abandoned x 3 acres/well	= 600 acres gained
110 miles of road reclaimed x 1.9 acres/mile	= 210 acres gained

**Net loss/gain habitat for ten year period = + 210**