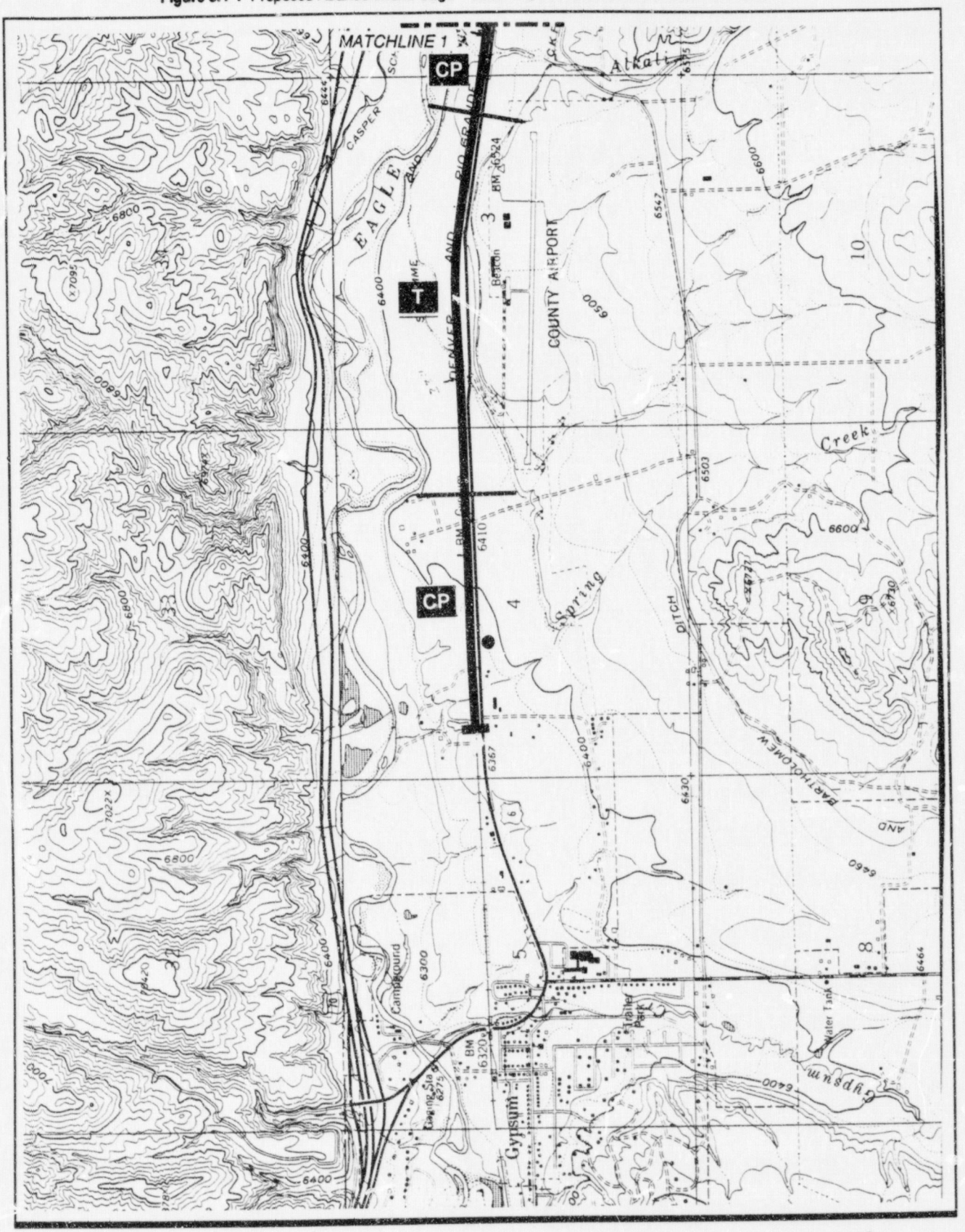
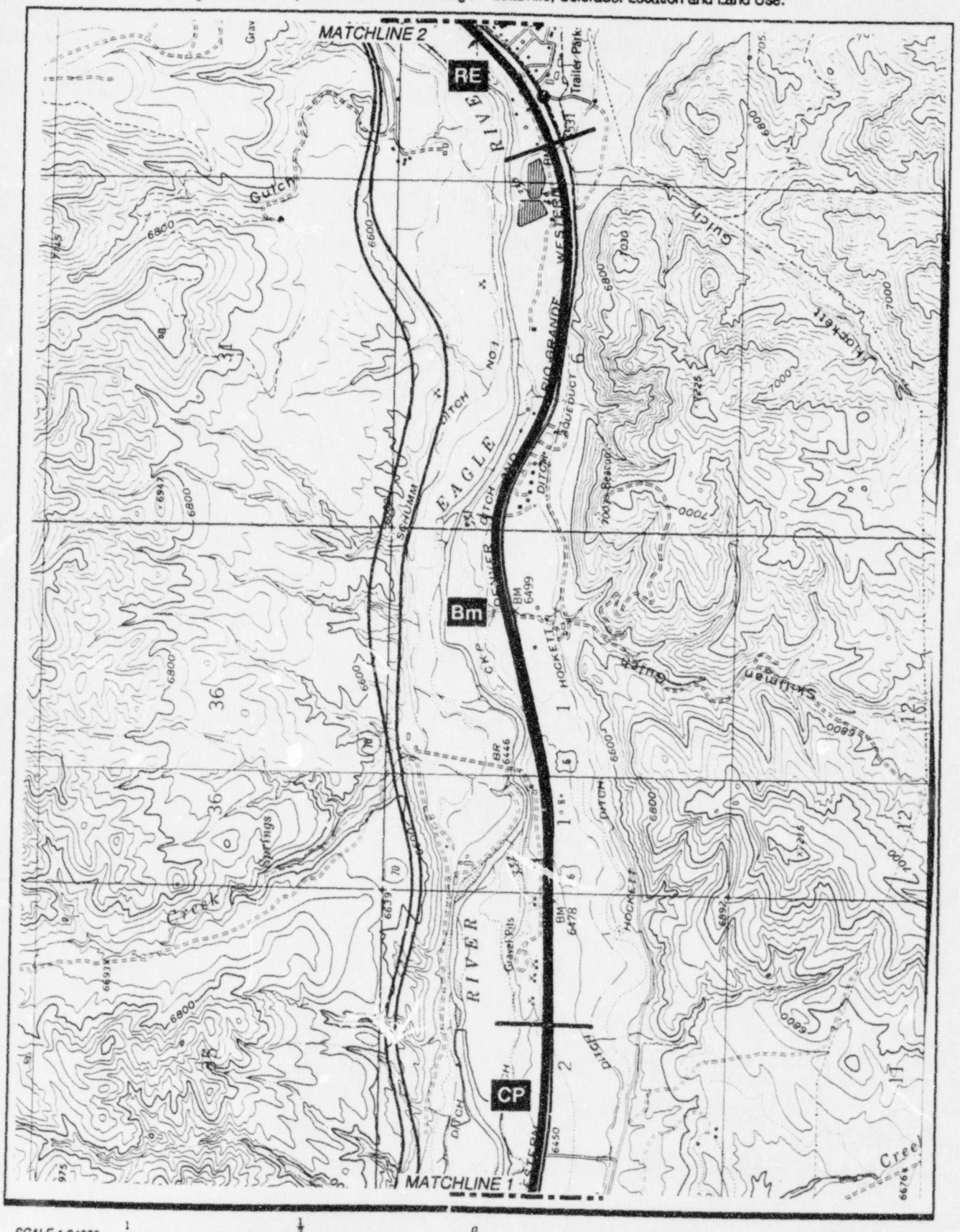
Figure 5.1-1 Proposed Abandonment: Sage – Leadville, Colorado. Location and Land Use.



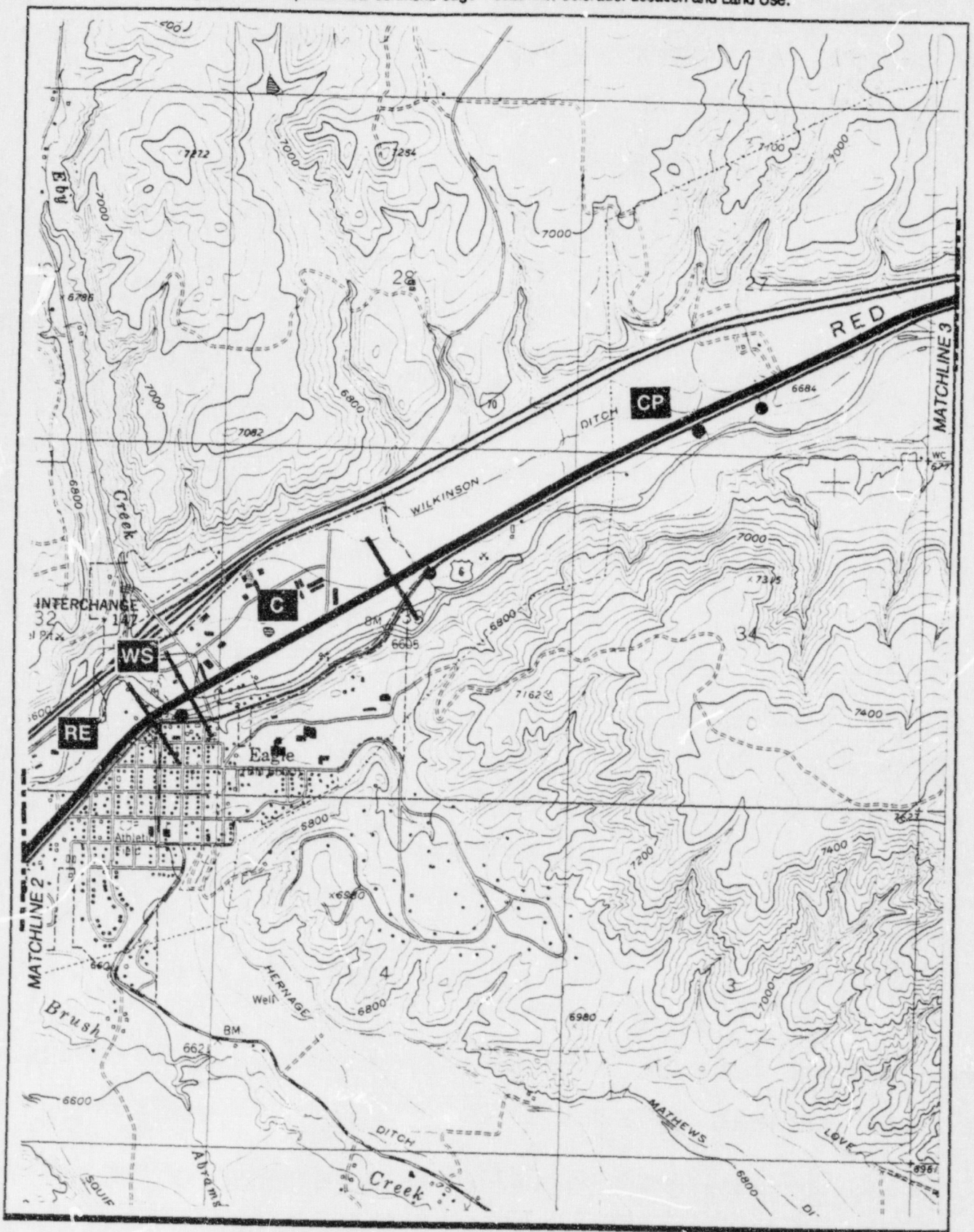
Base Map: *USGS 7.5' Topographic Quadrangle:* Gypsum, Colorado 1962 (Photorevised 1987)

Figure 5.1-2 Proposed Abandonment: Sage – Leadville, Colorado. Location and Land Use.



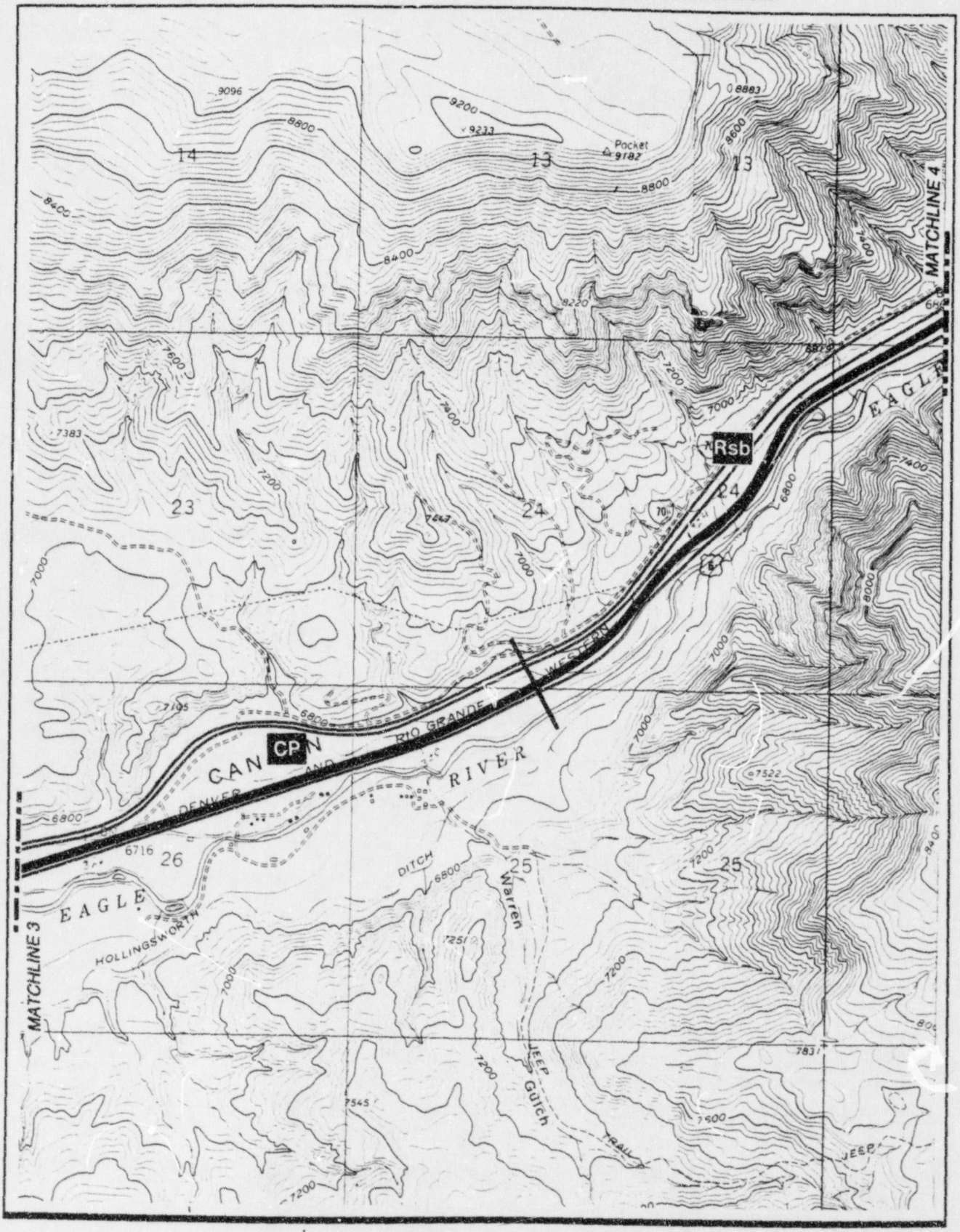
Base Map: *USGS 7.5' Topographic Quadrangles:* Gypsum, Colorado 1962 (Photorevised 1987); Eagle, Colorado 1962 (Photorevised 1987)

Figure 5.1-3 Proposed Abandonment: Sage – Leadville, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quad angle:* Eagle, Colorado 1962 (Photorevised 1987)

Figure 5.1-4 Proposed Abandonment: Sage – Leadville, Colorado. Location and Land Use.



SCALE 1:24000

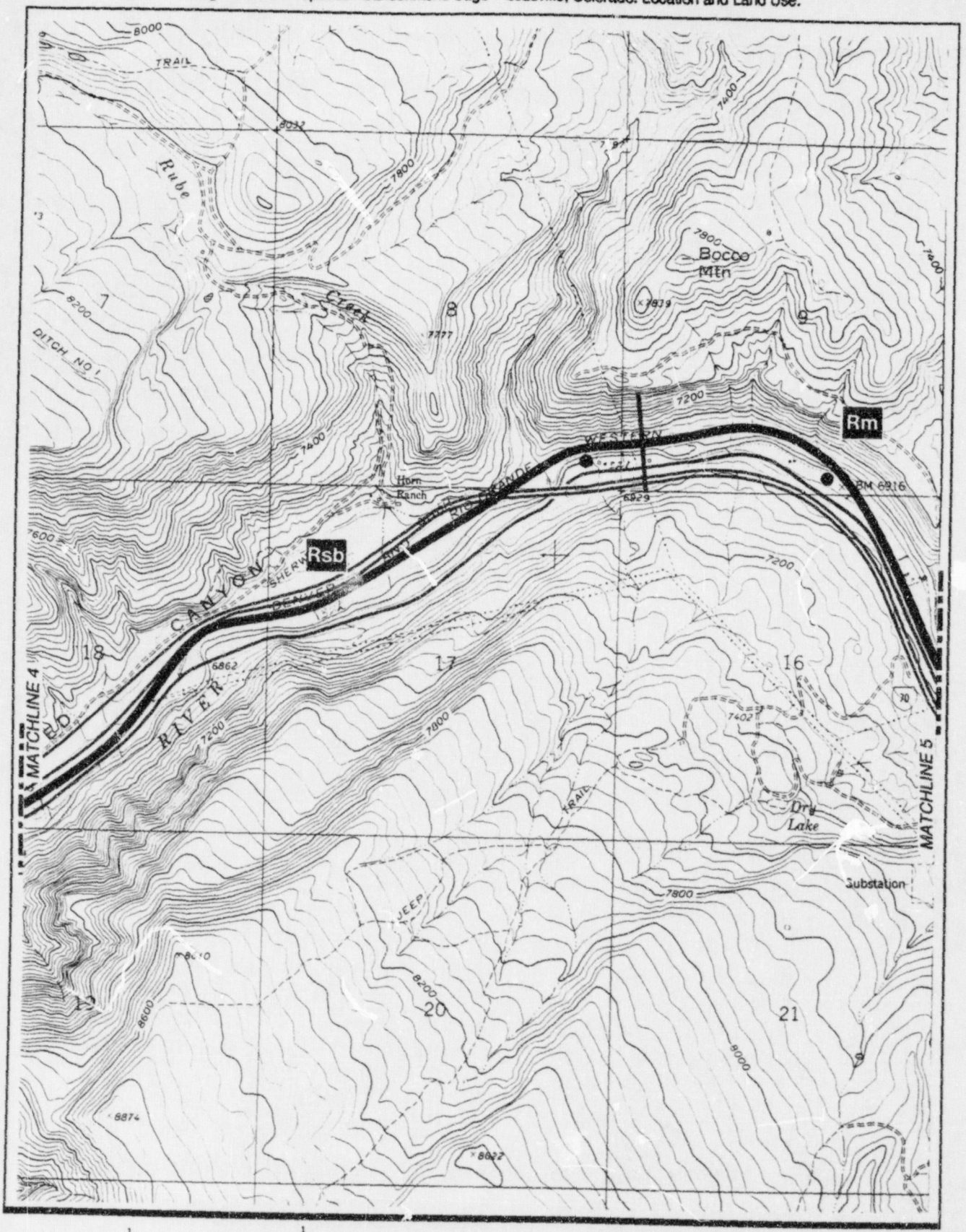
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

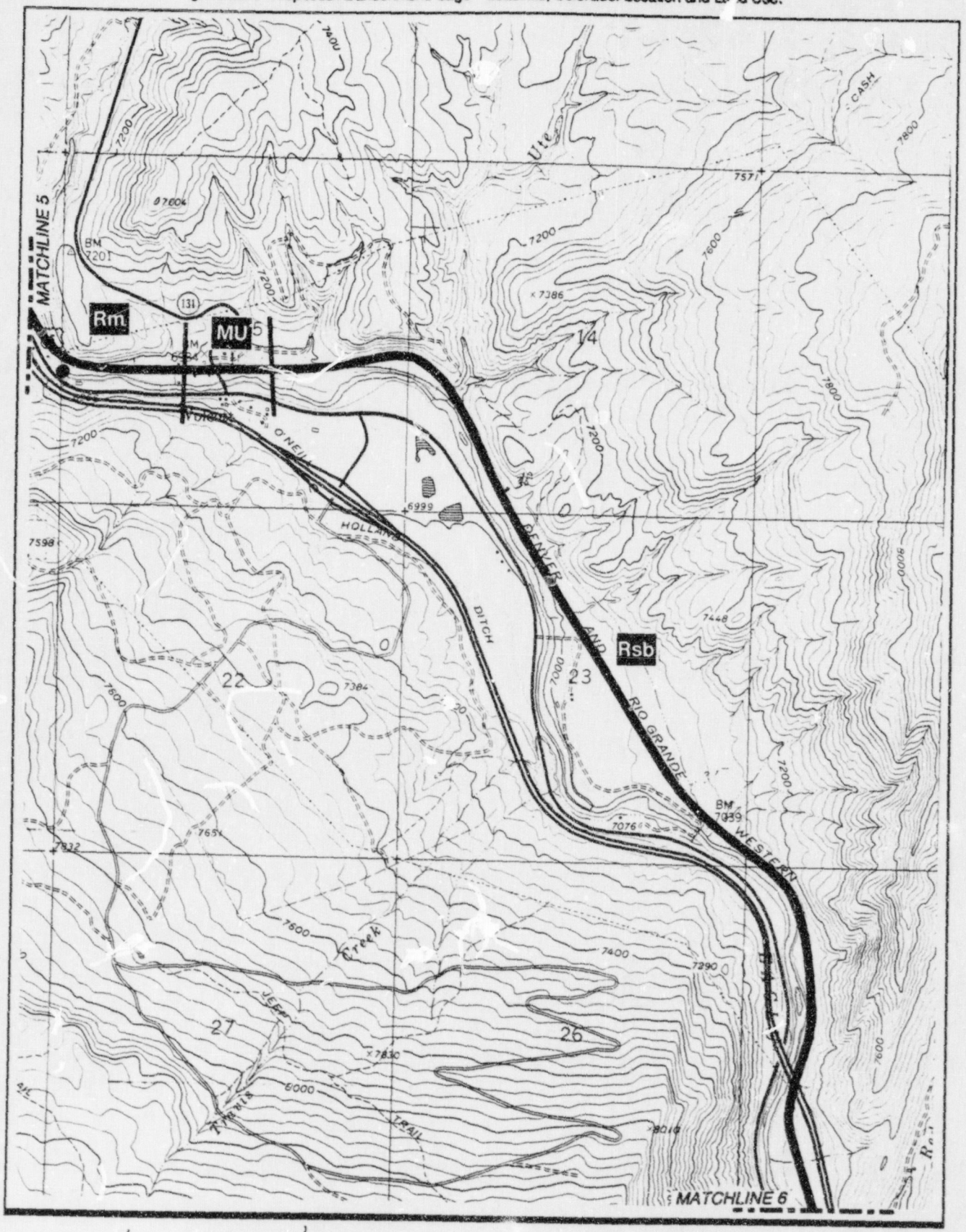
Base Map: *USGS 7.5' Topographic Quadrangles:* Eagle, Colorado 1962 (Photorevised 1987); Wolcott, Colorado 1962 (Photorevised 1987)

Figure 5.1-5 Proposed Abandonment: Sage – Leadville, Colorado. Location and Land Use.



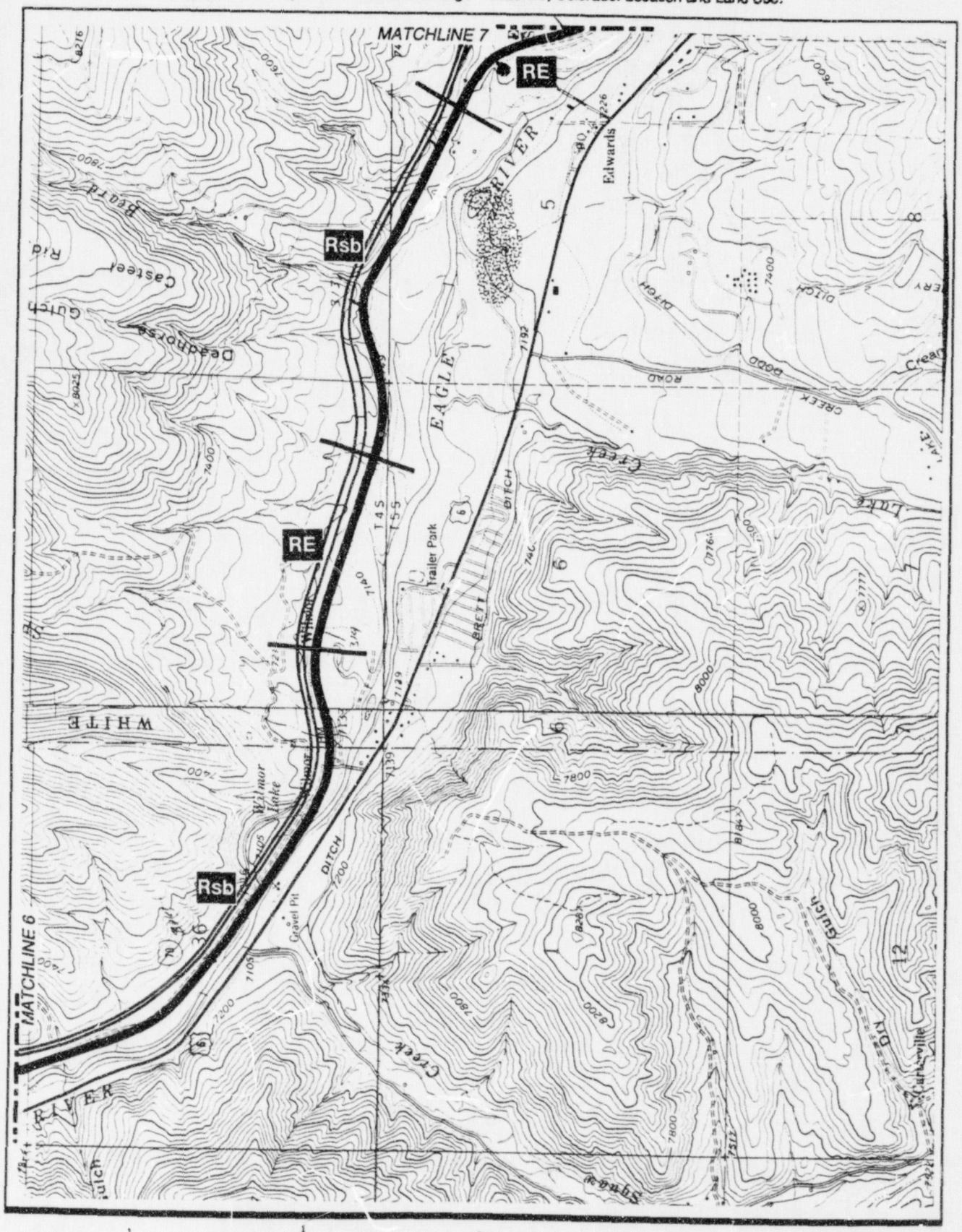
Base Map: *USGS 7.5' Topographic Quadrangle:* Wolcott, Colorado 1962 (Photorevised 1987)

Figure 5.1-6 Proposed Abandonment: Sage – Leadville, Colorado. Location and Land Use.



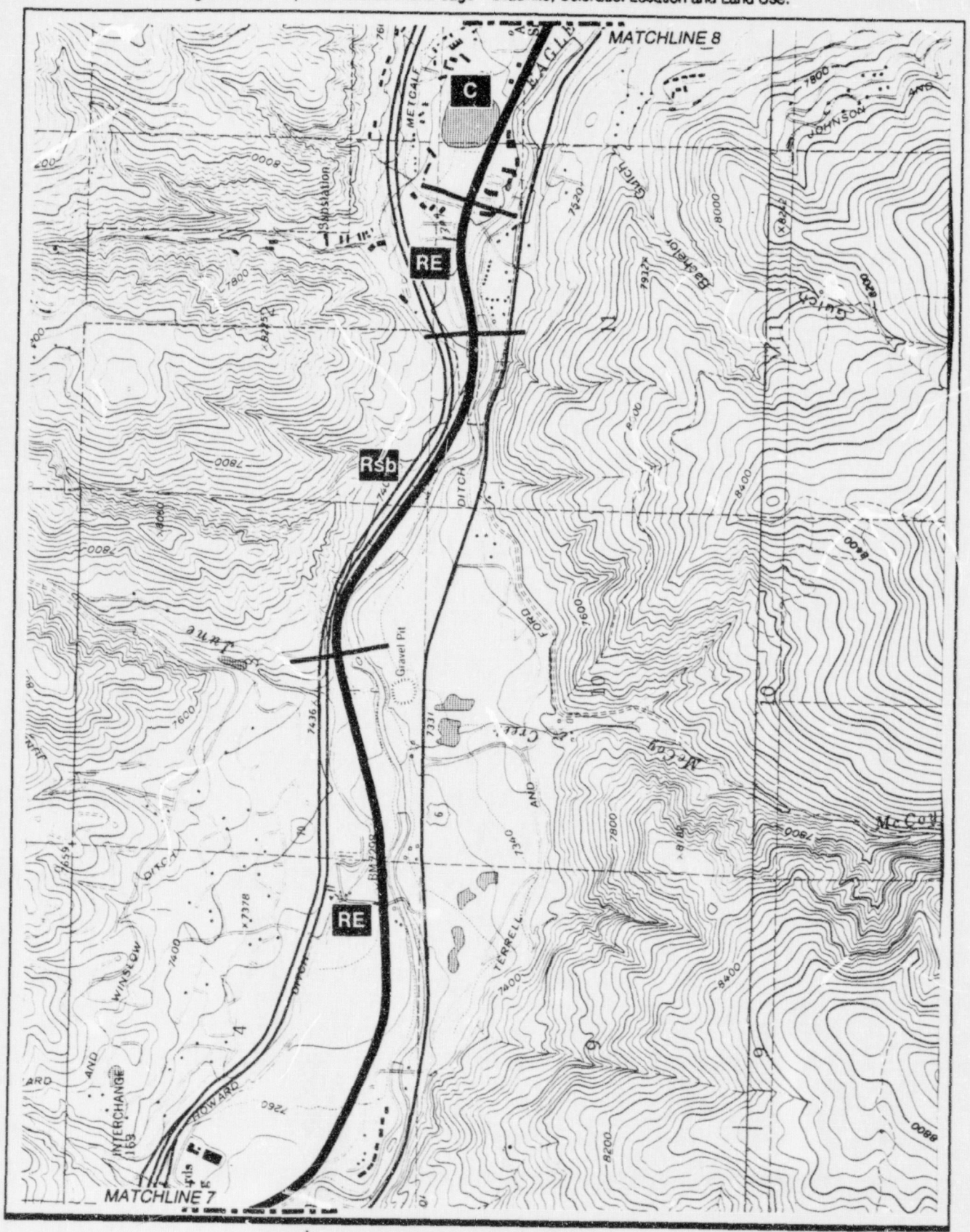
Base Map: *USGS 7.5' Topographic Quadrangle:* Wolcott, Colorado 1962 (Photorevised 1987)

Figure 5.1-7 Proposed Abandonment: Sage – Leadville, Colorado. Location and Land Use.



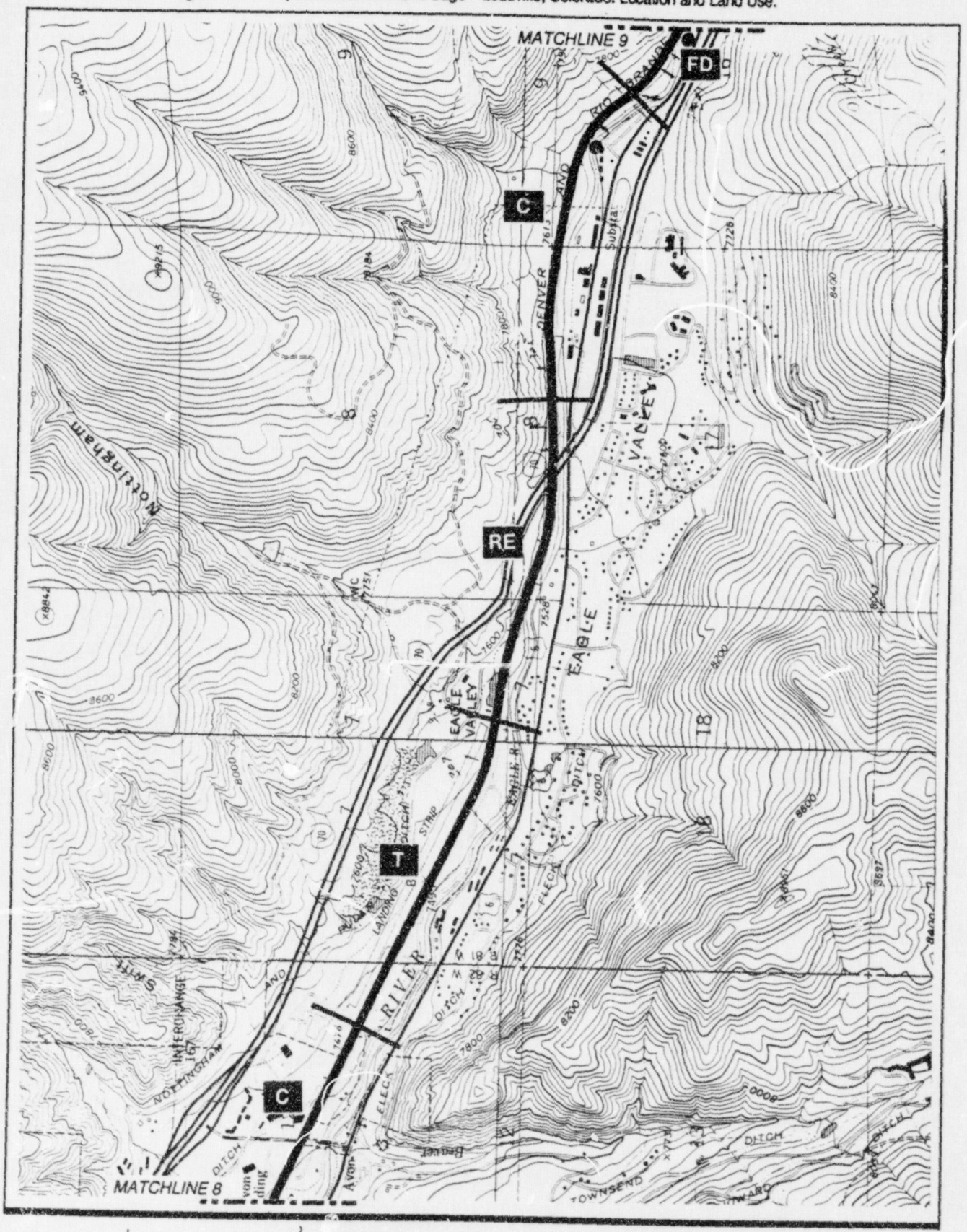
Base Map: *USGS 7.5' Topographic Quadrangles:* Wolcott, Colorado 1962 (Photorevised 1987); Edwards, Colorado 1962 (Photorevised 1987)

Figure 5.1-8 Proposed Abandonment: Sage – Leadville, Colorado. Location and Land Use.



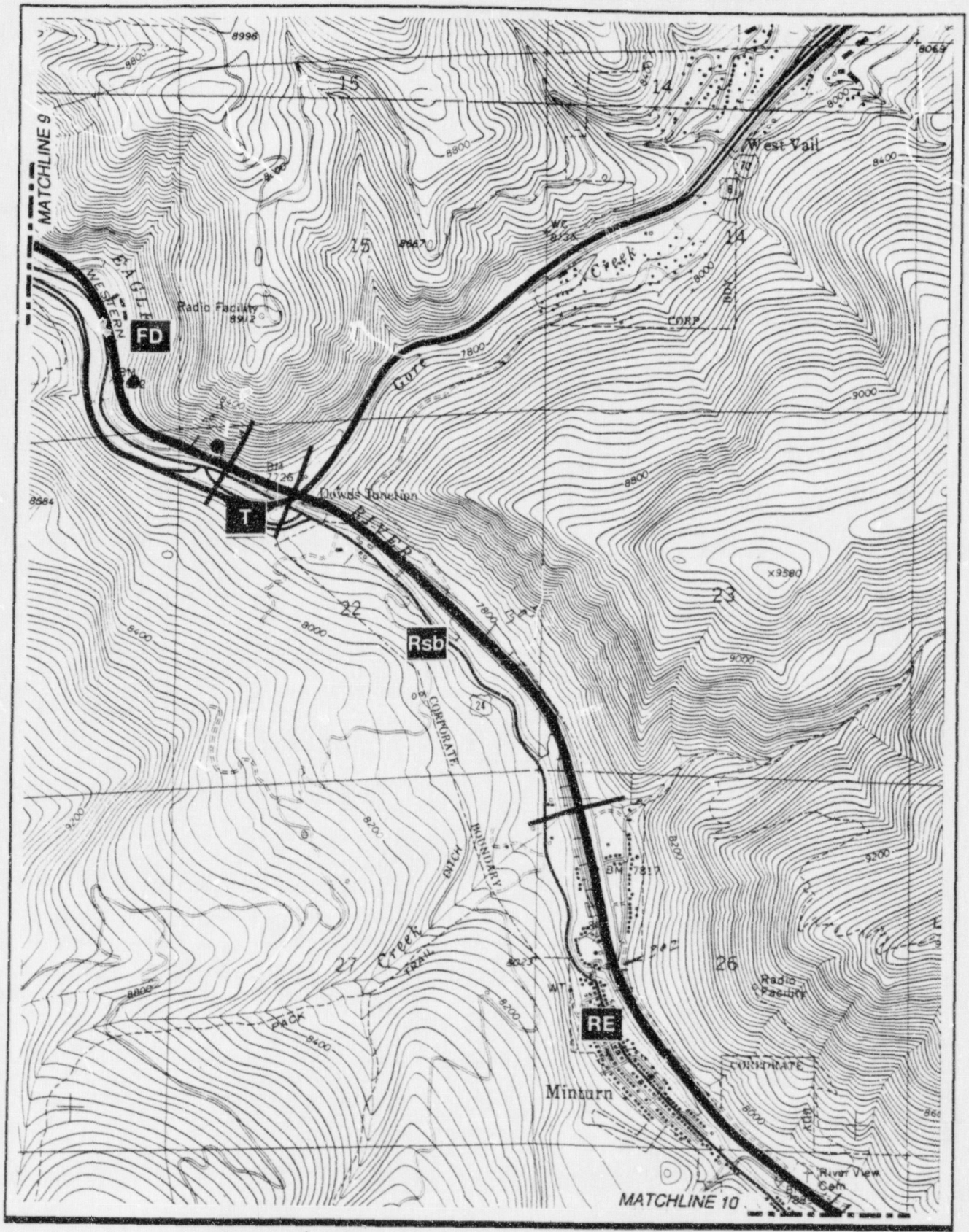
Base Map: *USGS 7.5' Topographic Quadrangles:* Edwards, Colorado 1962 (Photorevised 1987); Grouse Mountain, Colorado 1962 (Photorevised 1987)

Figure 5.1-9 Proposed Abandonment: Sage – Leadville, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangles:* Edwards, Colorado 1962 (Photorevised 1987); Vail West, Colorado 1970 (Photorevised 1987); Grouse Mountain, Colorado 1962 (Photorevised 1987); Mintum, Colorado 1970 (Photorevised 1987)

Figure 5.1-10 Proposed Abandonment: Sage – Leadville, Colorado. Location and Land Use.



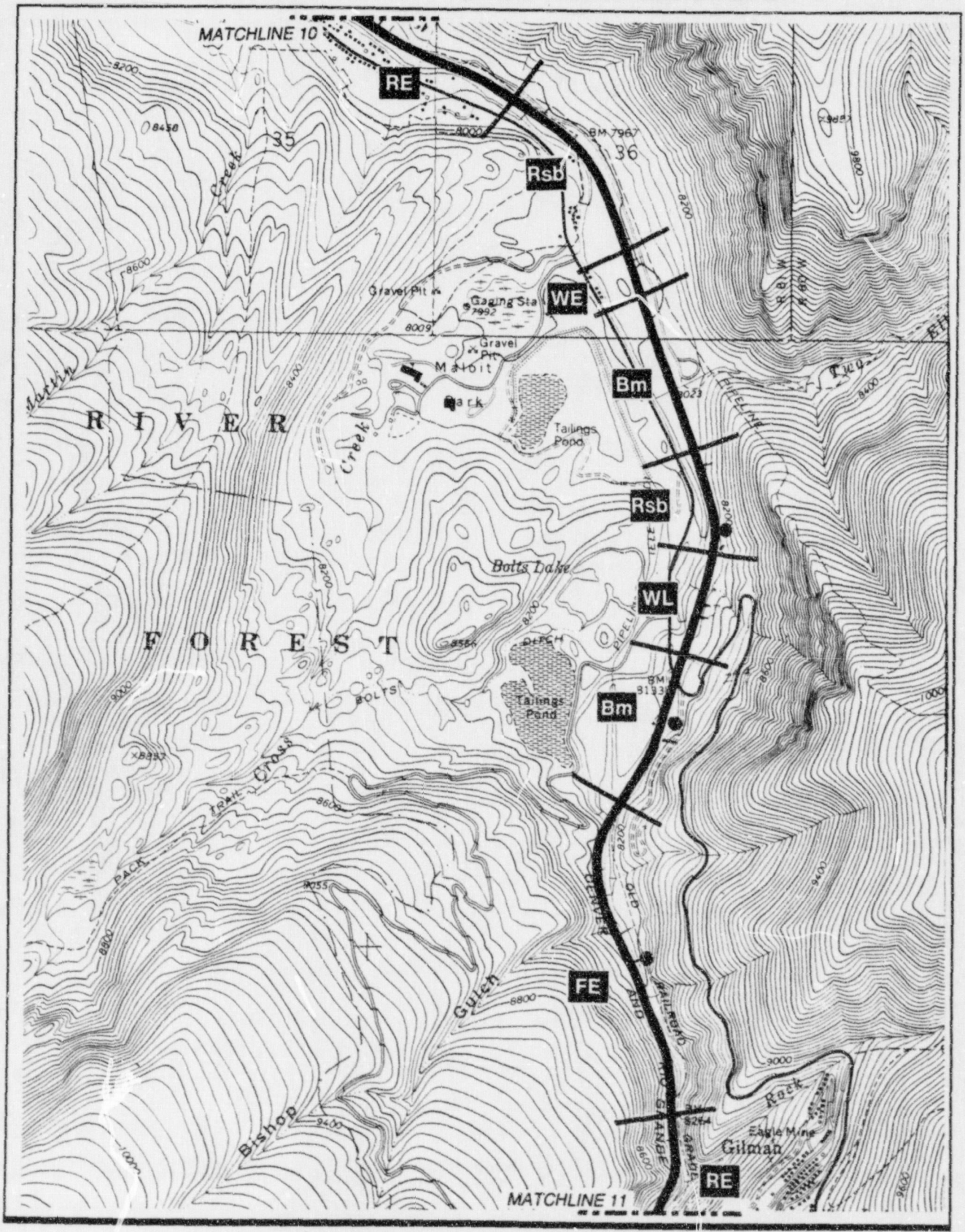
SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

Base Map: *USGS 7.5' Topographic Quadrangles:* Vail West, Colorado 1970 (Photorevised 1987); Mintum, Colorado 1970 (Photorevised 1987)

Figure 5.1-11 Proposed Abandonment: Sage – Leadville, Colorado. Location and Land Use.



SCALE 1:24000

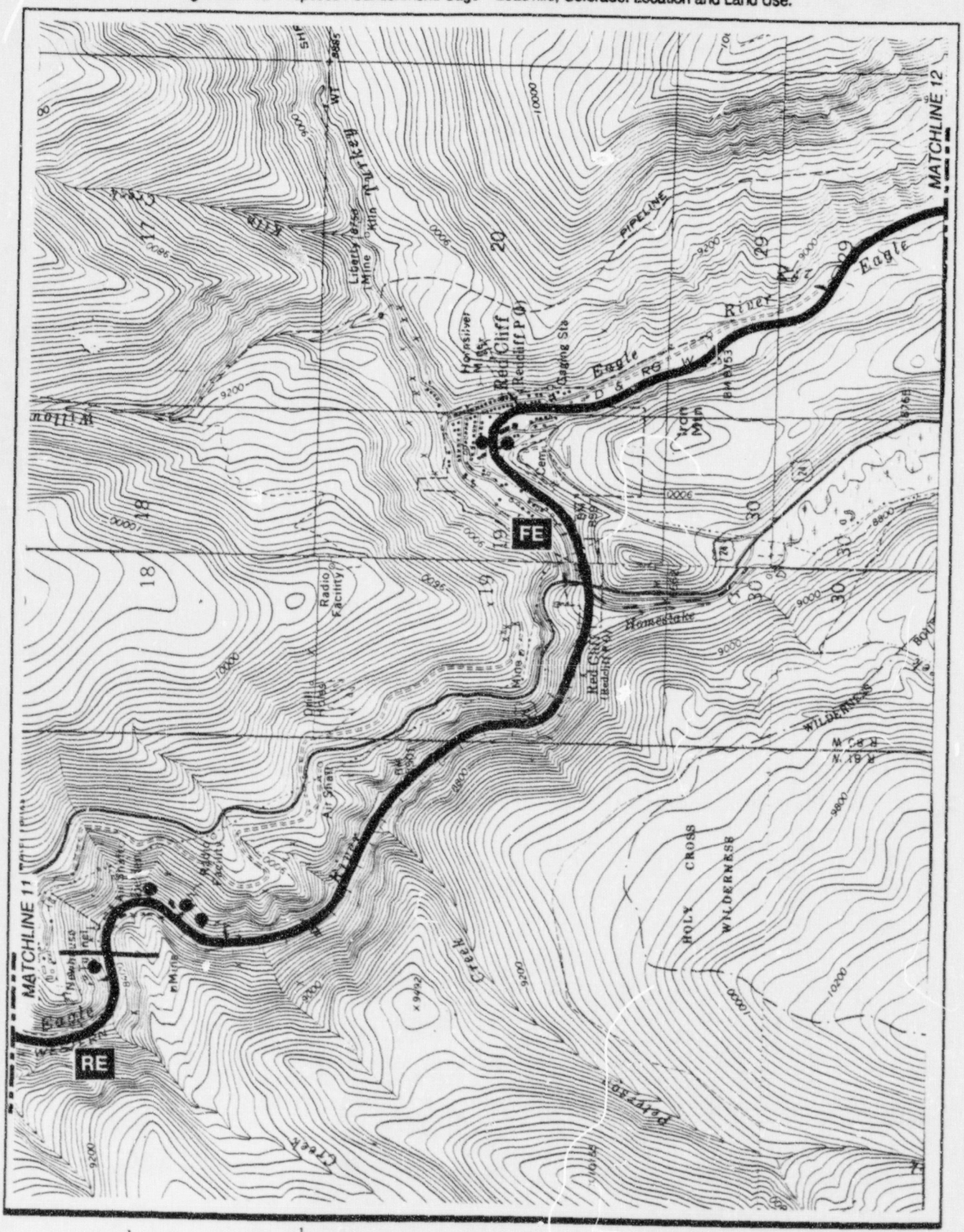
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

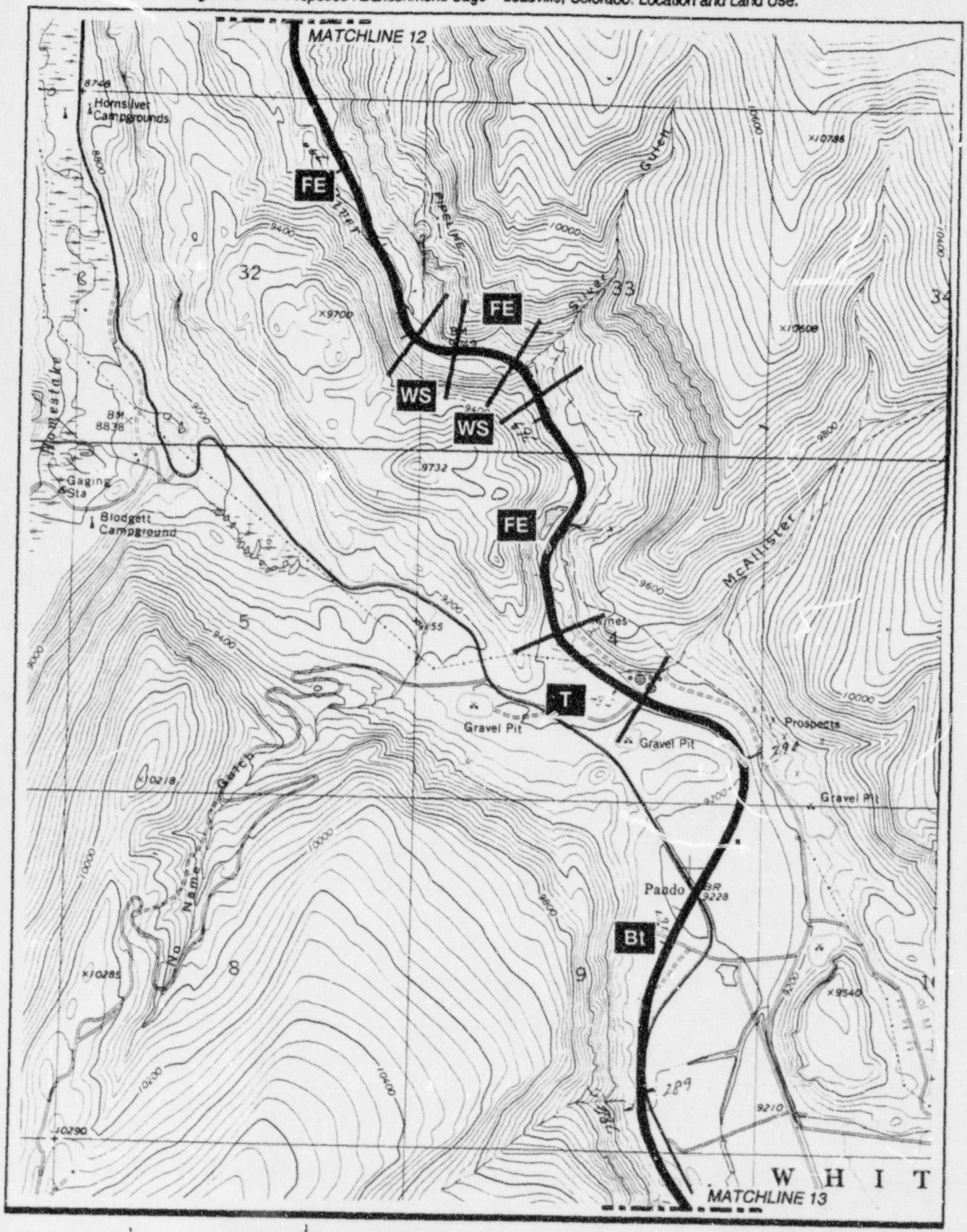
Base Map: *USGS 7.5' Topographic Quadrangles:* Minturn, Colorado 1970 (Photorevised 1987)

Figure 5.1-12 Proposed Abandonment: Sage – Leadville, Colorado. Location and Land Use.



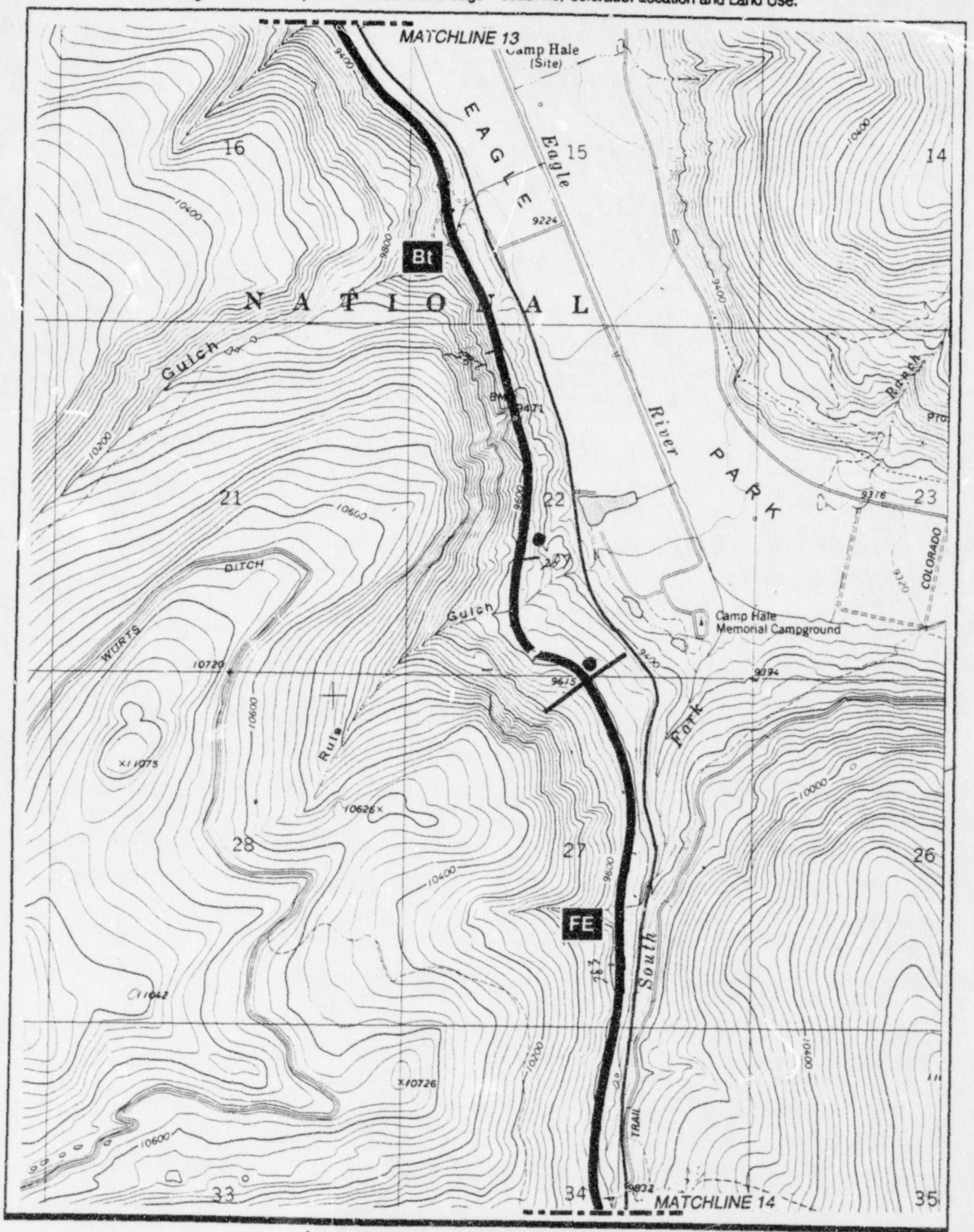
Base Map: *USGS 7.5' Topographic Quadrangles:* Minturn, Colorado 1970 (Photorevised 1987); Red Cliff, Colorado 1970 (Photorevised 1987); Mount of the Holy Cross, Colorado 1970 (Photorevised 1987); Pando Colorado 1970 (Photoinspected 1979) (Photorevised 1987)

Figure 5.1-13 Proposed Abandonment: Sage – Leadville, Colorado. Location and Land Use.



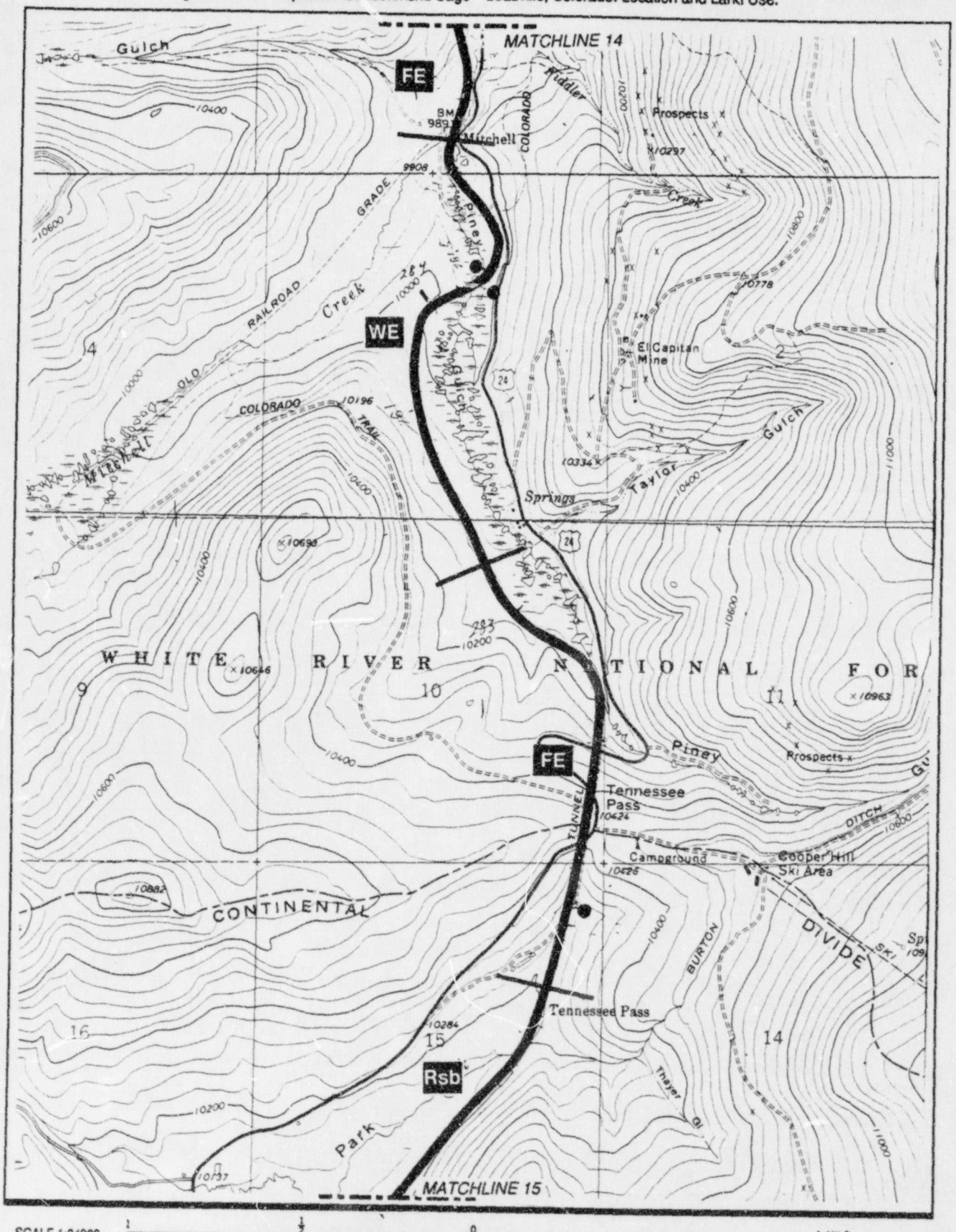
Base Map: *USGS 7.5' Topographic Quadrangle:* Pando Colorado 1970 (Photoinspected 1979) (Photorevised 1987)

Figure 5.1-14 Proposed Abandonment: Sage – Leadville, Colorado. Location and Land Use.



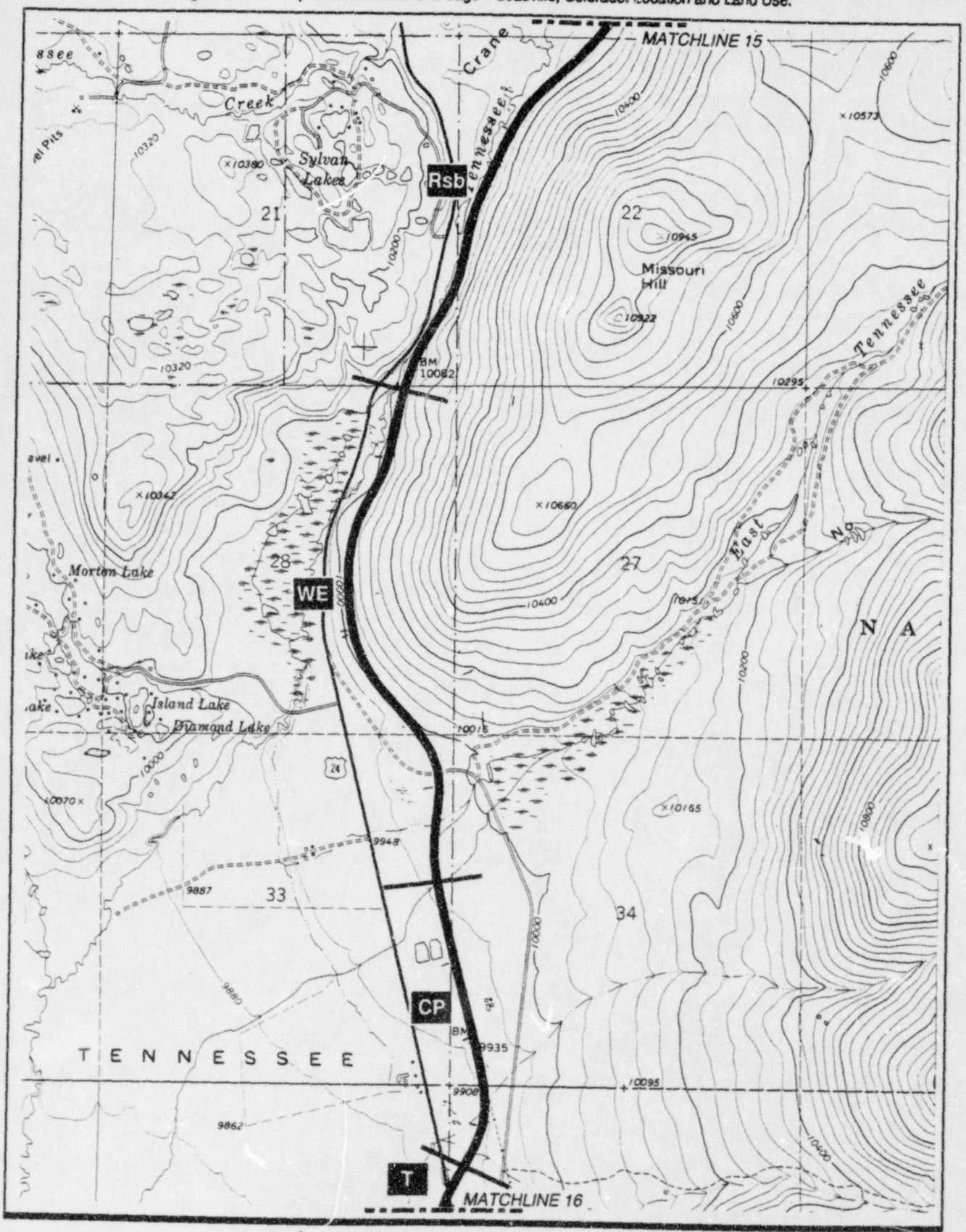
Base Map: *USGS 7.5' Topographic Quadrangle:* Pando Colorado 1970 (Photoinspected 1979) (Photorevised 1987)

Figure 5.1-15 Proposed Abandonment: Sage – Leadville, Colorado. Location and Land Use.



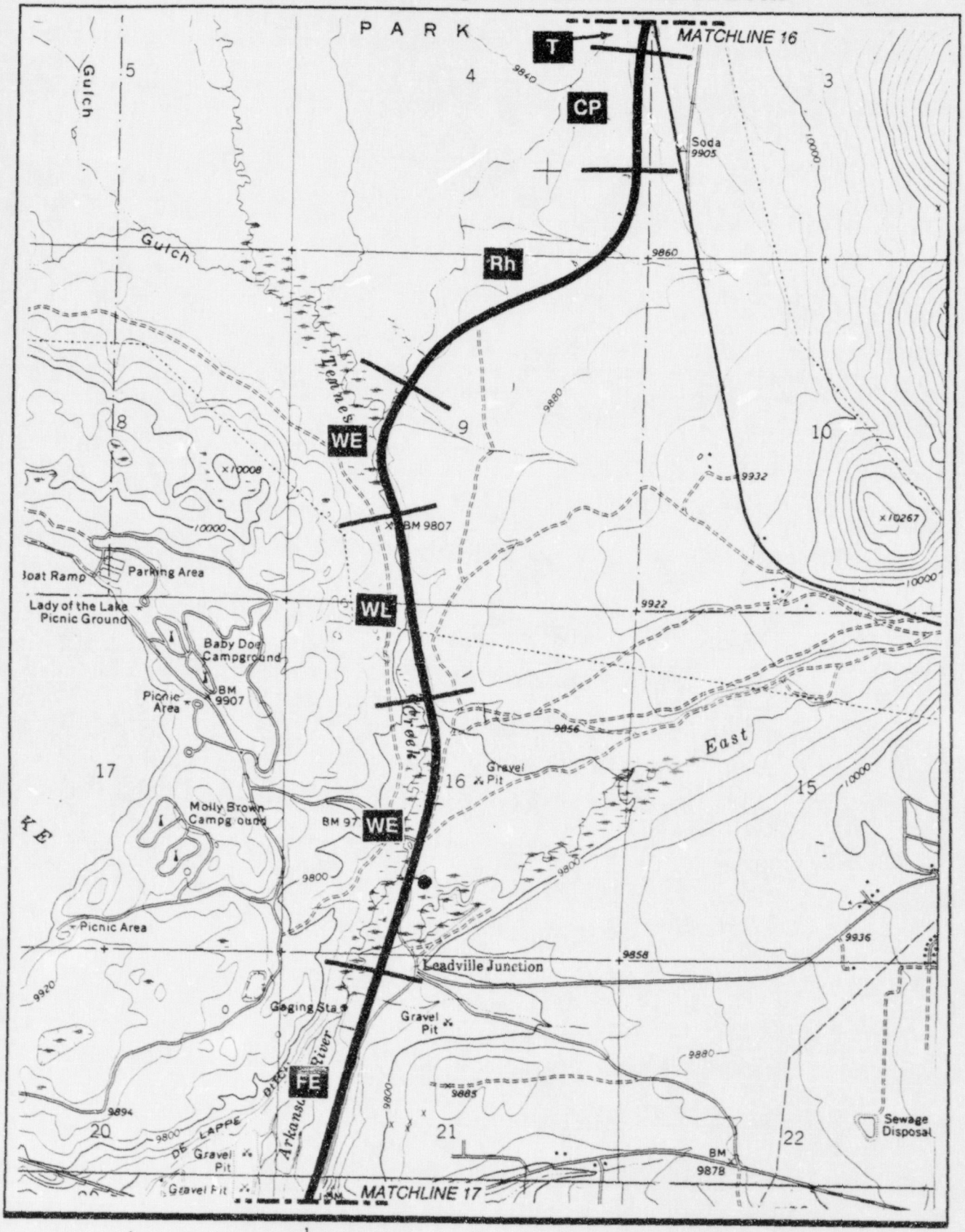
Base Map: *USGS 7.5' Topographic Quadrangles:* Pando Colorado 1970 (Photoinspected 1979) (Photorevised 1987); Leadville North, Colorado 1970 (Photoinspected 1979)

Figure 5.1-16 Proposed Abandonment: Sage – Leadville, Colorado. Location and Land Use.



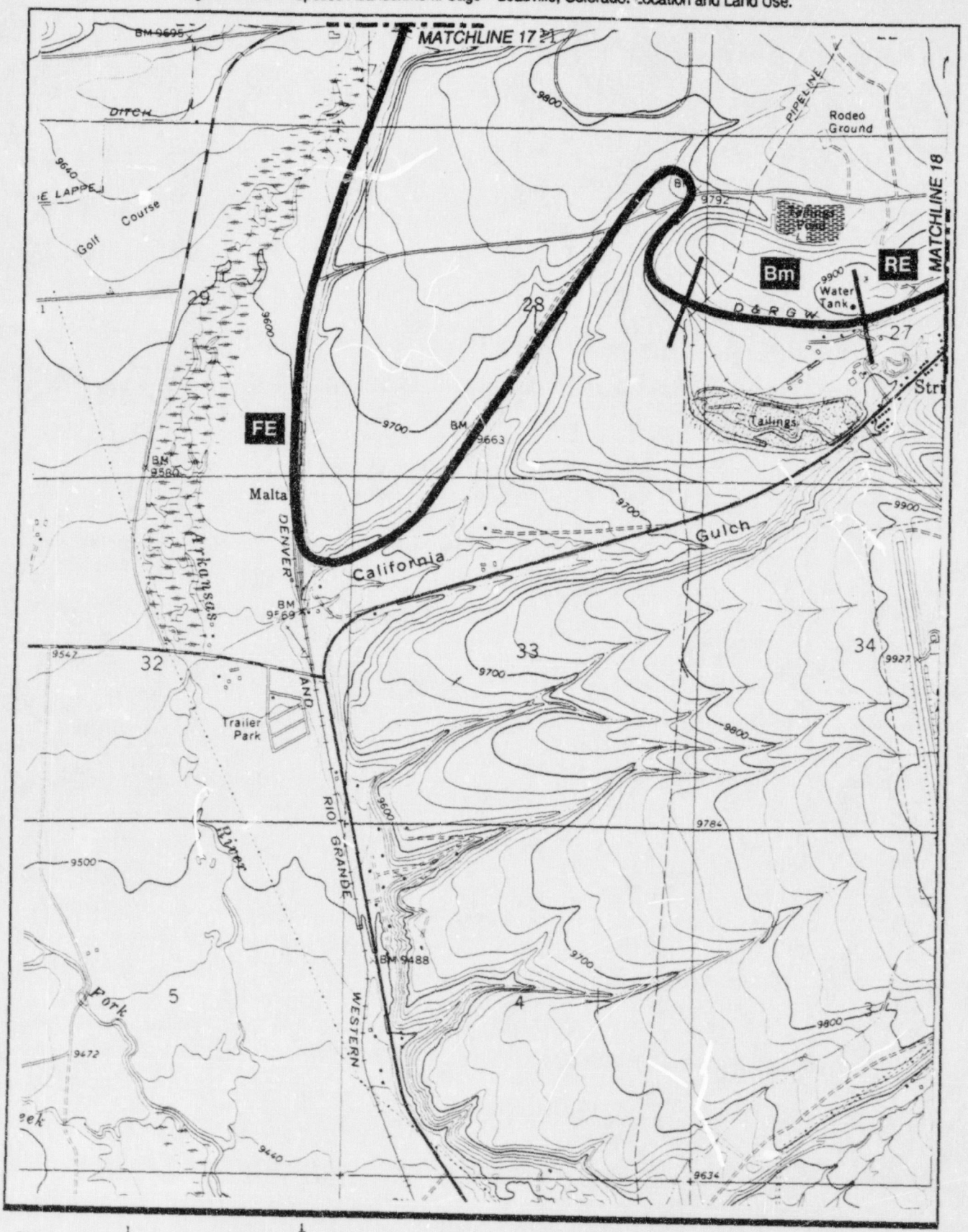
Base Map: *USGS 7.5' Topographic Quadrangle:* Leadville North, Colorado 1970 (Photoinspected 1979)

Figure 5.1-17 Proposed Abandonment: Sage – Leadville, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangles:* Leadville North, Colorado 1970 (Photoinspected 1979); Leadville South, Colorado 1969

Figure 5.1-18 Proposed Abandonment: Sage – Leadville, Colorado. Location and Land Use.



SCALE 1:24000

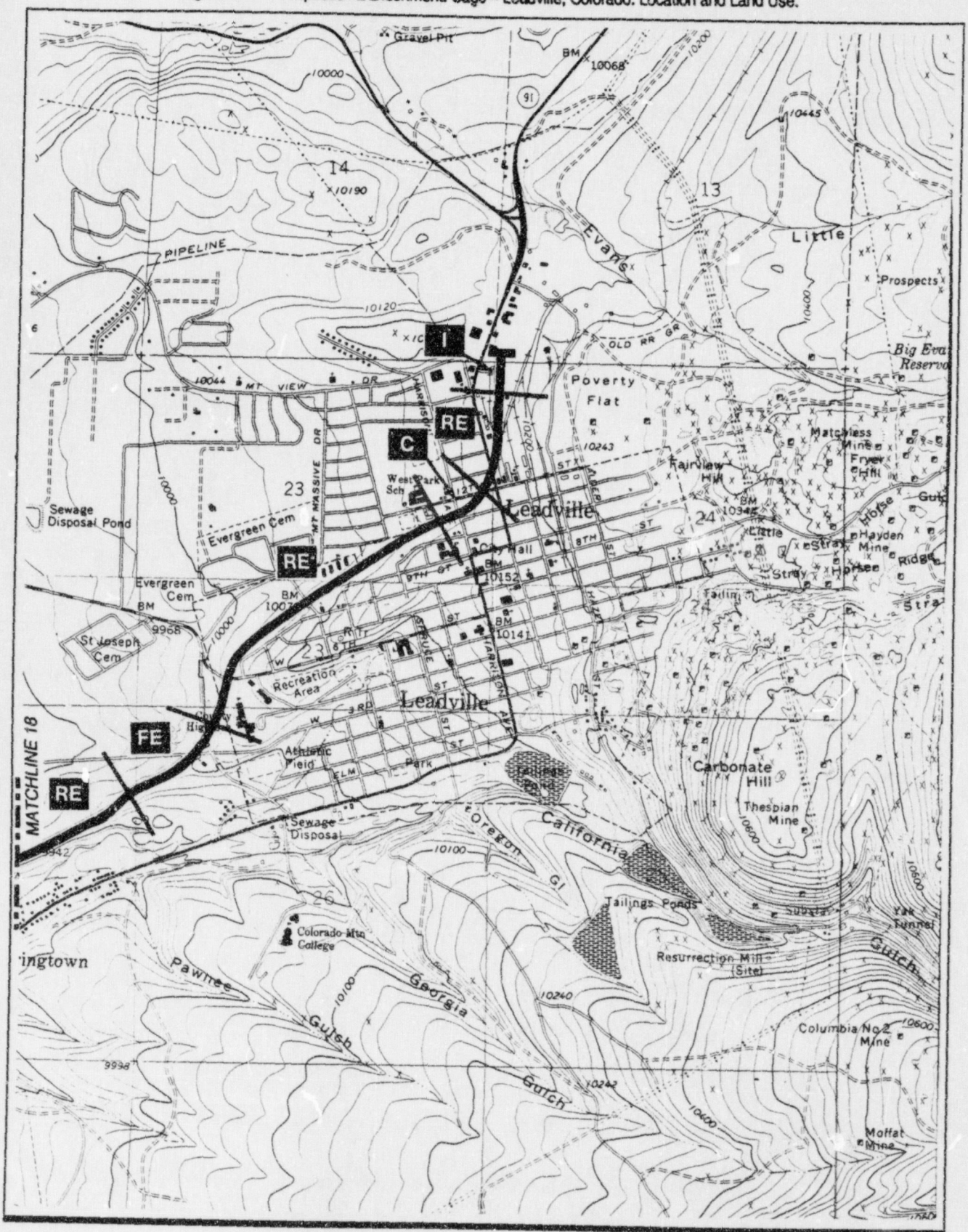
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangles: Leadville North, Colorado 1979 (Photoinspected 1979); Leadville South, Colorado 1969*

Figure 5.1-19 Proposed Abandonment: Sage – Leadville, Colorado. Location and Land Use.



SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangle: Leadville North, Colorado 1979 (Photoinspected 1979); Leadville South, Colorado 1969*

NWI LEGEND

E — ESTUARINE

1 — SUBTIDAL

RB — ROCK BOTTOM
1 Bedrock
2 Rubble

UB — UNCONSOLIDATED BOTTOM
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic

AB — AQUATIC BED
1 Algal
3 Rooted Vascular
4 Floating Vascular
5 *Unknown Submergent*
6 *Unknown Surface*

RF — REEF
2 Mollusc
3 Worm

OW — *OPEN WATER/ Unknown Bottom*

2 — INTERTIDAL

AB — AQUATIC BED
1 Algal
3 Rooted Vascular
4 Floating Vascular
5 *Unknown Submergent*
6 *Unknown Surface*

RF — REEF
2 Mollusc
3 Worm

SB — STREAMBED
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic

RS — ROCKY SHORE
1 Bedrock
2 Rubble

US — UNCONSOLIDATED SHORE
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic

EM — EMERGENT
1 Persistent
2 Nonpersistent

SS — SCRUB-SHRUB
1 Broad-Leaved Deciduous
2 Needle-Leaved Deciduous
3 Broad-Leaved Evergreen
4 Needle-Leaved Evergreen
5 Dead
6 *Deciduous*
7 *Evergreen*

FO — FORESTED
1 Broad-Leaved Deciduous
2 Needle-Leaved Deciduous
3 Broad-Leaved Evergreen
4 Needle-Leaved Evergreen
5 Dead
6 *Deciduous*
7 *Evergreen*

L — LACUSTRINE

1 — LIMNETIC

RB — ROCK BOTTOM
1 Bedrock
2 Rubble

UB — UNCONSOLIDATED BOTTOM
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic

AB — AQUATIC BED
1 Algal
2 Aquatic Moss
3 Rooted Vascular
4 Floating Vascular
5 *Unknown Submergent*
6 *Unknown Surface*

OW — *OPEN WATER/ Unknown Bottom*

2 — LITTORAL

RB — ROCK BOTTOM
1 Bedrock
2 Rubble

UB — UNCONSOLIDATED BOTTOM
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic

AB — AQUATIC BED
1 Algal
2 Aquatic Moss
3 Rooted Vascular
4 Floating Vascular
5 *Unknown Submergent*
6 *Unknown Surface*

RS — ROCKY SHORE
1 Bedrock
2 Rubble

US — UNCONSOLIDATED SHORE
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic
5 Vegetated

EM — EMERGENT
2 Nonpersistent

OW — *OPEN WATER/ Unknown Bottom*

MODIFIERS

In order to more adequately describe wetland and deepwater habitats one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.

WATER REGIME

Non-Tidal

A Temporarily Flooded
B Saturated
C Seasonally Flooded
D *Seasonally Flooded/ Well Drained*
E *Seasonally Flooded/ Saturated*
F Semipermanently Flooded
G Intermittently Exposed
H Permanently Flooded
J Intermittently Flooded
K *Artificially Flooded*
W Intermittently Flooded/Temporary
Y Saturated/Semipermanent/ Seasonal
Z Intermittently Exposed/Permanent
U *Unknown*

Tidal

K *Artificially Flooded*
L Subtidal
M Irregularly Exposed
N Regularly Flooded
P Irregularly Flooded
*S Temporary-Tidal
*R Seasonal-Tidal
*T Semipermanent-Tidal
*V Permanent-Tidal
U *Unknown*

*These water regimes are only used in tidally influenced, freshwater systems

WATER CHEMISTRY

Coastal Halinity
1 Hyperhaline
2 Euhaline
3 Mixohaline *(Brackish)*
4 Polyhaline
5 Mesohaline
6 Oligohaline
0 Fresh

Inland Salinity
7 Hypersaline
8 Eusaline
9 Mixosaline
0 Fresh

pH Modifiers for all Fresh Water
a Acid
i Circumneutral
k Alkaline

SOIL

g Organic
n Mineral

SPECIAL MODIFIERS

b *Beaver*
d *Partially Drained/Ditched*
f Farmed
h *Diked/Impounded*
r Artificial Substrate
s *Spoil*
x Excavated

Instructions for using the legend:

The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral." The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

NWI LEGEND

SYSTEM: M — MARINE

SUBSYSTEM: 1 — SUBTIDAL

CLASS	Subclass
RB — ROCK BOTTOM	1 Bedrock 2 Rubble
UB — UNCONSOLIDATED BOTTOM	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic
AB — AQUATIC BED	1 Algal 3 Rooted Vascular 5 *Unknown Submergent*
RF — REEF	1 Coral 3 Worm
OW — *OPEN WATER/ Unknown Bottom*	

SUBSYSTEM: 2 — INTERTIDAL

CLASS	Subclass
AB — AQUATIC BED	1 Algal 3 Rooted Vascular 5 *Unknown Submergent*
RF — REEF	1 Coral 3 Worm
RS — ROCKY SHORE	1 Bedrock 2 Rubble
US — UNCONSOLIDATED SHORE	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic

SYSTEM: R — RIVERINE

SUBSYSTEM: 1 — TIDAL; 2 — LOWER PERENNIAL; 3 — UPPER PERENNIAL; 4 — INTERMITTENT; 5 — *UNKNOWN PERENNIAL*

CLASS	Subclass
RB — ROCK BOTTOM	1 Bedrock 2 Rubble
UB — UNCONSOLIDATED BOTTOM	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic
*SB — STREAMBED	1 Bedrock 2 Rubble 3 Cobble-Gravel 4 Sand 5 Mud 6 Organic 7 Vegetated
AB — AQUATIC BED	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 *Unknown Submergent* 6 *Unknown Surface*
RS — ROCKY SHORE	1 Bedrock 2 Rubble
US — UNCONSOLIDATED SHORE	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated
**EM — EMERGENT	2 Nonpersistent
OW — *OPEN WATER/ Unknown Bottom*	

*STREAMBED is limited to TIDAL and INTERMITTENT SUBSYSTEMS, and comprises the only CLASS in the INTERMITTENT SUBSYSTEM
**EMERGENT is limited to TIDAL and LOWER PERENNIAL SUBSYSTEMS

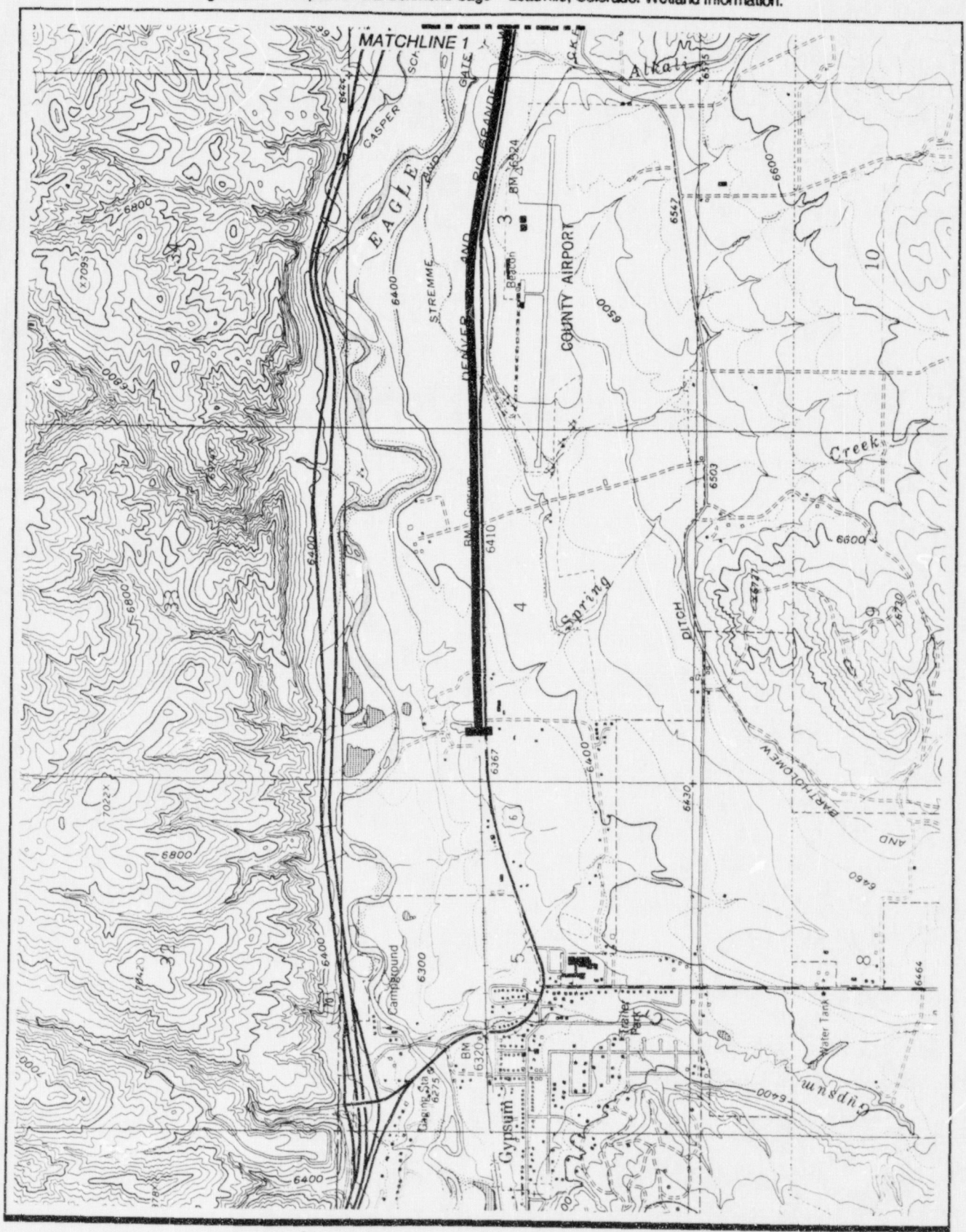
SYSTEM: P — PALUSTRINE

CLASS	Subclass
RB — ROCK BOTTOM	1 Bedrock 2 Rubble
UB — UNCONSOLIDATED BOTTOM	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic
AB — AQUATIC BED	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 *Unknown Submergent* 6 *Unknown Surface*
US — UNCONSOLIDATED SHORE	1 Cobble-Gravel 2 Sand 3 Mud 4 *Organic* 5 Vegetated
ML — MOSS LICHEN	1 Moss 2 Lichen
EM — EMERGENT	1 *Persistent* 2 Nonpersistent
SS — SCRUB-SHRUB	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 *Deciduous* 7 *Evergreen*
FO — FORESTED	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 *Deciduous* 7 *Evergreen*
OW — *OPEN WATER/ Unknown Bottom*	

Instructions for using the legend:

The NWI inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral." The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

Figure 5.2-1 Proposed Abandonment: Sage – Leadville, Colorado. Wetland Information.



SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

Base Map: *USGS 7.5' Topographic Quadrangle:* Gypsum, Colorado 1962 (Photorevised 1987)

Figure 5.2-2 Proposed Abandonment: Sage – Leadville, Colorado. Wetland Information.

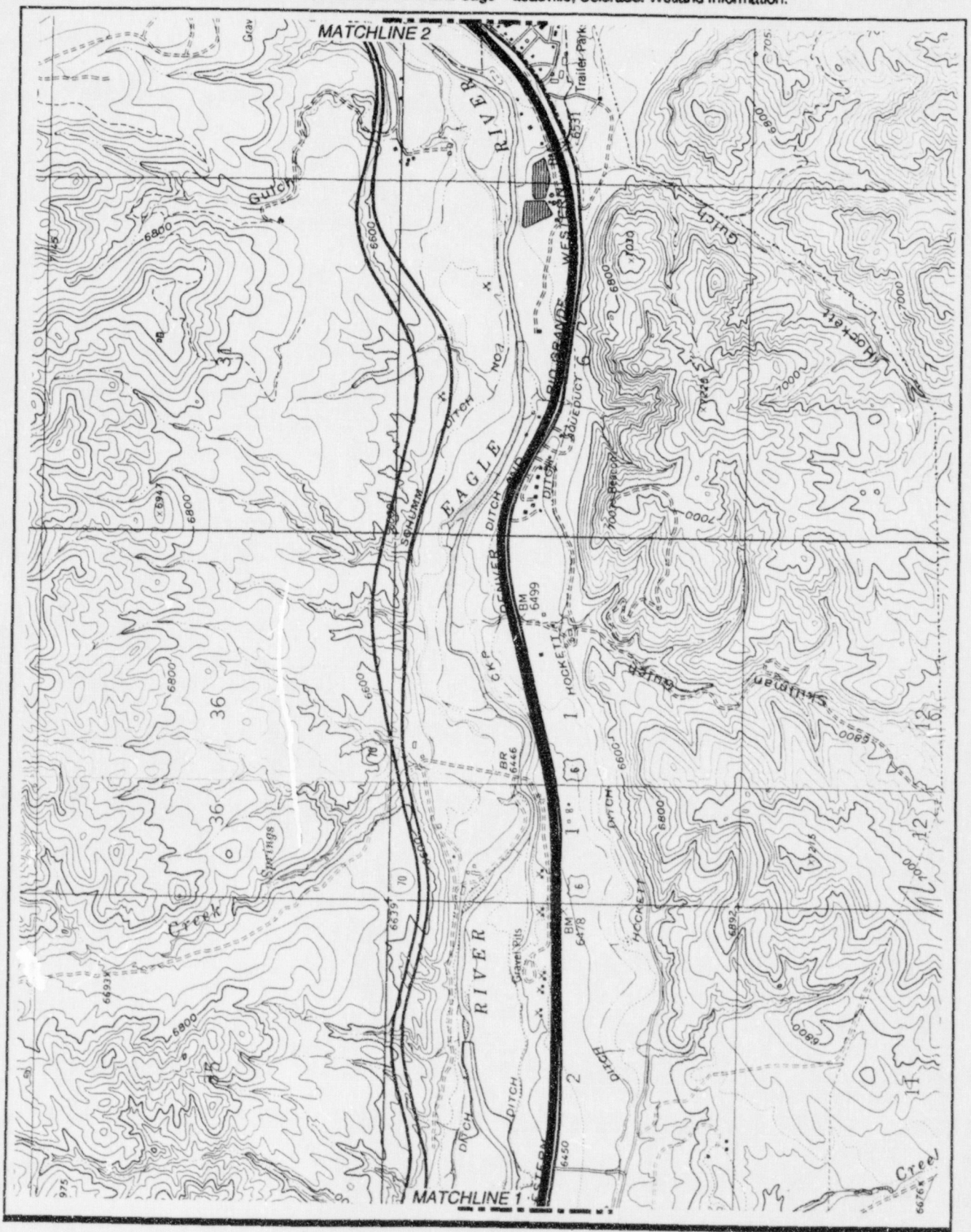
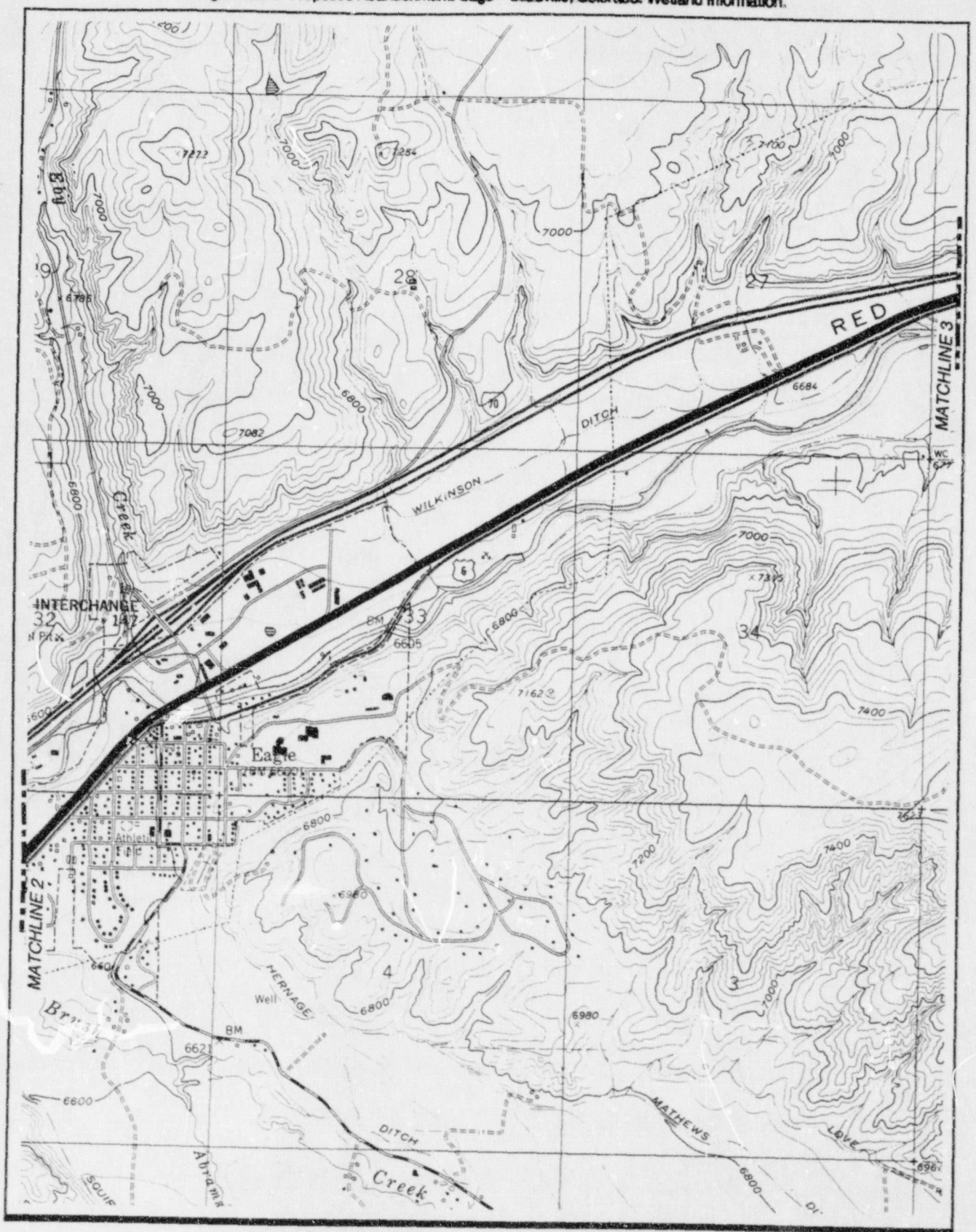
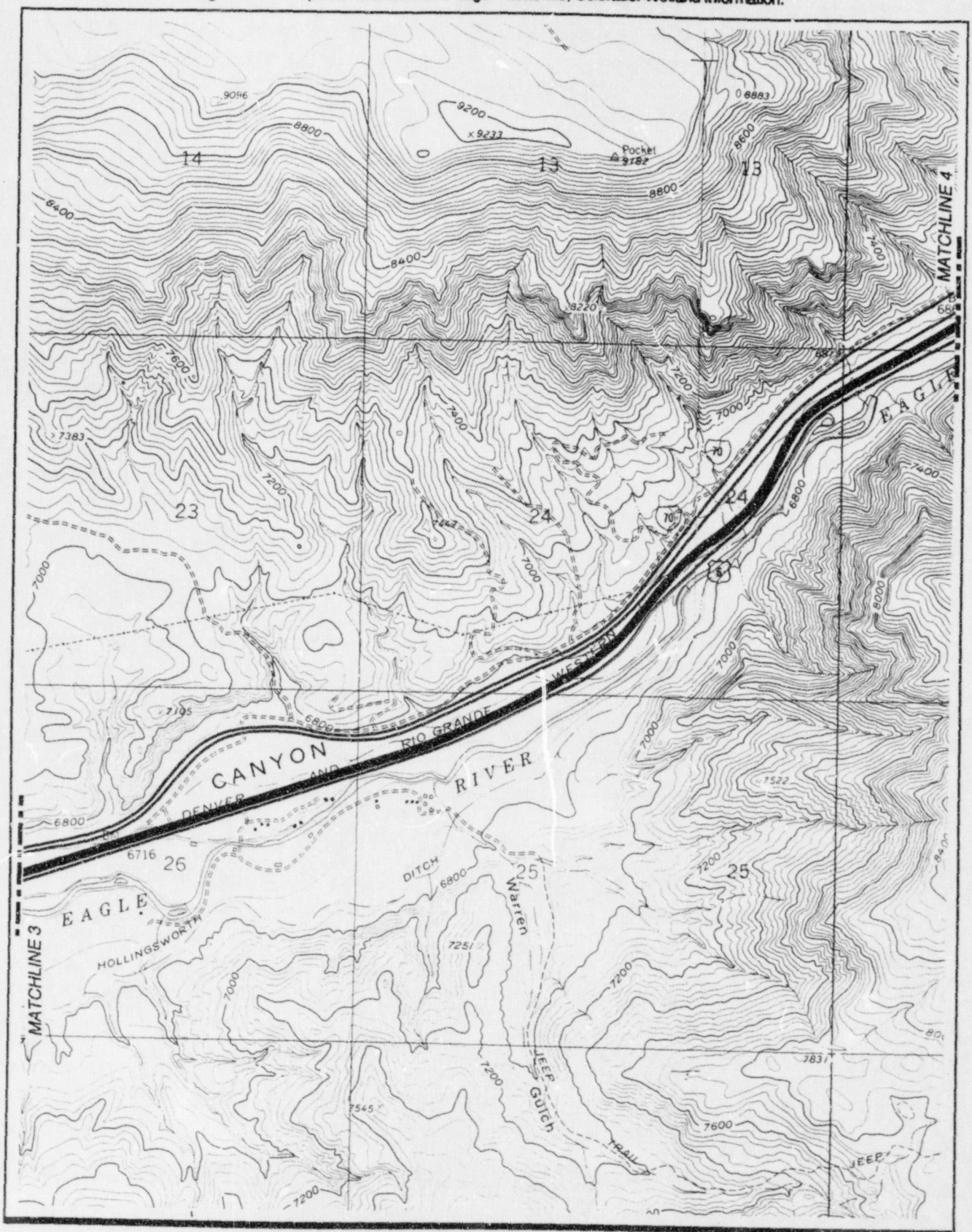

MATCHLINE 2
MATCHLINE 1
EAGLE RIVER
RIO GRANDE WESTERN
DENVER & RIO GRANDE WESTERN
Trailer Park
Gulch
Gulch
Gulch
Creek
Springs
Creek
Schulman
Gulch
SCHURM DITCH
EAGLE DITCH NO 2
DITCH
DITCH
DITCH

Figure 5.2-3 Proposed Abandonment: Sage – Leadville, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangle:* Eagle, Colorado 1962 (Photorevised 1987)

Figure 5.2-4 Proposed Abandonment: Sage -- Leadville, Colorado. Wetland Information.



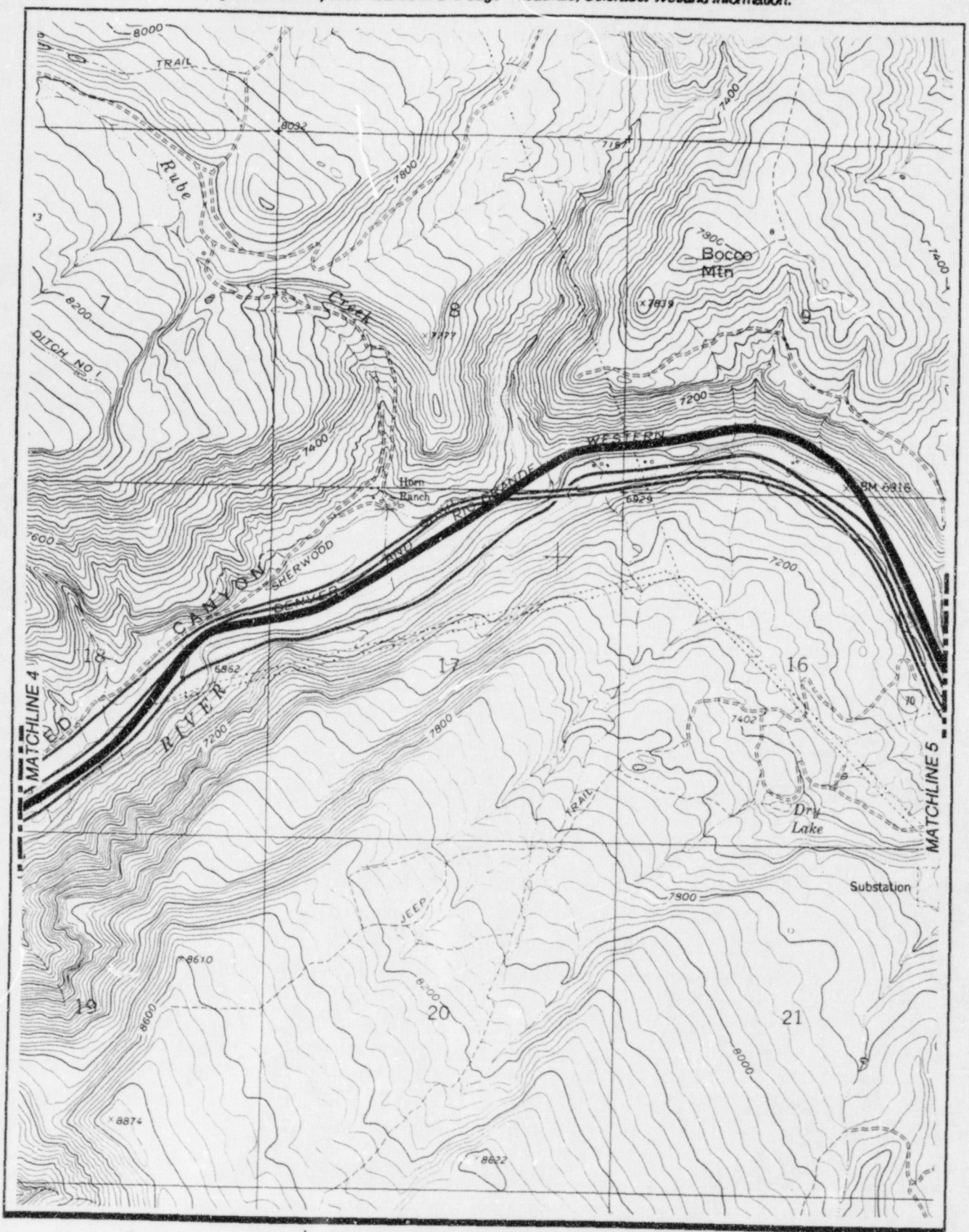
SCALE 1:24000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

Base Map: *USGS 7.5' Topographic Quadrangles:* Eagle, Colorado 1962 (Photorevised 1987): Wolcott, Colorado 1962 (Photorevised 1987)

Figure 5.2-5 Proposed Abandonment: Sage – Leadville, Colorado. Wetland Information.



SCALE 1:24000

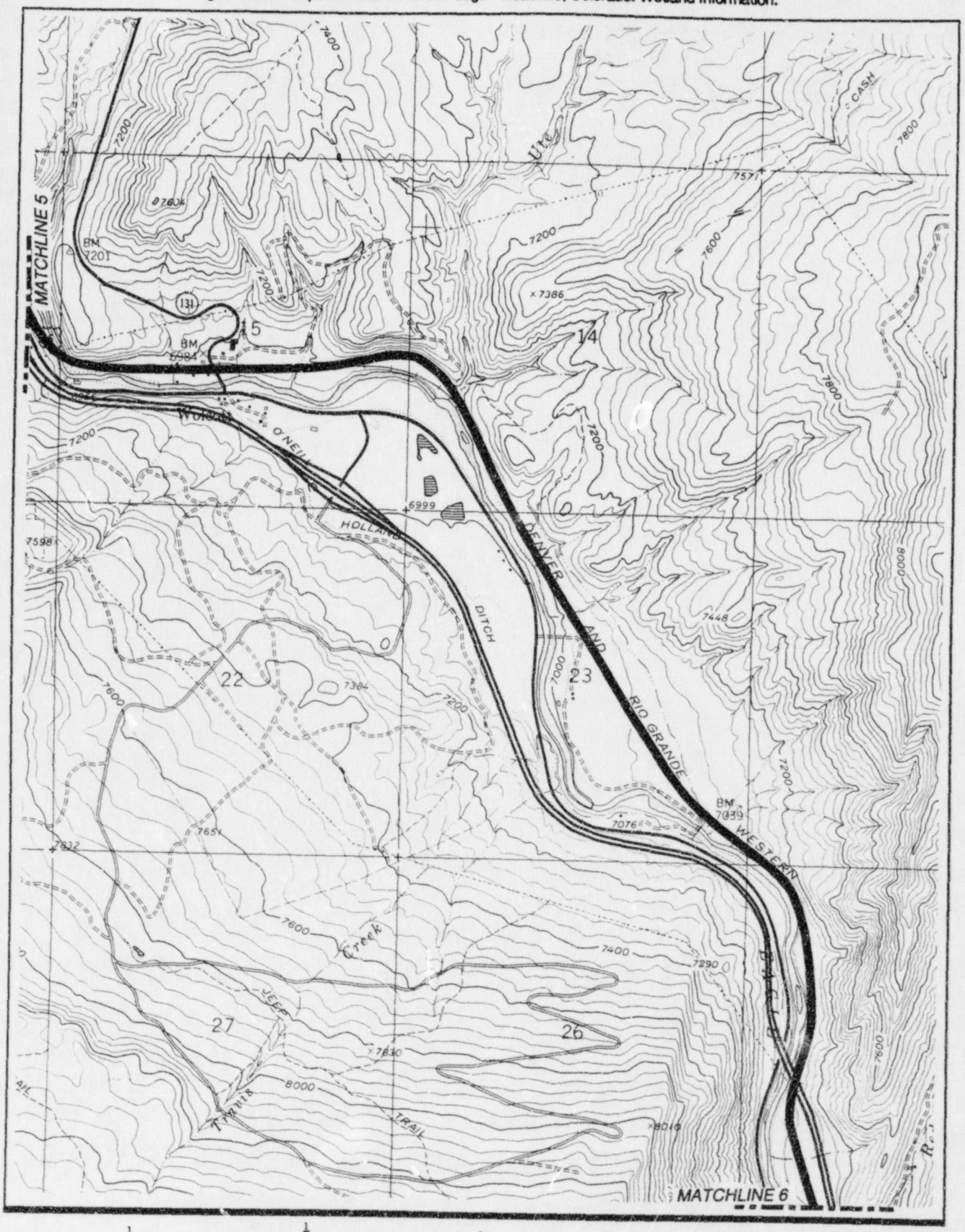
1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangle:* Wolcott, Colorado 1962 (Photorevised 1987)

Figure 5.2-6 Proposed Abandonment: Sage – Leadville, Colorado. Wetland Information.



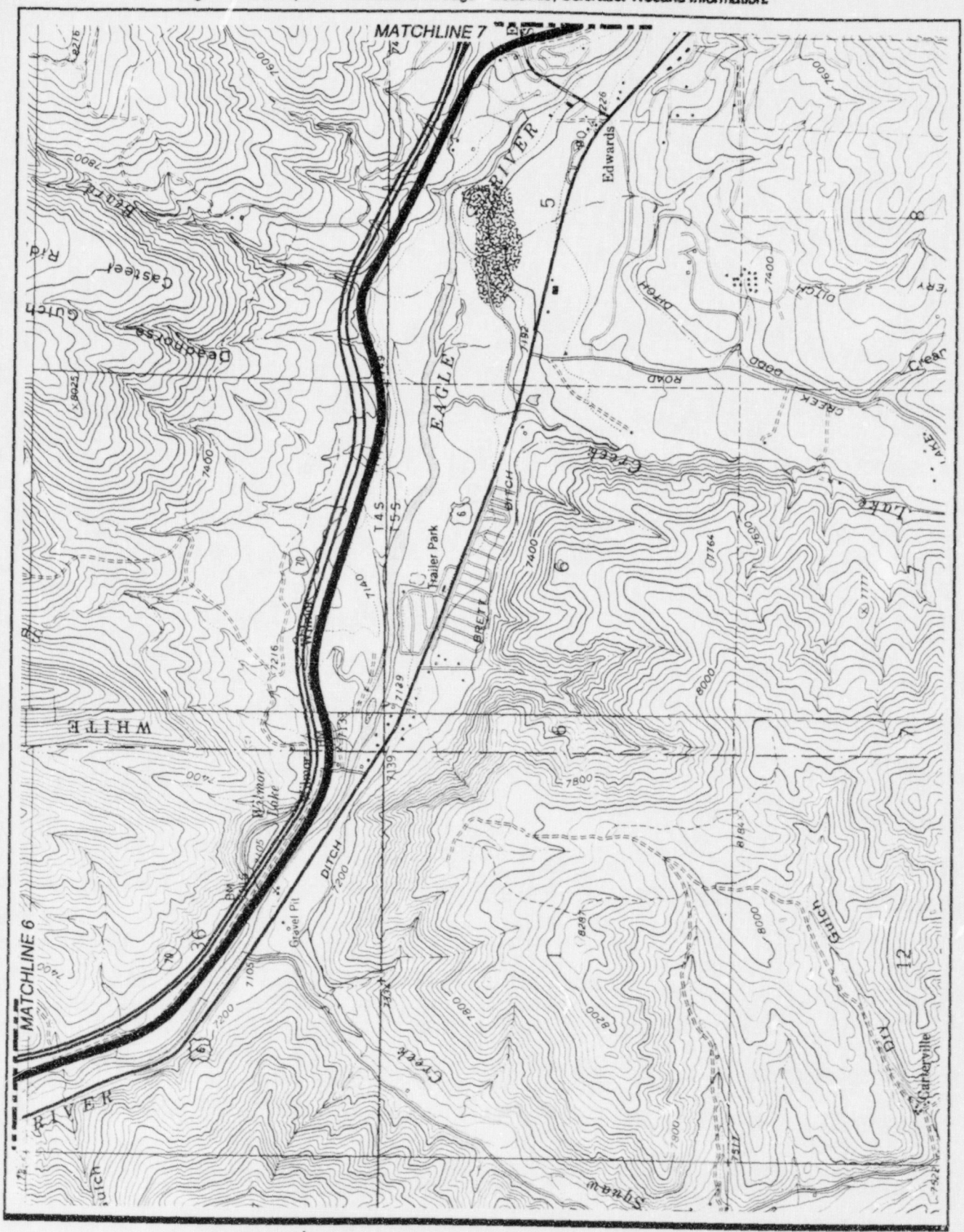
SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

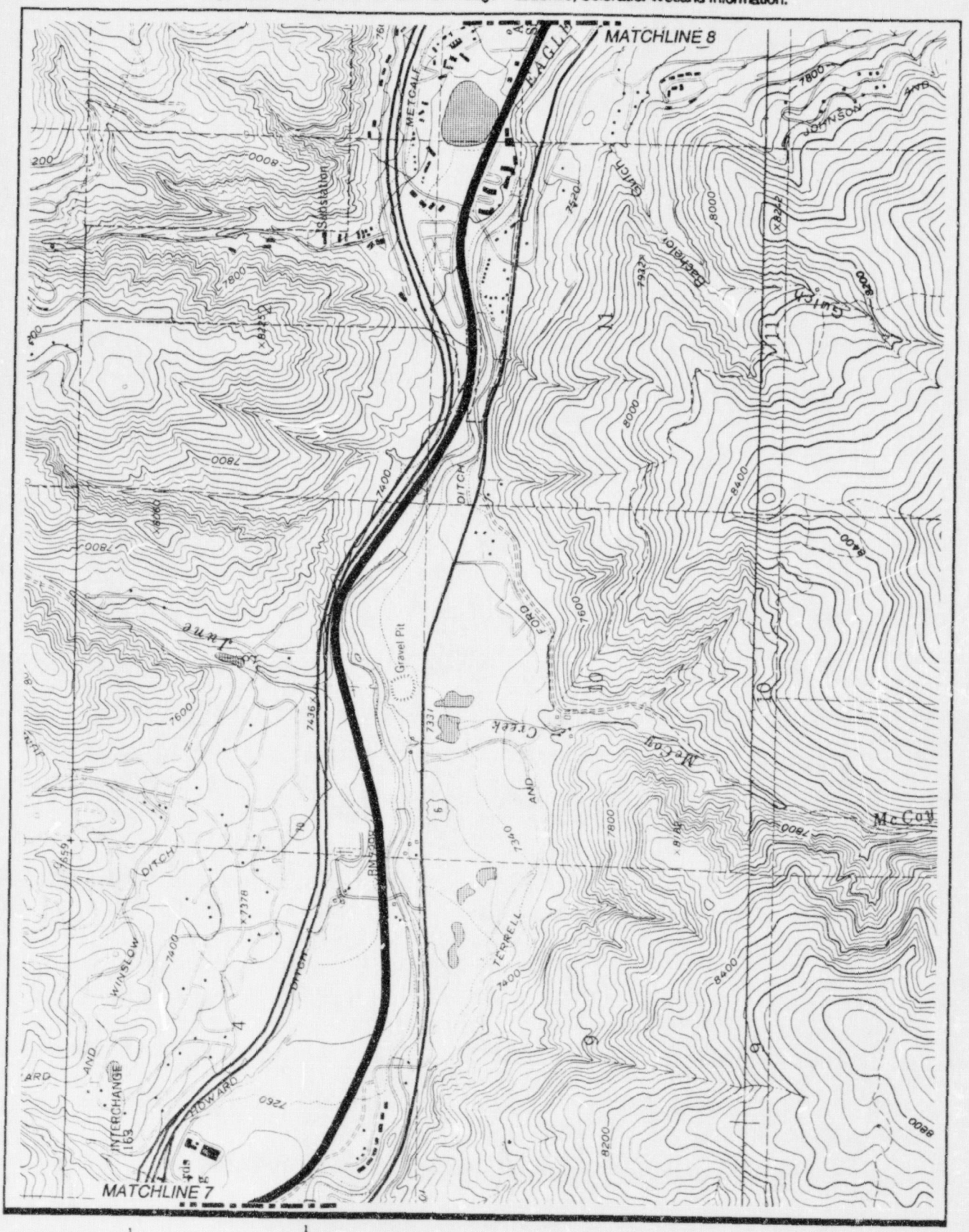
Base Map: *USGS 7.5' Topographic Quadrangle:* Wolcott, Colorado 1962 (Photorevised 1987)

Figure 5.2-7 Proposed Abandonment: Sage – Leadville, Colorado. Wetland Information.



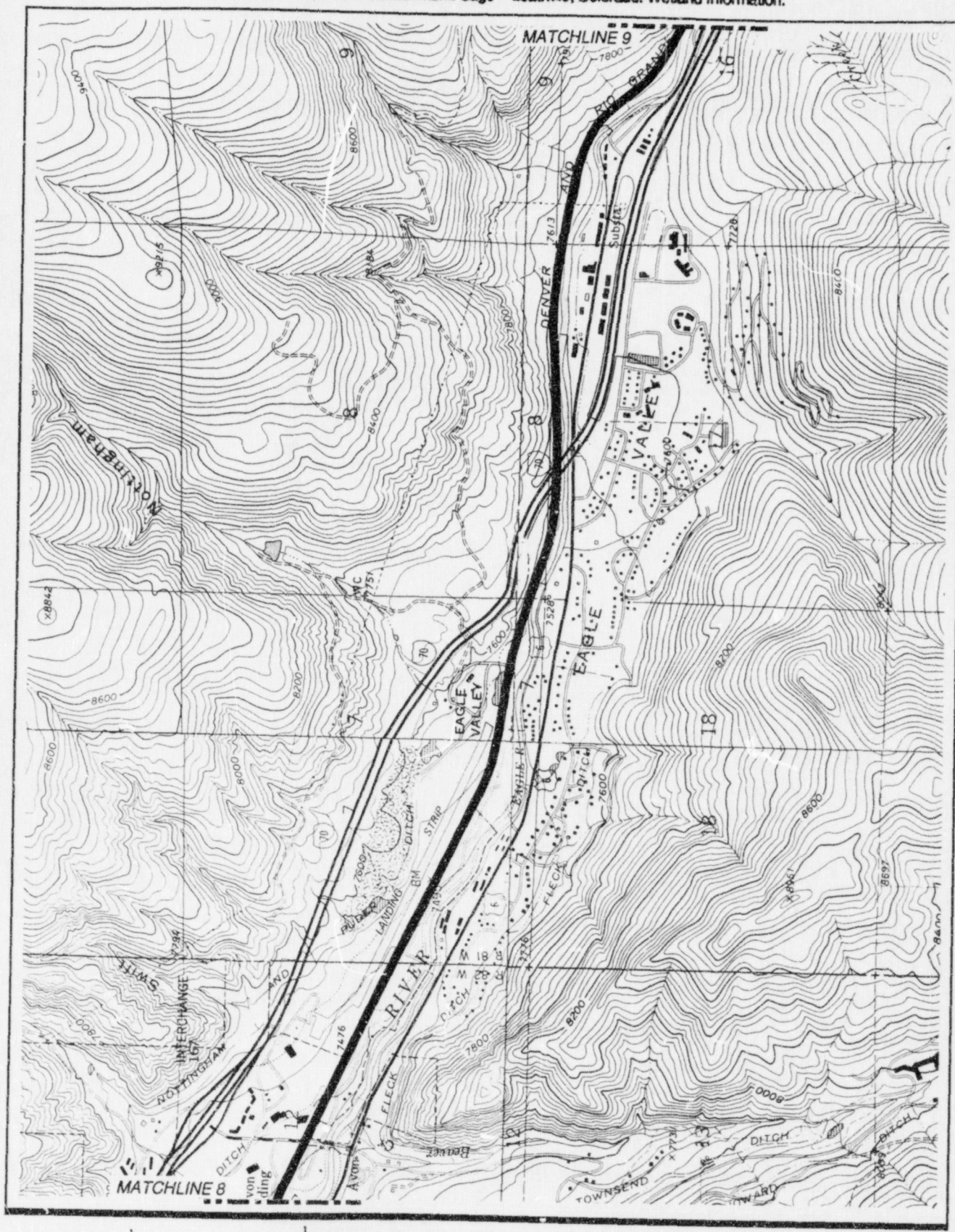
Base Map: *USGS 7.5' Topographic Quadrangles:* Wolcott, Colorado 1962 (Photorevised 1987); Edwards, Colorado 1962 (Photorevised 1987)

Figure 5.2-8 Proposed Abandonment: Sage – Leadville, Colorado. Wetland Information.



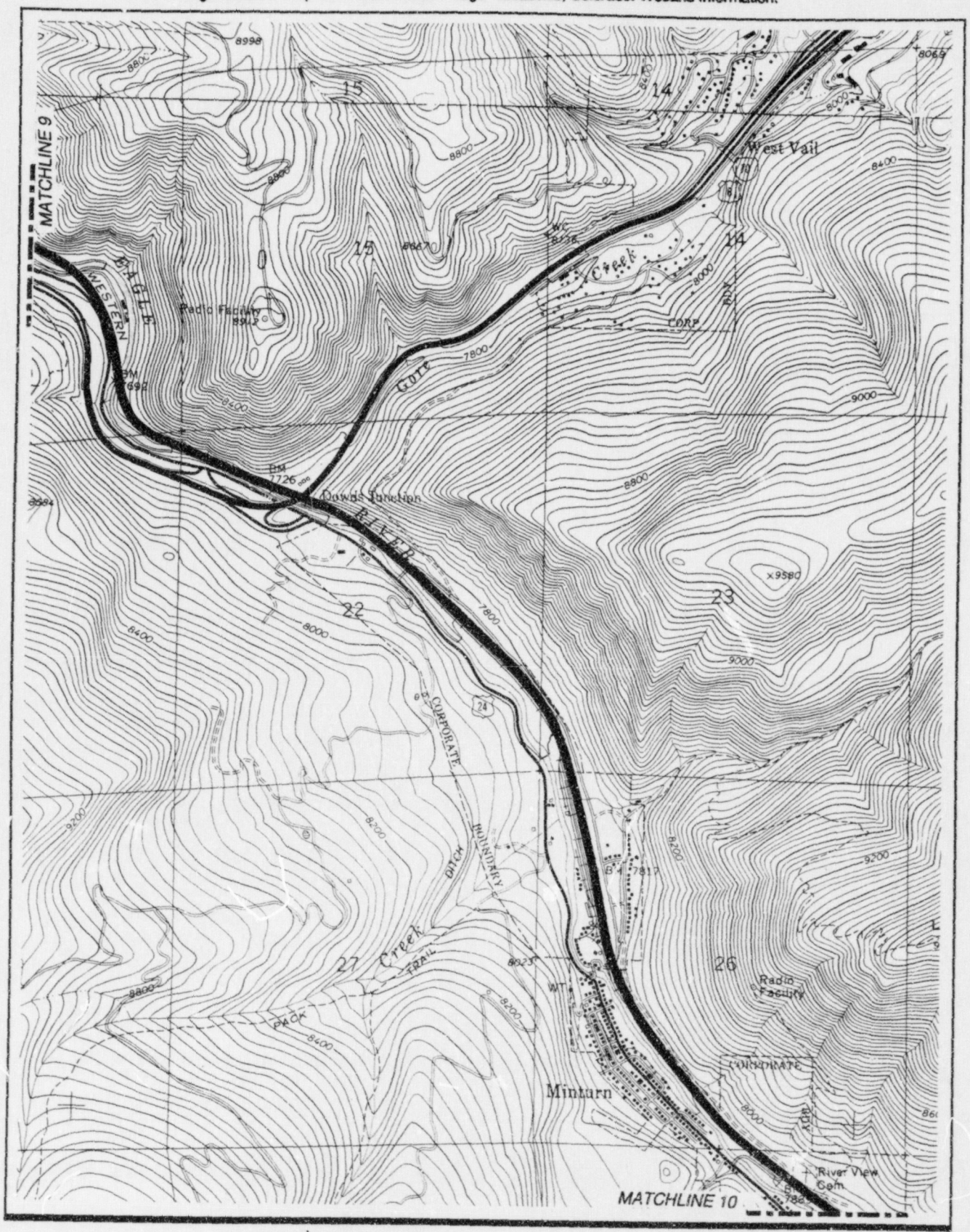
Base Map: *USGS 7.5' Topographic Quadrangles:* Edwards, Colorado 1962 (Photorevised 1987); Grouse Mountain, Colorado 1962 (Photorevised 1987)

Figure 5.2-9 Proposed Abandonment: Sage – Leadville, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangles:* Edwards, Colorado 1962 (Photorevised 1987); Vail West, Colorado 1970 (Photorevised 1987); Grouse Mountain, Colorado 1962 (Photorevised 1987); Minturn, Colorado 1970 (Photorevised 1987)

Figure 5.2-19 Proposed Abandonment: Sage – Leadville, Colorado. Wetland Information.



SCALE 1:24000

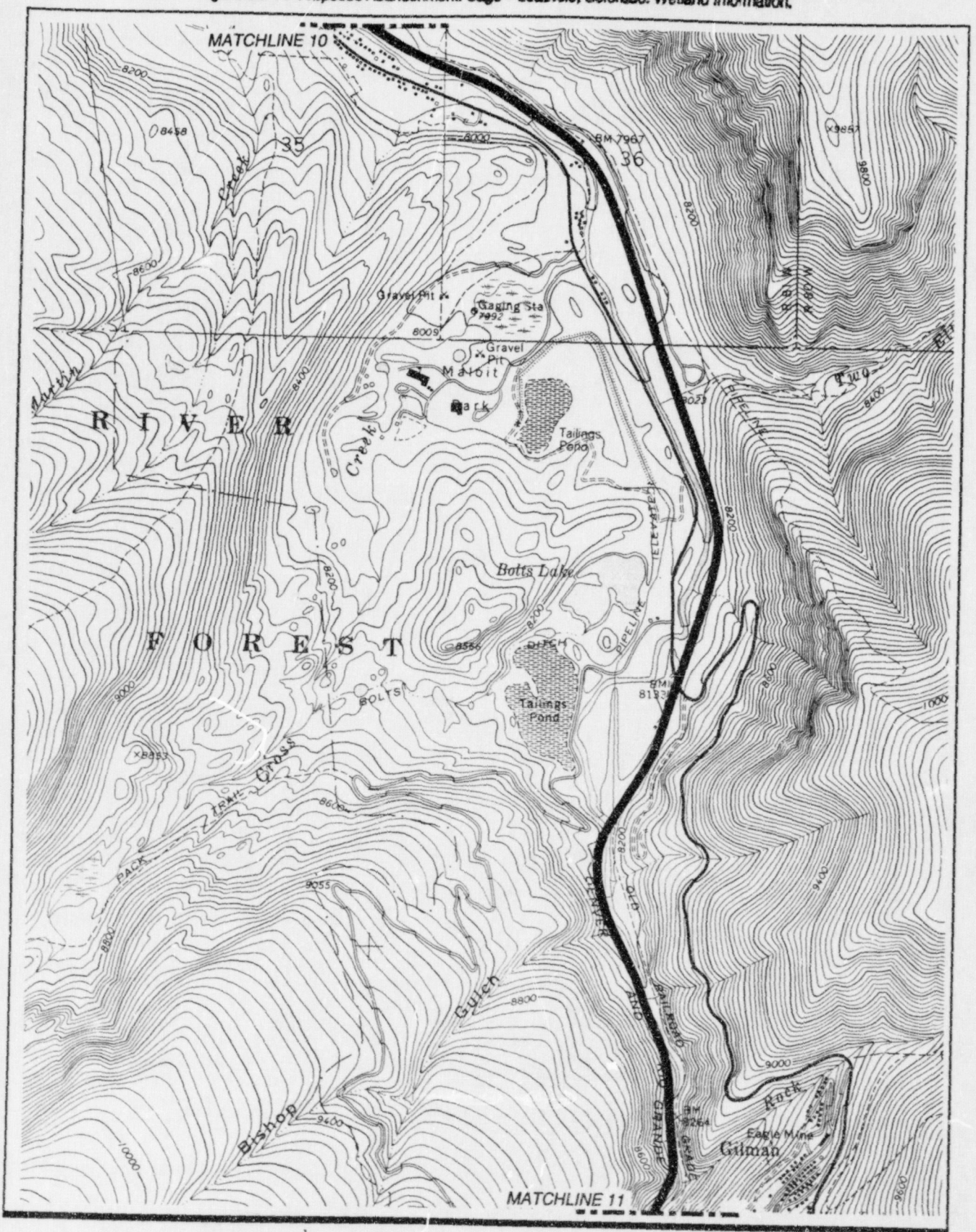
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

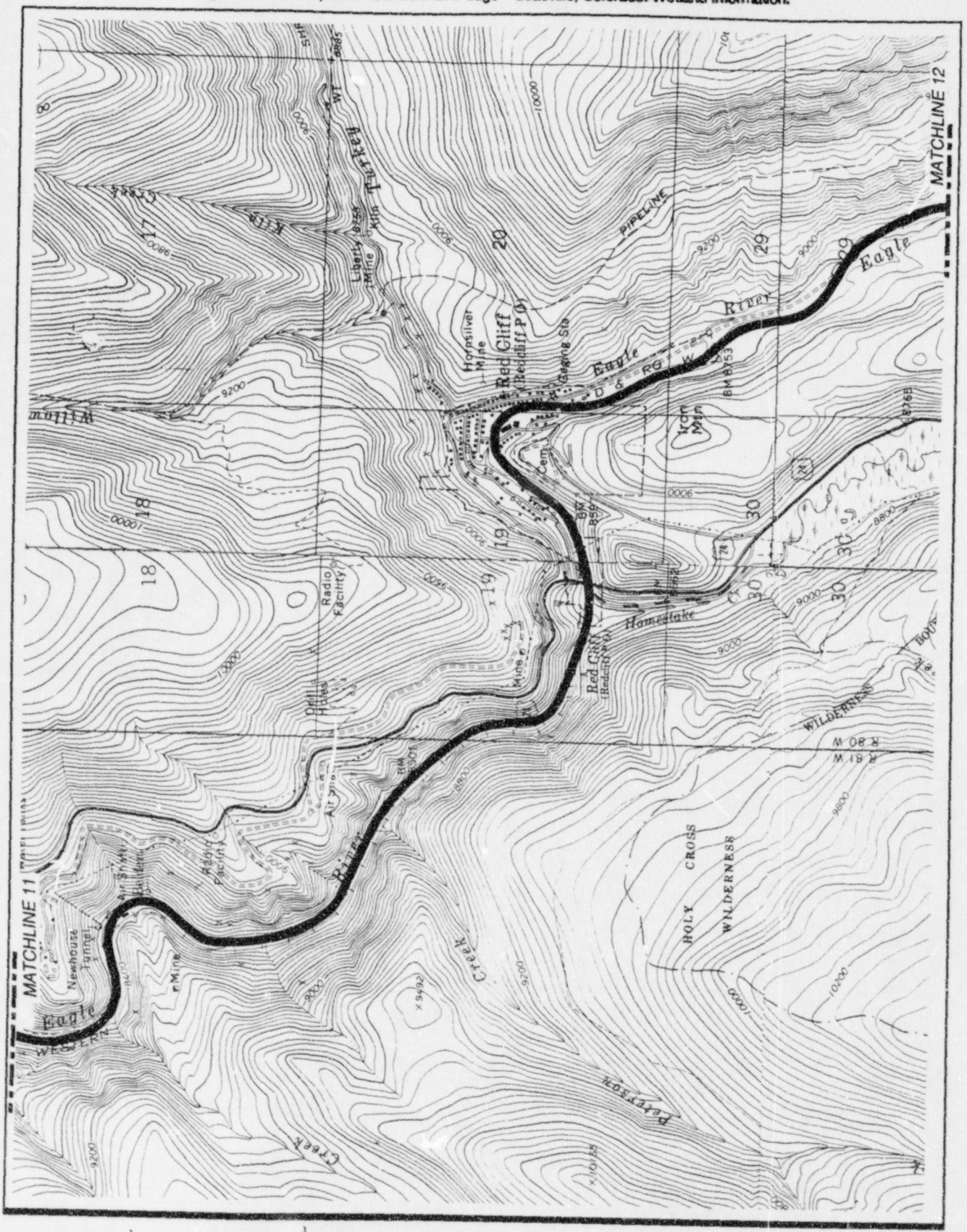
Base Map: *USGS 7.5' Topographic Quadrangles:* Vail West, Colorado 1970 (Photorevised 1987); Minturn, Colorado 1970 (Photorevised 1987)

Figure 5.2-11 Proposed Abandonment: Sage – Leadville, Colorado. Wetland Information.



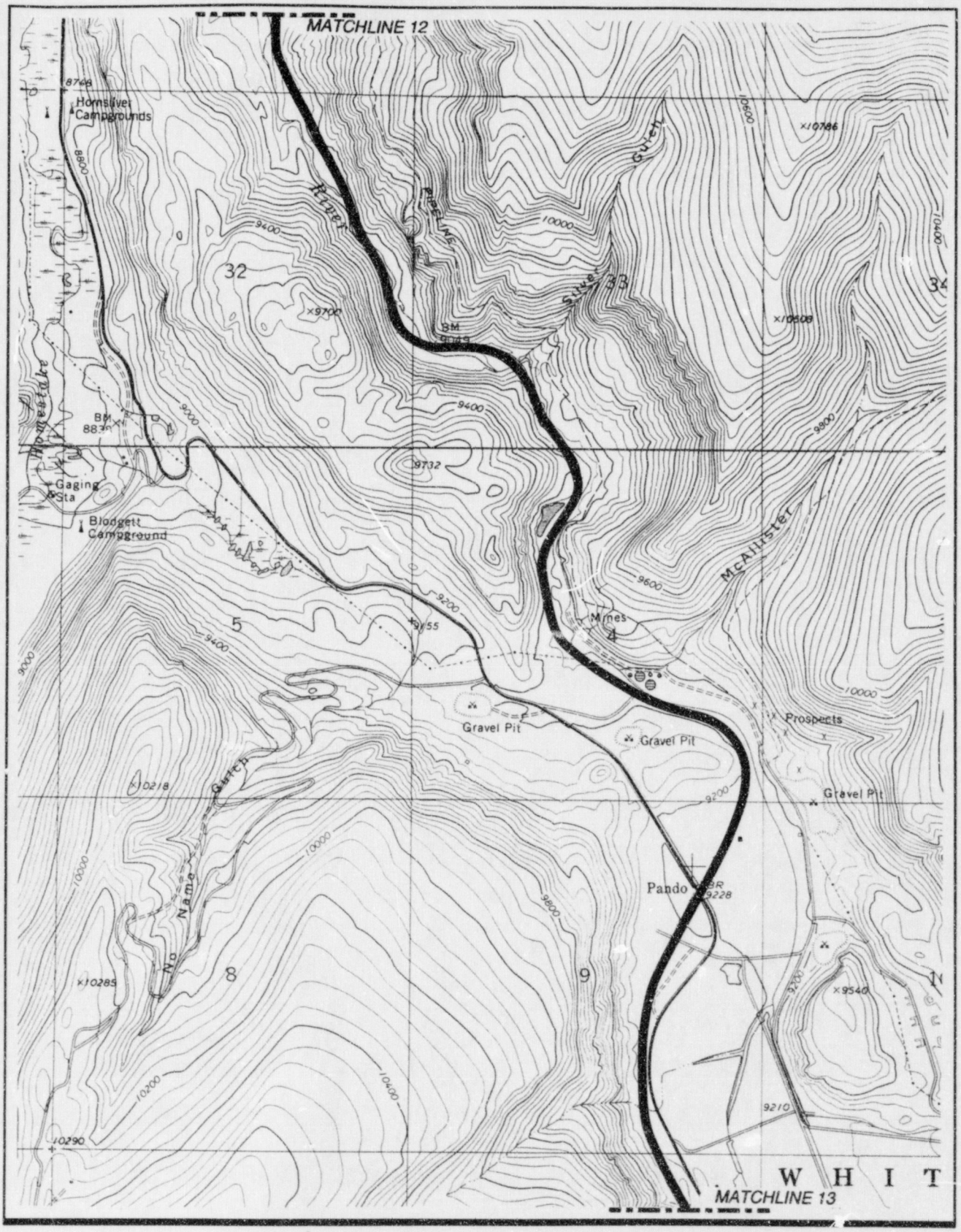
Base Map: *USGS 7.5' Topographic Quadrangles:* Minturn, Colorado 1970 (Photorevised 1987)

Figure 5.2-12 Proposed Abandonment: Sage – Leadville, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangles:* Minturn, Colorado 1970 (Photorevised 1987); Red Cliff, Colorado 1970 (Photorevised 1987); Mount of the Holy Cross, Colorado 1970 (Photorevised 1987); Pando Colorado 1970 (Photoinspected 1979) (Photorevised 1987)

Figure 5.2-13 Proposed Abandonment: Sage – Leadville, Colorado. Wetland Information.



SCALE 1:24000

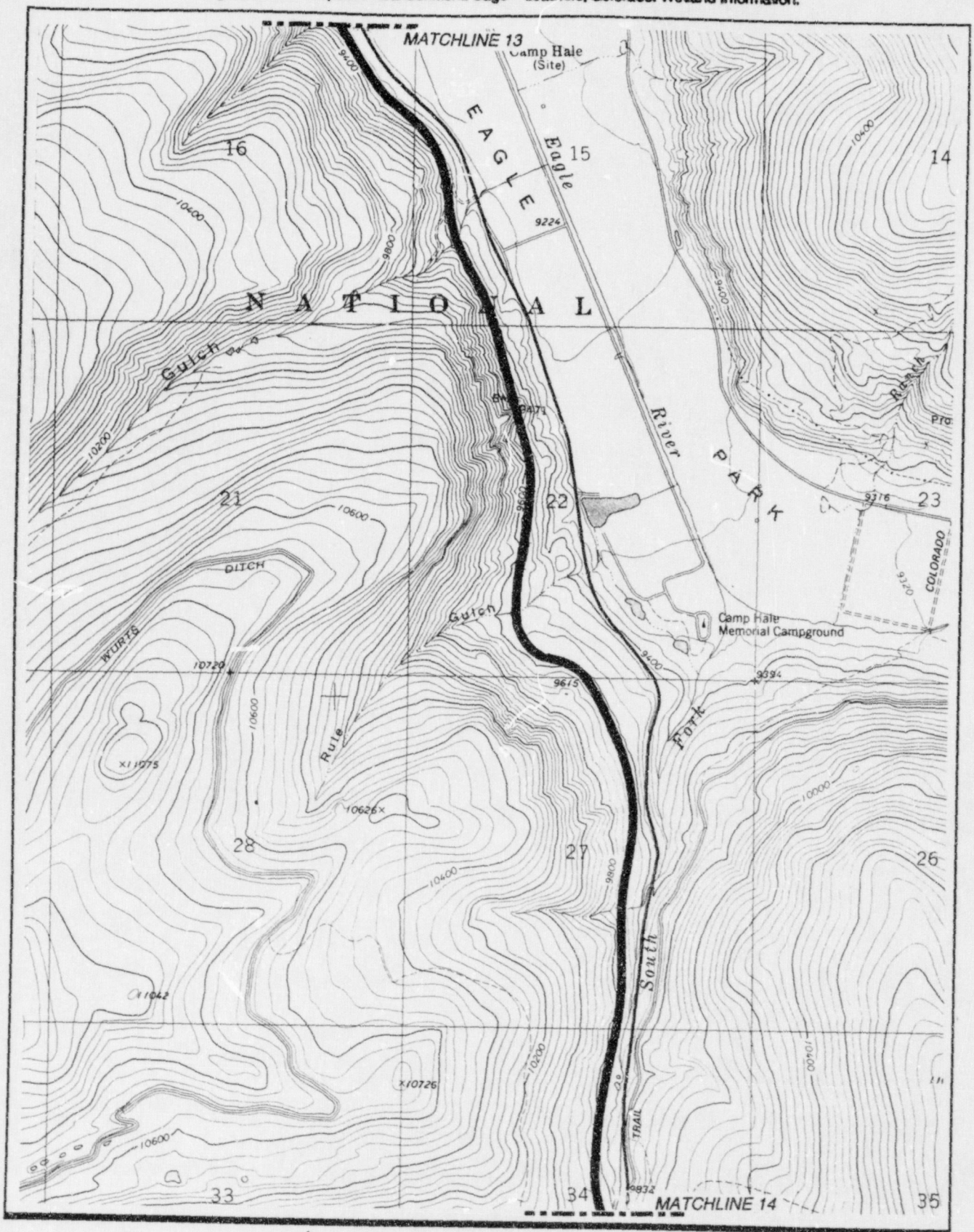
1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangle:* Pando Colorado 1970 (Photoinspected 1979) (Photorevised 1987)

Figure 5.2-14 Proposed Abandonment: Sage – Leadville, Colorado. Wetland Information.



SCALE 1:24000

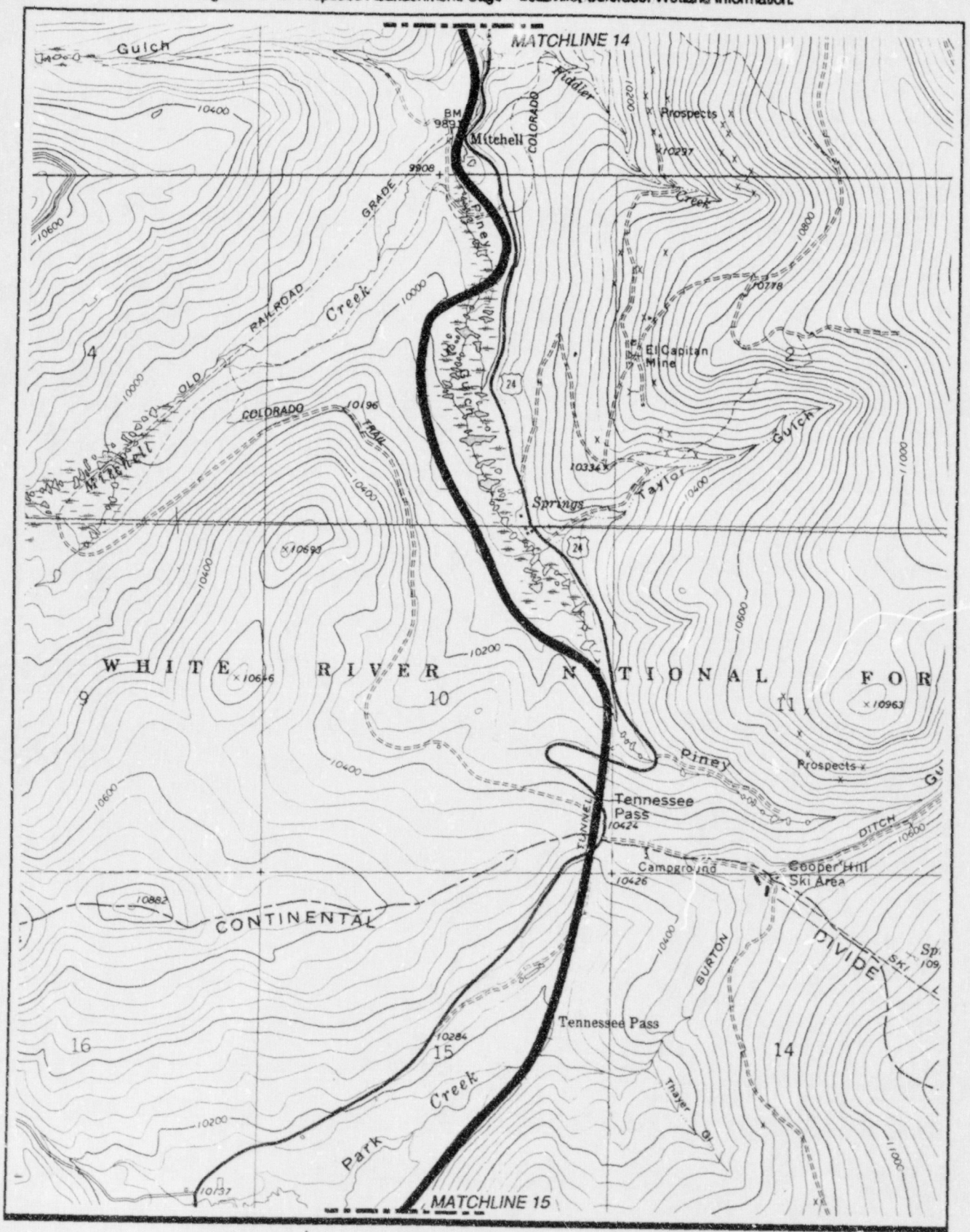
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangle:* Pando Colorado 1970 (Photoinspected 1979) (Photorevised 1987)

Figure 5.2-15 Proposed Abandonment: Sage – Leadville, Colorado. Wetland Information.



SCALE 1:24000

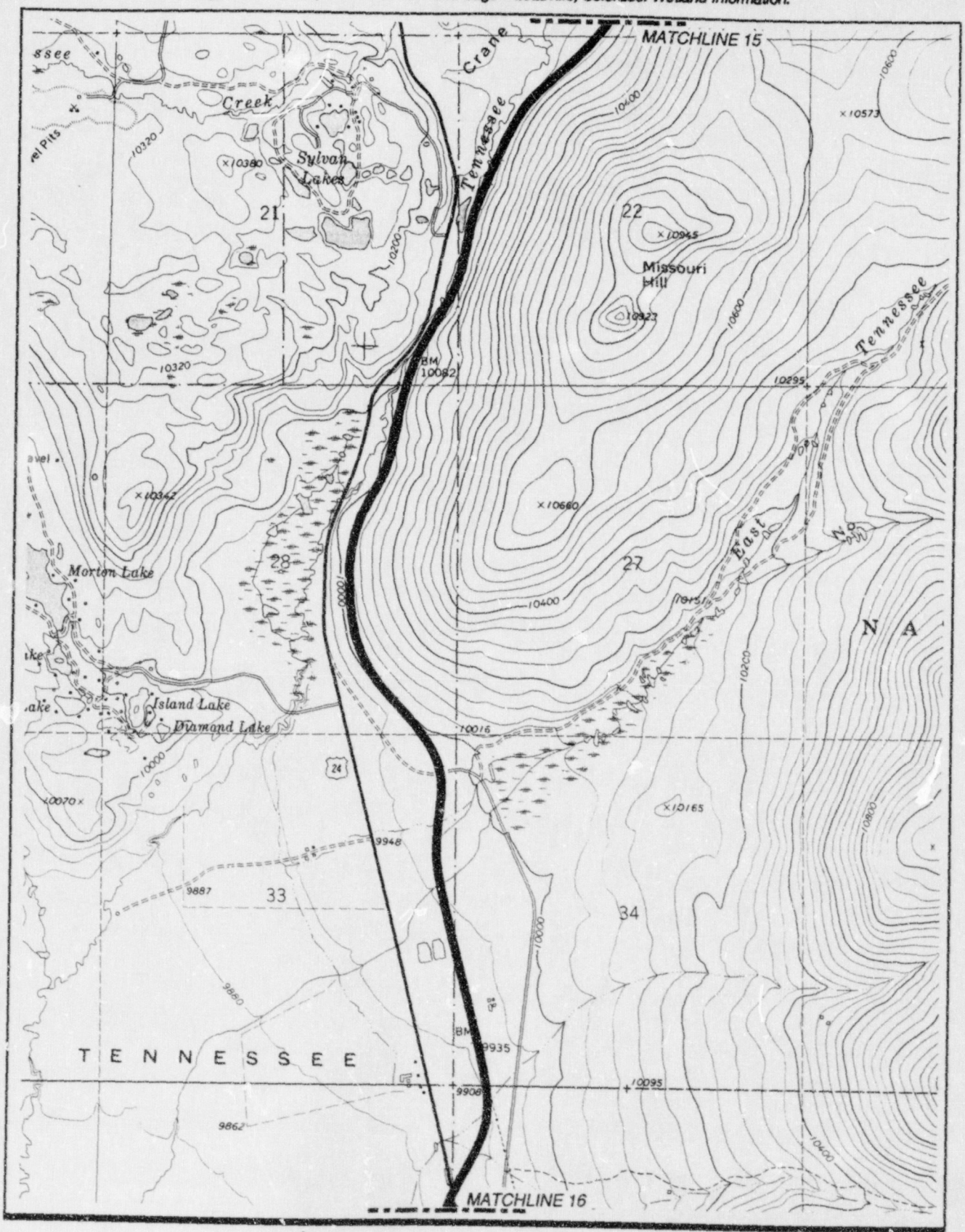
1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangles:* Pando Colorado 1970 (Photoinspected 1979) (Photorevised 1987); Leadville North, Colorado 1970 (Photoinspected 1979)

Figure 5.2-16 Proposed Abandonment: Sage – Leadville, Colorado. Wetland Information.



SCALE 1:24000

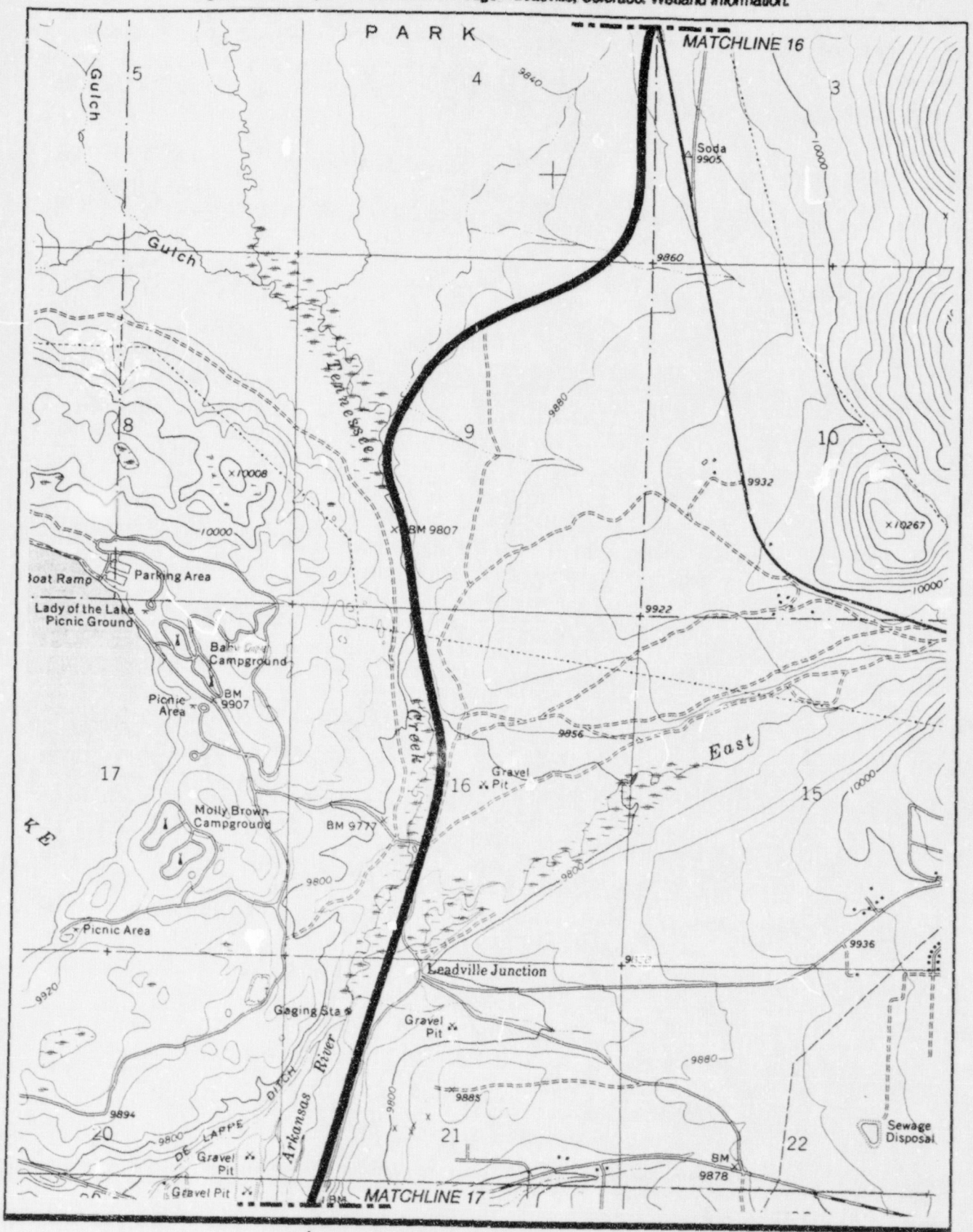
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangle:* Leadville North, Colorado 1970 (Photoinspected 1979)

Figure 5.2-17 Proposed Abandonment: Sage – Leadville, Colorado. Wetland Information.



SCALE 1:24000

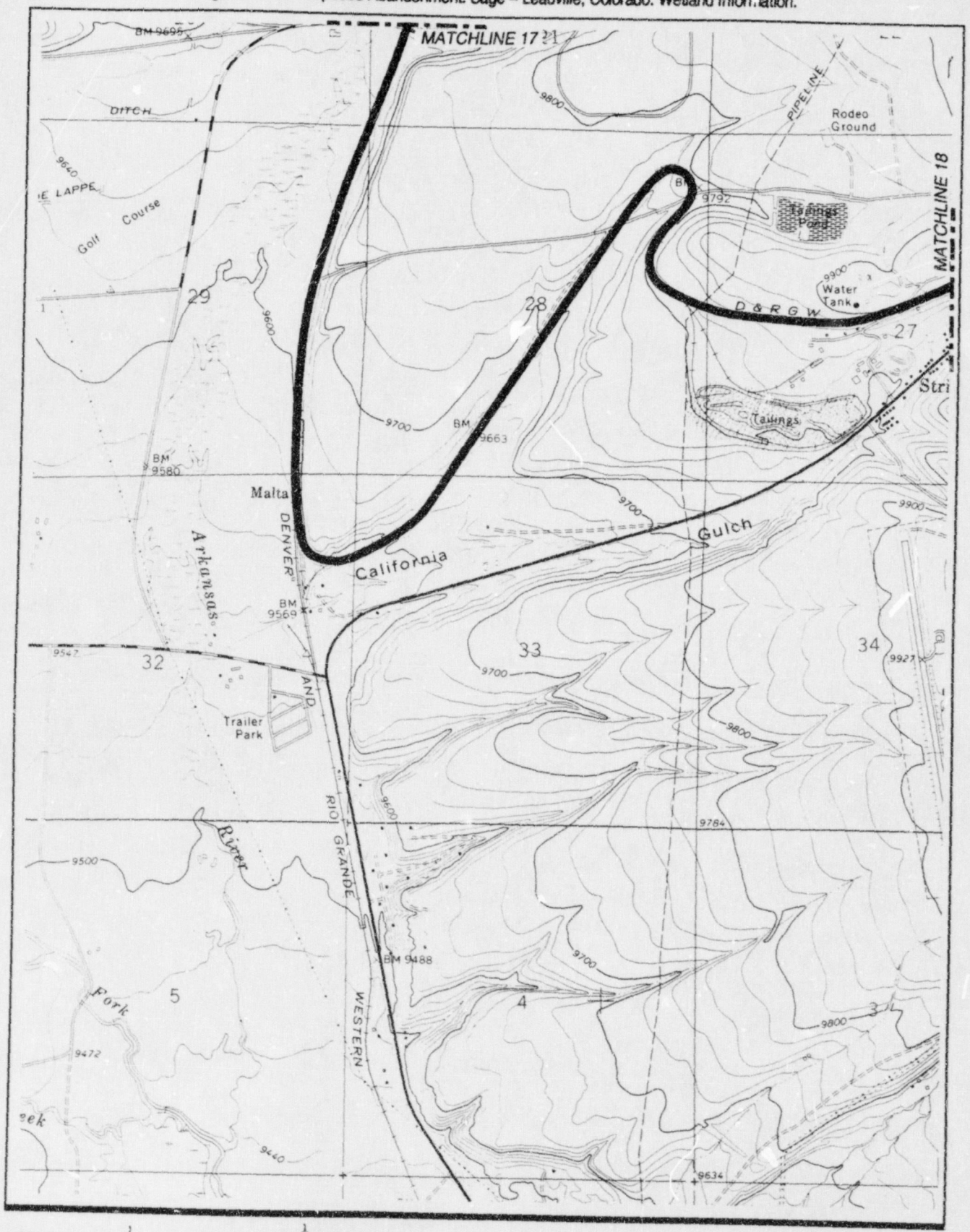
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangles:* Leadville North, Colorado 1970 (Photoinspected 1979); Leadville South, Colorado 1969

Figure 5.2-18 Proposed Abandonment: Sage – Leadville, Colorado. Wetland Information.



SCALE 1:24000

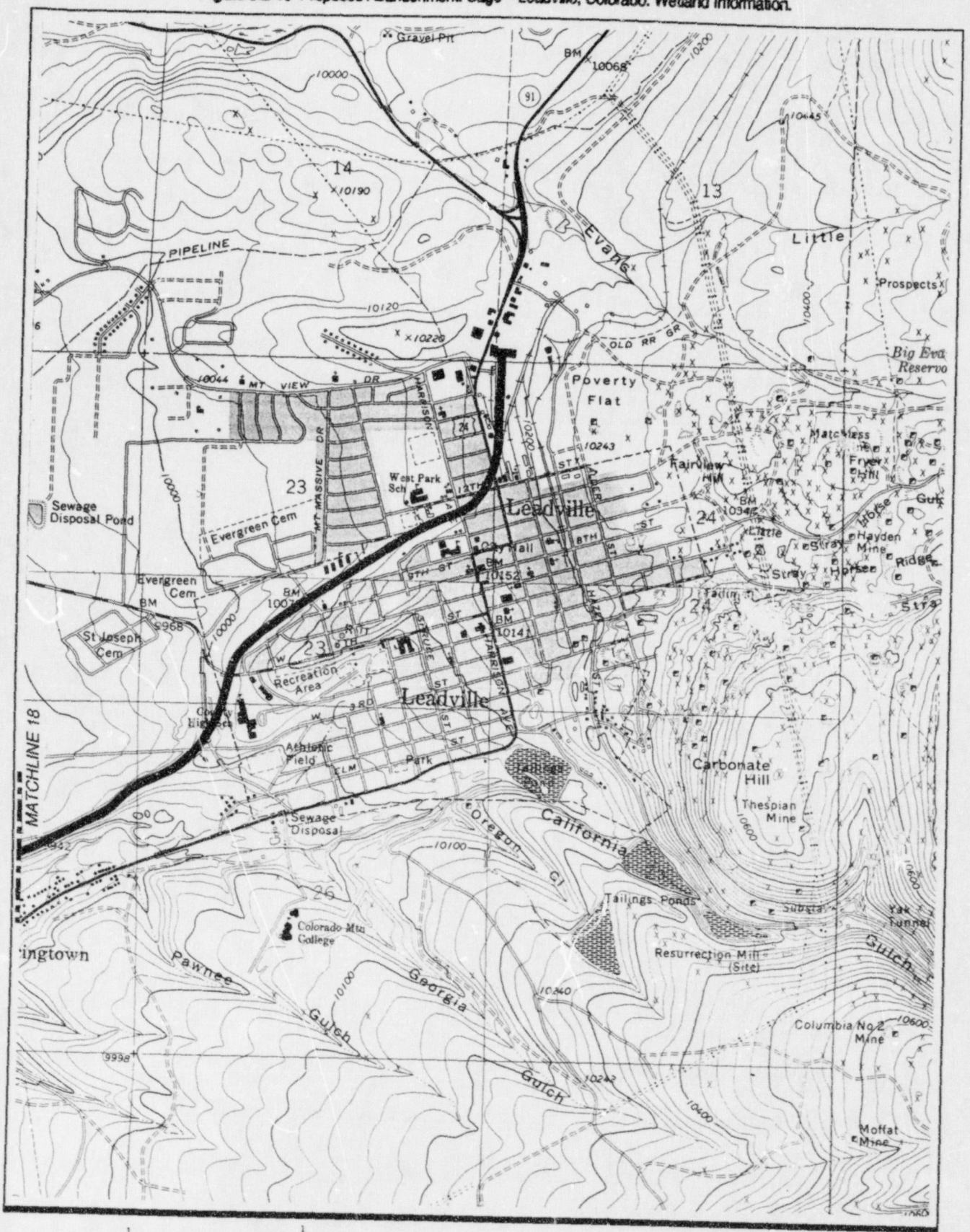
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangles: Leadville North, Colorado 1979 (Photoinspected 1979); Leadville South, Colorado 1969*

Figure 5.2-19 Proposed Abandonment: Sage -- Leadville, Colorado. Wetland Information.



SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangle: Leadville North, Colorado 1979 (Photoinspected 1979); Leadville South, Colorado 1969*

KEY FOR LAND USE FIGURES

URBAN OR BUILT-UP LAND

RE	Residential
C	Commercial and services
I	Industrial
T	Transportation, communications and utilities
I/C	Industrial and commercial complexes
MU	Mixed urban or built-up land
OU	Other urban or built-up land

AGRICULTURAL LAND

CP	Cropland and pasture
CH	Orchards, groves, vineyards, nurseries, and ornamental horticultural areas
CF	Confined feeding operations
CO	Other agricultural land

WATER

WS	Streams and canals
WL	Lakes
WR	Reservoirs
WB	Bays and estuaries

WETLANDS

WE	Forested wetlands, and/or nonforested wetlands

RANGELAND

Rh	Herbaceous rangeland
Rsb	Shrub and brush rangeland
Rm	Mixed rangeland

FOREST LAND

FD	Deciduous forest land
FE	Evergreen forest land
FM	Mixed forest land

BARREN LAND

Bsf	Dry salt flats
Bb	Beaches
Bs	Sandy areas other than beaches
Br	Bare exposed rocks
Bm	Strip mines, quarries, and gravel pits
Bt	Transitional areas
B	Mixed barren land

HISTORIC AND CULTURAL RESOURCES

●	Potentially Eligible Historic Resource

Figure 5B Overview of Proposed Abandonment: Malta – Cañon City, Colorado.

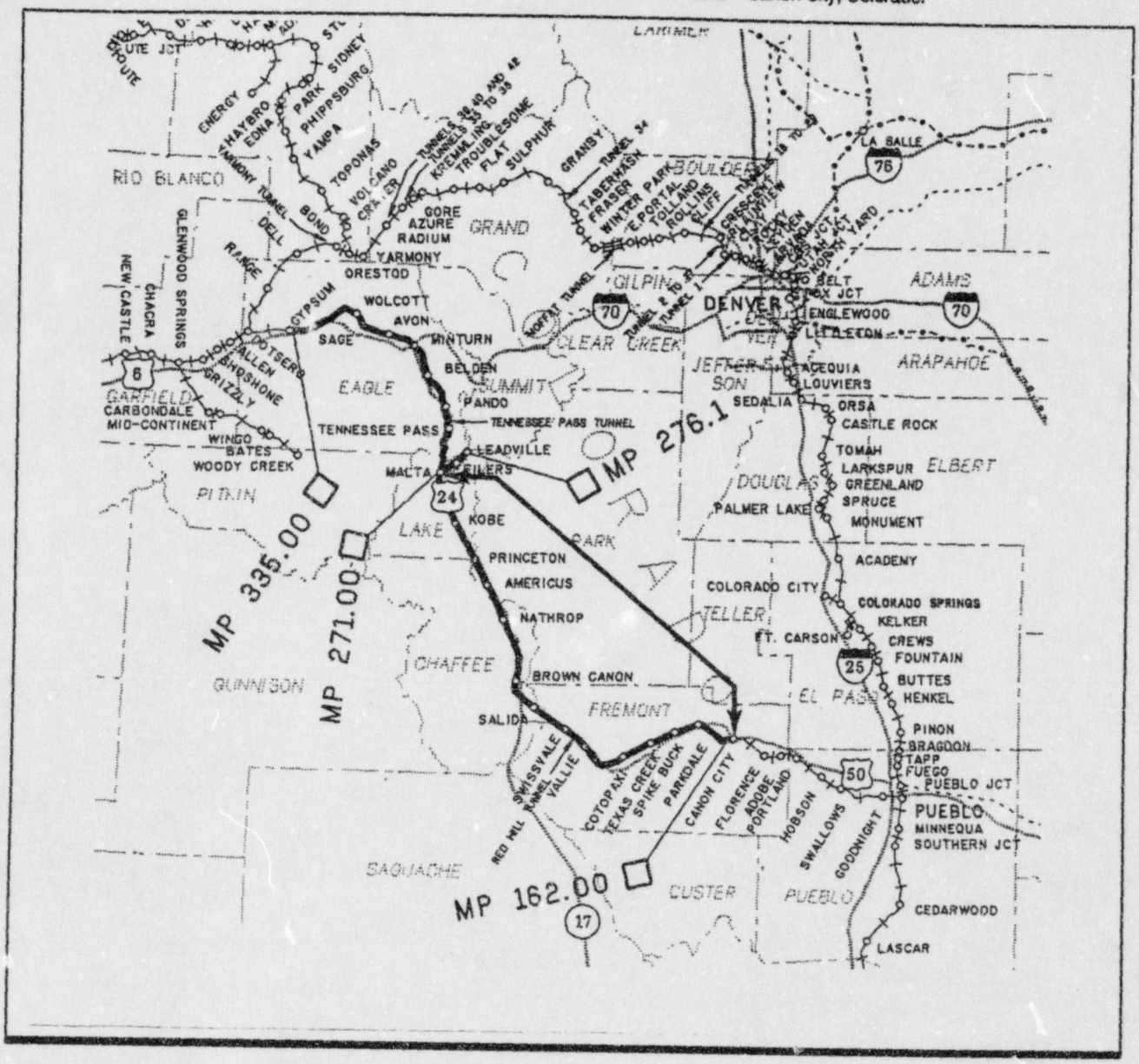
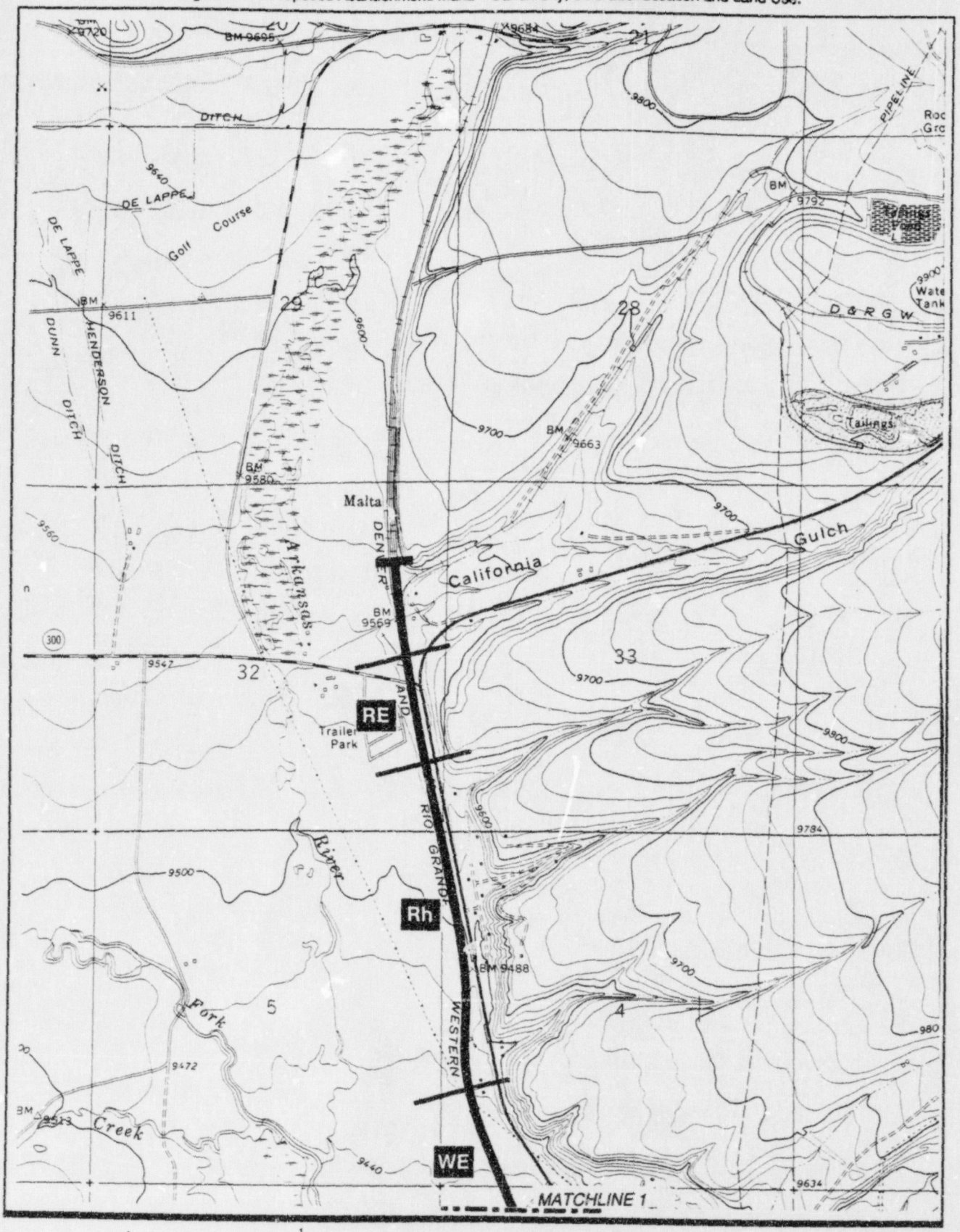
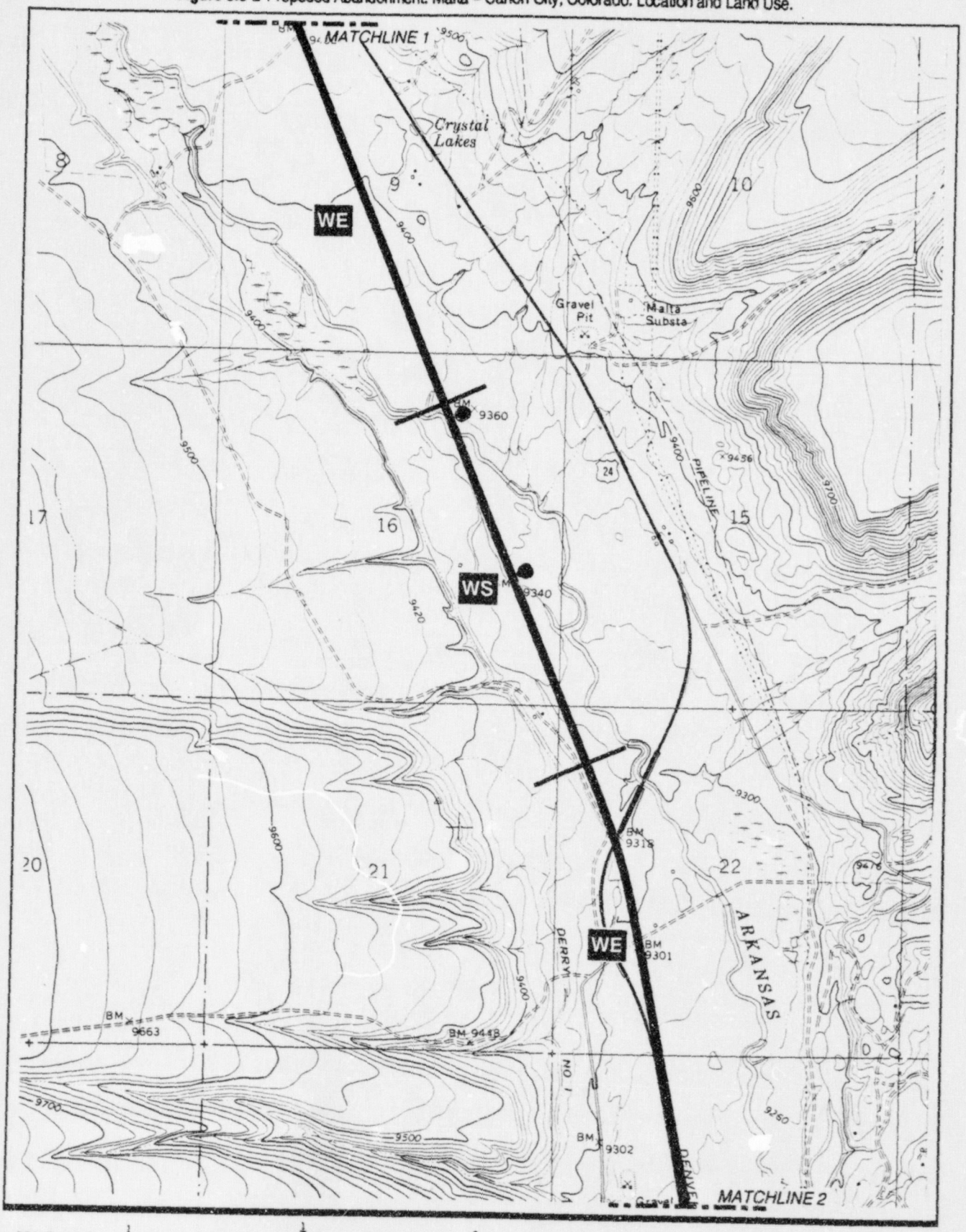


Figure 5.3-1 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



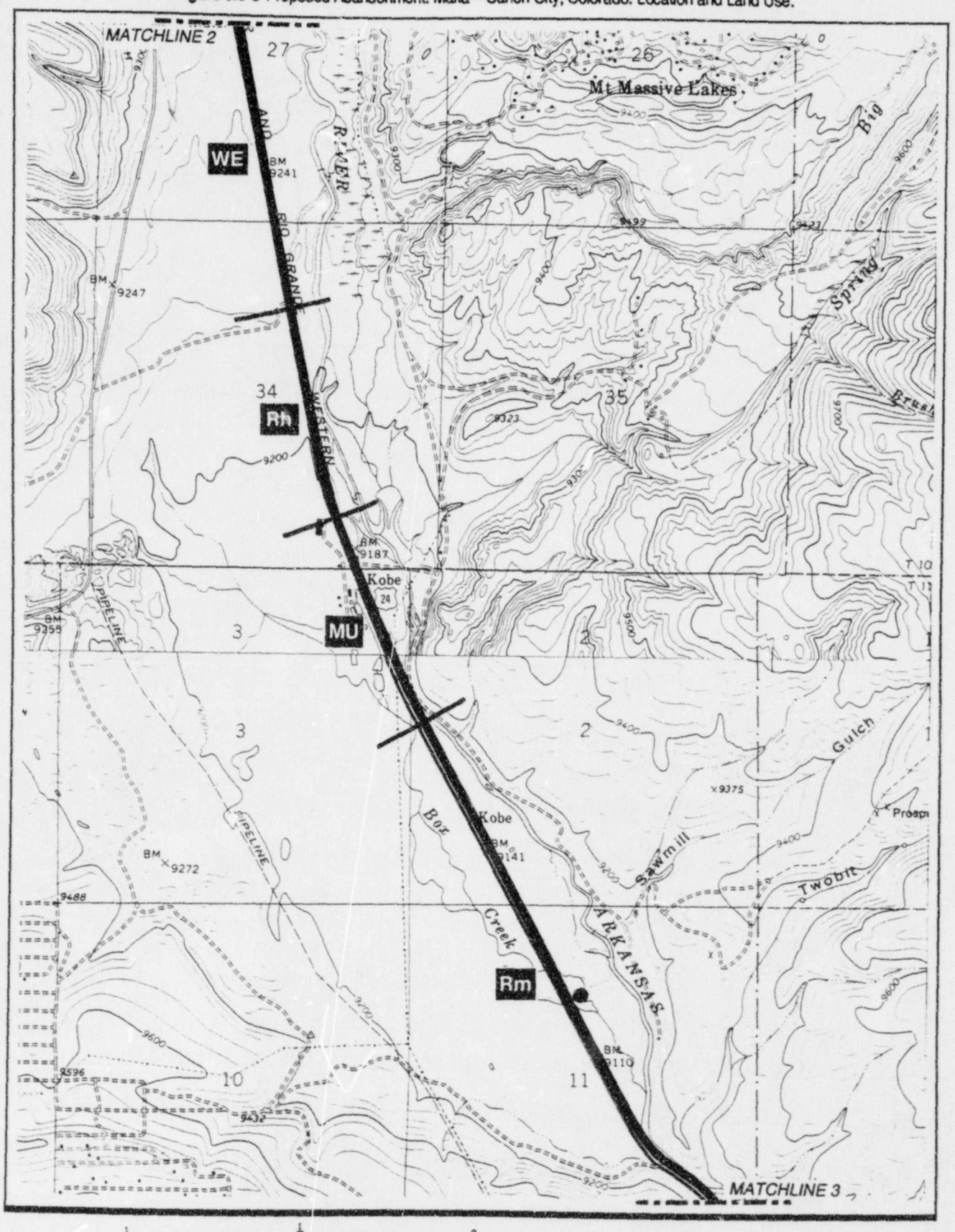
Base Map: *USGS 7.5' Topographic Quadrangle:* Leadville South, Colorado 1969

Figure 5.3-2 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle:* Leadville South, Colorado 1969

Figure 5.3-3 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



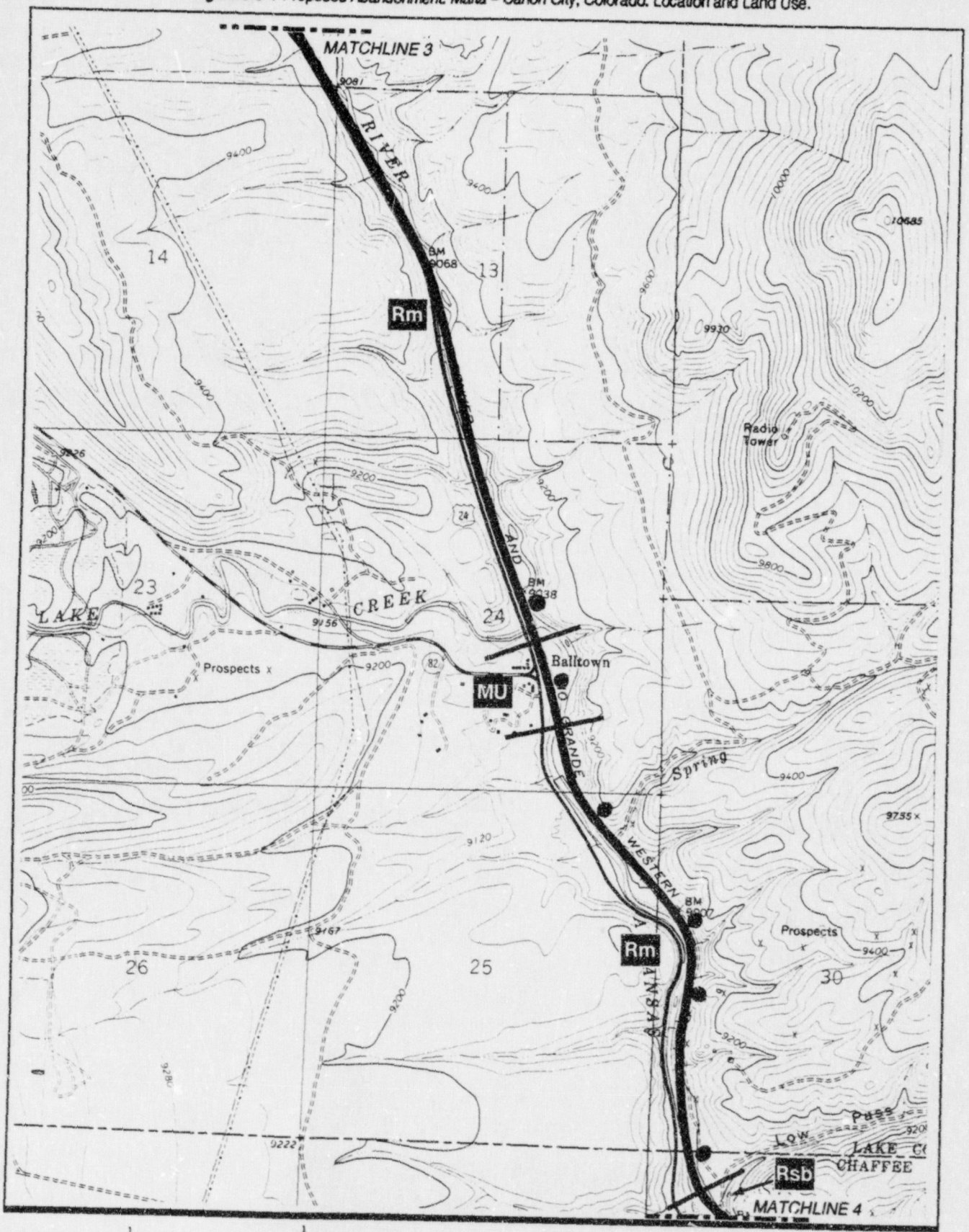
SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

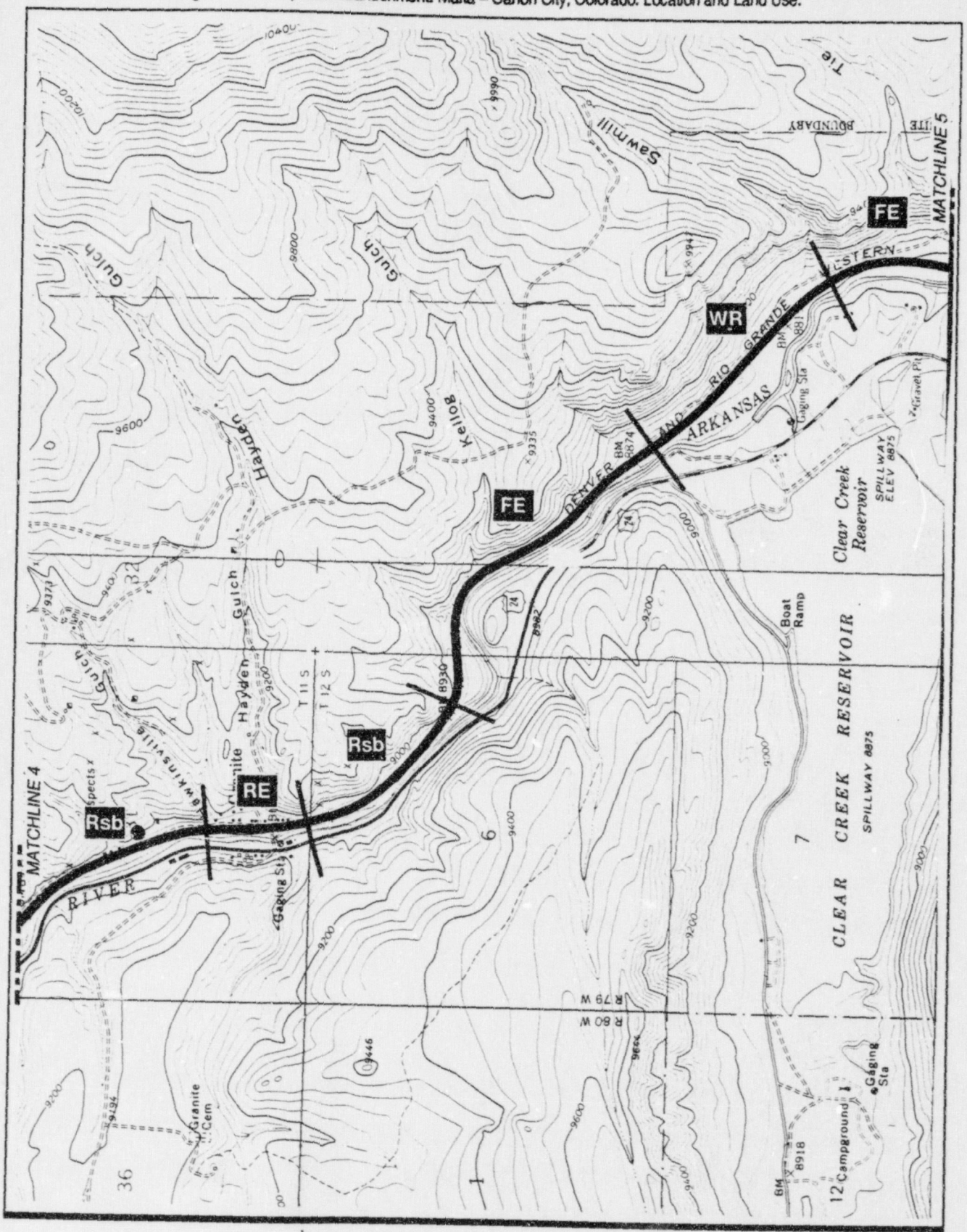
Base Map: *USGS 7.5' Topographic Quadrangles:* Leadville South, Colorado 1969; Granite, Colorado 1967 (Photorevised 1982)

Figure 5.3-4 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



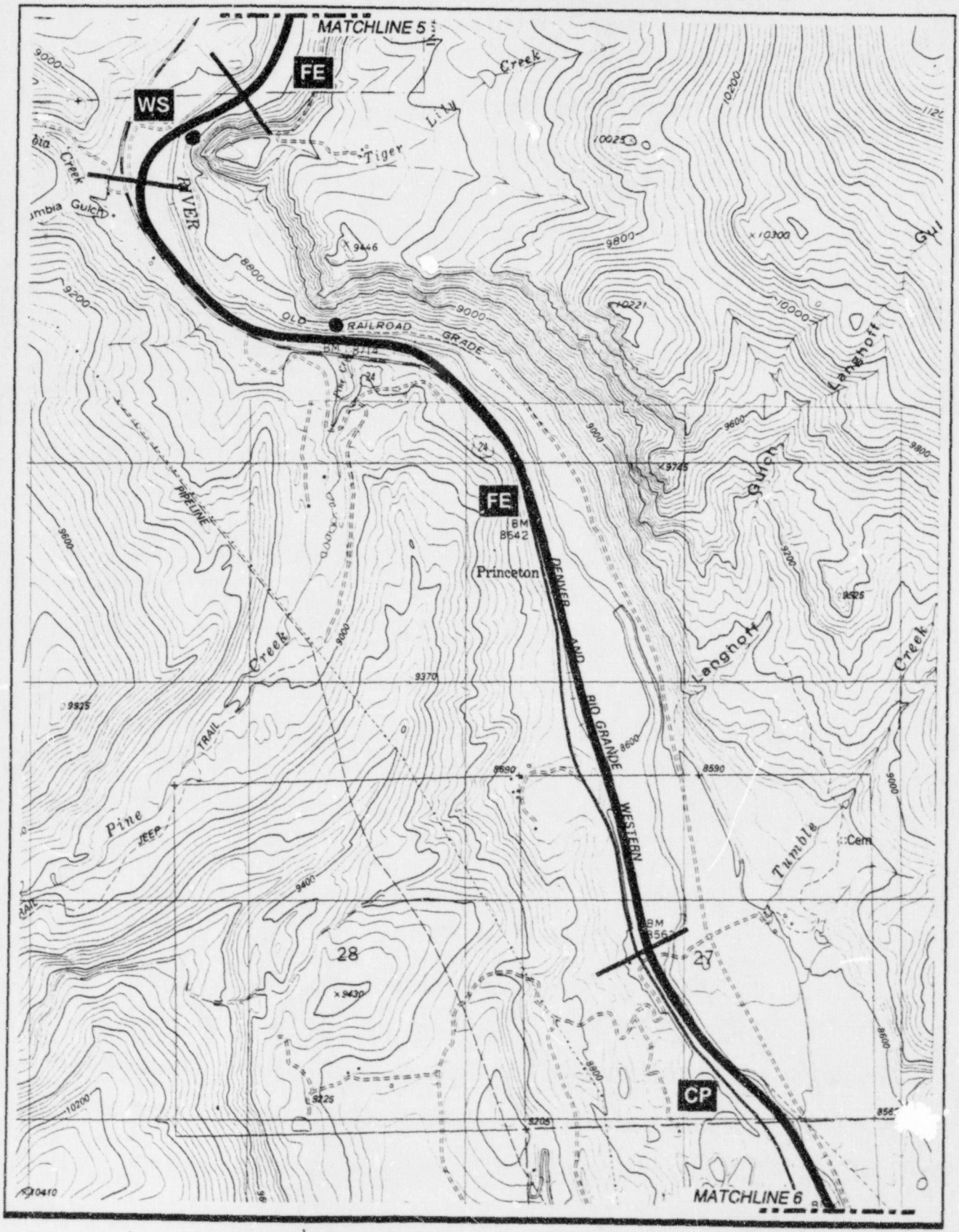
Base Map: *USGS 7.5' Topographic Quadrangle:* Granite, Colorado 1967 (Photorevised 1982)

Figure 5.3-5 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangles:* Granite, Colorado 1967 (Photorevised 1982); South Peak, Colorado 1961 (Photoinspected 1979)

Figure 5.3-6 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



SCALE 1:24000

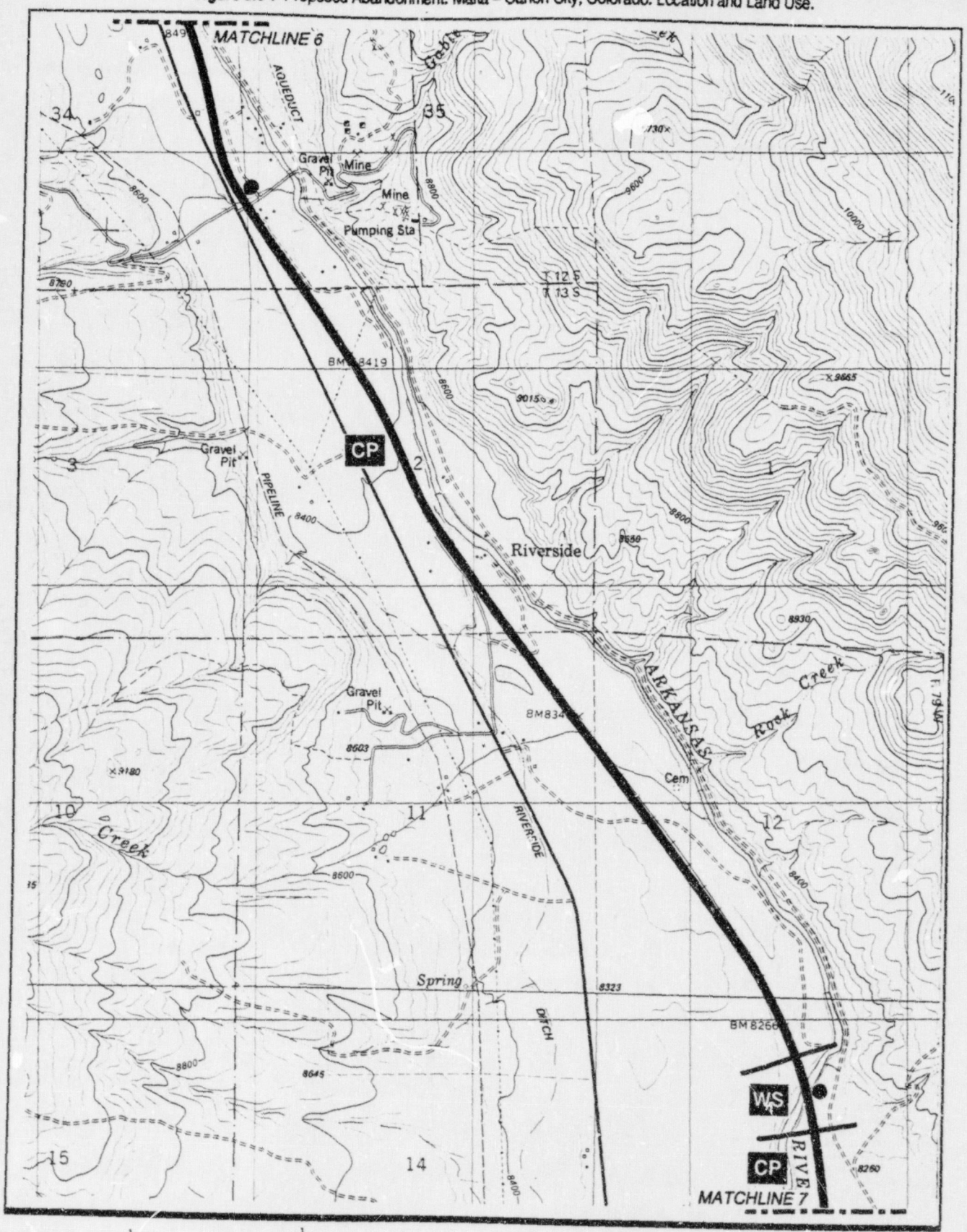
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

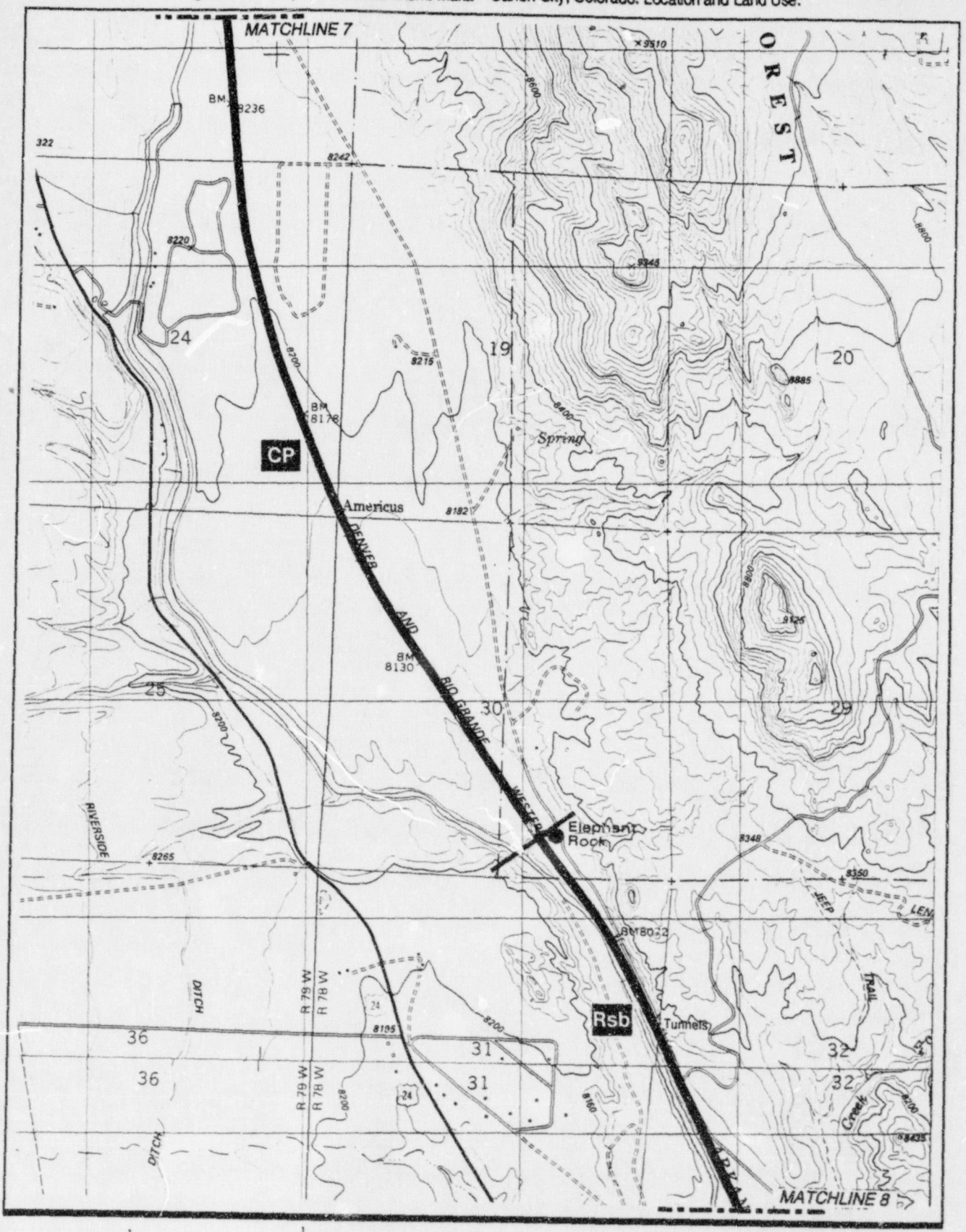
Base Map: *USGS 7.5' Topographic Quadrangles:* South Peak, Colorado 1961 (Photoinspected 1979); Harvard Lakes, Colorado 1982

Figure 5.3-7 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle:* Harvard Lakes, Colorado 1982

Figure 5.3-8 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



SCALE 1:24000

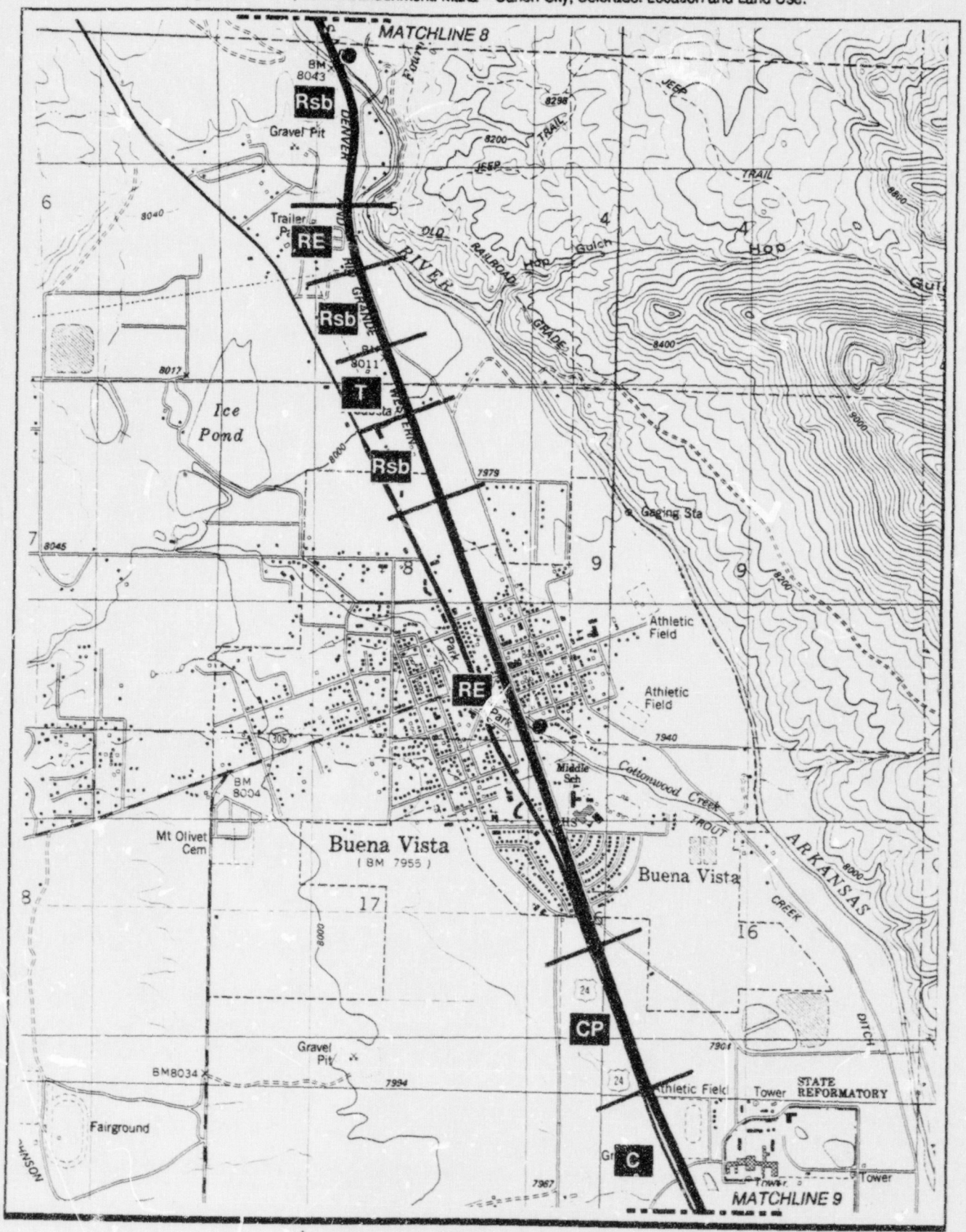
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangles:* Harvard Lakes, Colorado 1982; Buena Vista West, Colorado 1982

Figure 5.3-9 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



SCALE 1:24000

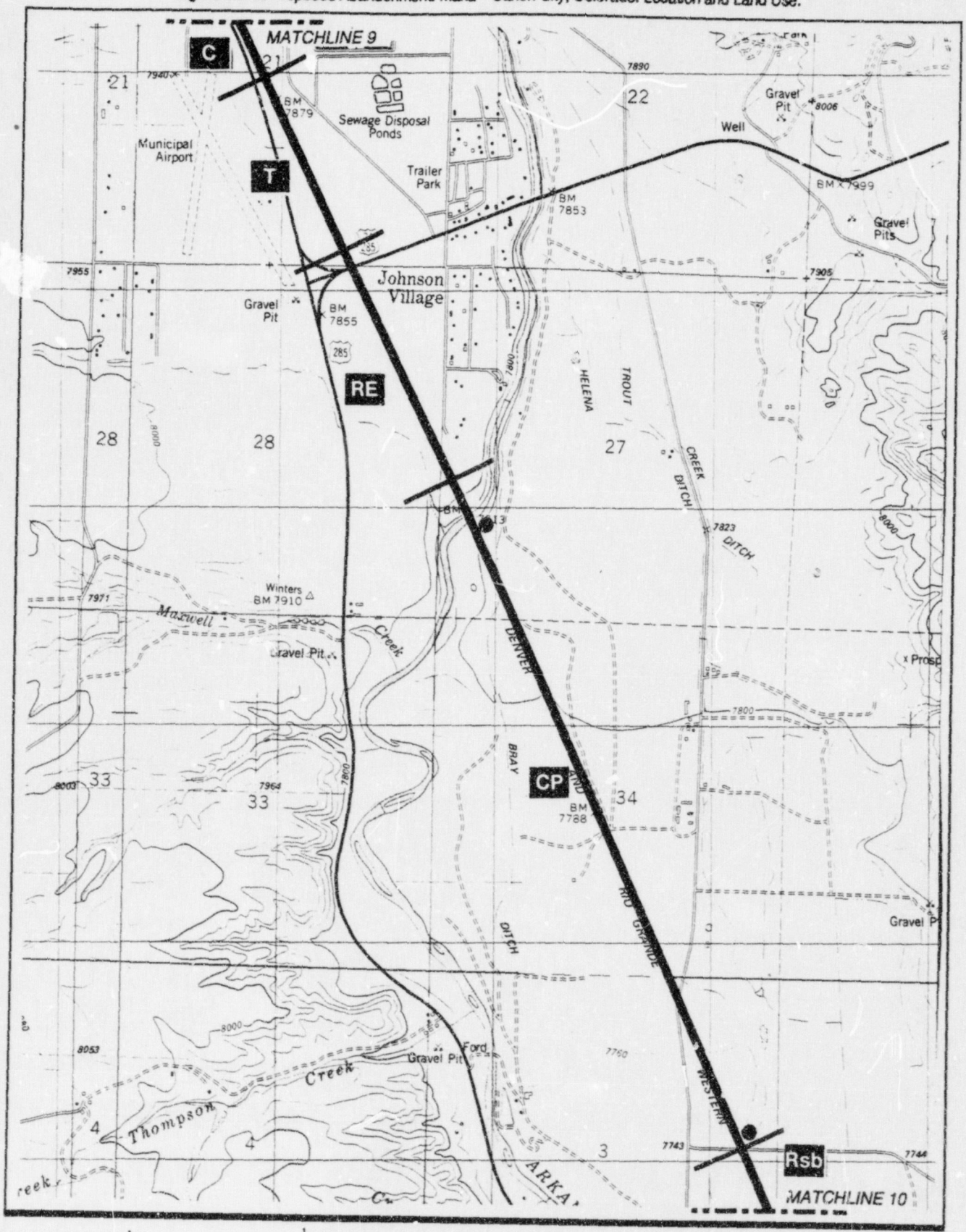
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

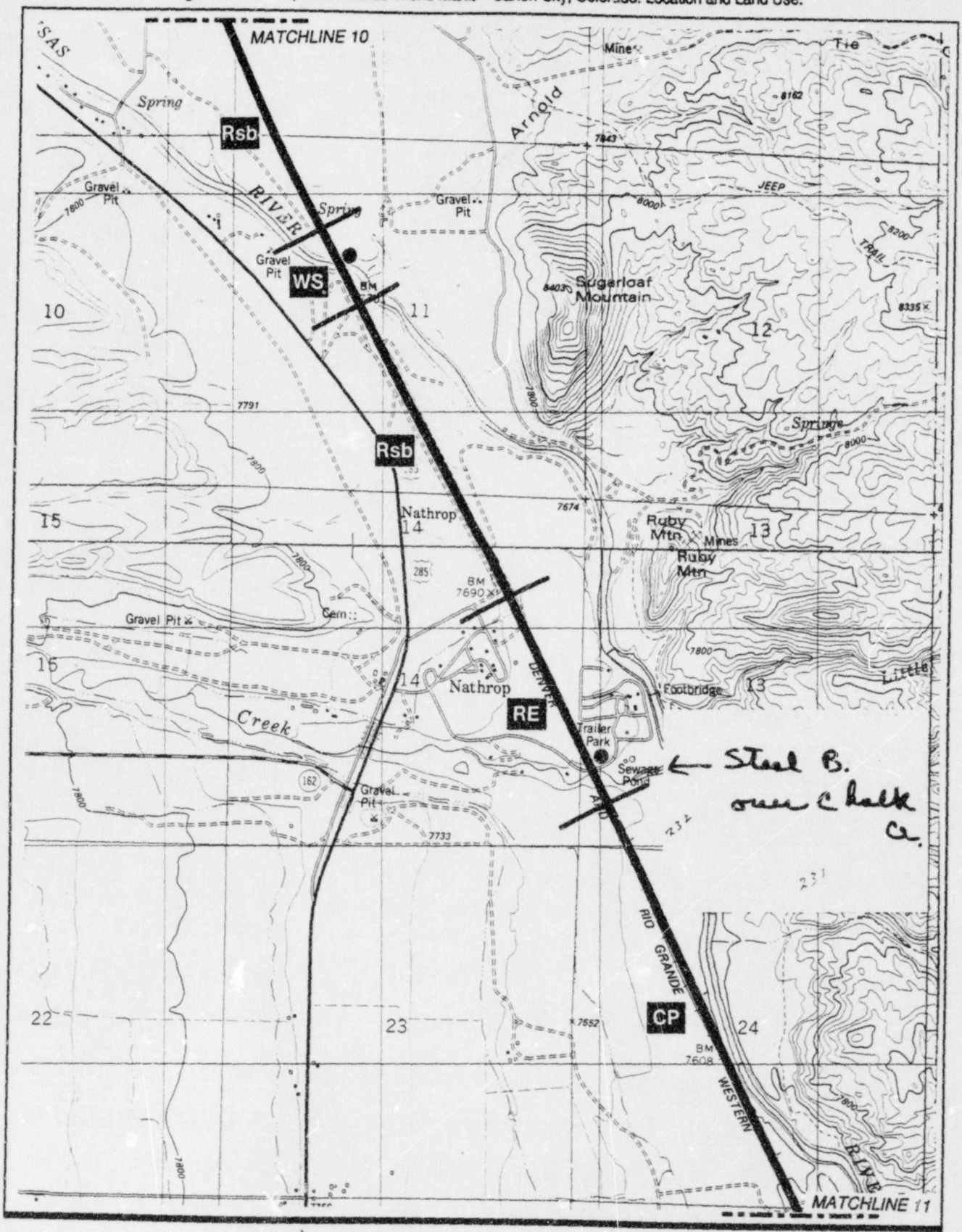
Base Map: *USGS 7.5' Topographic Quadrangles:* Buena Vista West, Colorado 1982; Buena Vista East, Colorado 1983

Figure 5.3-10 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



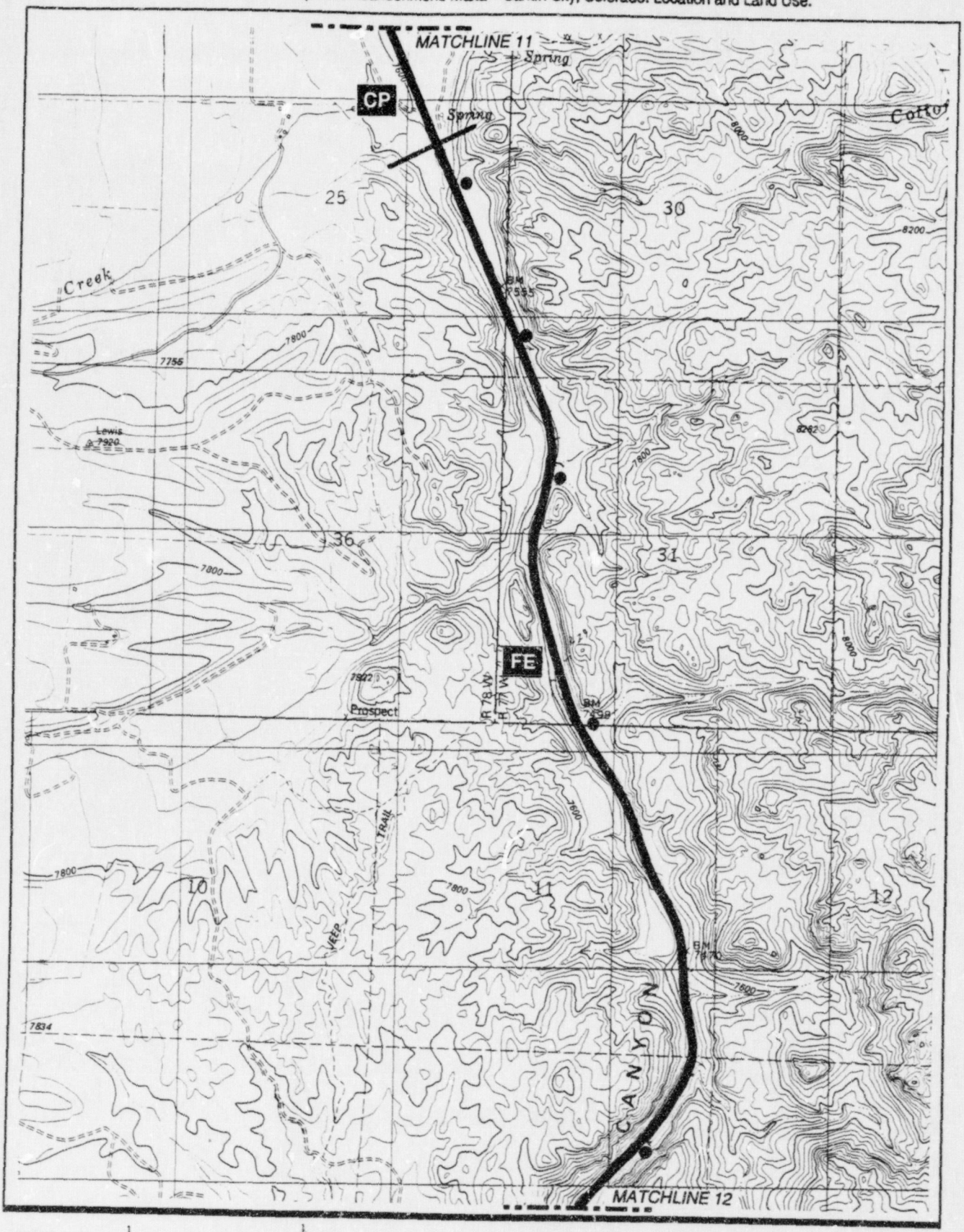
Base Map: *USGS 7.5' Topographic Quadrangles:* Buena Vista West, Colorado 1982, Buena Vista East, Colorado 1983

Figure 5.3-11 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



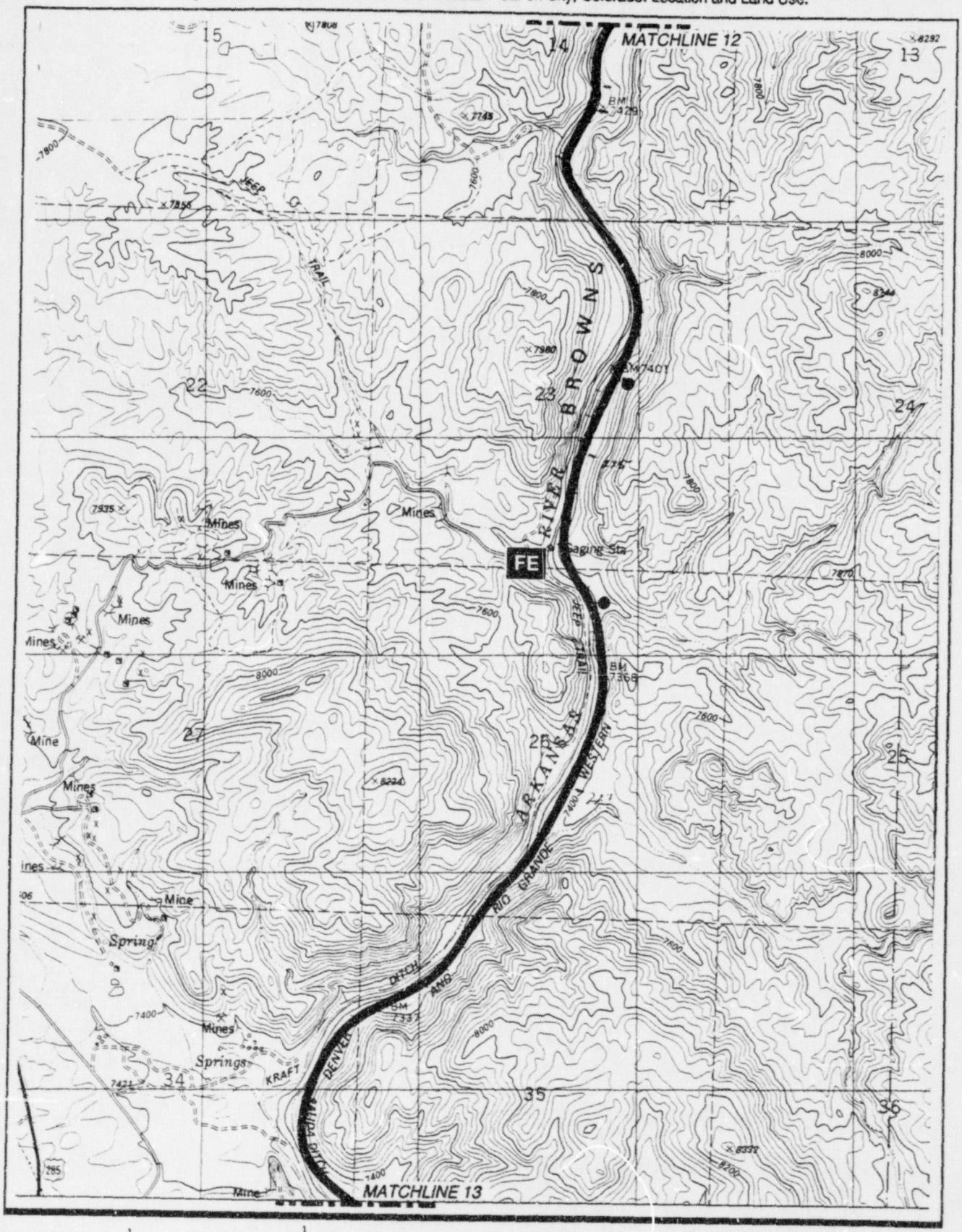
Base Map: *USGS 7.5' Topographic Quadrangles:* Buena Vista East, Colorado 1983; Nathrop, Colorado 1983

Figure 5.3-12 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



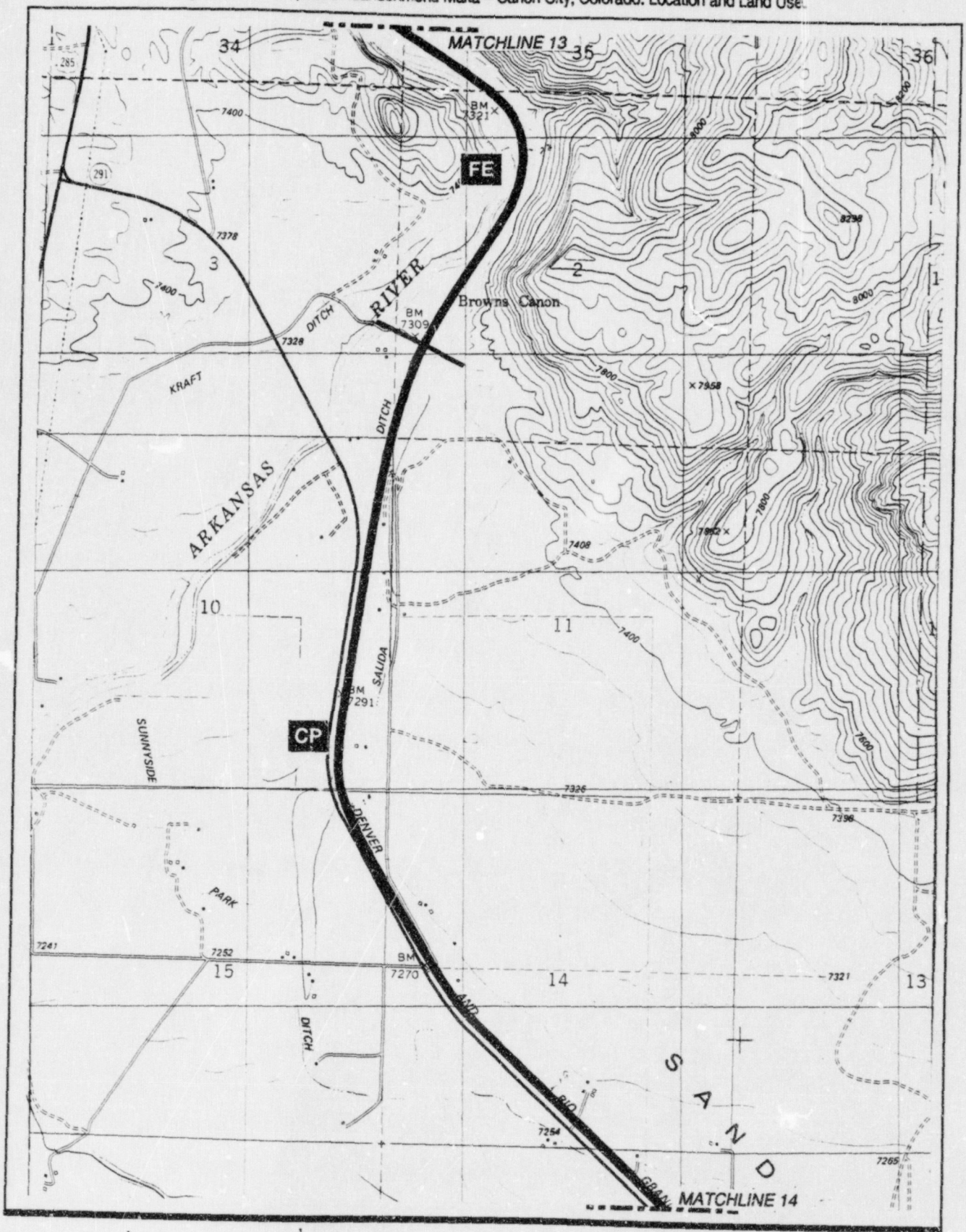
Base Map: *USGS 7.5' Topographic Quadrangle:* Nathrop, Colorado 1983

Figure 5.3-13 Proposed Abandonment: Malta – Canon City, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle:* Nathrop, Colorado 1983

Figure 5.3-14 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



SCALE 1:24000

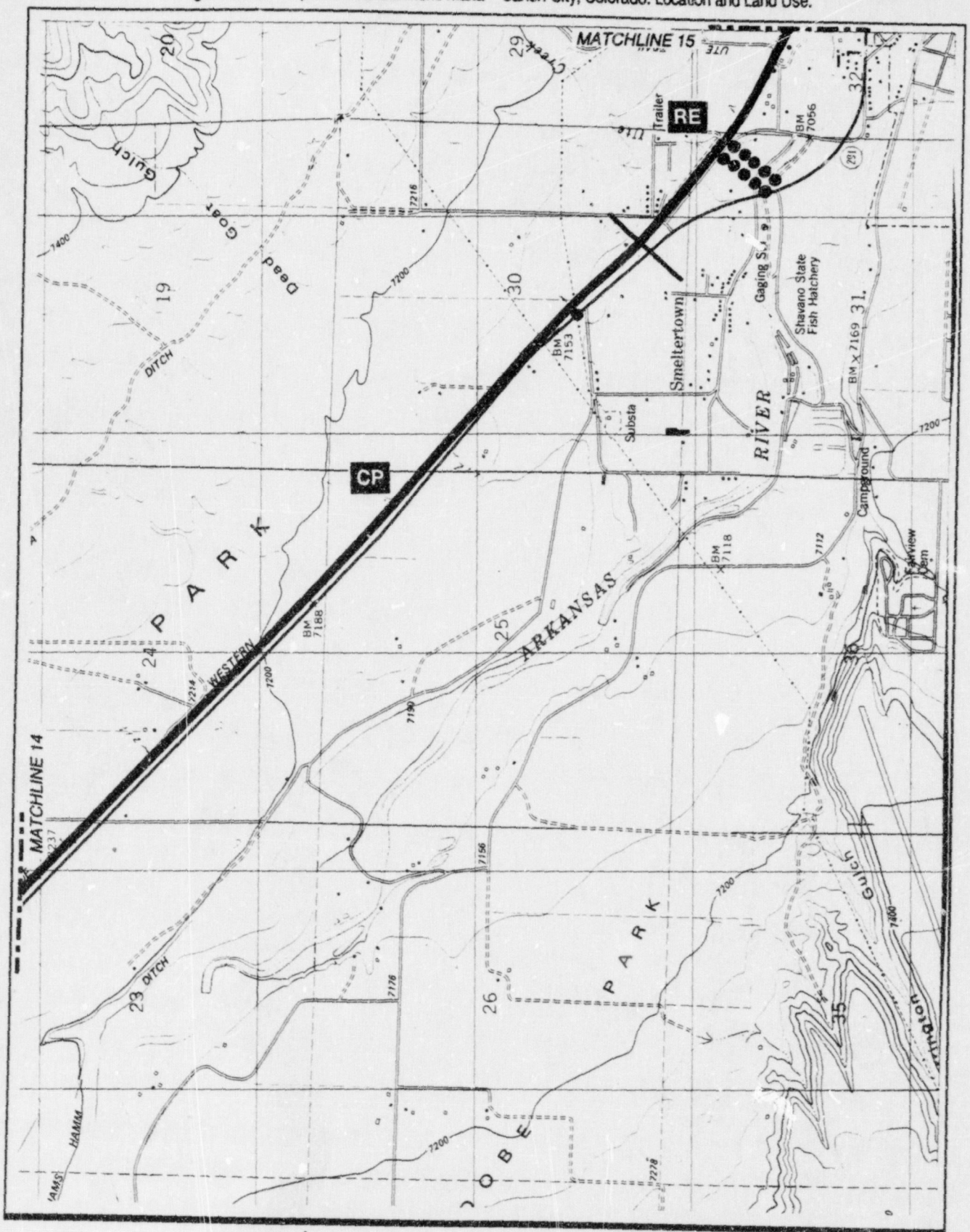
1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

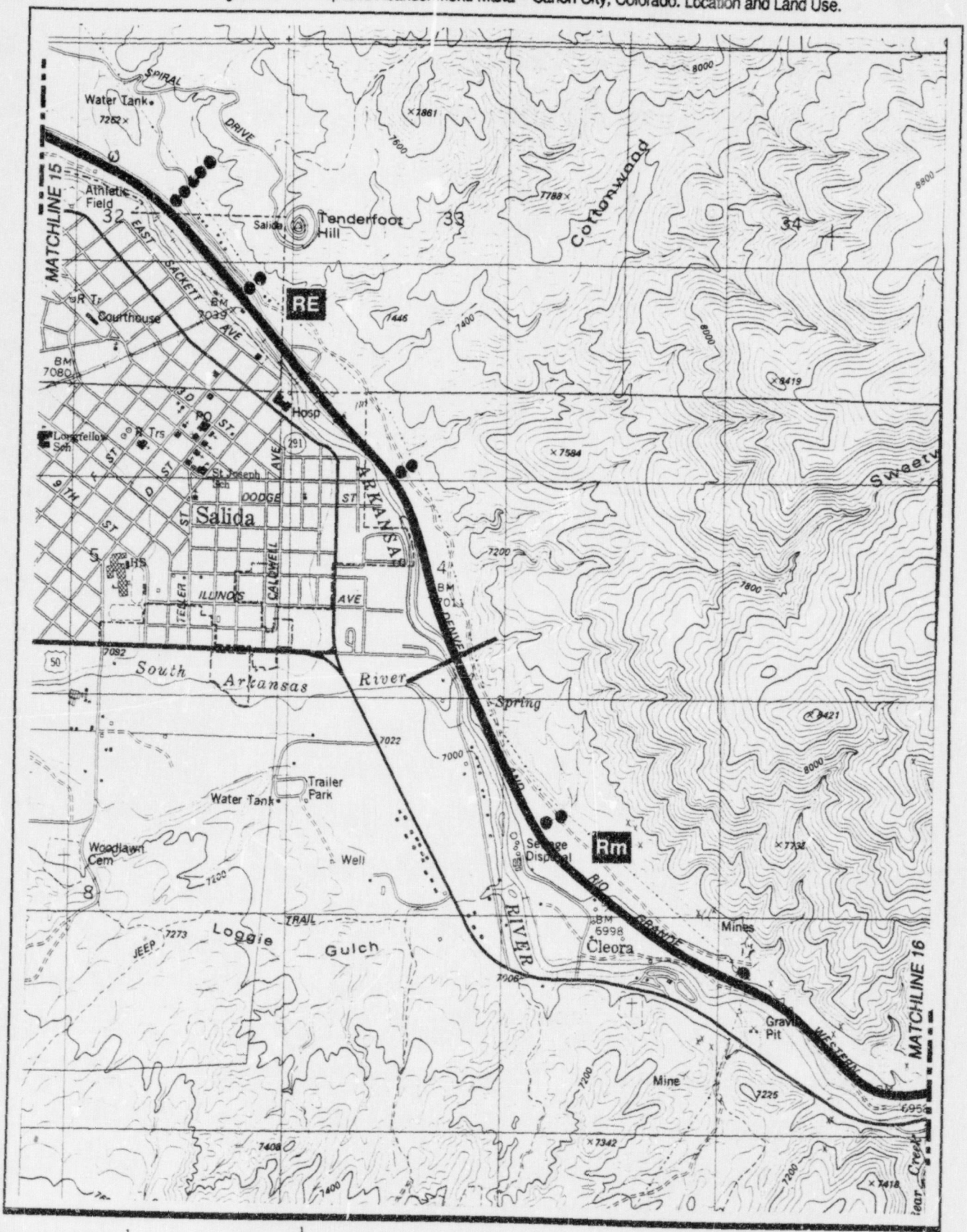
Base Map: *USGS 7.5' Topographic Quadrangle: Salida West, Colorado 1983*

Figure 5.3-15 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



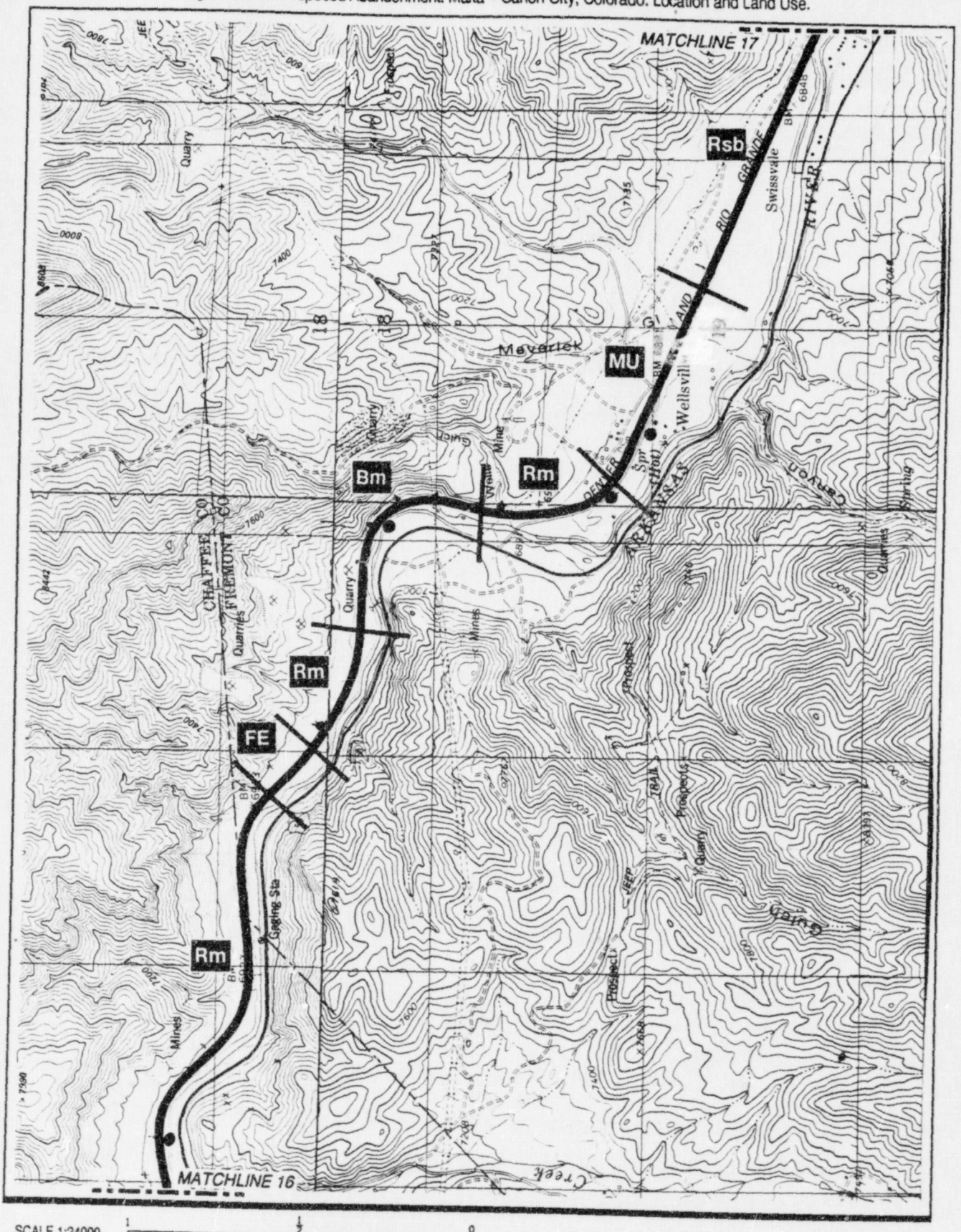
Base Map: *USGS 7.5' Topographic Quadrangle: Salida West, Colorado 1983*

Figure 5.3-16 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



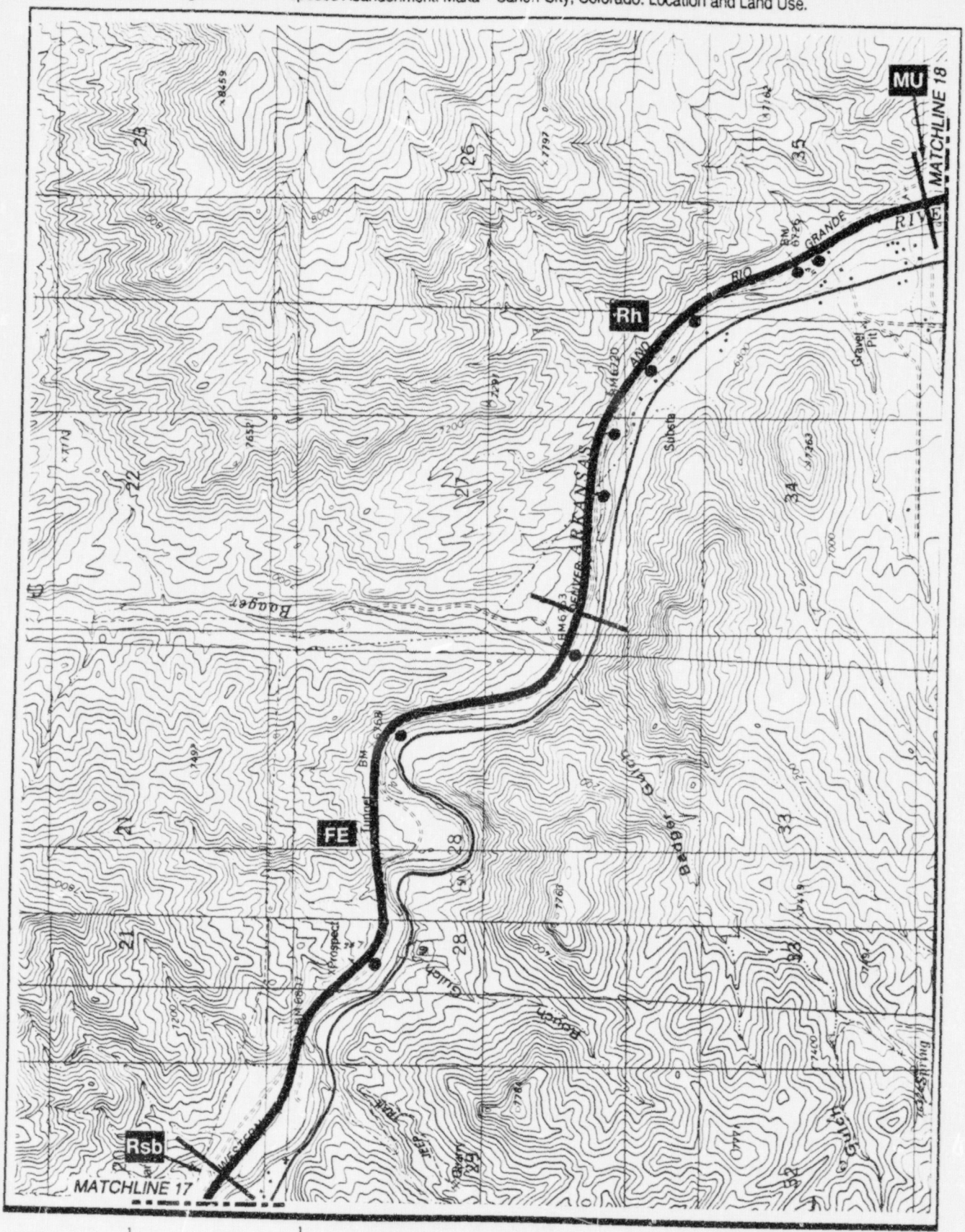
Base Map: *USGS 7.5' Topographic Quadrangle: Salida East Colorado 1983*

Figure 5.3-17 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



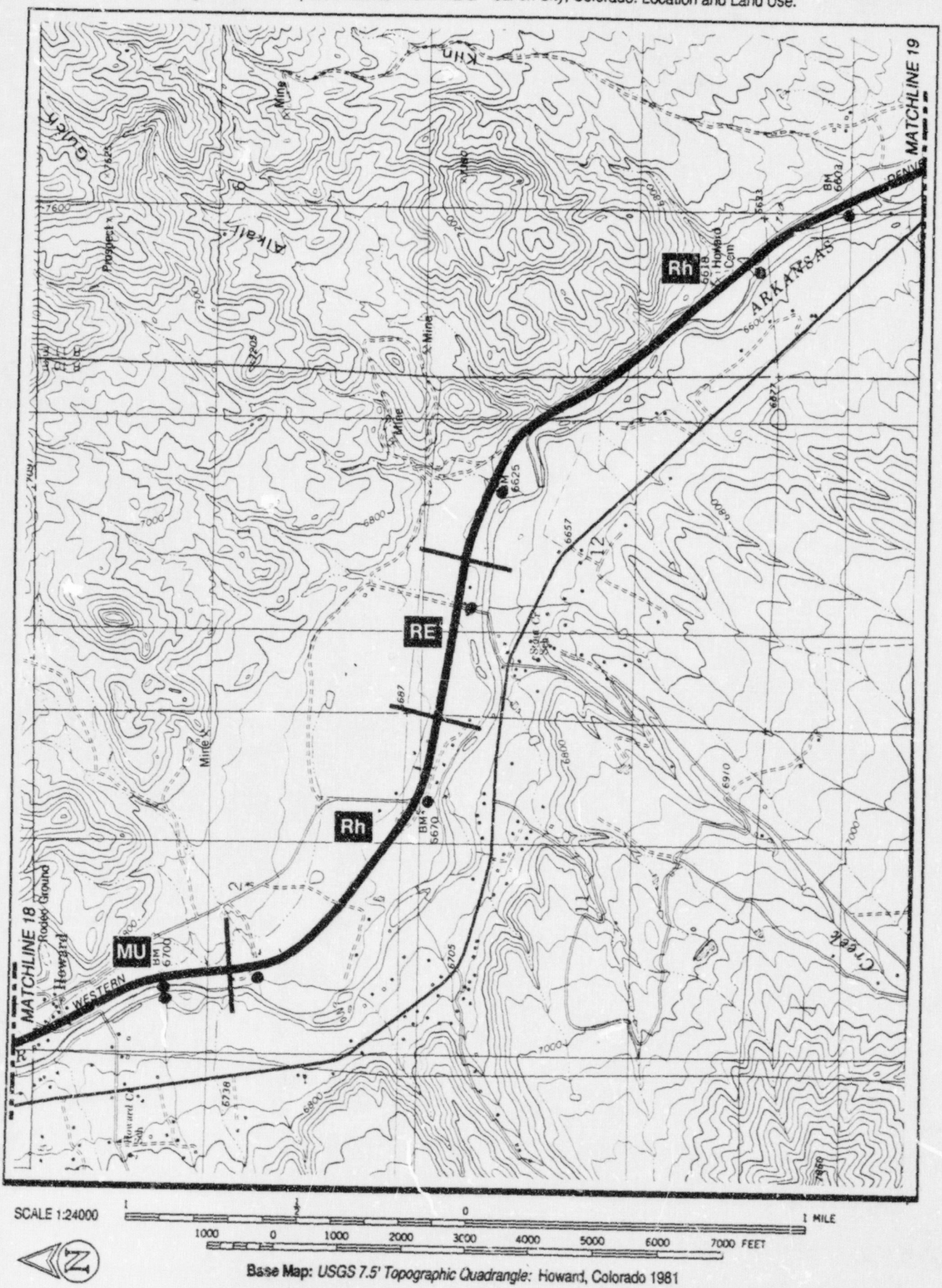
Base Map: *USGS 7.5' Topographic Quadrangles: Salida East Colorado 1983;* Wellsville, Colorado 1960

Figure 5.3-18 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



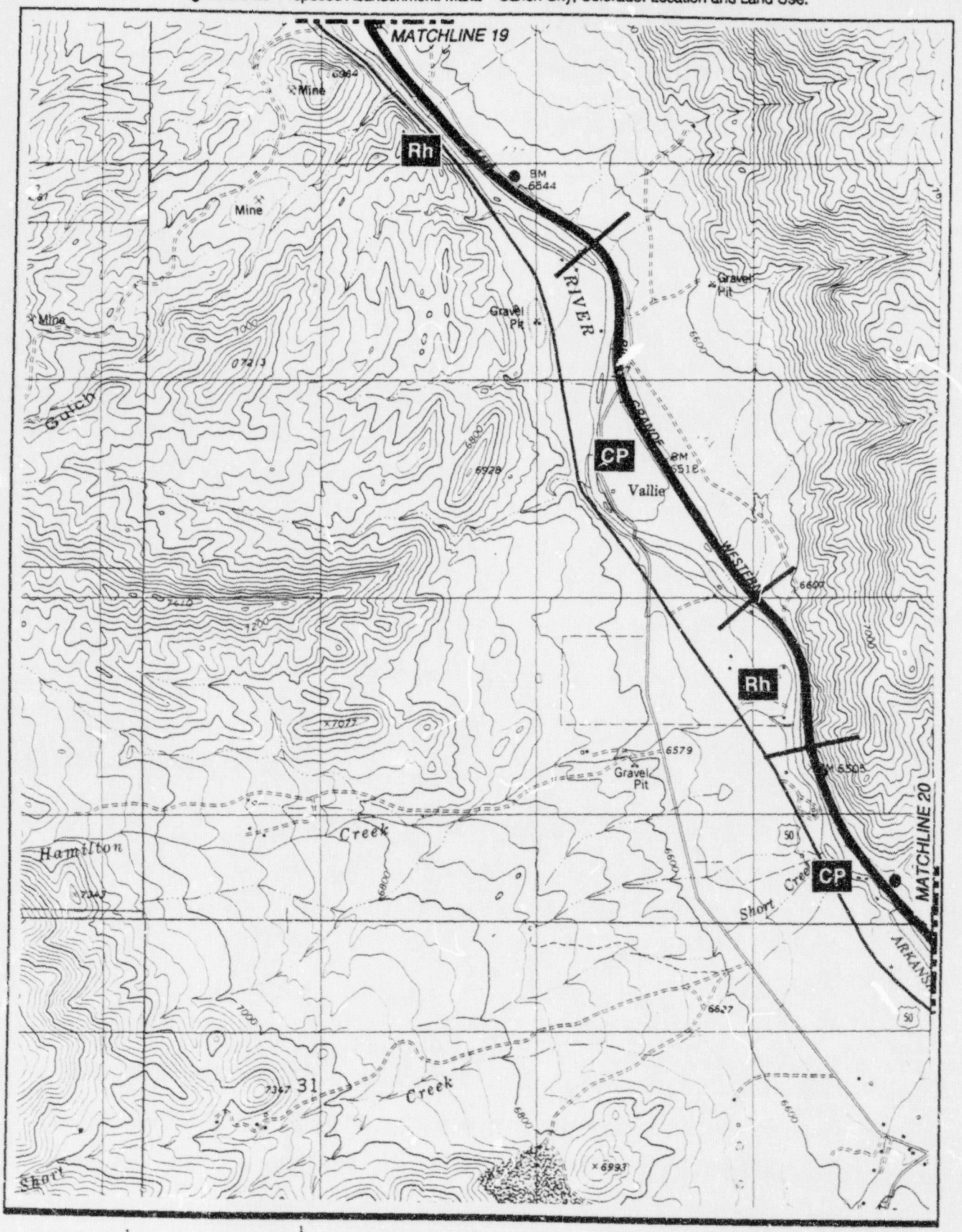
Base Map: *USGS 7.5' Topographic Quadrangles:* Wellsville, Colorado 1980; Howard, Colorado 1981

Figure 5.3-19 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle:* Howard, Colorado 1981

Figure 5.3-20 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



SCALE 1:24000

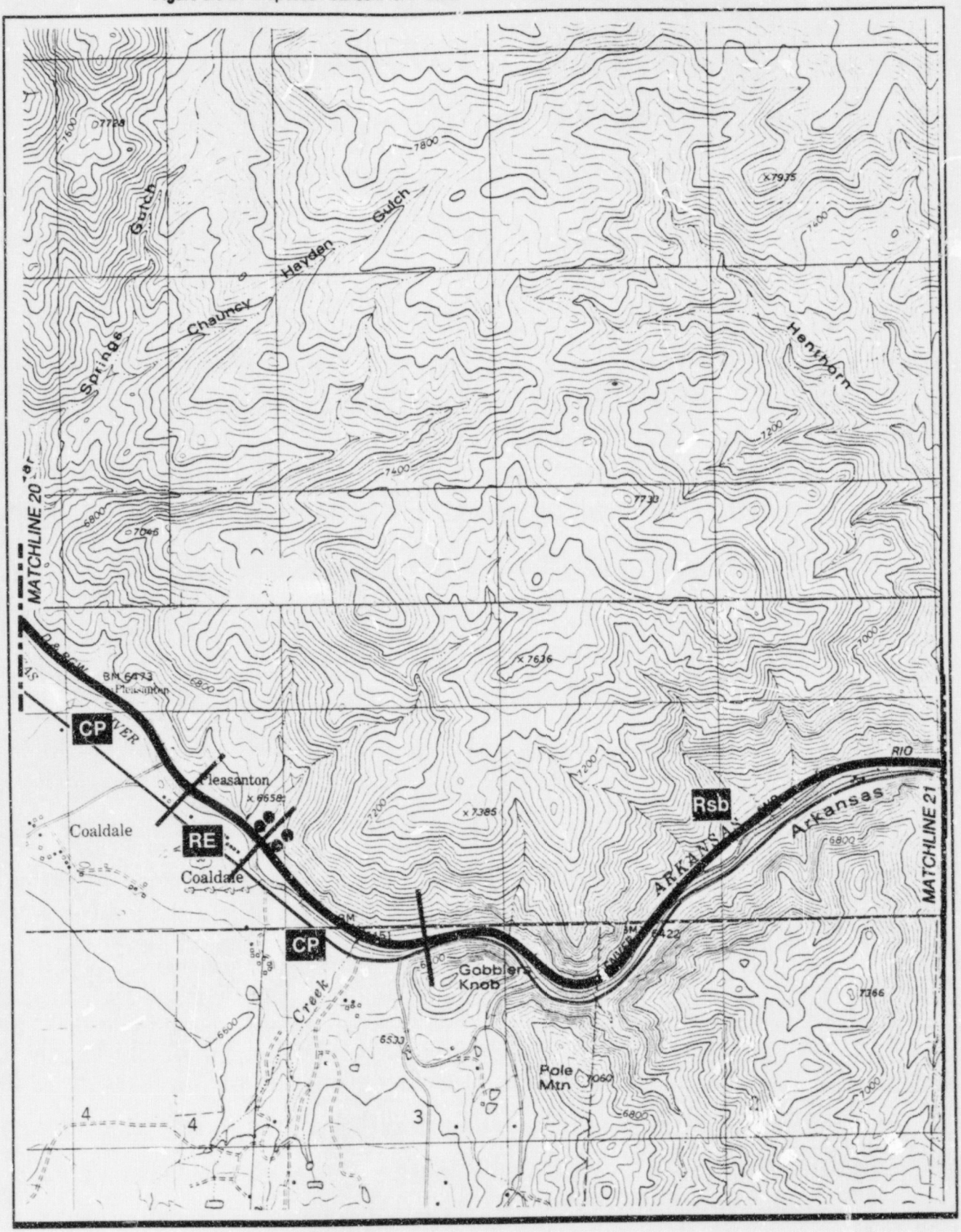
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangles:* Howard, Colorado 1981; Coaldale, Colorado 1980

Figure 5.3-21 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



SCALE 1:24000

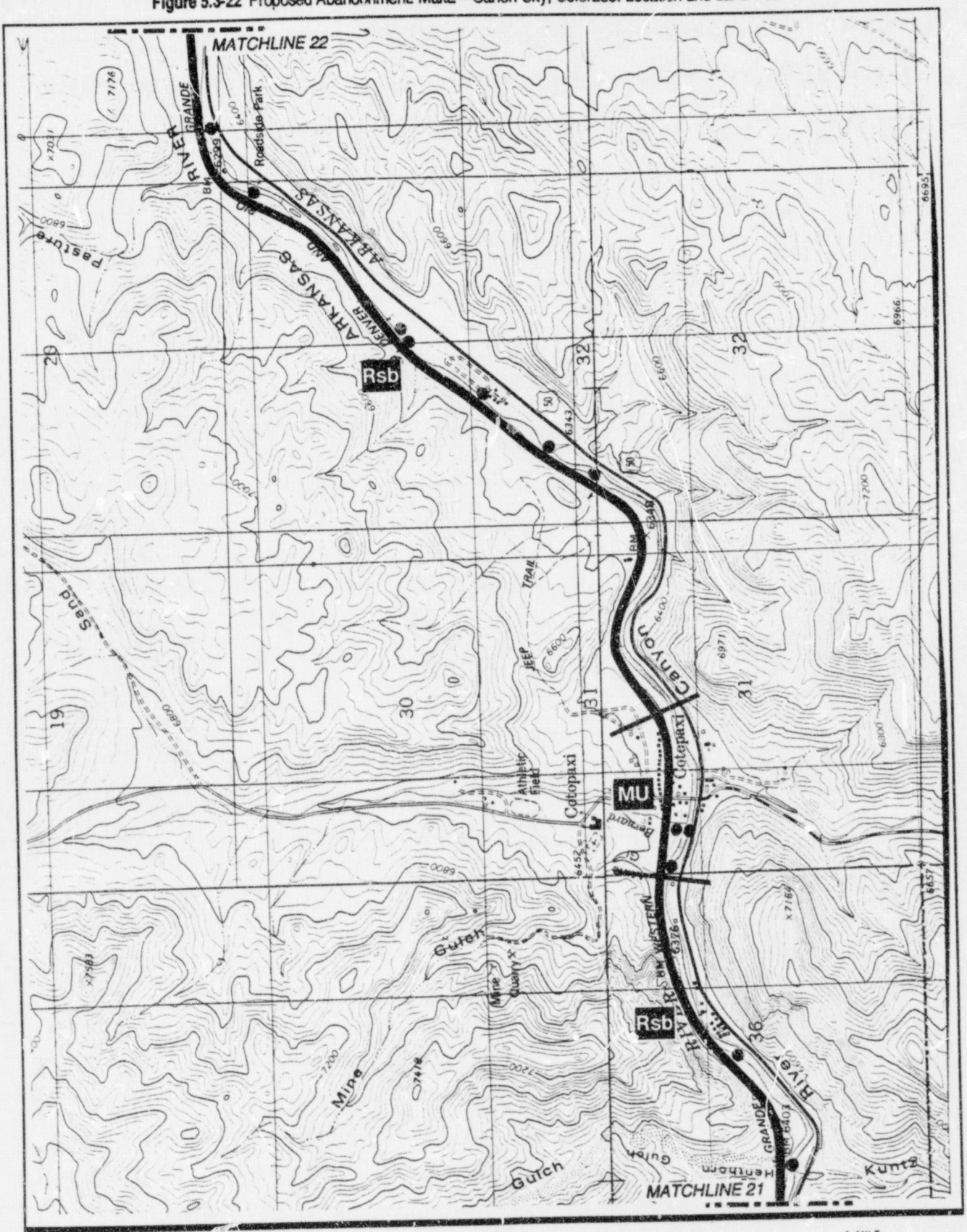
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

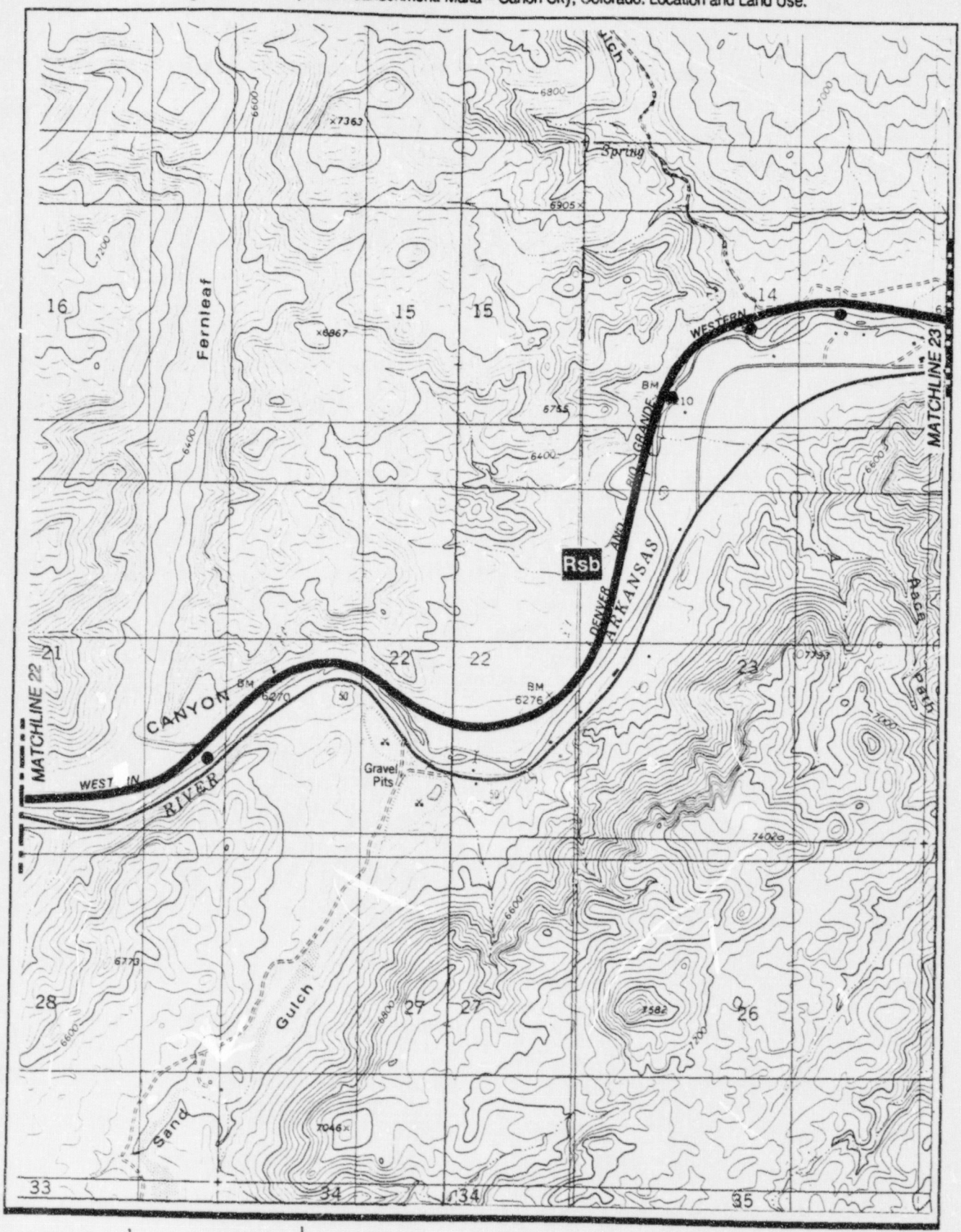
Base Map: *USGS 7.5' Topographic Quadrangles:* Howard, Colorado 1981; Arkansas Mountain, Colorado 1980; Coaldale, Colorado 1980; Cotopaxi, Colorado 1980

Figure 5.3-22 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangles:* Arkansas Mountain, Colorado 1980; Cotopaxi, Colorado 1980

Figure 5.3-23 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



SCALE 1:24000

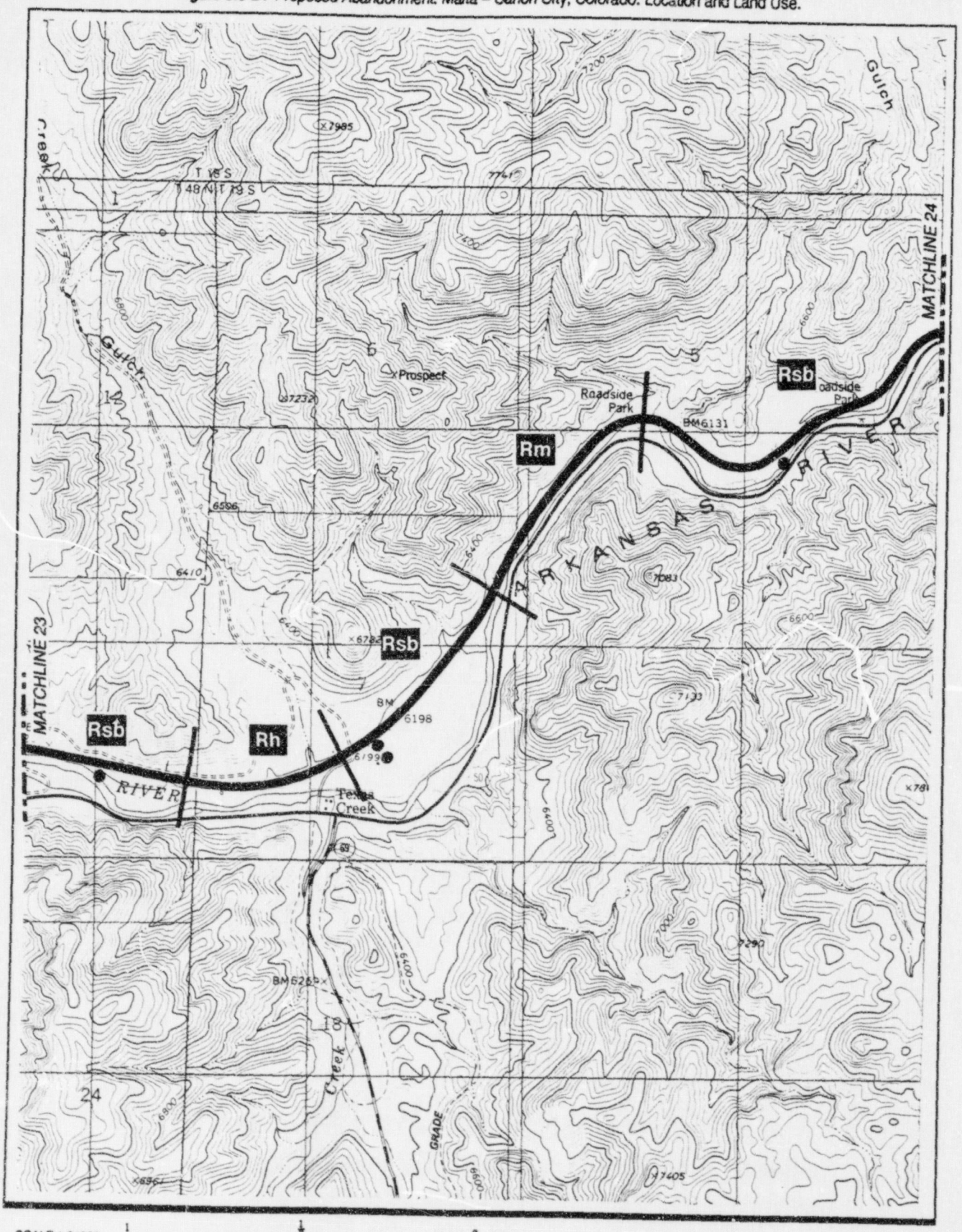
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

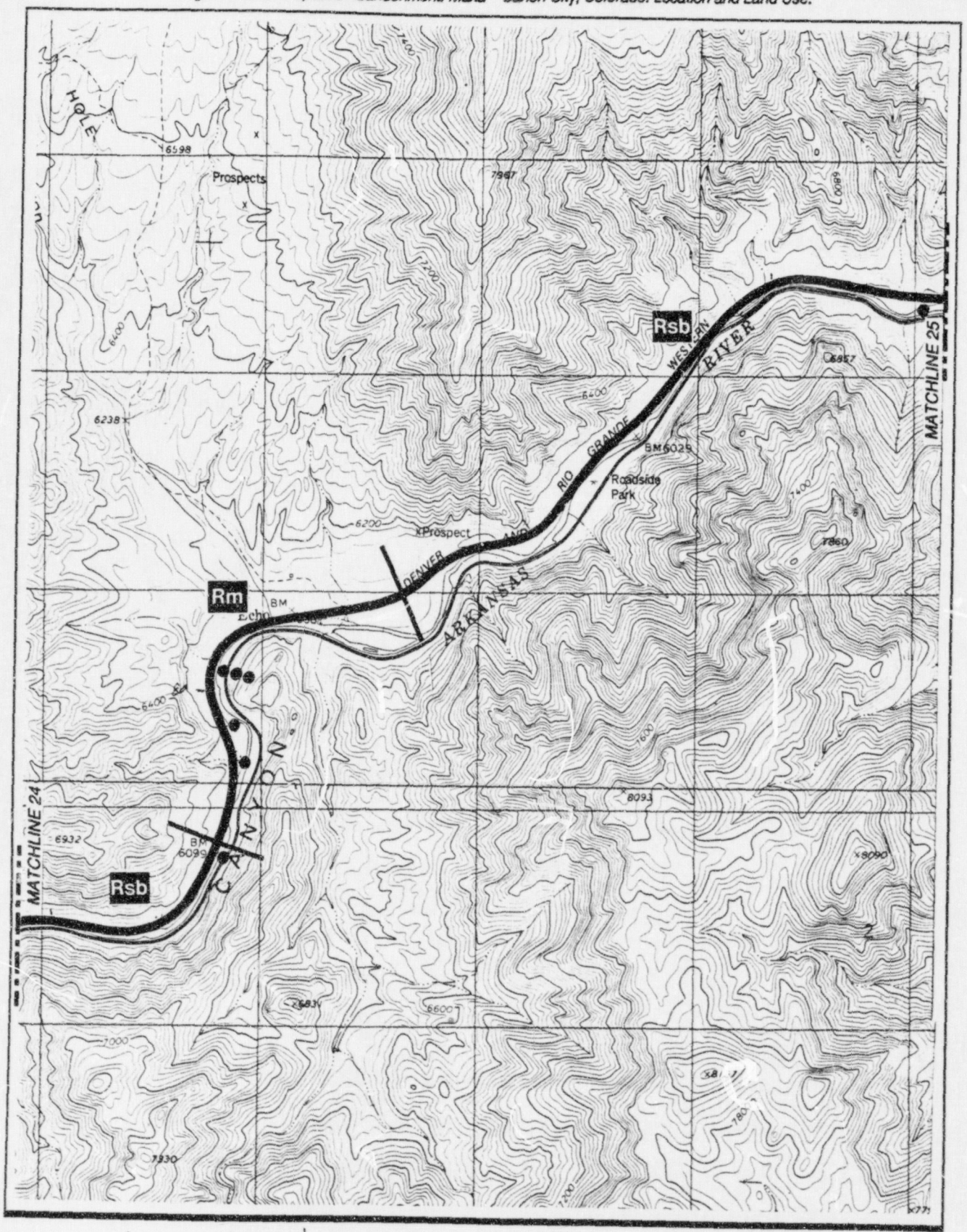
Base Map: *USGS 7.5' Topographic Quadrangles:* Arkansas Mountain, Colorado 1980; Echo, Colorado 1980

Figure 5.3-24 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle:* Echo, Colorado 1980

Figure 5.3-25 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



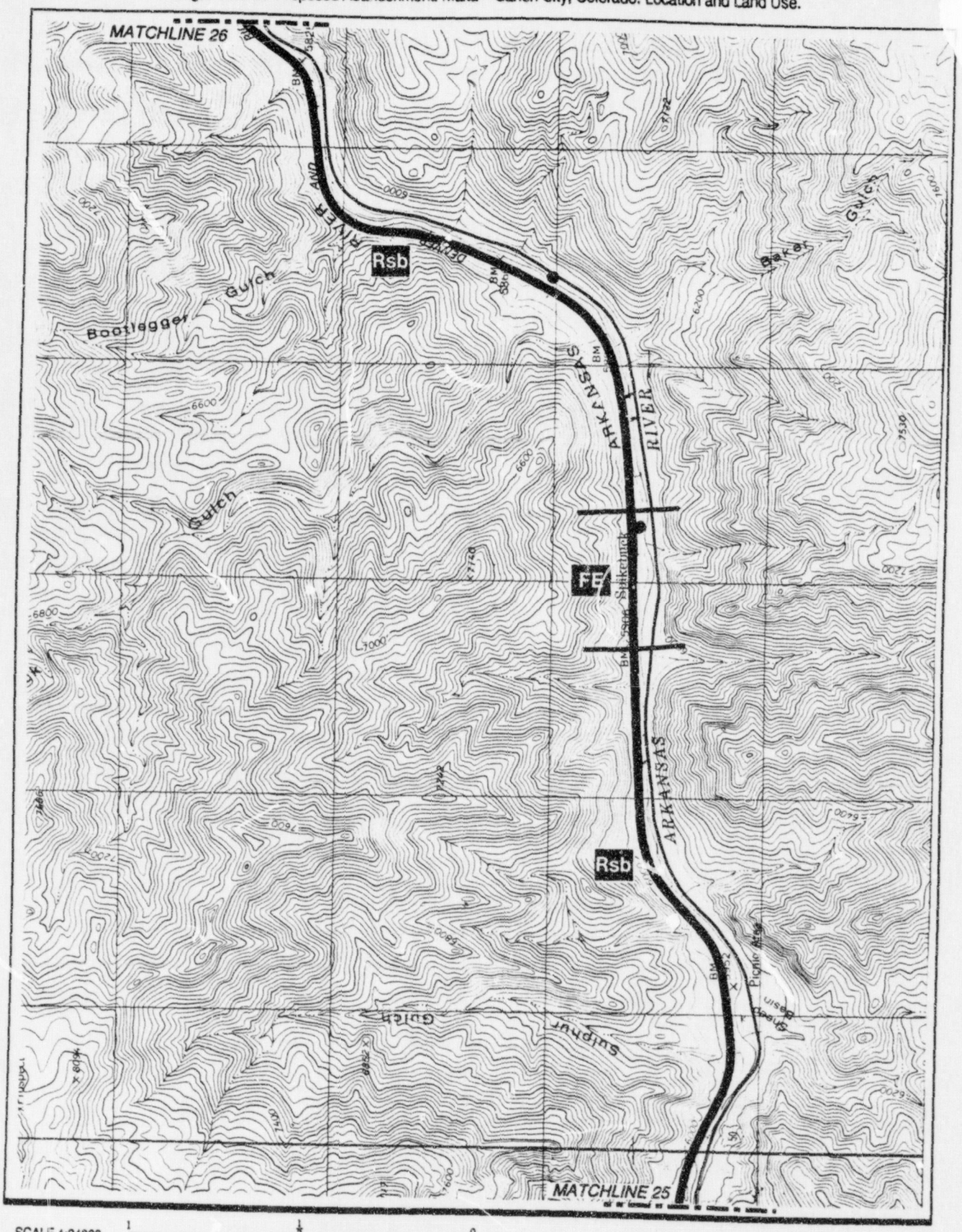
SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

Base Map: *USGS 7.5' Topographic Quadrangle:* Echo, Colorado 1960

Figure 5.3-26 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



SCALE 1:24000

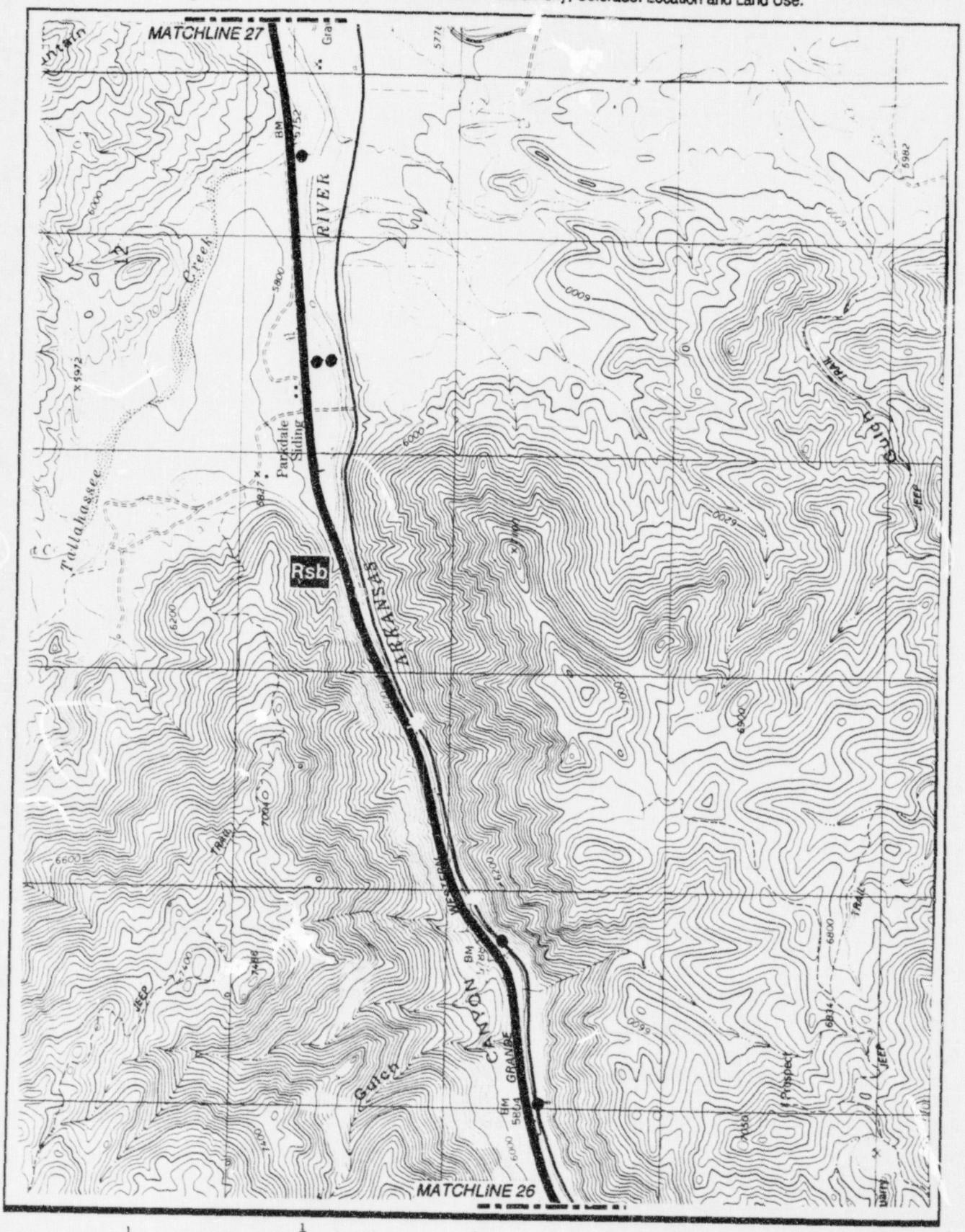
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangles:* Echo, Colorado 1980; McIntyre Hills, Colorado 1980

Figure 5.3-27 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



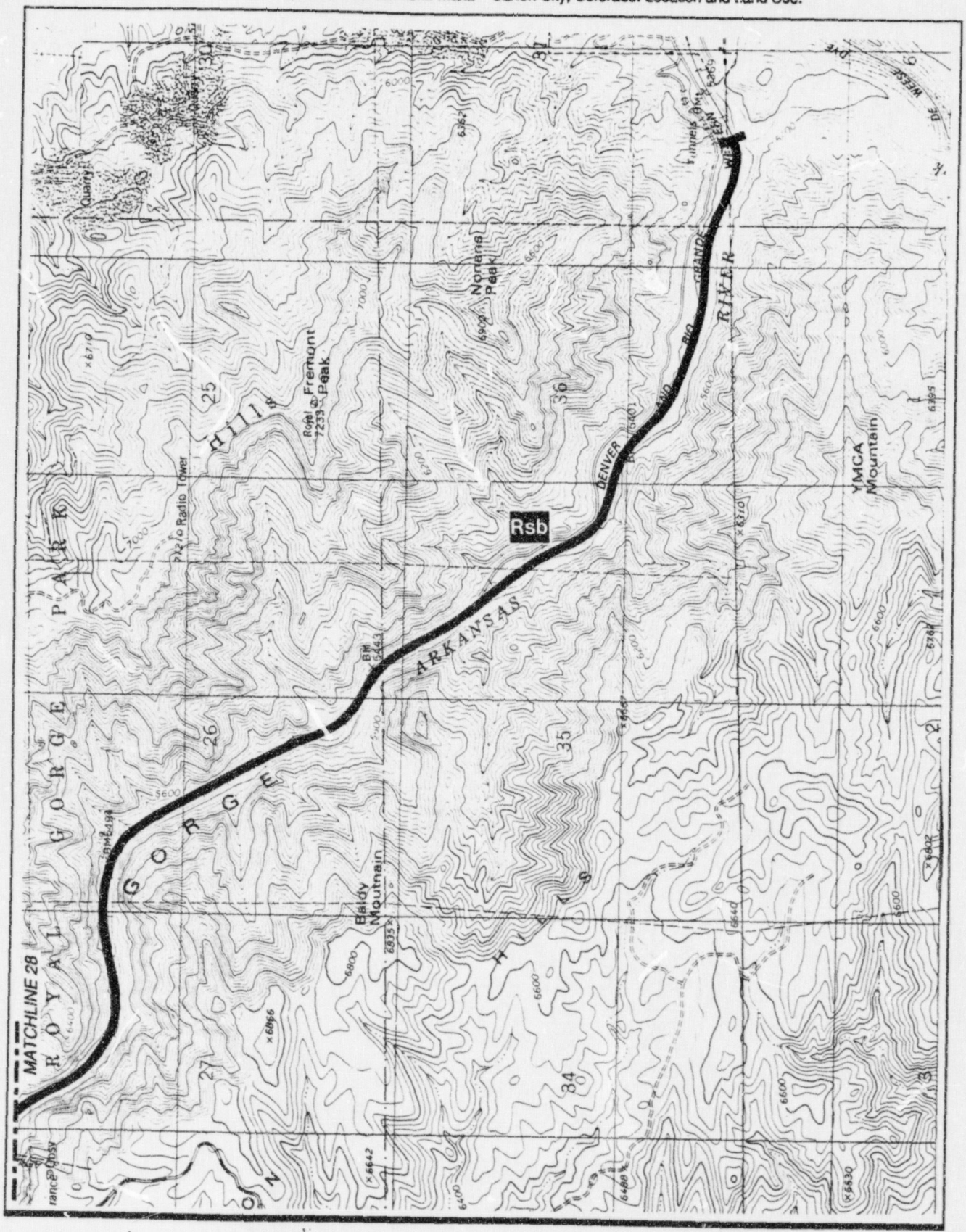
Base Map: *USGS 7.5' Topographic Quadrangle:* McIntyre Hills, Colorado 1980

Figure 5.3-28 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangles:* McIntyre Hills, Colorado 1980; Royal Gorge, Colorado 1980

Figure 5.3-29 Proposed Abandonment: Malta -- Cañon City, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle: Royal Gorge, Colorado 1980*

NWI LEGEND

E — ESTUARINE

1 — SUBTIDAL

RB — ROCK BOTTOM
1 Bedrock
2 Rubble

UB — UNCONSOLIDATED BOTTOM
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic

AB — AQUATIC BED
1 Algal
3 Rooted Vascular
4 Floating Vascular
5 *Unknown Submergent*
6 *Unknown Surface*

RF — REEF
2 Mollusc
3 Worm

OW — *OPEN WATER/ Unknown Bottom*

2 — INTERTIDAL

AB — AQUATIC BED
1 Algal
3 Rooted Vascular
4 Floating Vascular
5 *Unknown Submergent*
6 *Unknown Surface*

RF — REEF
2 Mollusc
3 Worm

SB — STREAMBED
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic

RS — ROCKY SHORE
1 Bedrock
2 Rubble

US — UNCONSOLIDATED SHORE
1 *Cobble-Gravel*
2 Sand
3 Mud
4 Organic

EM — EMERGENT
1 Persistent
2 Nonpersistent

SS — SCRUB-SHRUB
1 Broad-Leaved Deciduous
2 Needle-Leaved Deciduous
3 Broad-Leaved Evergreen
4 Needle-Leaved Evergreen
5 Dead
6 *Deciduous*
7 *Evergreen*

FO — *FORESTED*
1 Broad-Leaved Deciduous
2 Needle-Leaved Deciduous
3 Broad-Leaved Evergreen
4 Needle-Leaved Evergreen
5 Dead
6 *Deciduous*
7 *Evergreen*

L — LACUSTRINE

1 — LIMNETIC

RB — ROCK BOTTOM
1 Bedrock
2 Rubble

UB — UNCONSOLIDATED BOTTOM
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic

AB — AQUATIC BED
1 Algal
2 Aquatic Moss
3 Rooted Vascular
4 Floating Vascular
5 *Unknown Submergent*
6 *Unknown Surface*

OW — *OPEN WATER/ Unknown Bottom*

2 — LITTORAL

RB — *ROCK BOTTOM*
1 Bedrock
2 Rubble

UB — UNCONSOLIDATED BOTTOM
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic

AB — AQUATIC BED
1 Algal
2 Aquatic Moss
3 Rooted Vascular
4 Floating Vascular
5 *Unknown Submergent*
6 *Unknown Surface*

RS — ROCKY SHORE
1 Bedrock
2 Rubble

US — UNCONSOLIDATED SHORE
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic
5 Vegetated

EM — EMERGENT
2 Nonpersistent

OW — *OPEN WATER/ Unknown Bottom*

MODIFIERS

In order to more adequately describe wetland and deepwater habitats one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.

WATER REGIME

Non-Tidal

A Temporarily Flooded
B Saturated
C Seasonally Flooded
D *Seasonally Flooded/ Well Drained*
E *Seasonally Flooded/ Saturated*
F Semipermanently Flooded
G Intermittently Exposed
H Permanently Flooded
J Intermittently Flooded
K Artificially Flooded
W Intermittently Flooded/Temporary
Y Saturated/Semipermanent/ Seasonal
Z Intermittently Exposed/Permanent
U *Unknown*

Tidal

K *Artificially Flooded*
L Subtidal
M Irregularly Exposed
N Regularly Flooded
P Irregularly Flooded
*S Temporary-Tidal
*R Seasonal-Tidal
*T Semipermanent-Tidal
*V Permanent-Tidal
U *Unknown*

*These water regimes are only used in tidally influenced, freshwater systems.

WATER CHEMISTRY

Coastal Halinity
1 Hyperhaline
2 Euhaline
3 Mixohaline *(Brackish)*
4 Polyhaline
5 Mesohaline
6 Oligohaline
0 Fresh

Inland Salinity
7 Hypersaline
8 Eusaline
9 Mixosaline
0 Fresh

pH Modifiers for all Fresh Water
a Acid
b Circumneutral
i Alkaline

SOIL

g Organic
n Mineral

SPECIAL MODIFIERS

h *Beaver*
d *Partially Drained/Ditched*
f Farmed
h *Diked/Impounded*
r Artificial Substrate
s *Spoil*
x Excavated

Instructions for using the legend:

The NWI inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral." The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

NWI LEGEND

SYSTEM — **M — MARINE**

SUBSYSTEM — **1 — SUBTIDAL** | **2 — INTERTIDAL**

CLASS	Subclass
RB — ROCK BOTTOM	1 Bedrock 2 Rubble
UB — UNCONSOLIDATED BOTTOM	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic
AB — AQUATIC BED	1 Algal 3 Rooted Vascular 5 *Unknown Submergent*
RF — REEF	1 Coral 3 Worm
OW — *OPEN WATER/ Unknown Bottom*	
AB — AQUATIC BED	1 Algal 3 Rooted Vascular 5 *Unknown Submergent*
RF — REEF	1 Coral 3 Worm
RS — ROCKY SHORE	1 Bedrock 2 Rubble
US — UNCONSOLIDATED SHORE	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic

SYSTEM — **R — RIVERINE**

SUBSYSTEM — **1 — TIDAL** | **2 — LOWER PERENNIAL** | **3 — UPPER PERENNIAL** | **4 — INTERMITTENT** | **5 — *UNKNOWN PERENNIAL***

CLASS	Subclass
RB — ROCK BOTTOM	1 Bedrock 2 Rubble
UB — UNCONSOLIDATED BOTTOM	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic
*SB — STREAMBED	1 Bedrock 2 Rubble 3 Cobble-Gravel 4 Sand 5 Mud 6 Organic 7 Vegetated
AB — AQUATIC BED	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 *Unknown Submergent* 6 *Unknown Surface*
RS — ROCKY SHORE	1 Bedrock 2 Rubble
US — UNCONSOLIDATED SHORE	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated
**EM — EMERGENT	2 Nonpersistent
OW — *OPEN WATER/ Unknown Bottom*	

*STREAMBED is limited to TIDAL and INTERMITTENT SUBSYSTEMS, and comprises the only CLASS in the INTERMITTENT SUBSYSTEM
**EMERGENT is limited to TIDAL and LOWER PERENNIAL SUBSYSTEMS

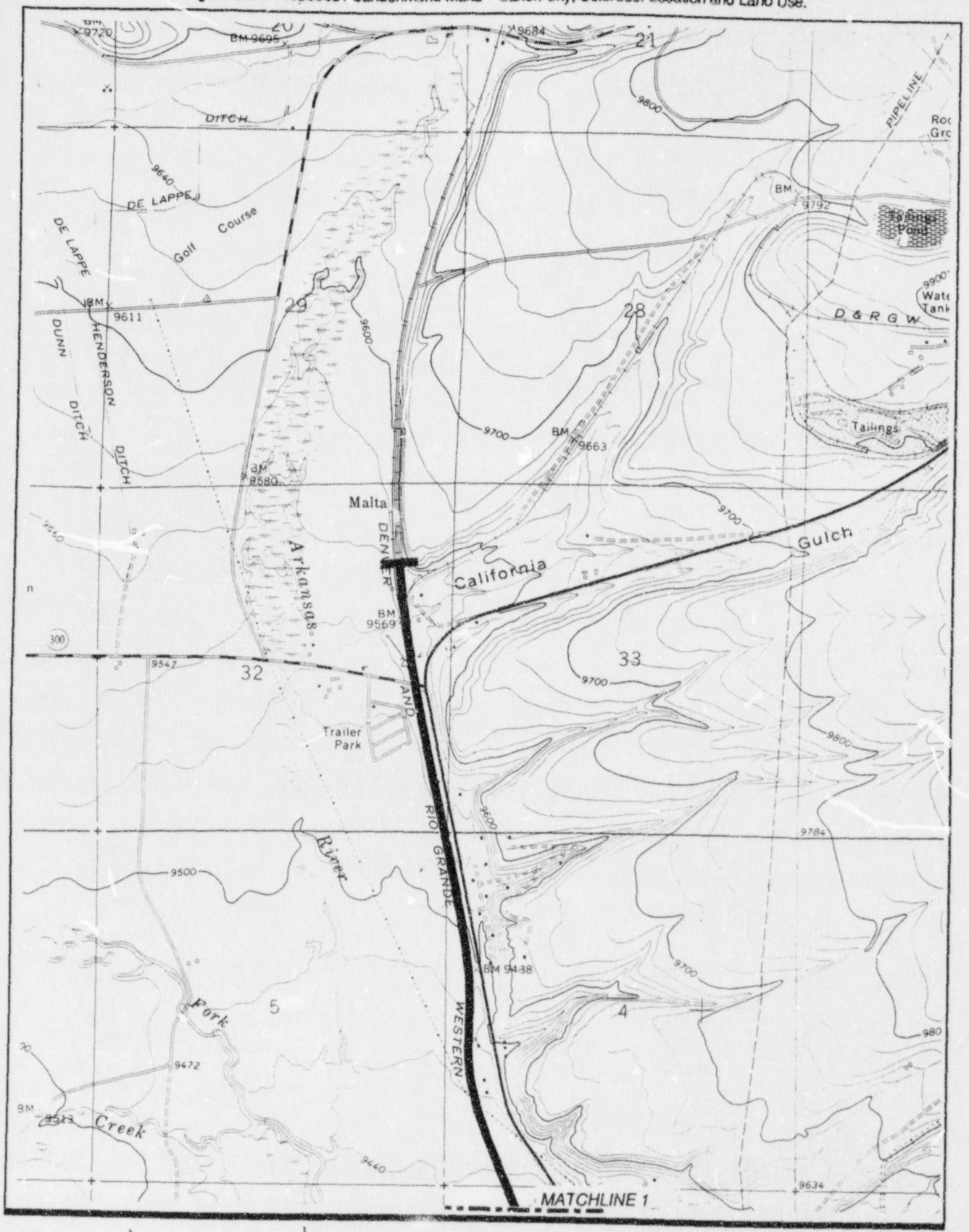
SYSTEM — **P — PALUSTRINE**

CLASS	Subclass
RB — ROCK BOTTOM	1 Bedrock 2 Rubble
UB — UNCONSOLIDATED BOTTOM	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic
AB — AQUATIC BED	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 *Unknown Submergent* 6 *Unknown Surface*
US — UNCONSOLIDATED SHORE	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated
ML — MOSS LICHEN	1 Moss 2 Lichen
EM — EMERGENT	1 Persistent 2 Nonpersistent
SS — SCRUB-SHRUB	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 *Deciduous* 7 *Evergreen*
FO — FORESTED	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 *Deciduous* 7 *Evergreen*
OW — *OPEN WATER/ Unknown Bottom*	

Instructions for using the legend:

The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral." The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

Figure 5.3-1 Proposed Abandonment: Malta – Cañon City, Colorado. Location and Land Use.



SCALE 1:24000

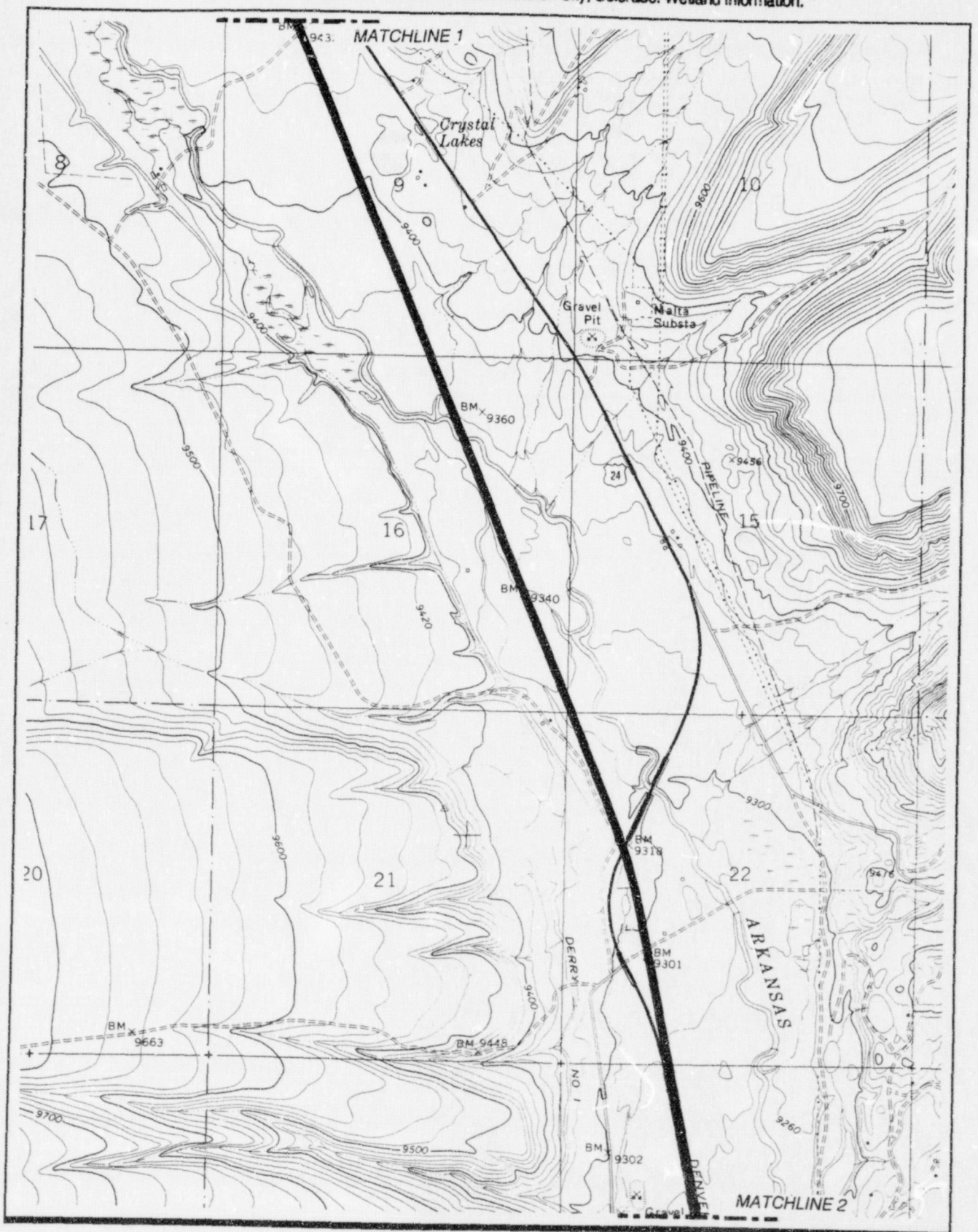
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangle:* Leadville South, Colorado 1969

Figure 5.4-2 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



SCALE 1:24000

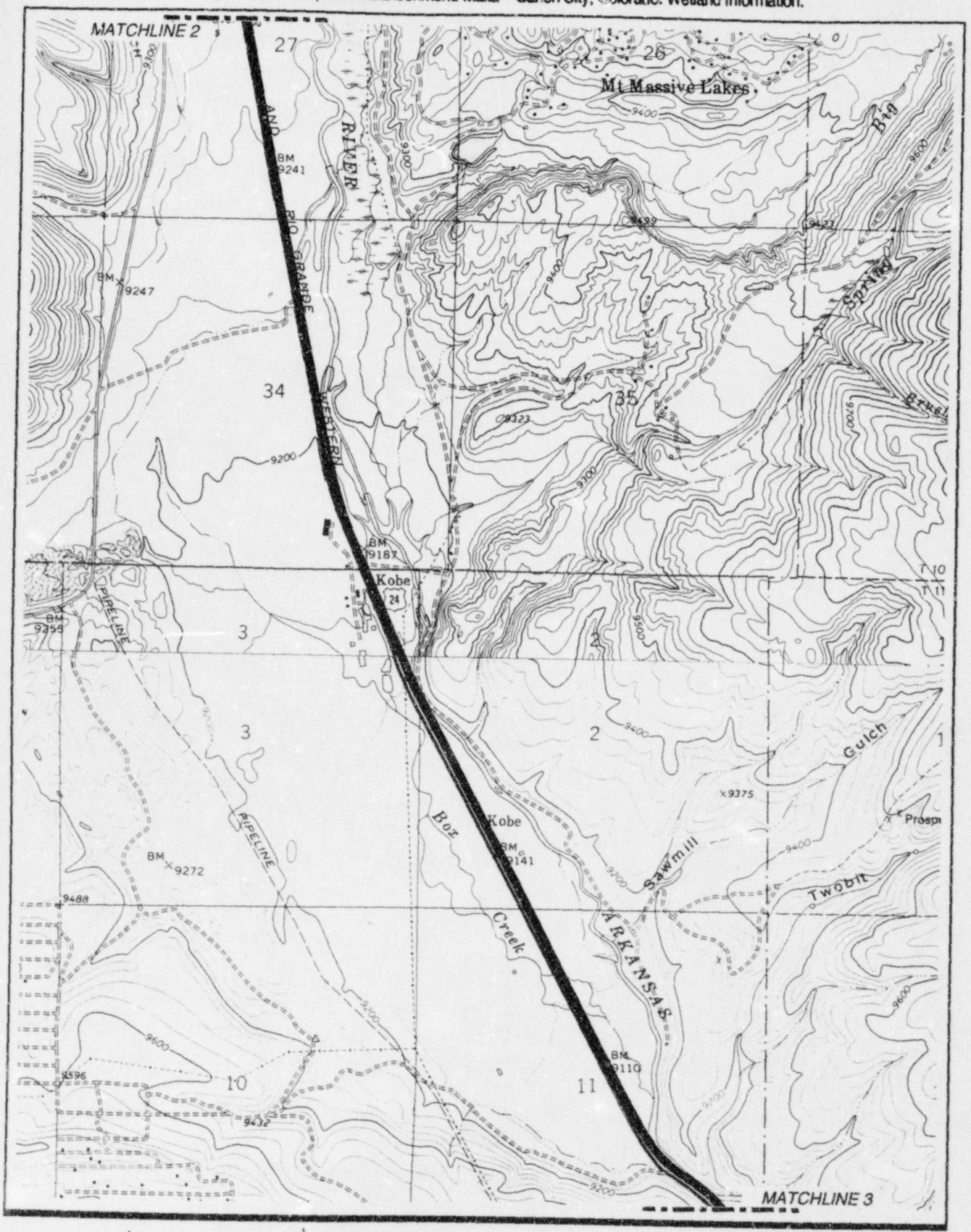
1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

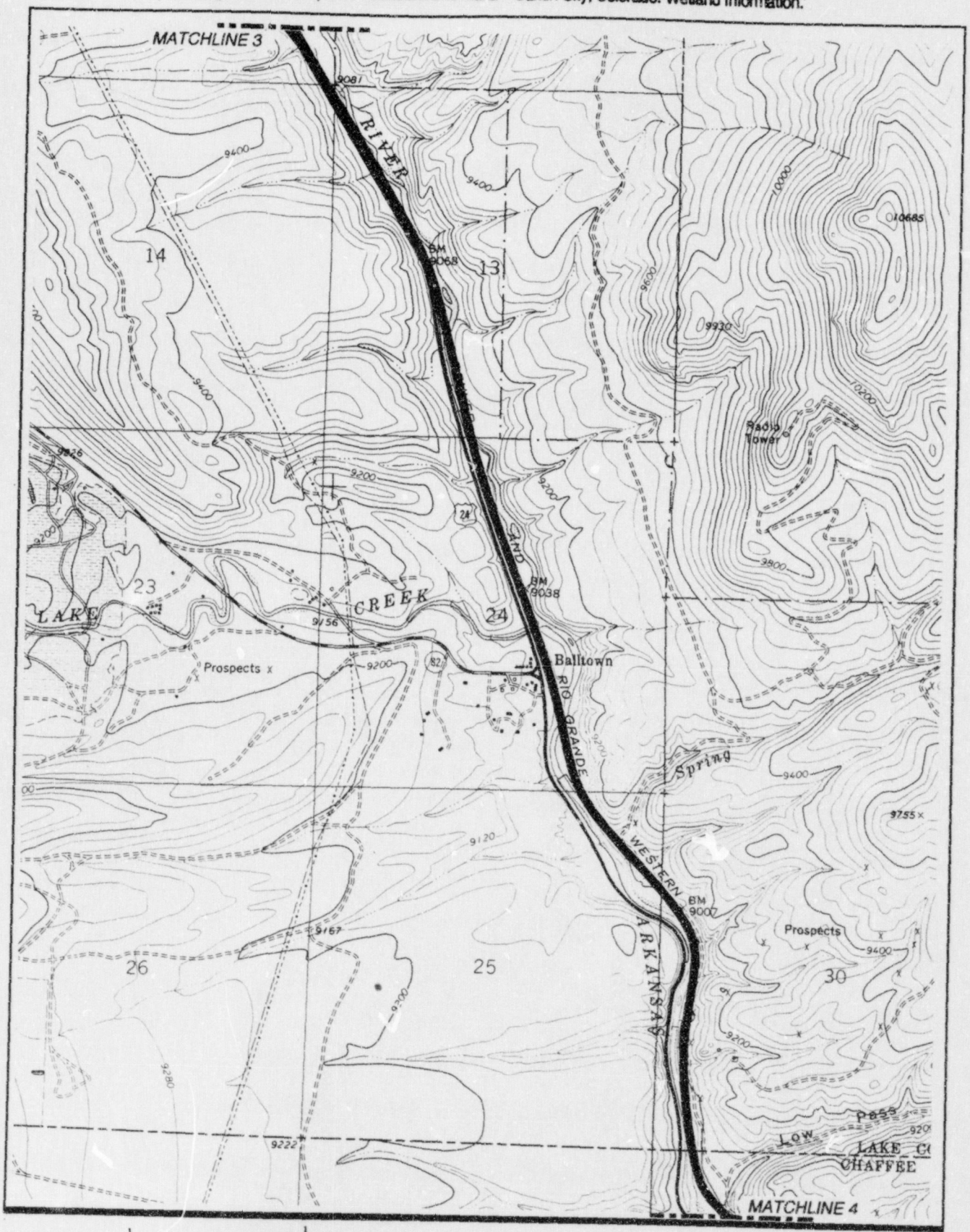
Base Map: *USGS 7.5' Topographic Quadrangle:* Leadville South, Colorado 1969

Figure 5.4-3 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangles:* Leadville South, Colorado 1969; Granite, Colorado 1967 (Photorevised 1982)

Figure 5.4-4 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



SCALE 1:24000

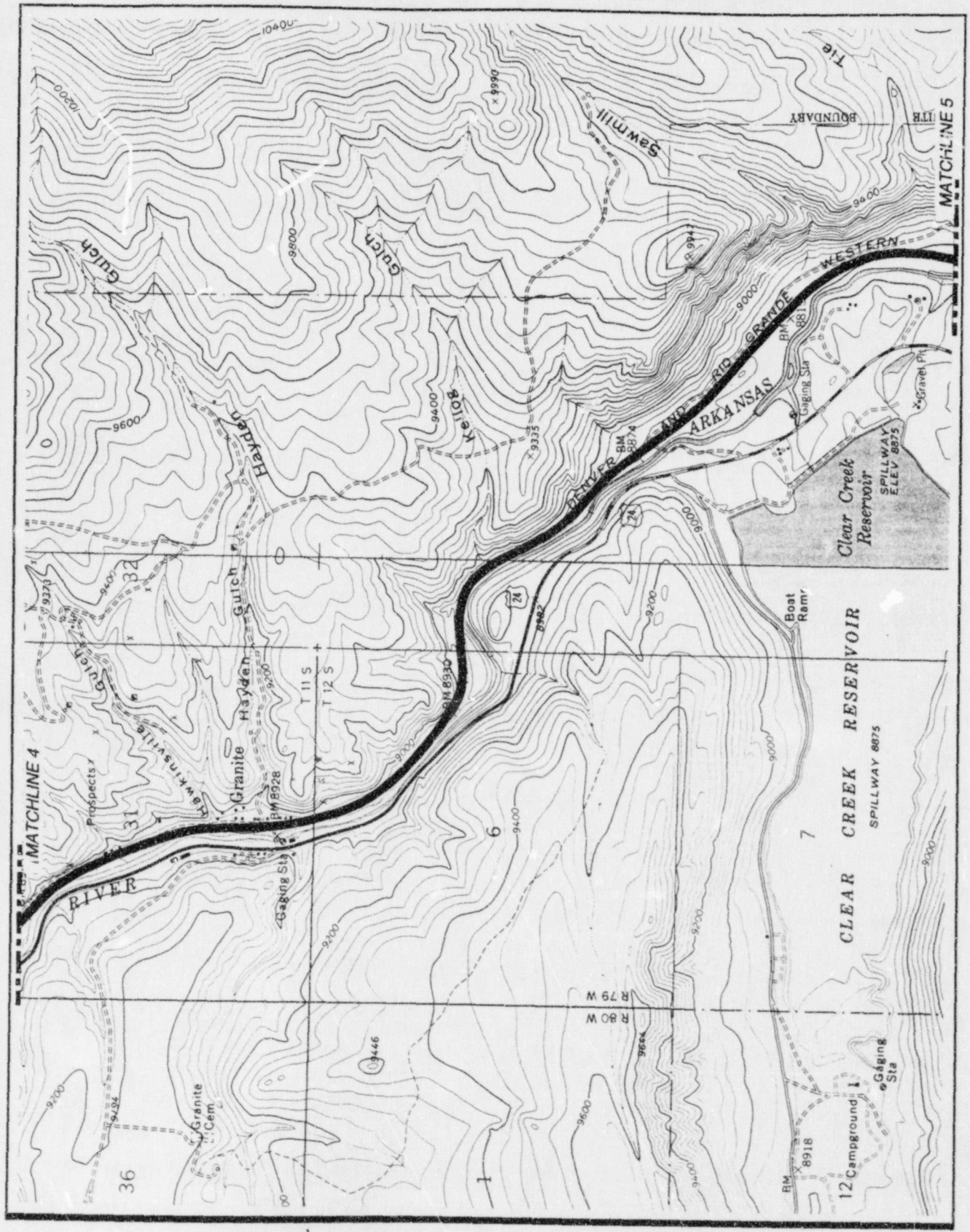
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

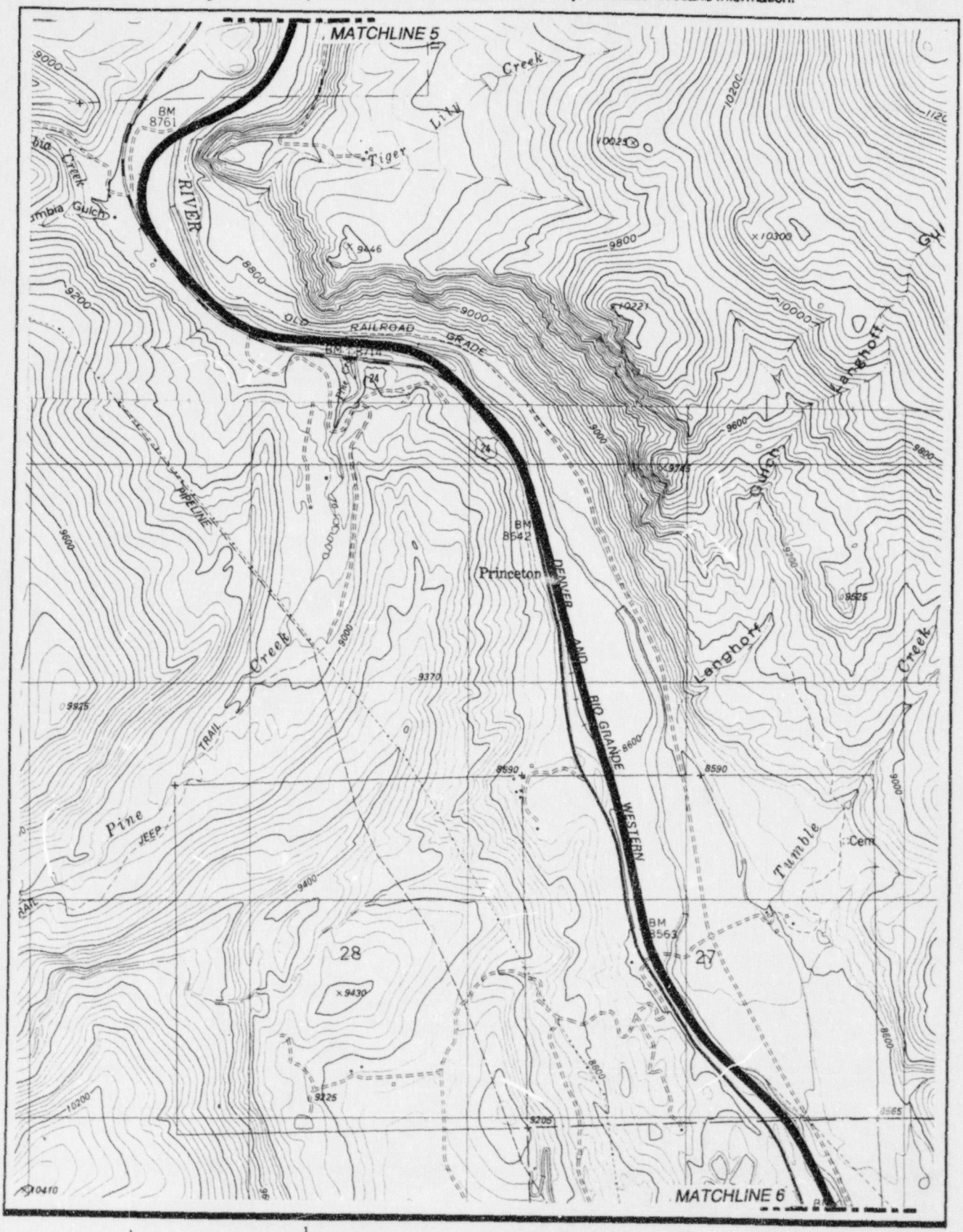
Base Map: *USGS 7.5' Topographic Quadrangle:* Granite, Colorado 1967 (Photorevised 1982)

Figure 5.4-5 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



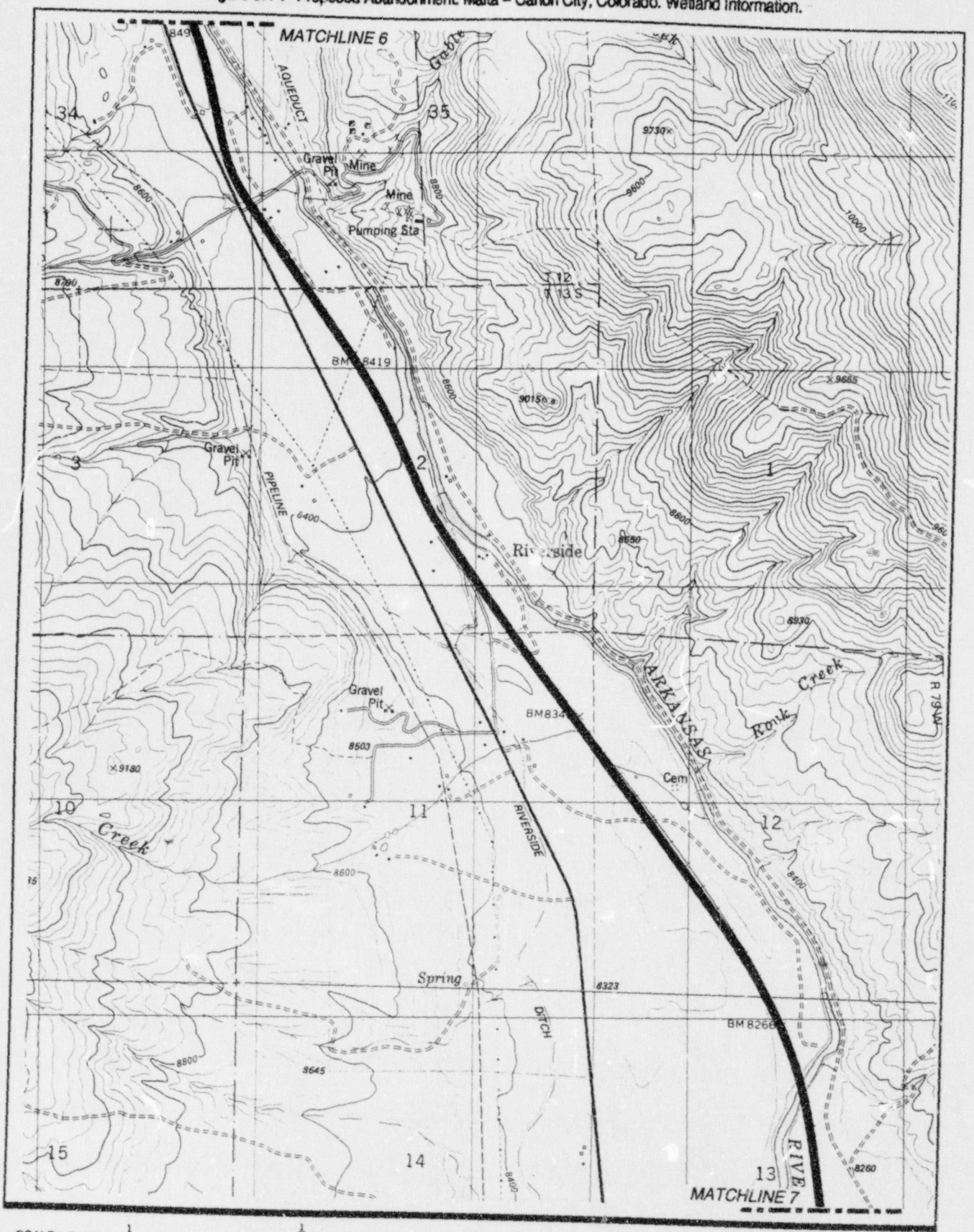
Base Map: *USGS 7.5' Topographic Quadrangles:* Granite, Colorado 1967 (Photorevised 1982), South Peak, Colorado 1961 (Photoinspected 1979)

Figure 5.4-6 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



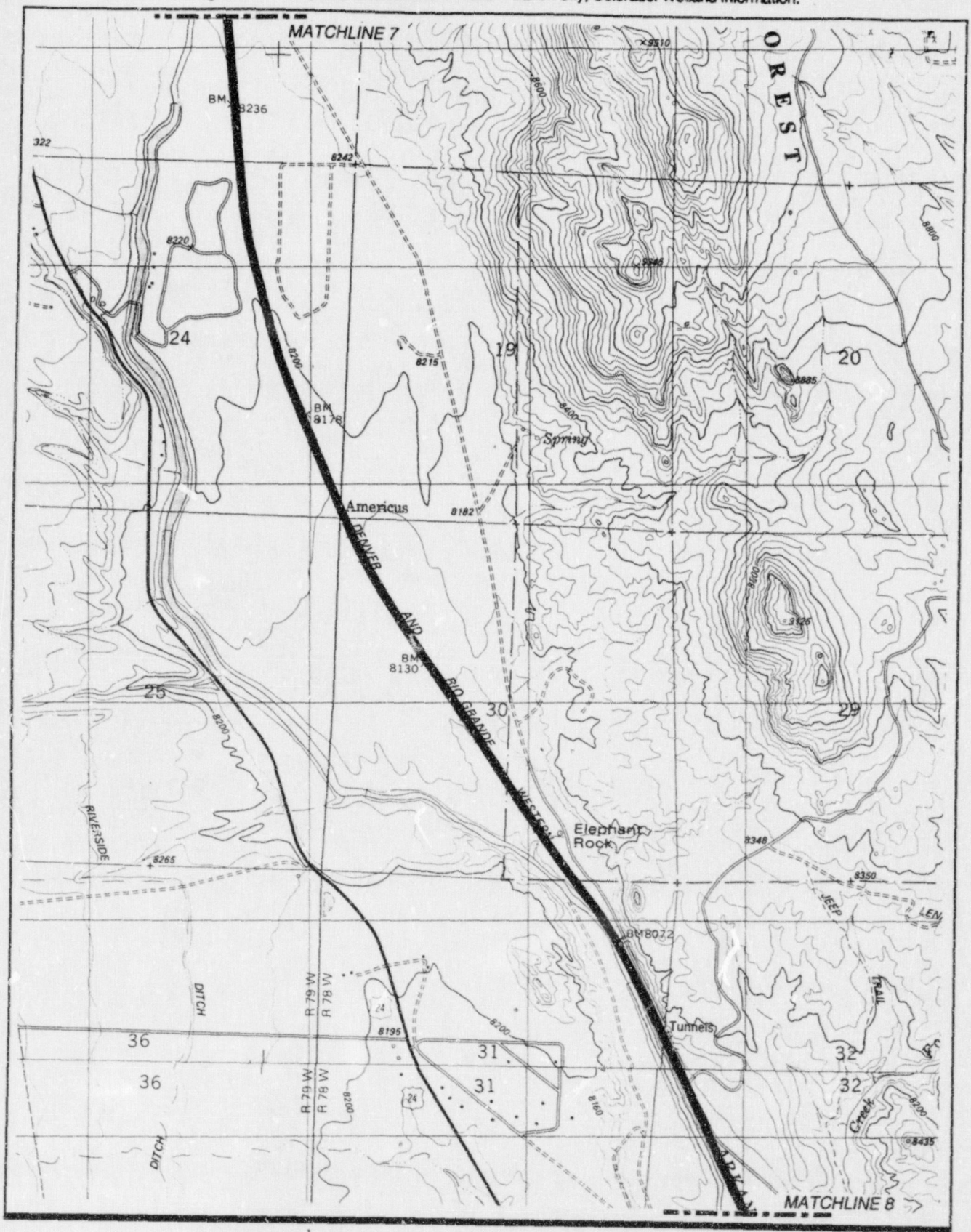
Base Map: *USGS 7.5' Topographic Quadrangles:* South Peak, Colorado 1961 (Photoinspected 1979); Harvard Lakes, Colorado 1982

Figure 5.4 7 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangle:* Harvard Lakes, Colorado 1982

Figure 5.4-8 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



SCALE 1:24000

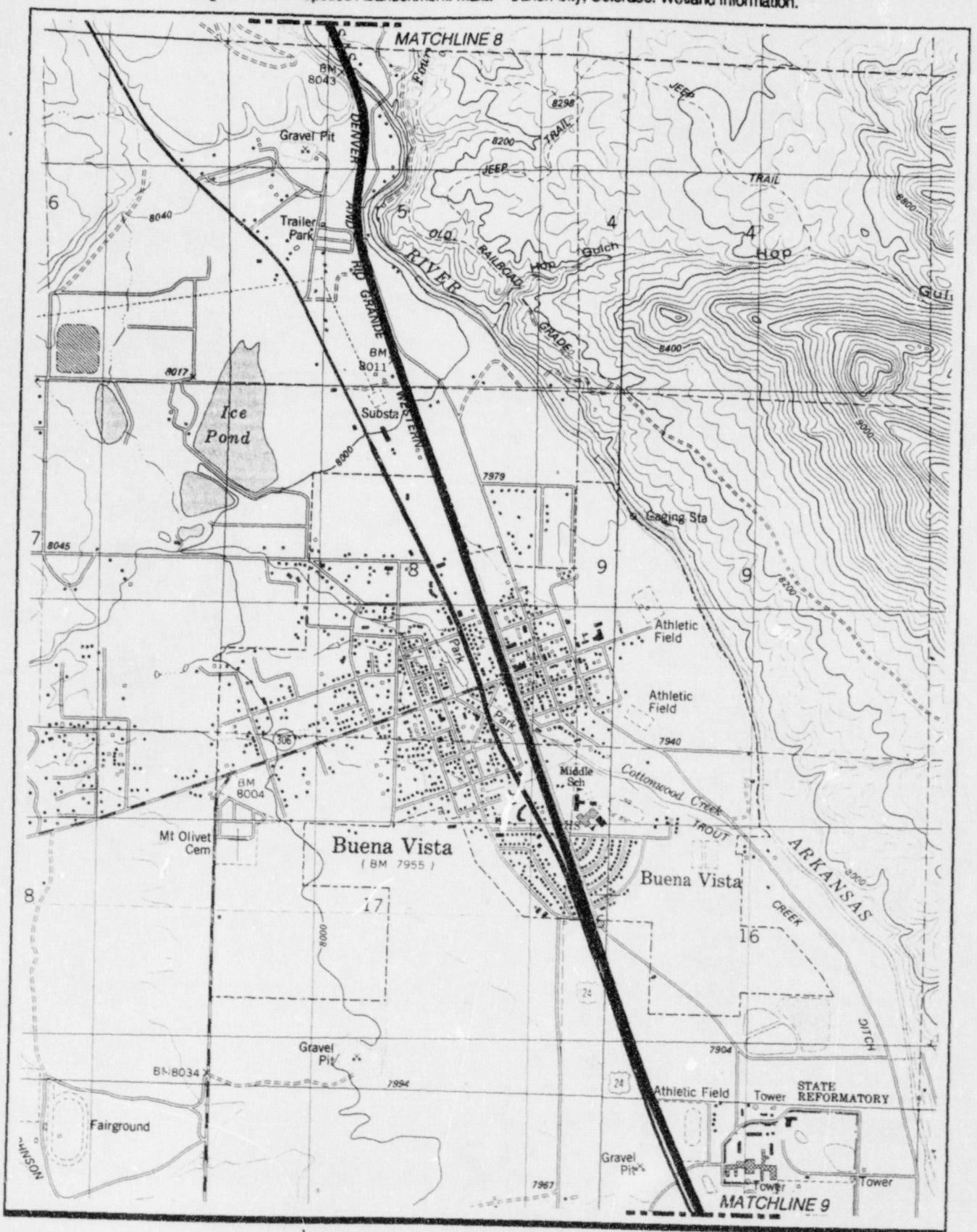
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangles:* Harvard Lakes, Colorado 1982; Buena Vista West, Colorado 1982

Figure 5.4-9 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



SCALE 1:24000

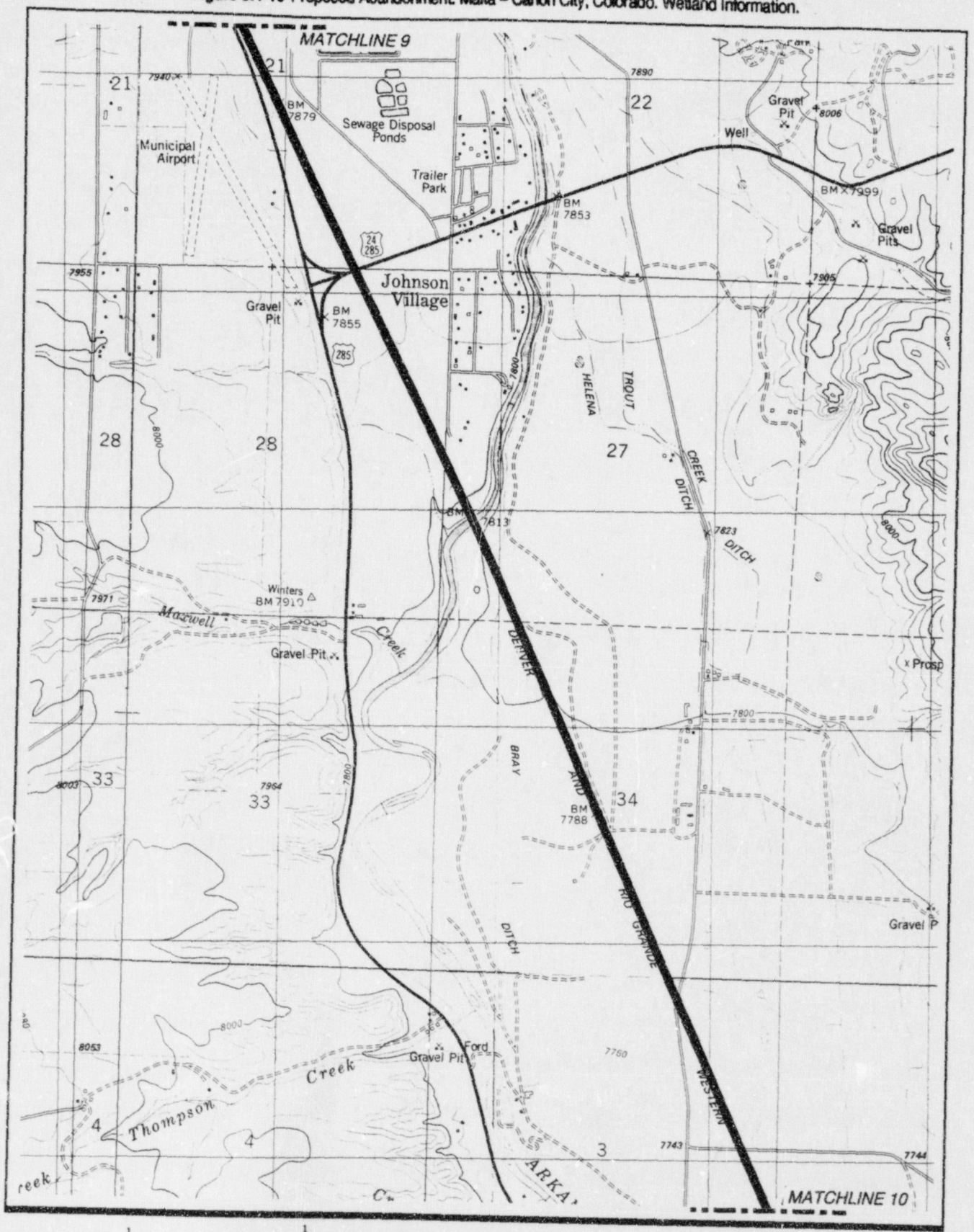
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

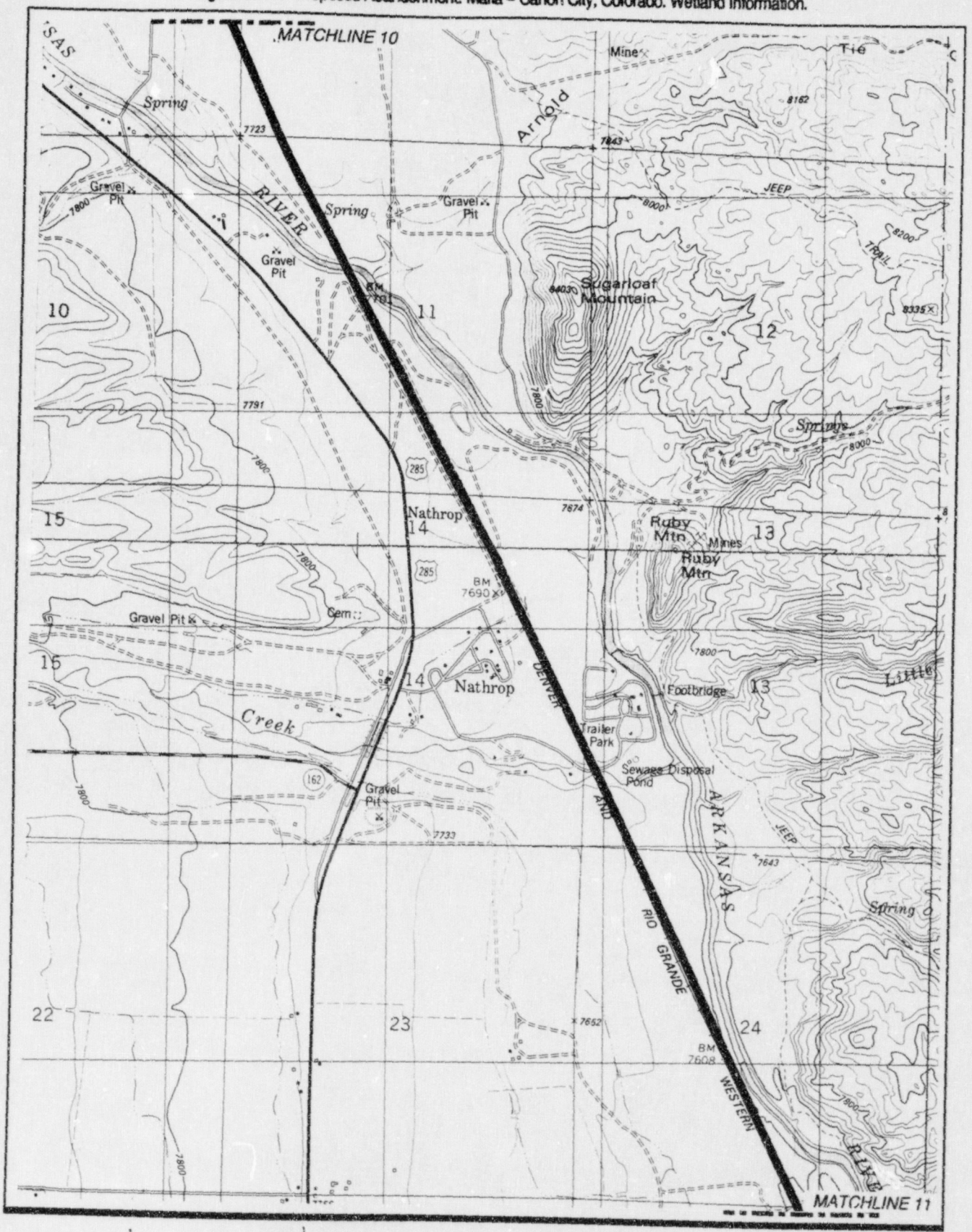
Base Map: *USGS 7.5' Topographic Quadrangles:* Buena Vista West, Colorado 1982; Buena Vista East, Colorado 1983

Figure 5.4-10 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangles:* Buena Vista West, Colorado 1982; Buena Vista East, Colorado 1983

Figure 5.4-11 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



SCALE 1:24000

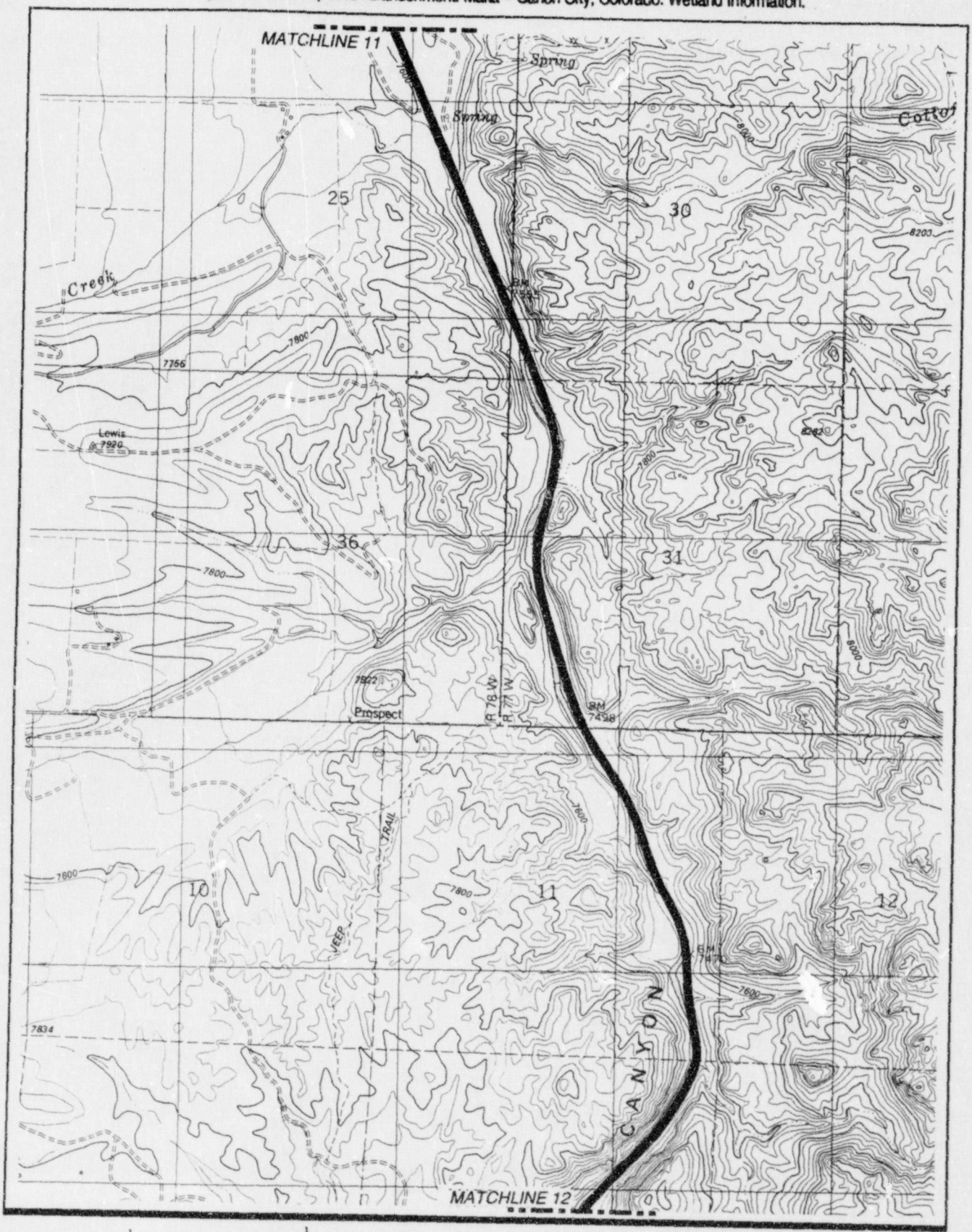
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

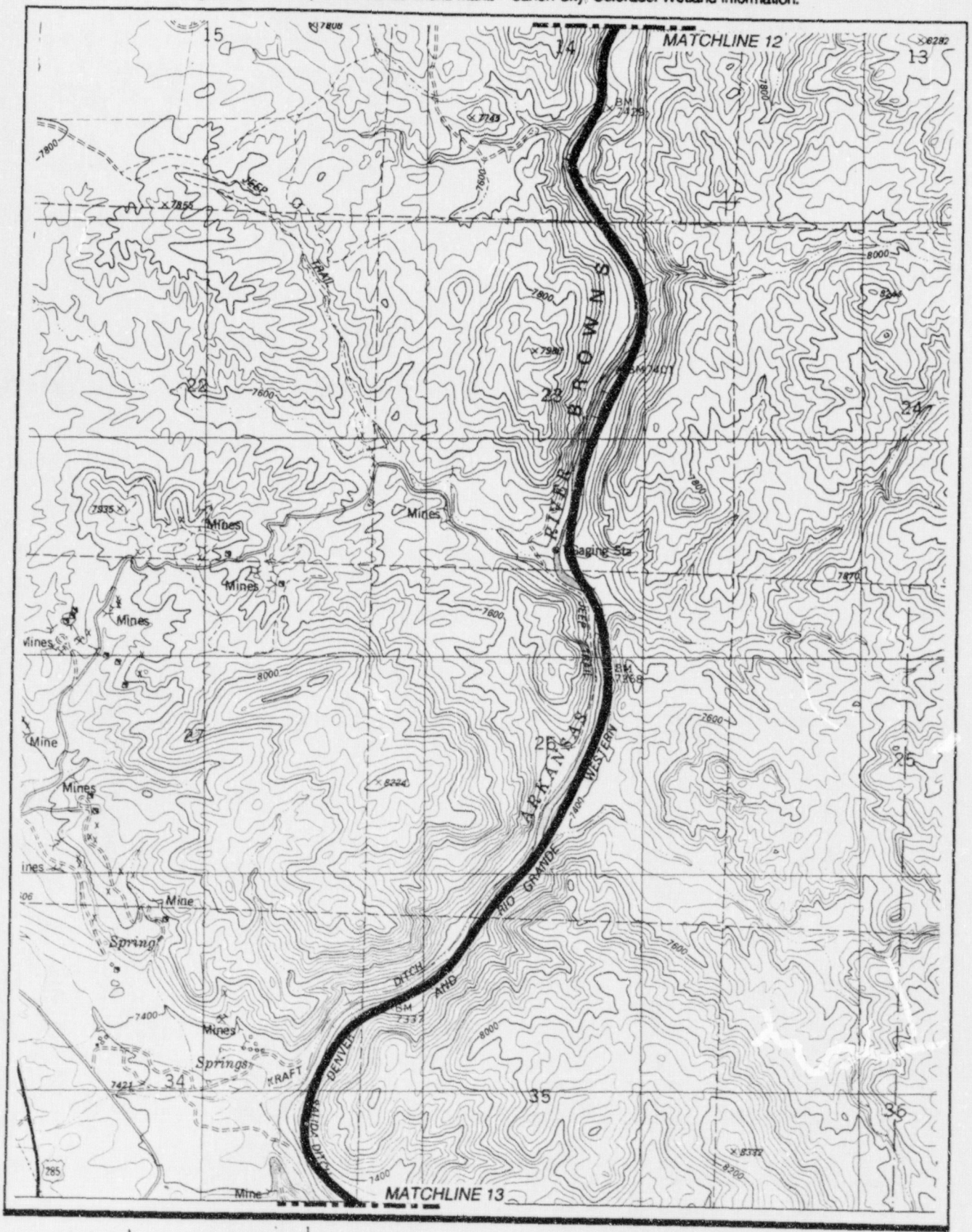
Base Map: *USGS 7.5' Topographic Quadrangles:* Buena Vista East, Colorado 1983; Nathrop, Colorado 1983

Figure 5.4-12 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangle:* Nathrop, Colorado 1983

Figure 5.4-13 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



SCALE 1:24000

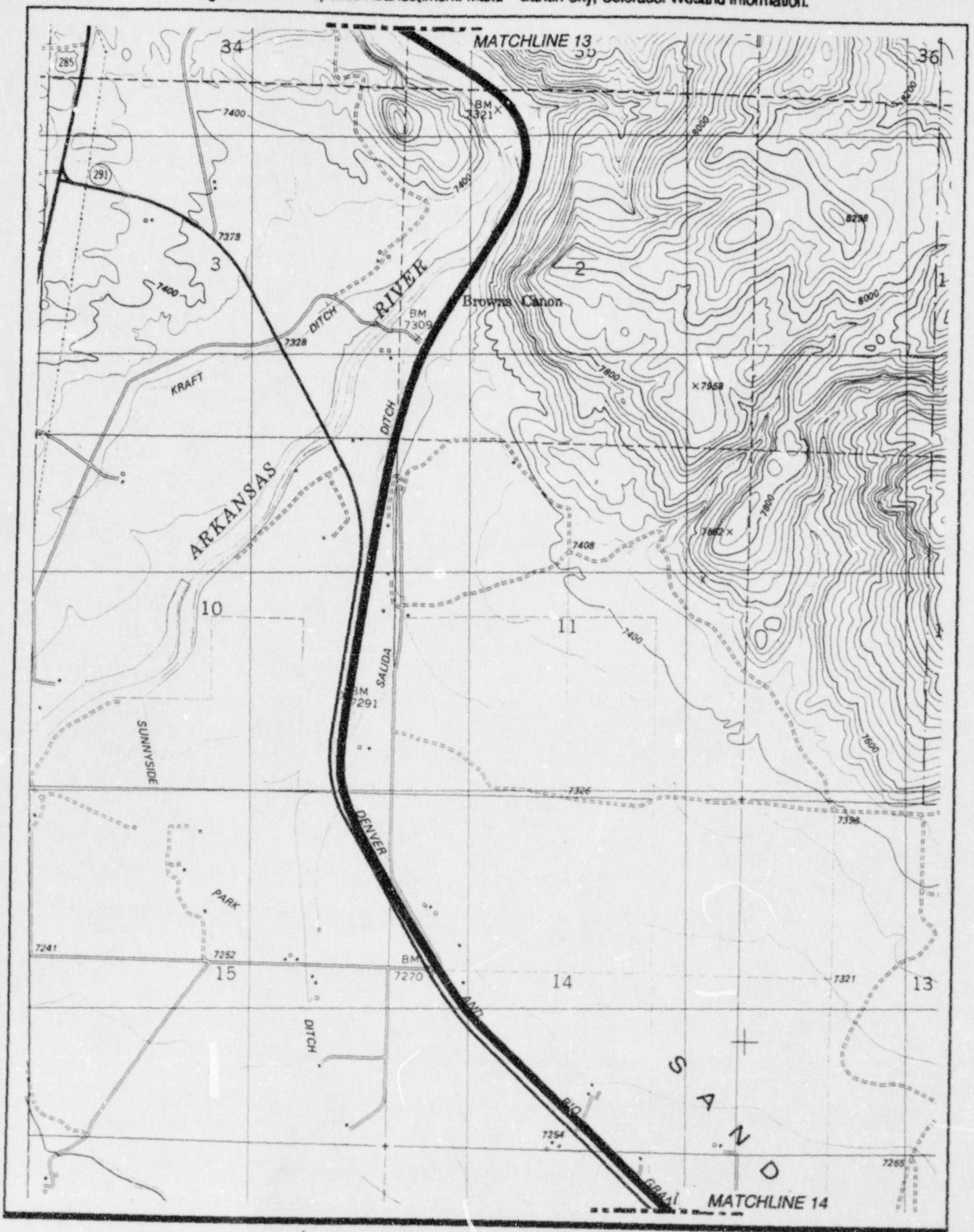
1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangle:* Nathrop, Colorado 1983

Figure 5.4-14 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



SCALE 1:24000

1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangle: Salida West, Colorado 1983*

Figure 5.4-15 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.

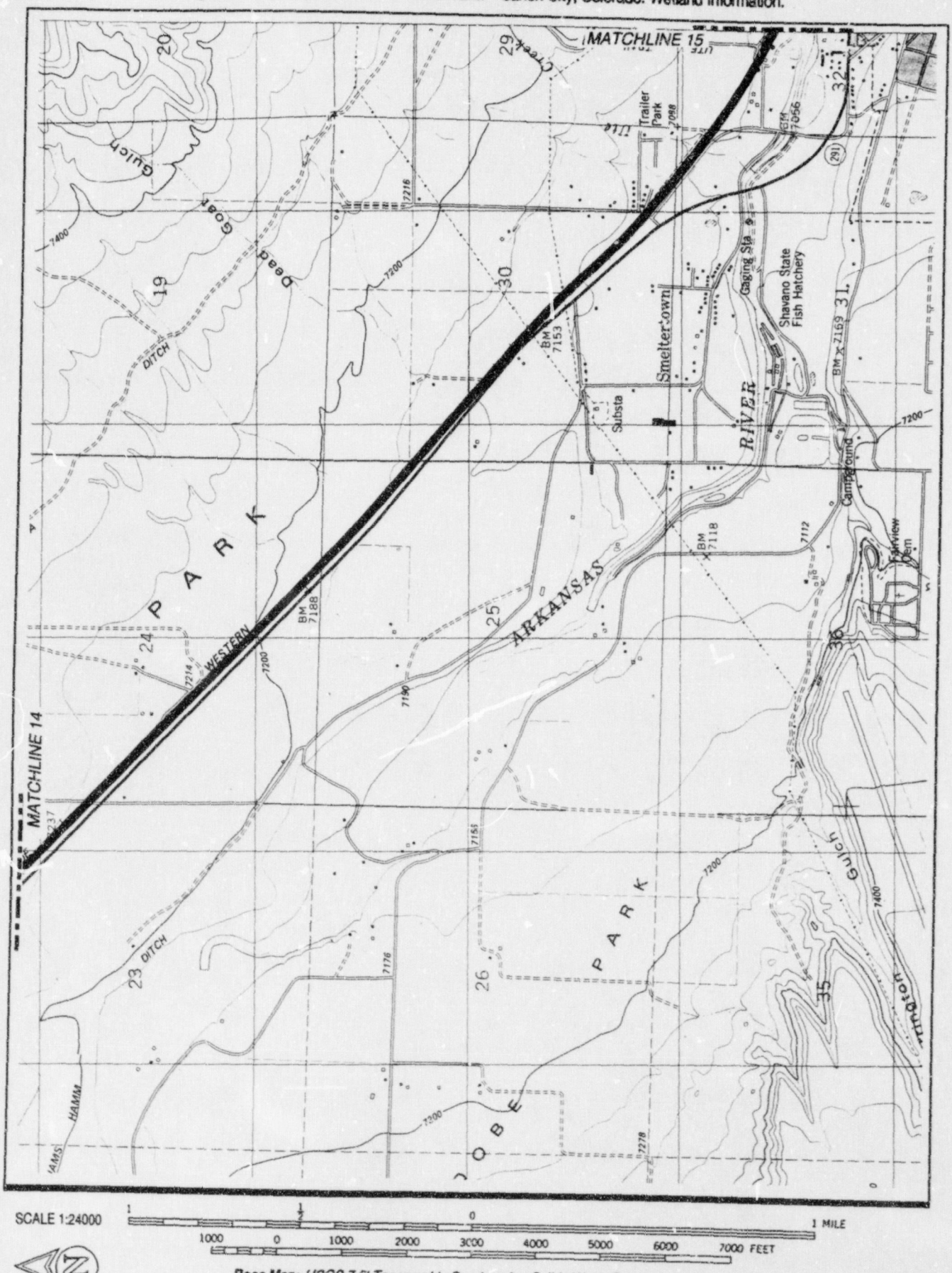
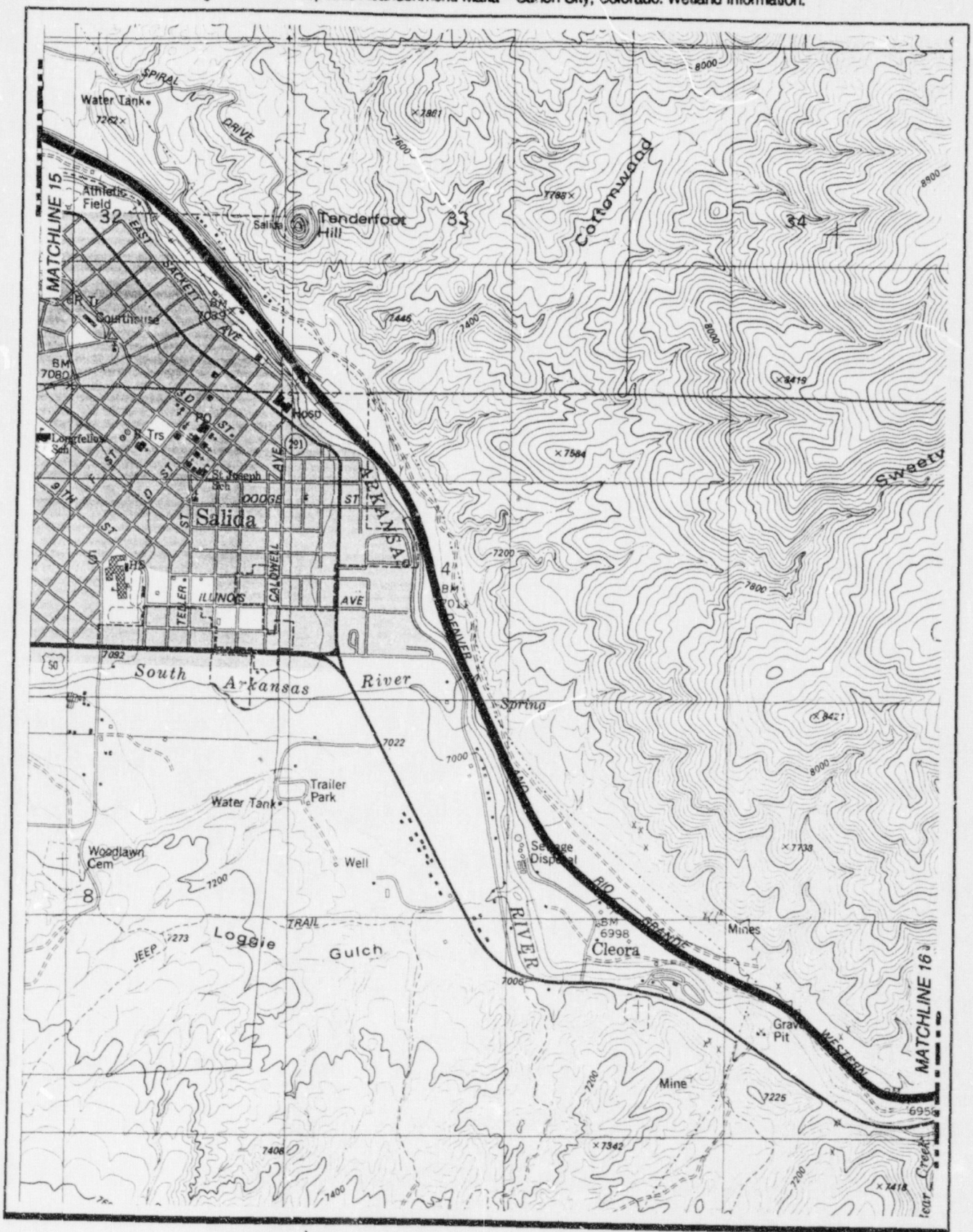
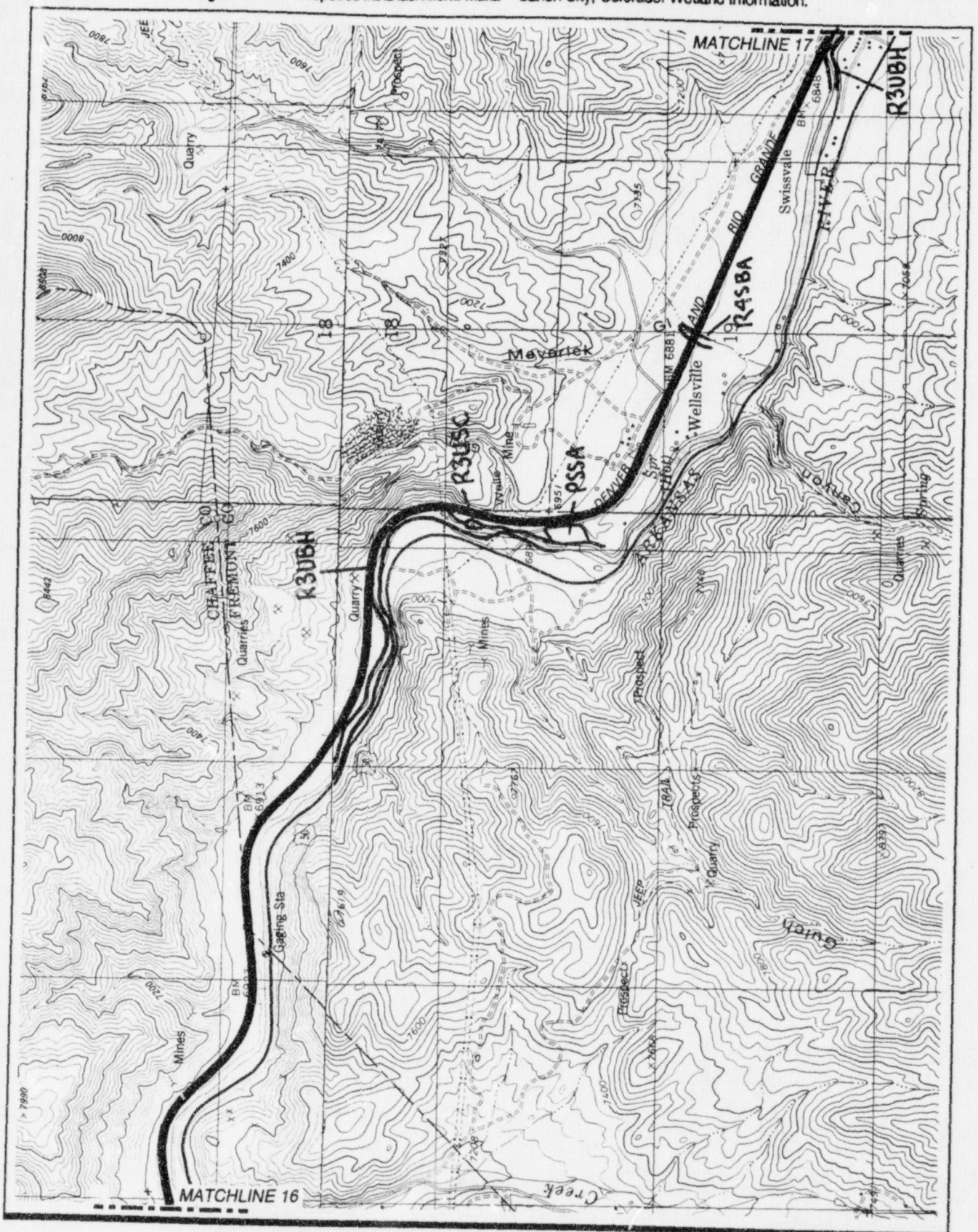


Figure 5.4-16 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangle: Salida East Colorado 1983*

Figure 5.4-17 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangles: Salida East Colorado 1983;* Wellsville. Colorado 1980

Figure 5.4-18 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.

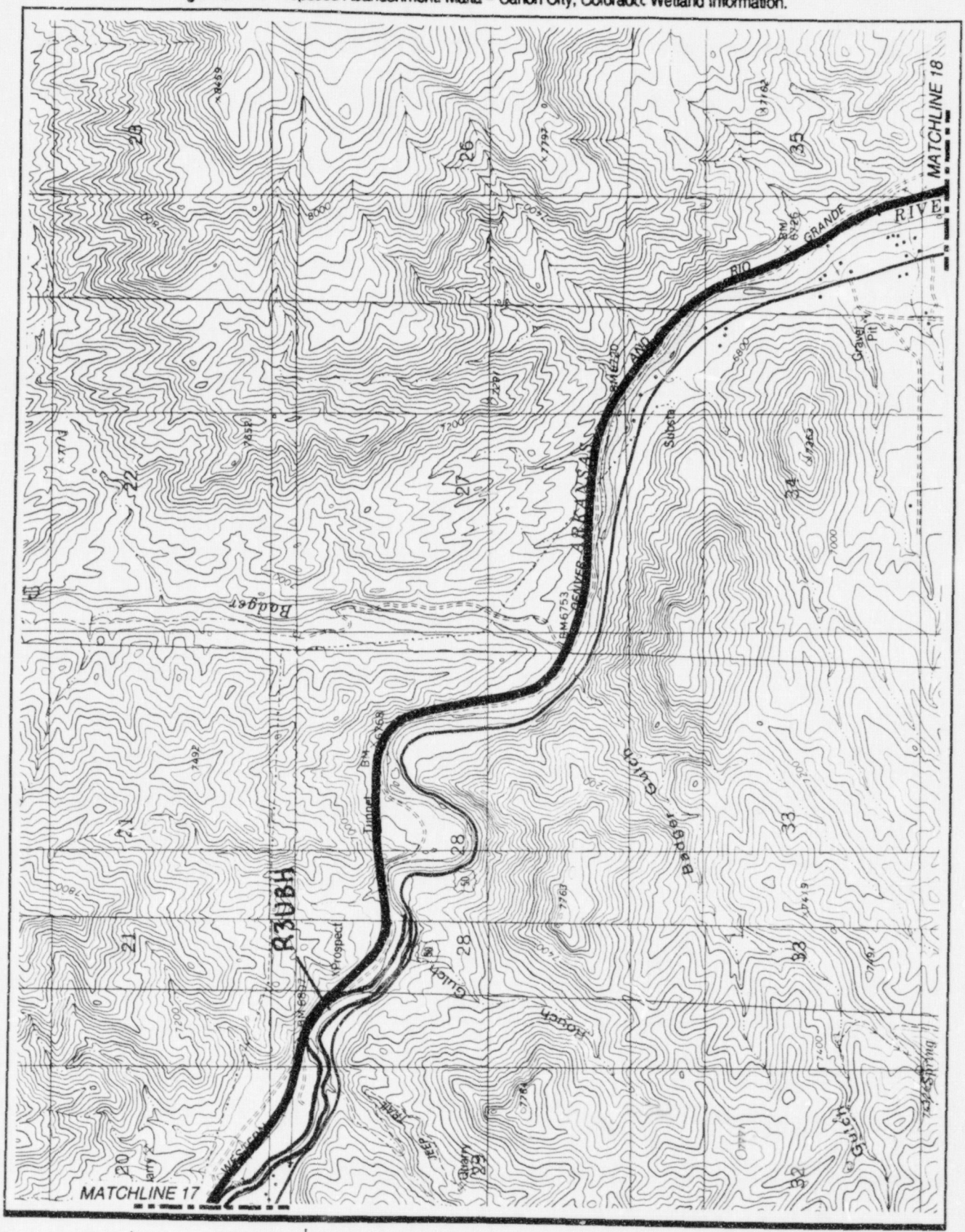
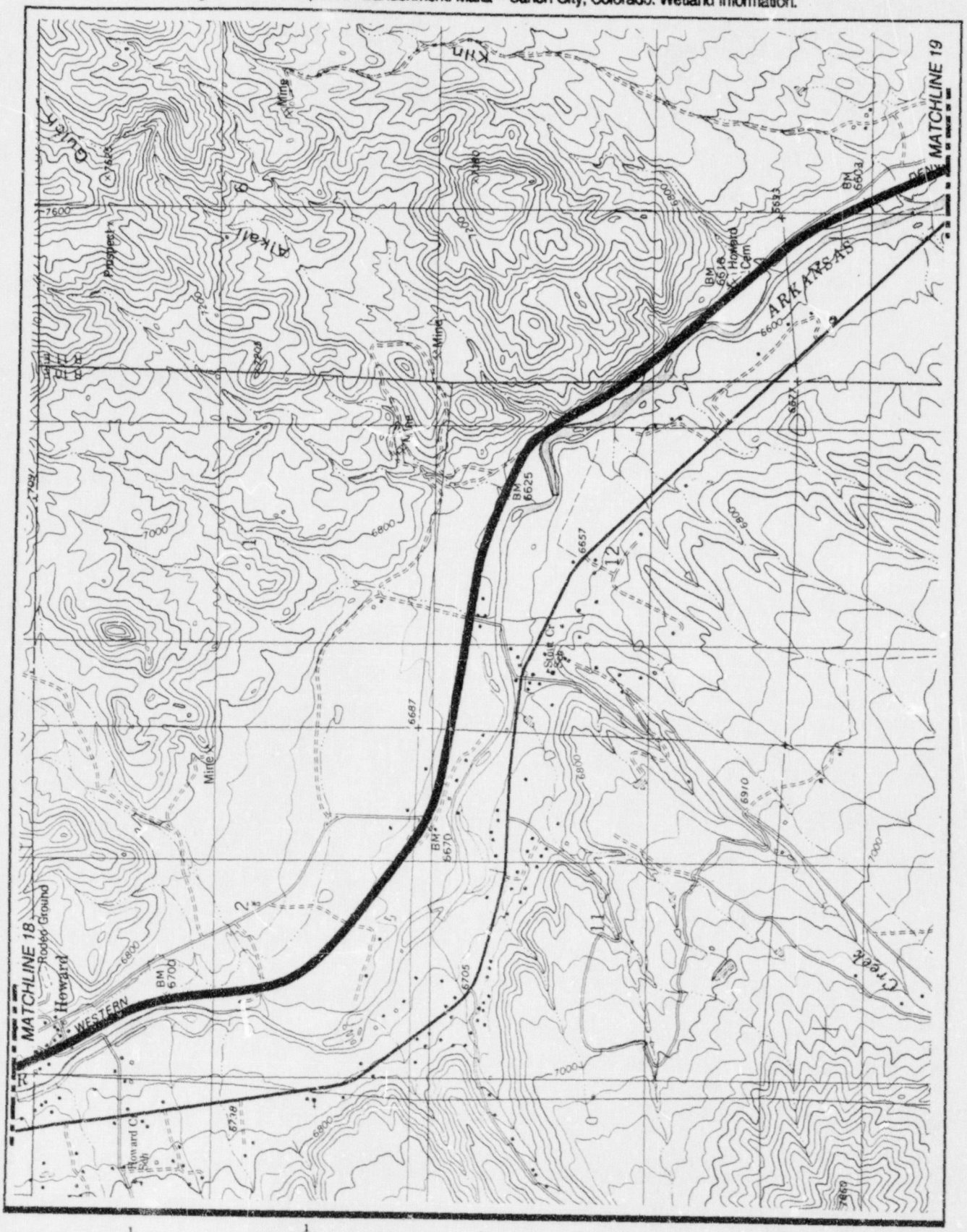
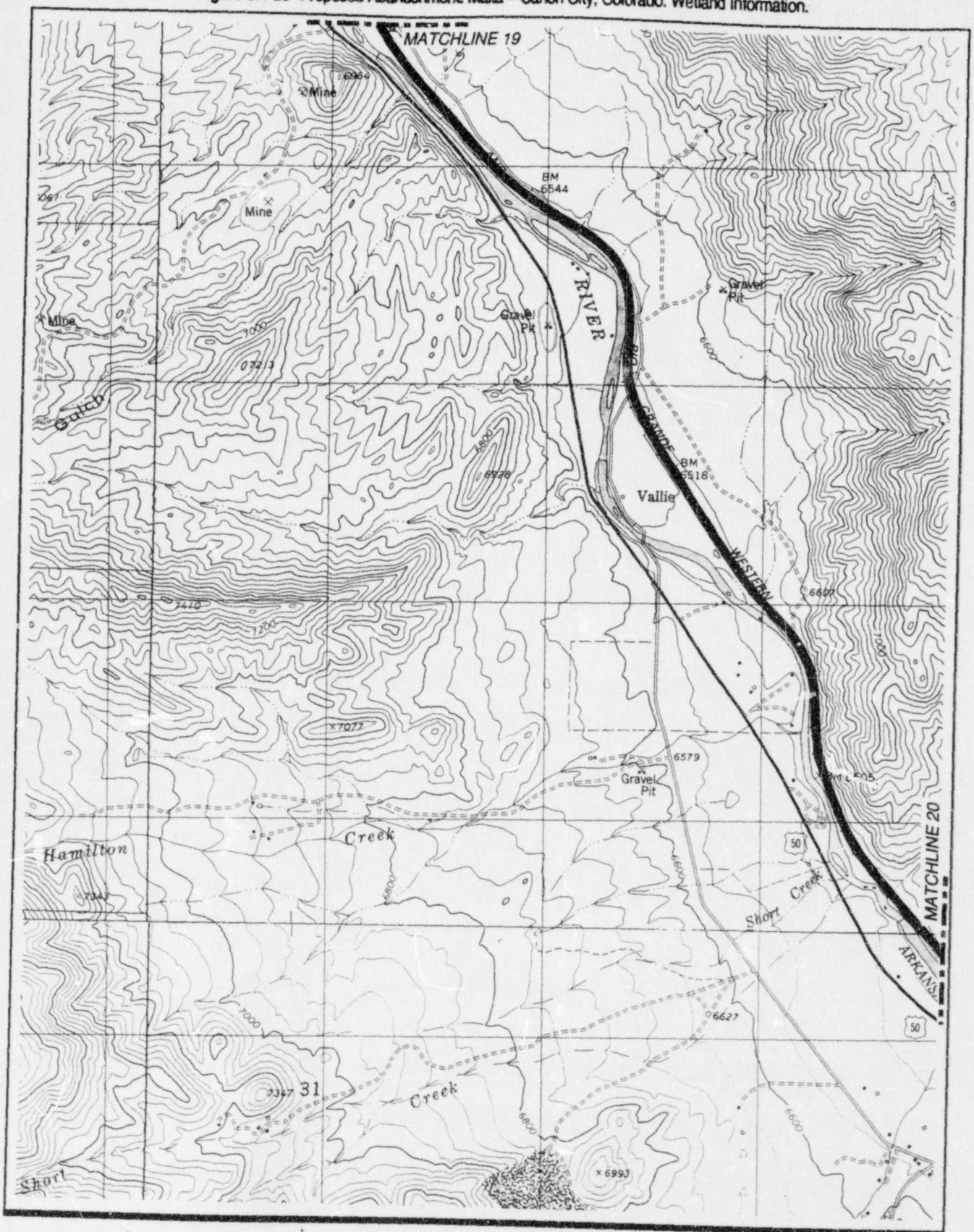

MATCHLINE 18
MATCHLINE 17
RIO GRANDE
ARKANSAS
Gravel Pit
Badger Gulch
Tunnel
Prospect
Gulch
Trail
Jeep
Spring
Gulch
R3UBH
Badger
Subsh
Gravel Pit
Gulch
Spring
Gulch
Trail
Jeep
Gulch
Spring
Gulch
Trail
Jeep
Gulch
Spring
Gulch
Trail
Jeep

Figure 5.4-19 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangle:* Howard, Colorado 1981

Figure 5.4-20 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



SCALE 1:24000

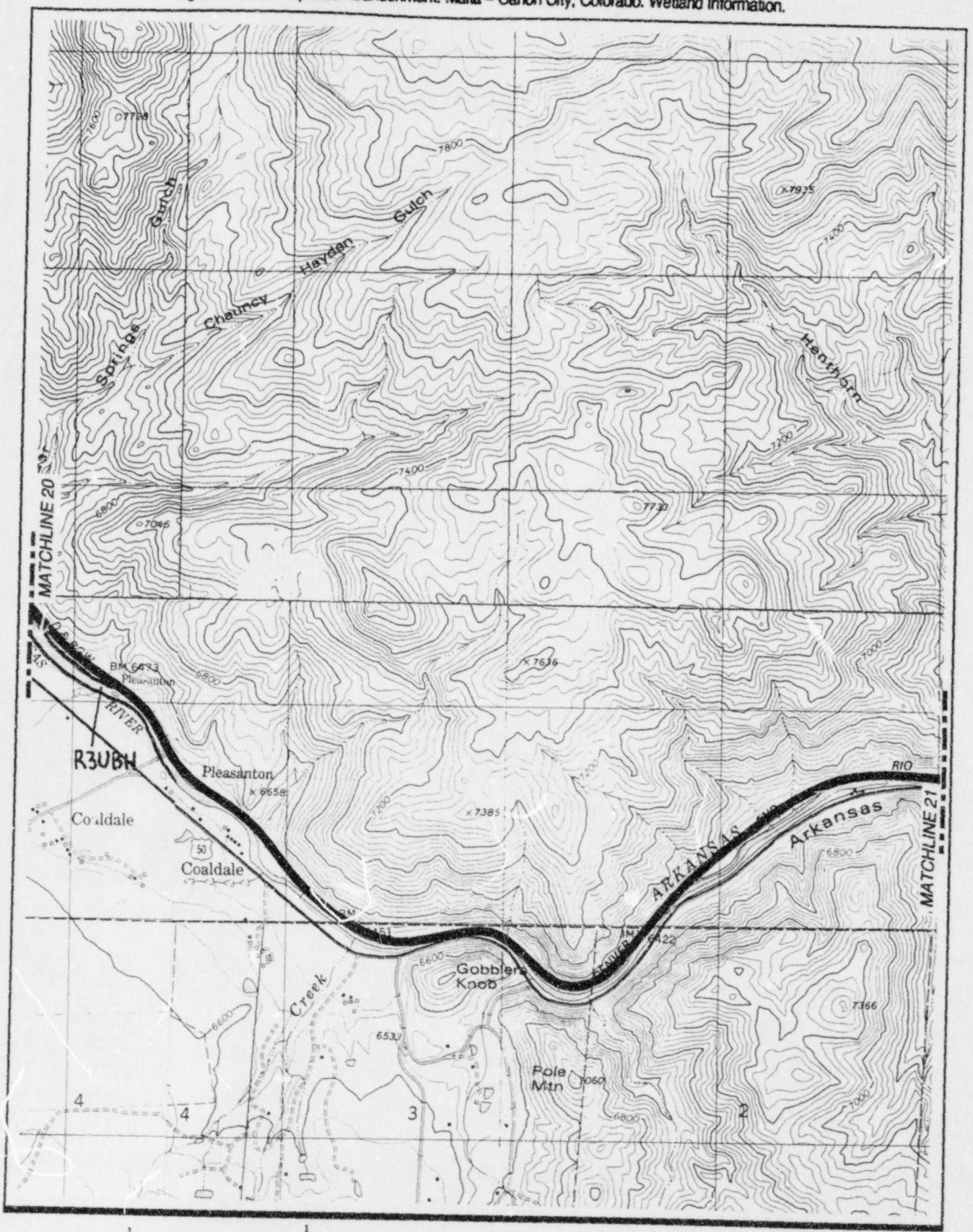
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangles:* Howard, Colorado 1981; Coaldale, Colorado 1980

Figure 5.4-21 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



SCALE 1:24000

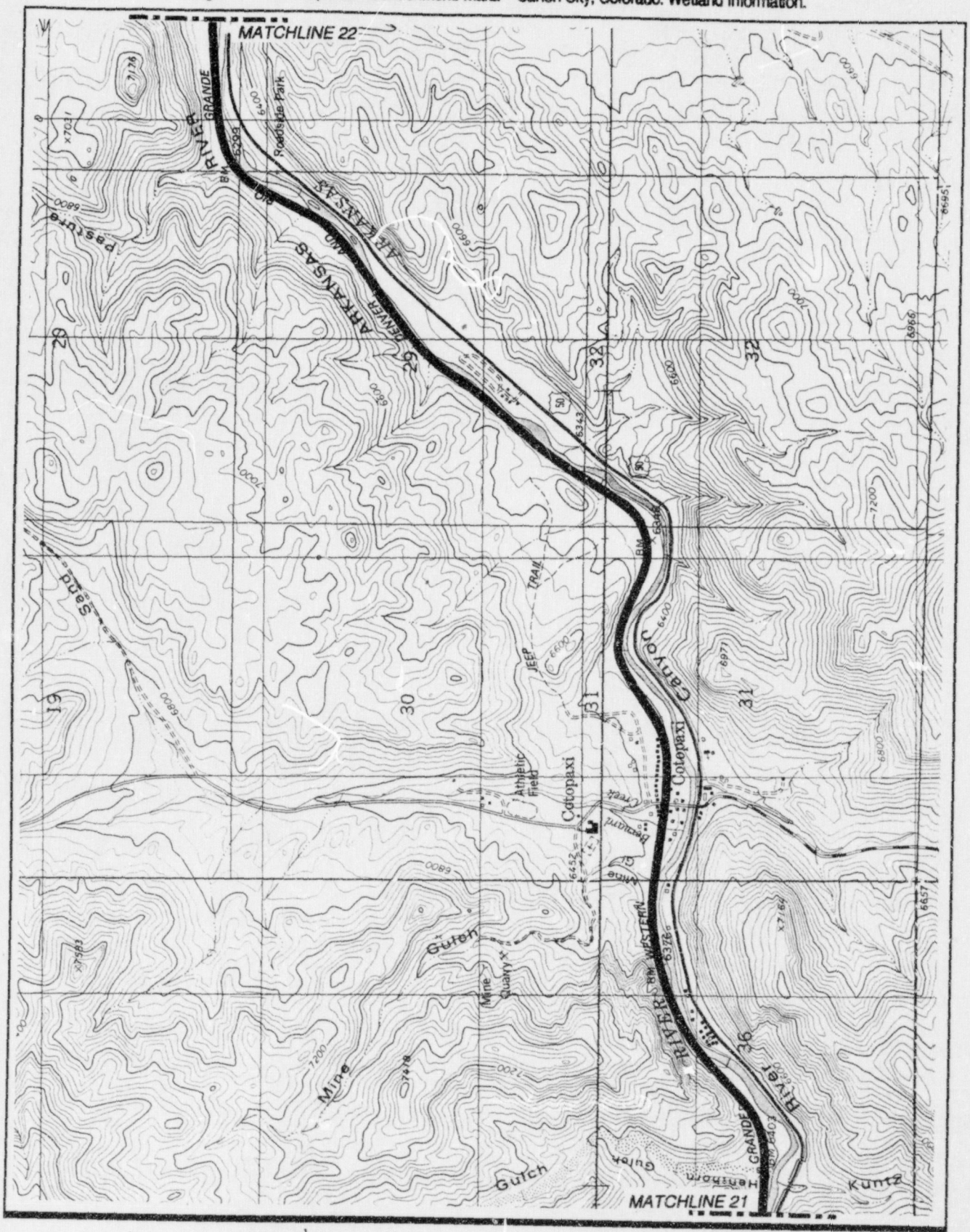
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

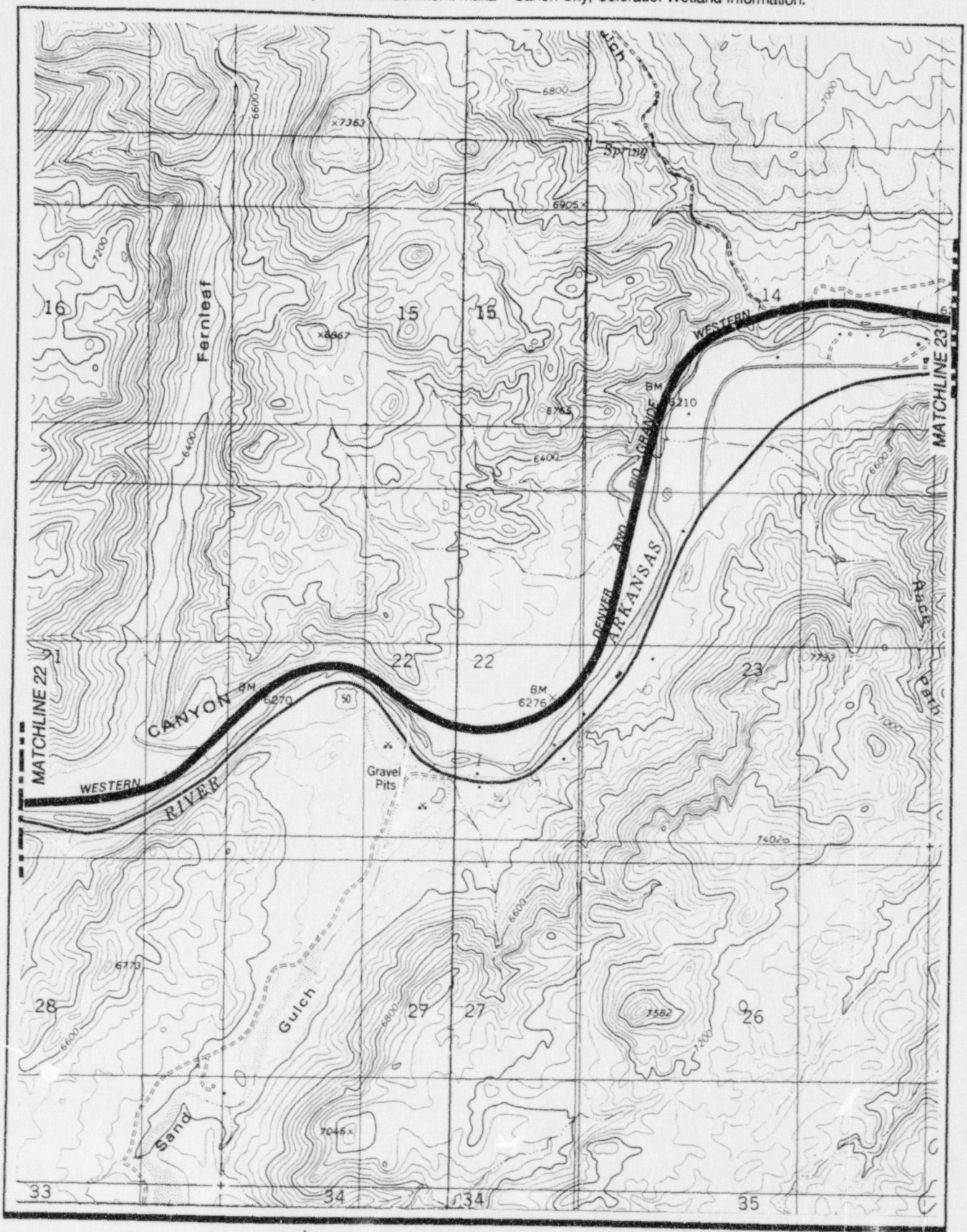
Base Map: *USGS 7.5' Topographic Quadrangles:* Howard, Colorado 1981; Arkansas Mountain, Colorado 1980; Coaldale, Colorado 1980; Cotopaxi, Colorado 1980

Figure 5.4-22 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



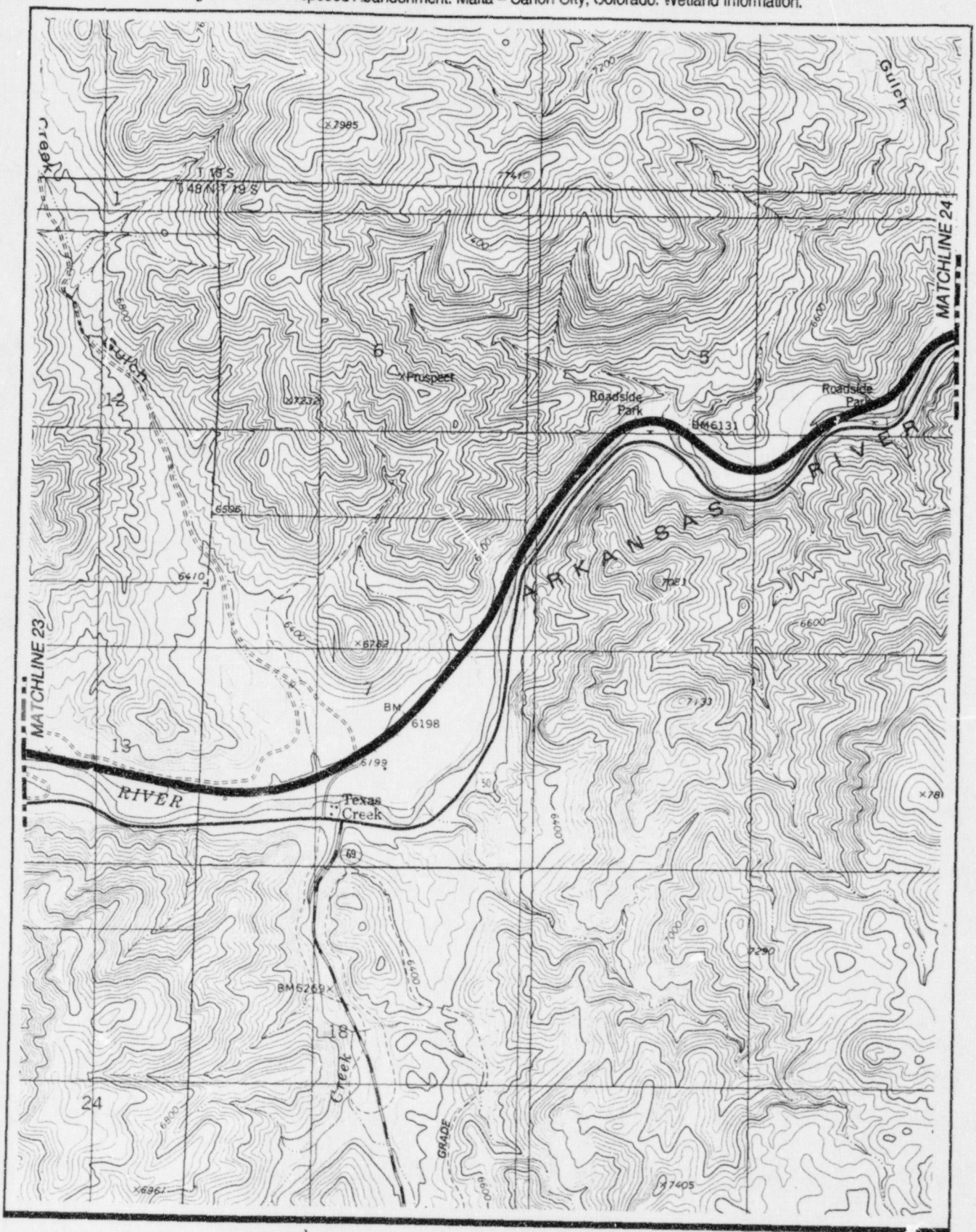
Base Map: *USGS 7.5' Topographic Quadrangles:* Arkansas Mountain, Colorado 1980; Cotopaxi, Colorado 1980

Figure 5.4-23 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



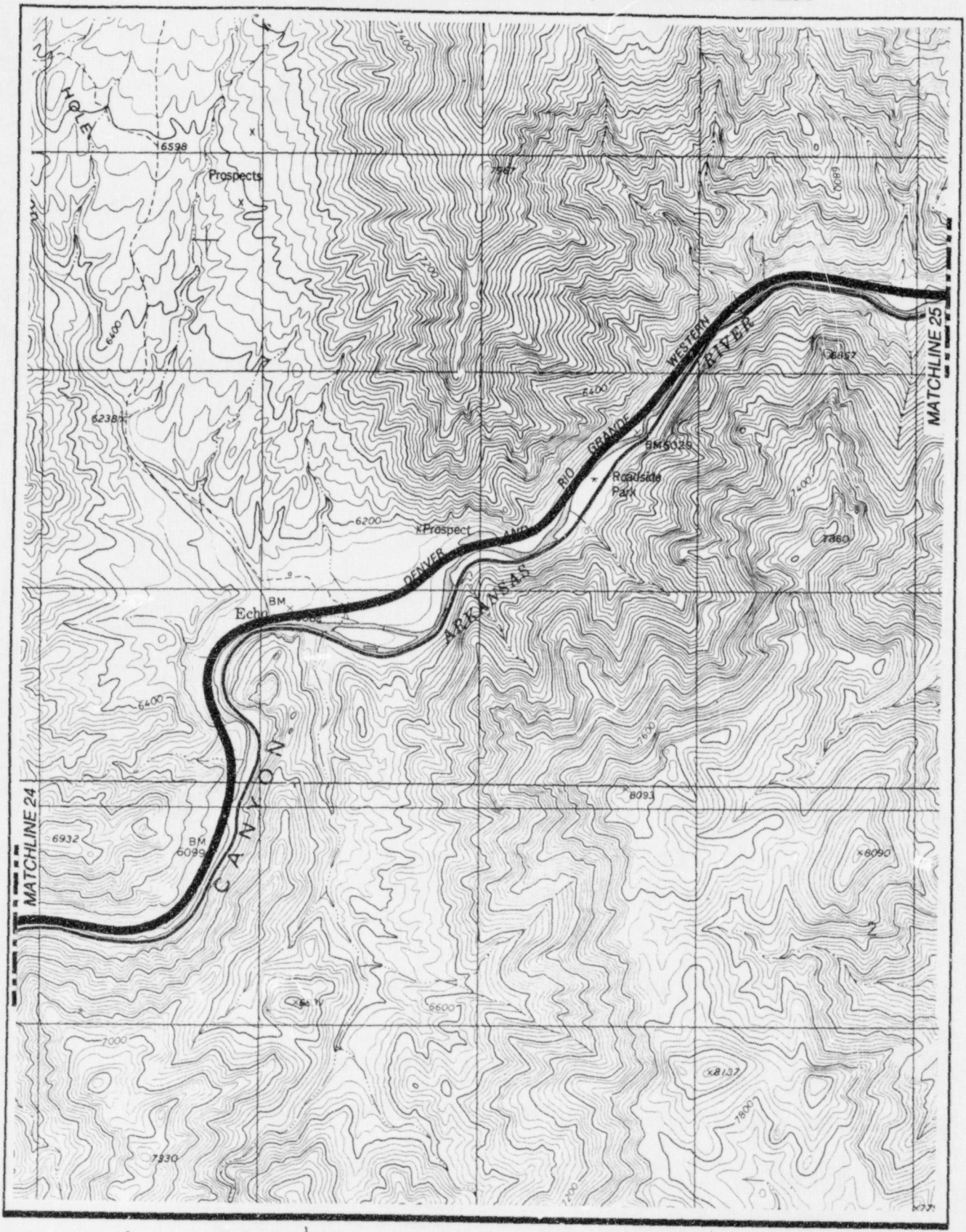
Base Map: *USGS 7.5' Topographic Quadrangles:* Arkansas Mountain, Colorado 1980; Echo, Colorado 1980

Figure 5.4-24 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangle:* Echo, Colorado 1980

Figure 5.4-25 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



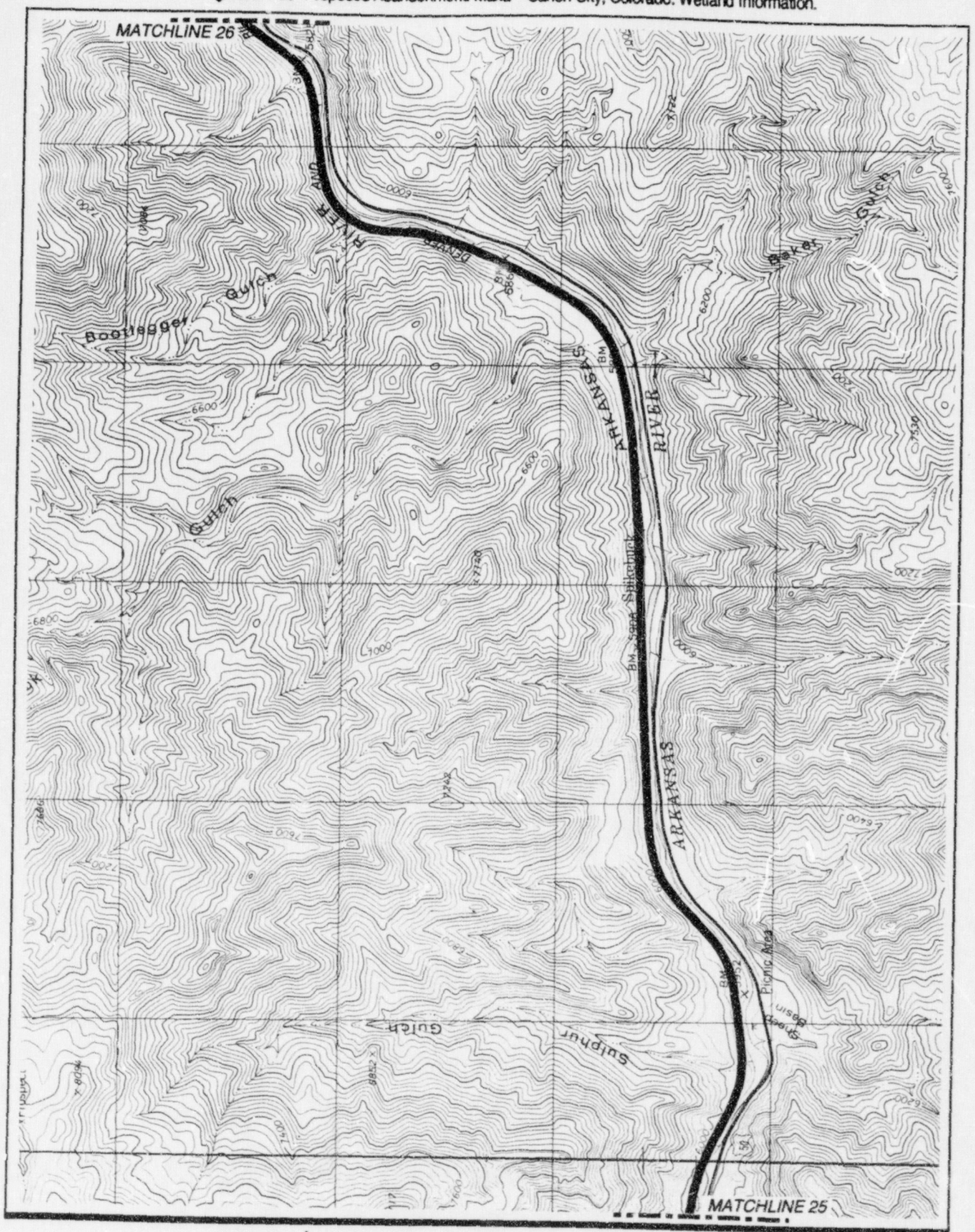
SCALE 1:24000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

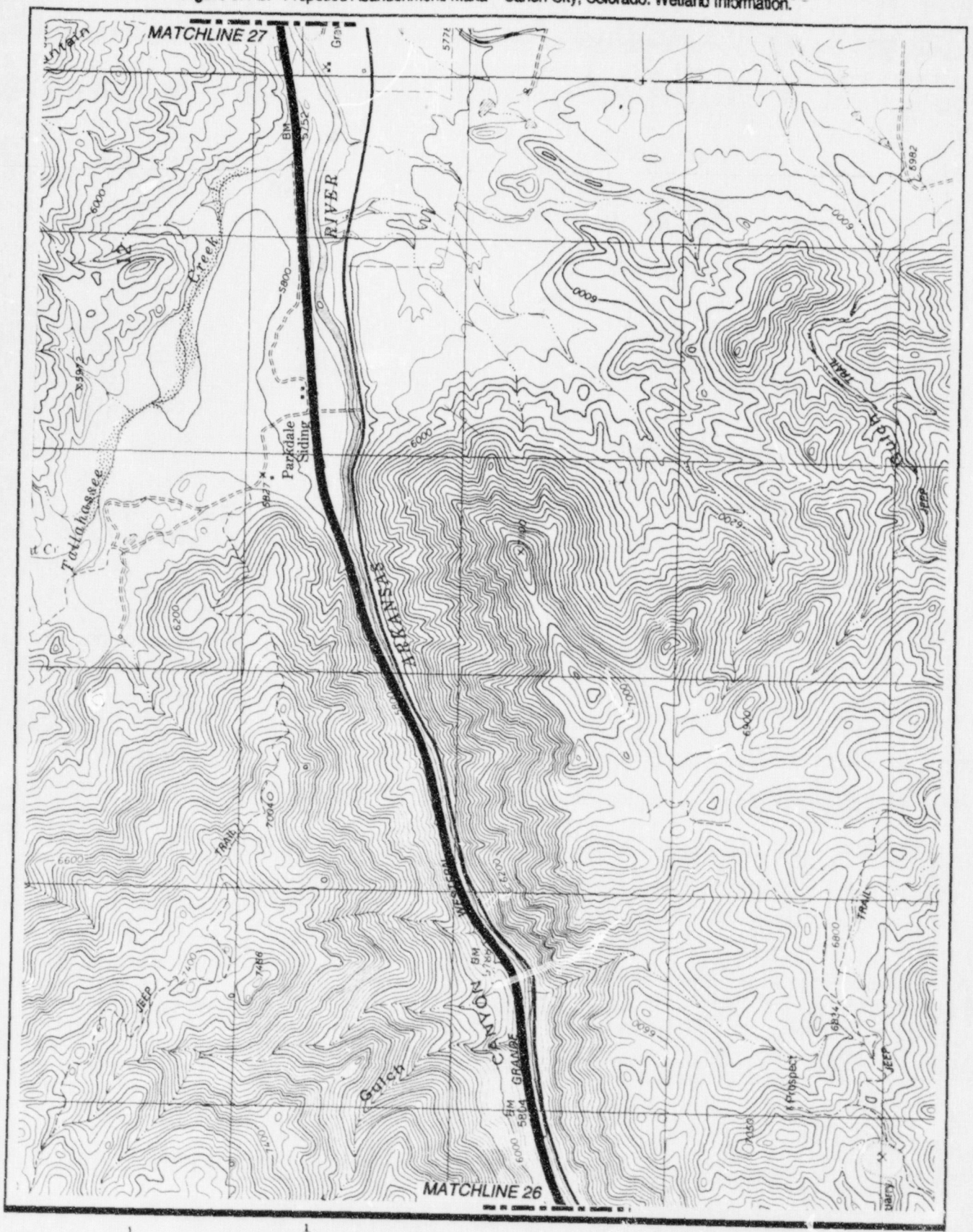
Base Map: *USGS 7.5' Topographic Quadrangle:* Echo, Colorado 1980

Figure 5.4-28 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



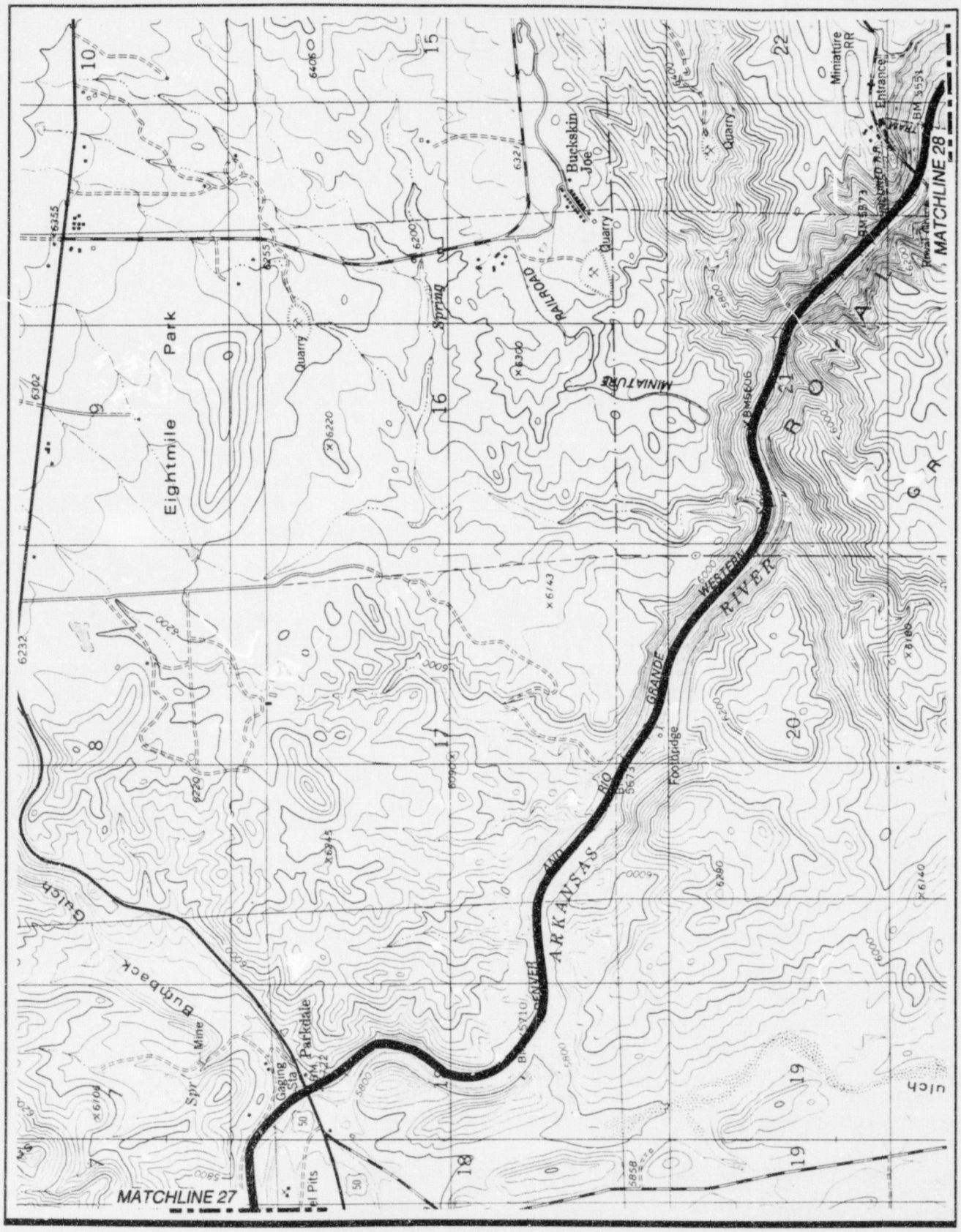
Base Map: *USGS 7.5' Topographic Quadrangles:* Echo, Colorado 1980; McIntyre Hills, Colorado 1980

Figure 5.4-27 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangle:* McIntyre Hills, Colorado 1980

Figure 5.4-28 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



SCALE 1:24000

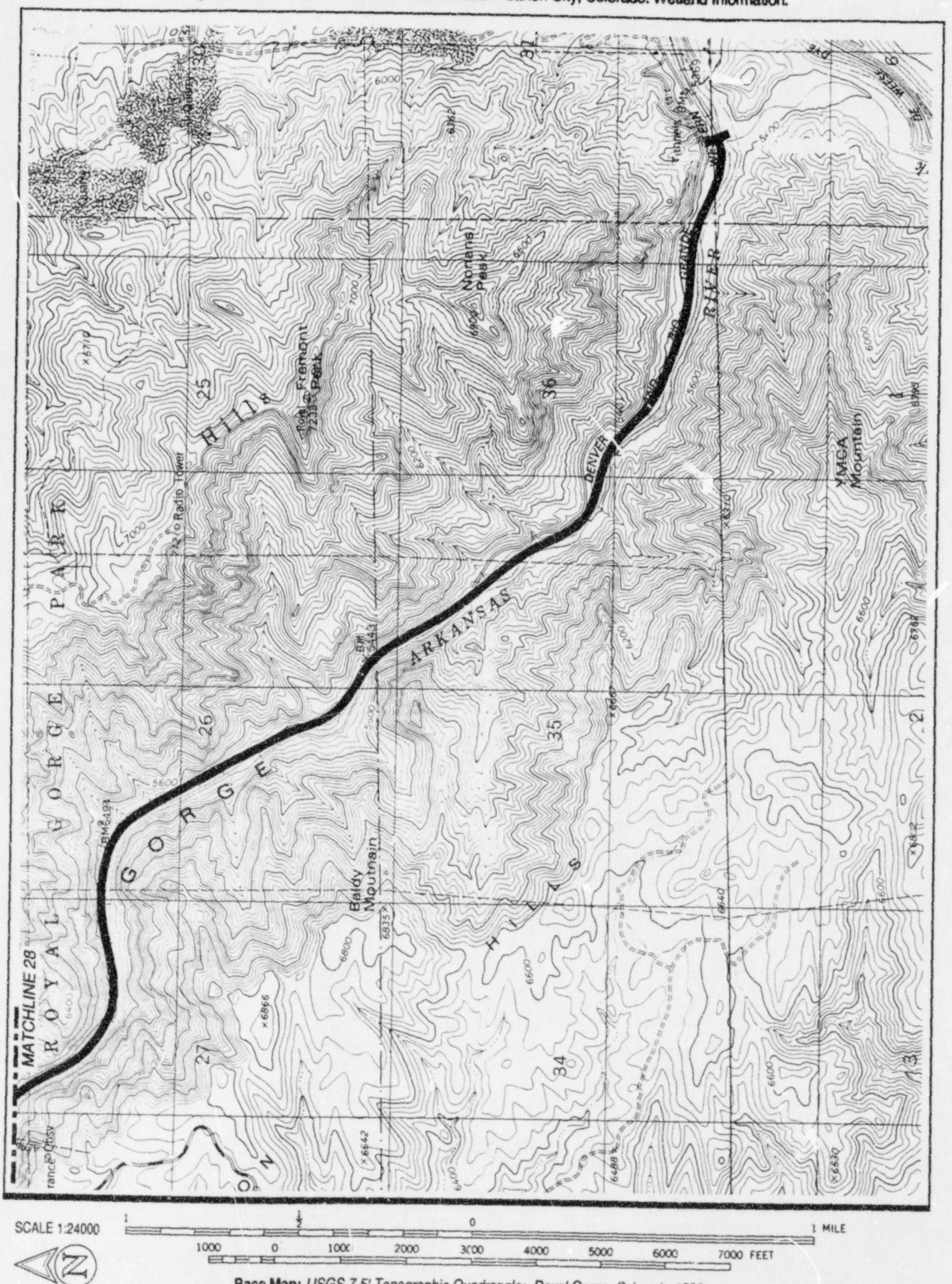
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangles:* McIntyre Hills, Colorado 1980; Royal Gorge, Colorado 1980

Figure 5.4-29 Proposed Abandonment: Malta – Cañon City, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangle: Royal Gorge, Colorado 1980*

KEY FOR LAND USE FIGURES

URBAN OR BUILT-UP LAND

RE	Residential
C	Commercial and services
I	Industrial
T	Transportation, communications and utilities
I/C	Industrial and commercial complexes
MU	Mixed urban or built-up land
OU	Other urban or built-up land

AGRICULTURAL LAND

CP	Cropland and pasture
CH	Orchards, groves, vineyards, nurseries, and ornamental horticultural areas
CF	Confined feeding operations
CO	Other agricultural land

WATER

WS	Streams and canals
WL	Lakes
WR	Reservoirs
WB	Bays and estuaries

WETLANDS

WE	Forested wetlands, and/or nonforested wetlands

RANGELAND

Rh	Herbaceous rangeland
Rsb	Shrub and brush rangeland
Rm	Mixed rangeland

FOREST LAND

FD	Deciduous forest land
FE	Evergreen forest land
FM	Mixed forest land

BARREN LAND

Bsf	Dry salt flats
Bb	Beaches
Bs	Sandy areas other than beaches
Br	Bare exposed rocks
Bm	Strip mines, quarries, and gravel pits
Bt	Transitional areas
B	Mixed barren land

HISTORIC AND CULTURAL RESOURCES

●	Potentially Eligible Historic Resource

Figure 5C Overview of Proposed Abandonment: Towner – NA Junction, Colorado

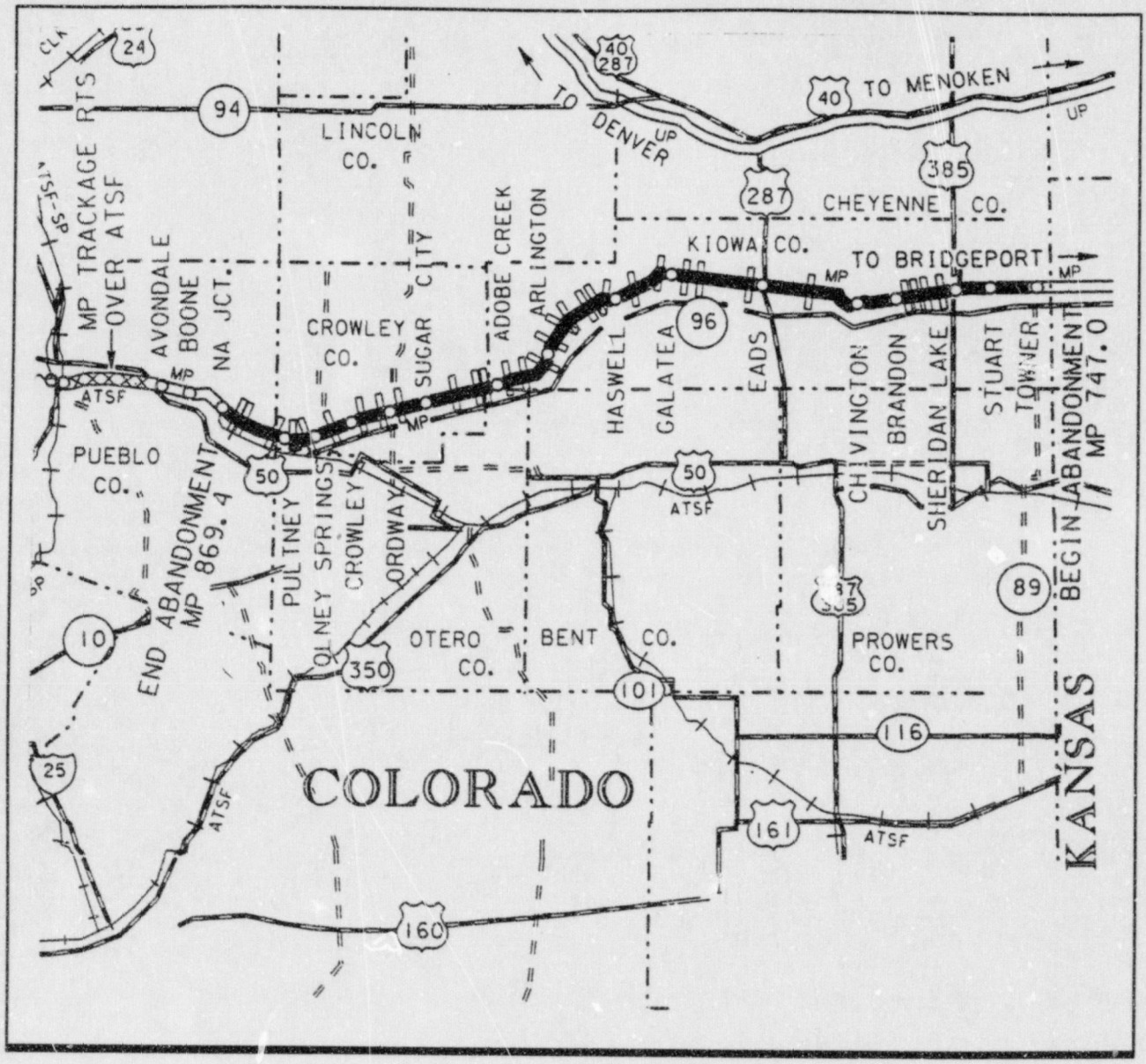
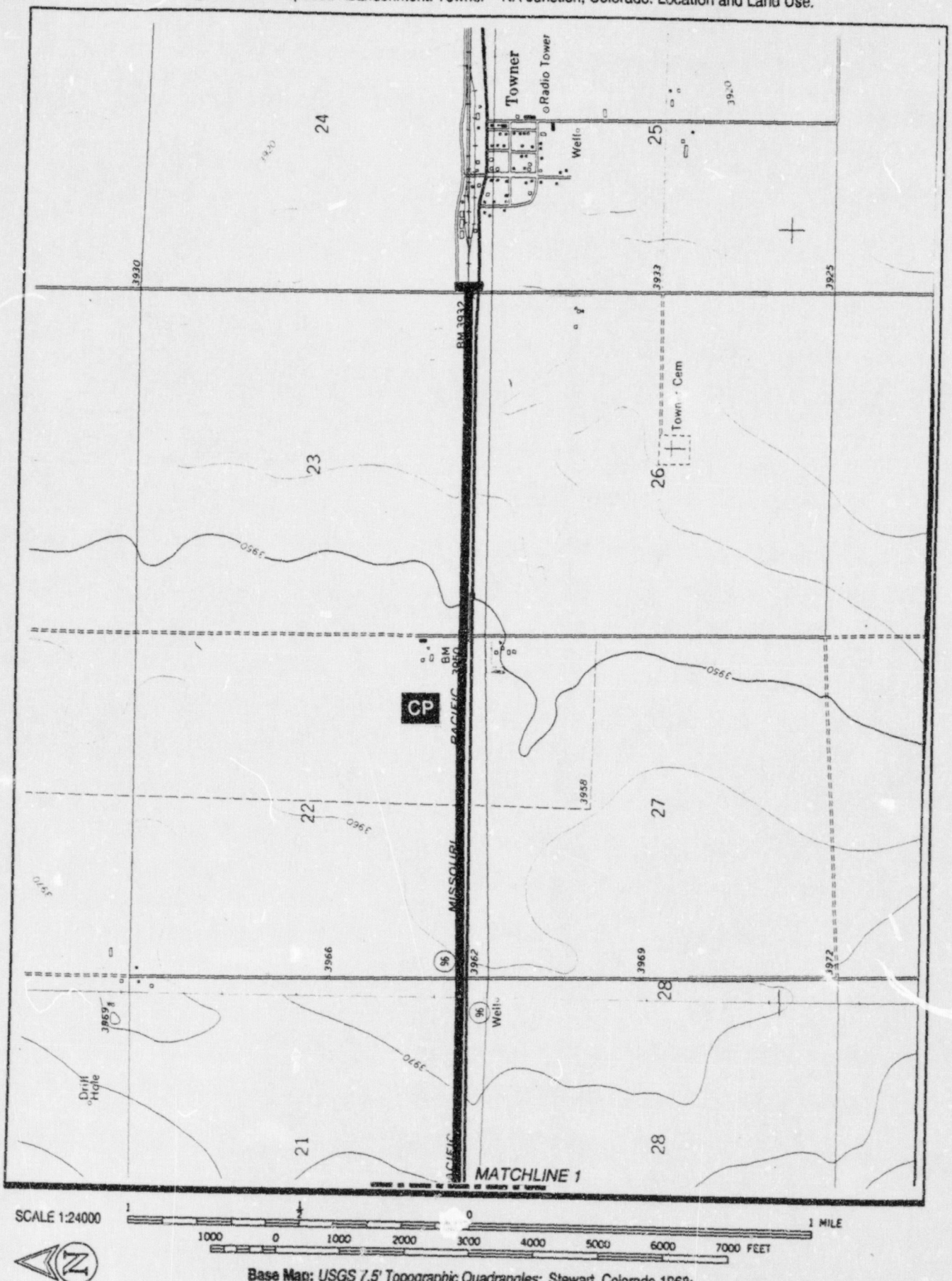
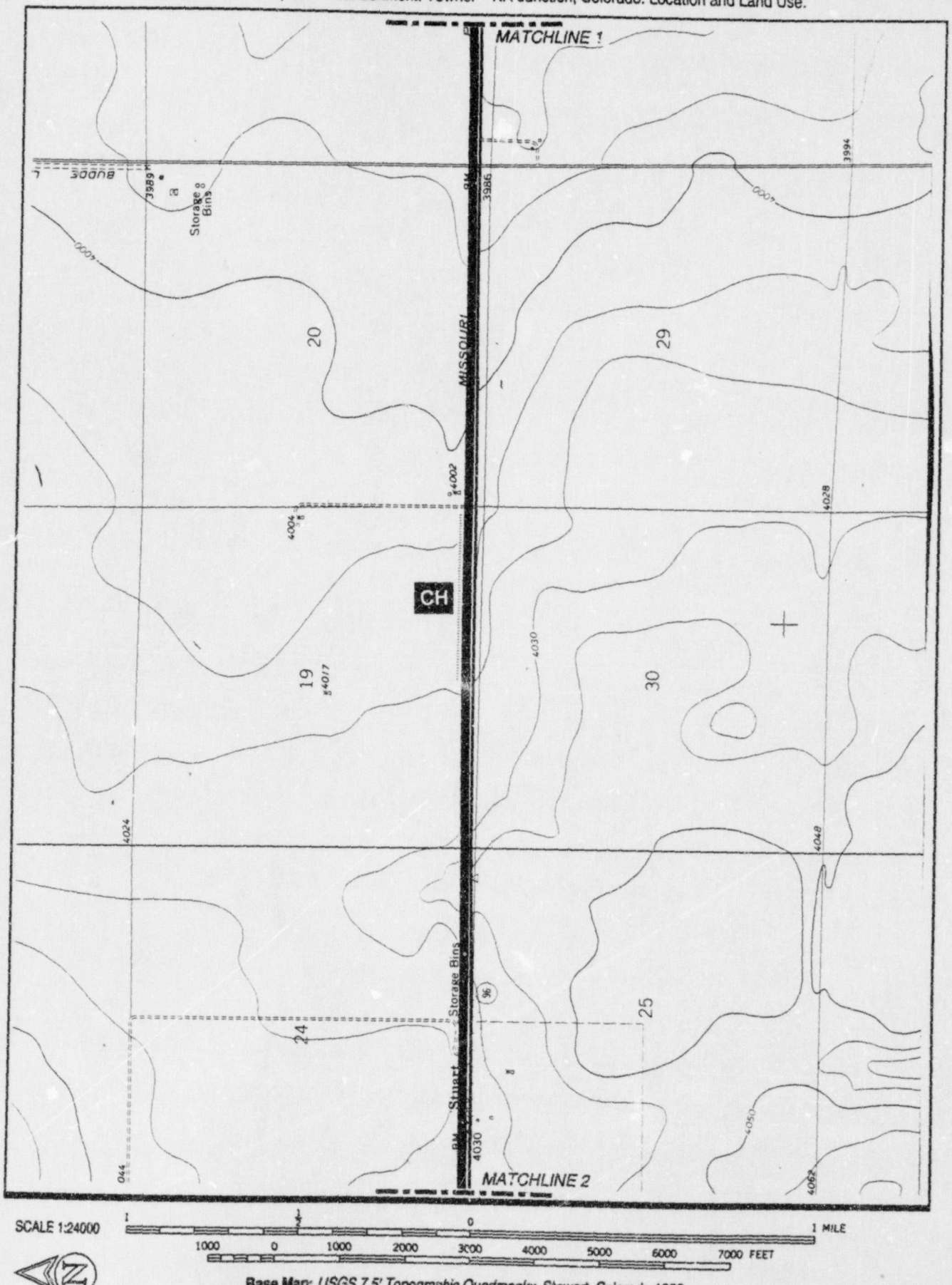


Figure 5.5-1 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



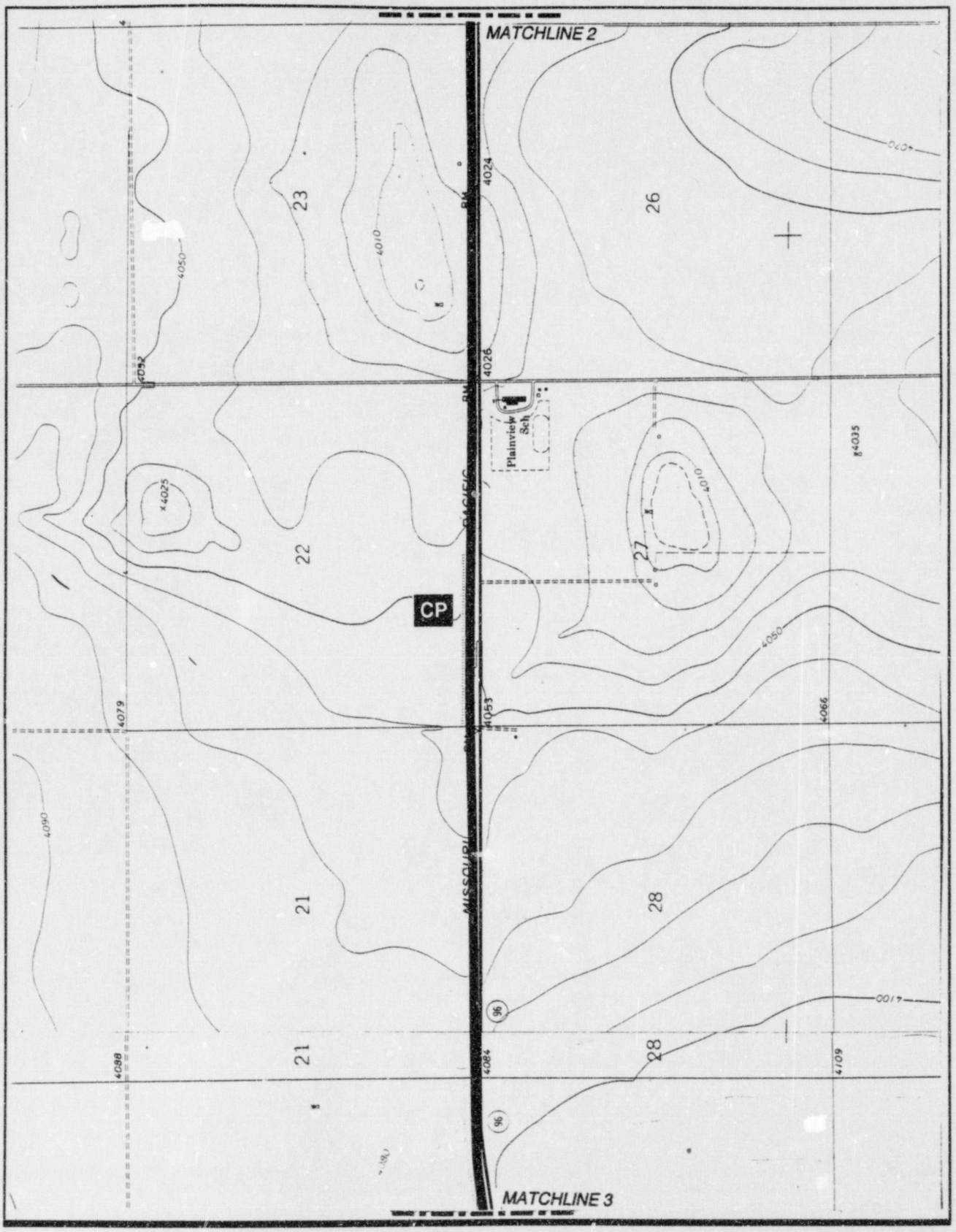
Base Map: *USGS 7.5' Topographic Quadrangles:* Stewart, Colorado 1968; Towner, Colorado – Kansas 1968

Figure 5.5-2 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle:* Stewart, Colorado 1968

Figure 5.5-3 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



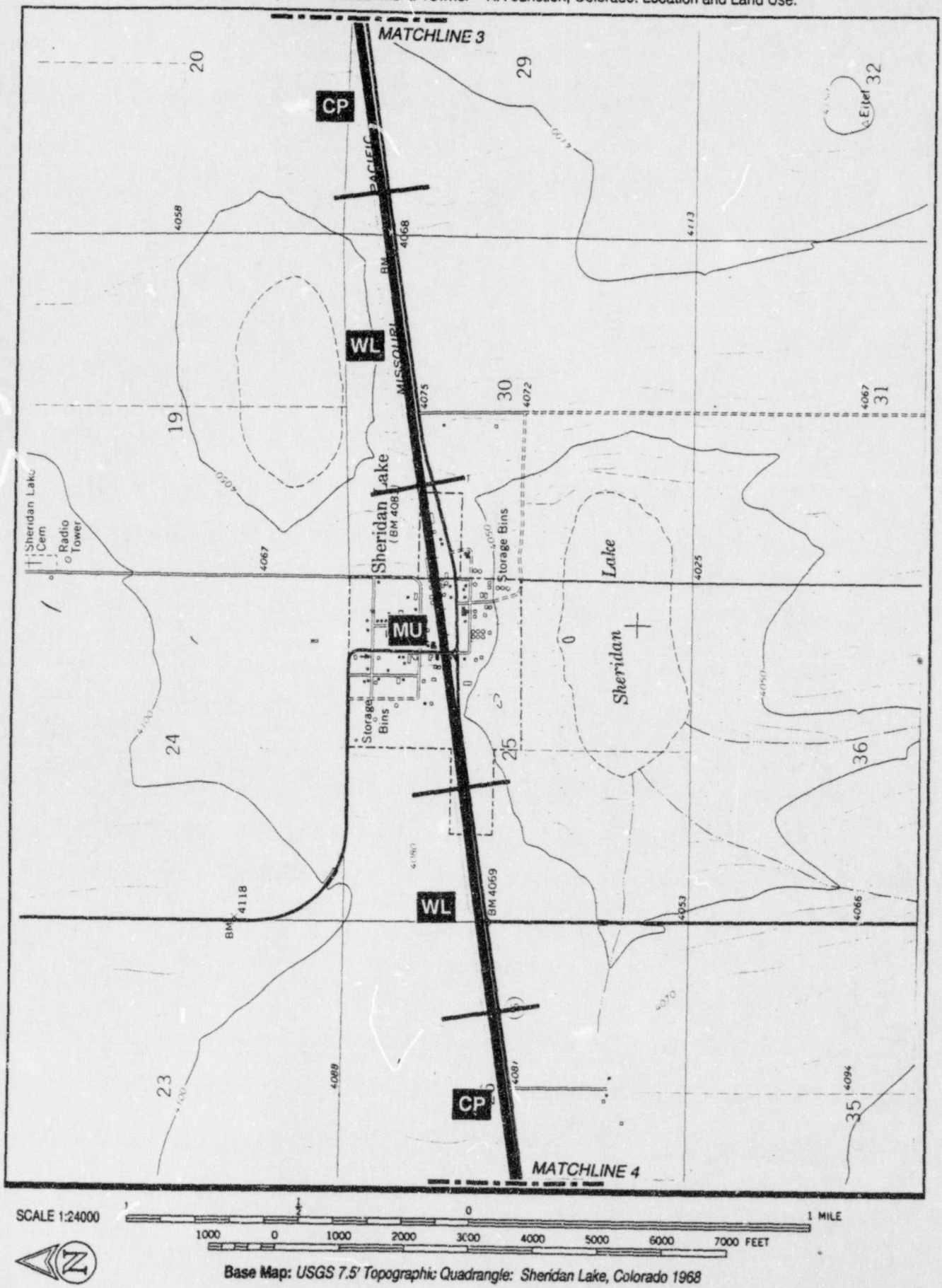
SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

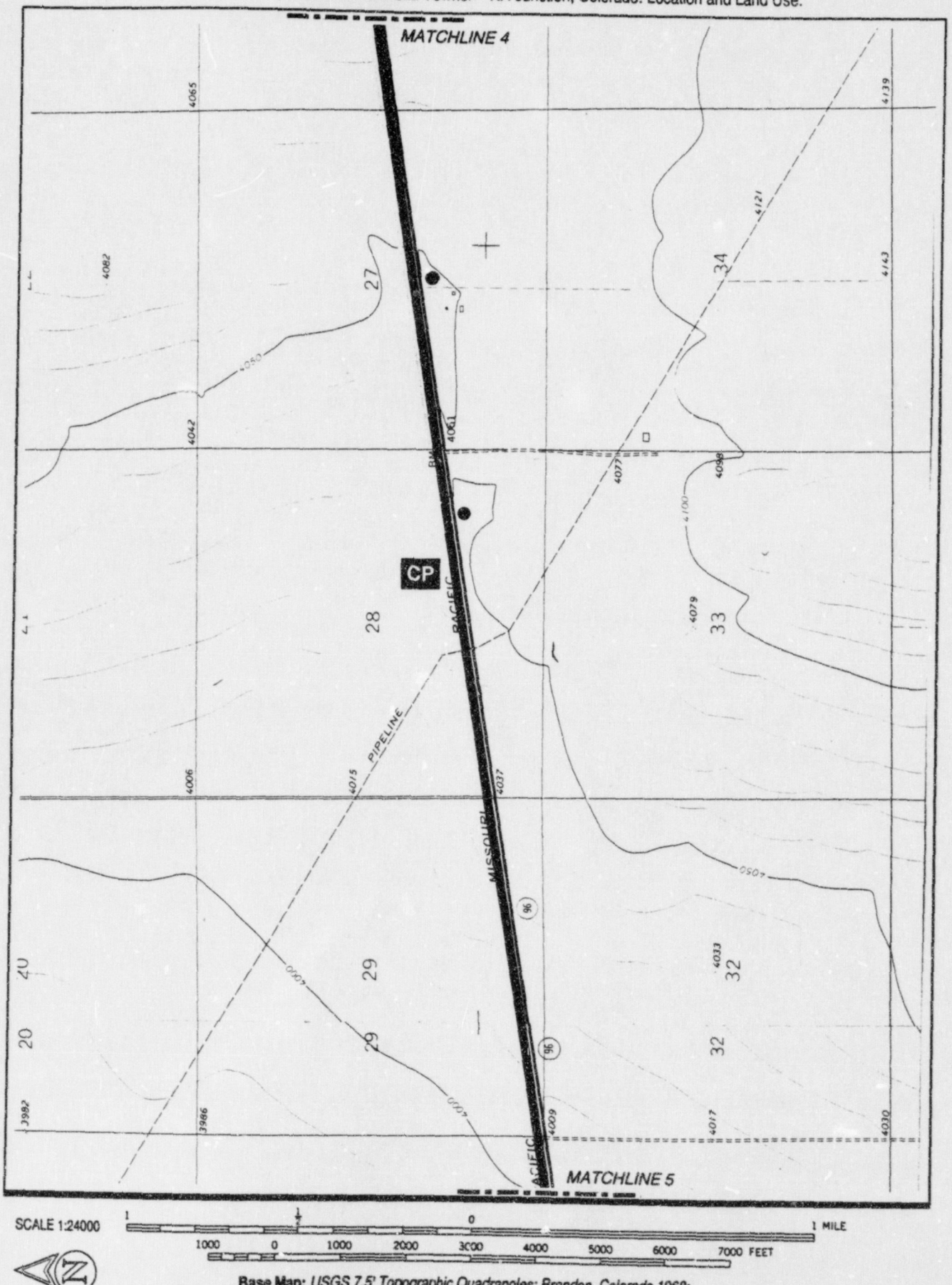
Base Map: *USGS 7.5' Topographic Quadrangles: Sheridan Lake, Colorado 1968;* Stewart, Colorado 1968

Figure 5.5-4 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



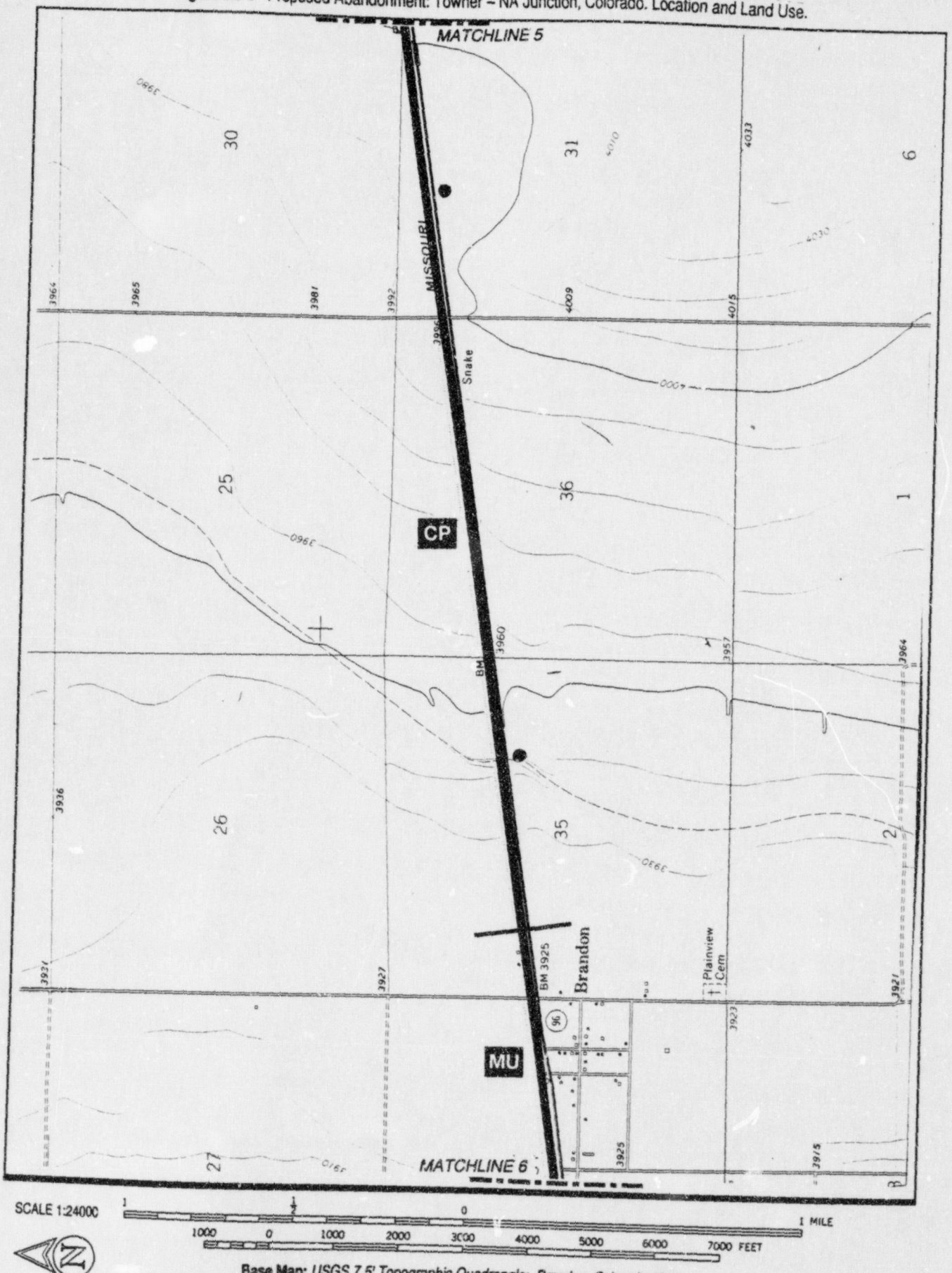
Base Map: *USGS 7.5' Topographic Quadrangle: Sheridan Lake, Colorado 1968*

Figure 5.5-5 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



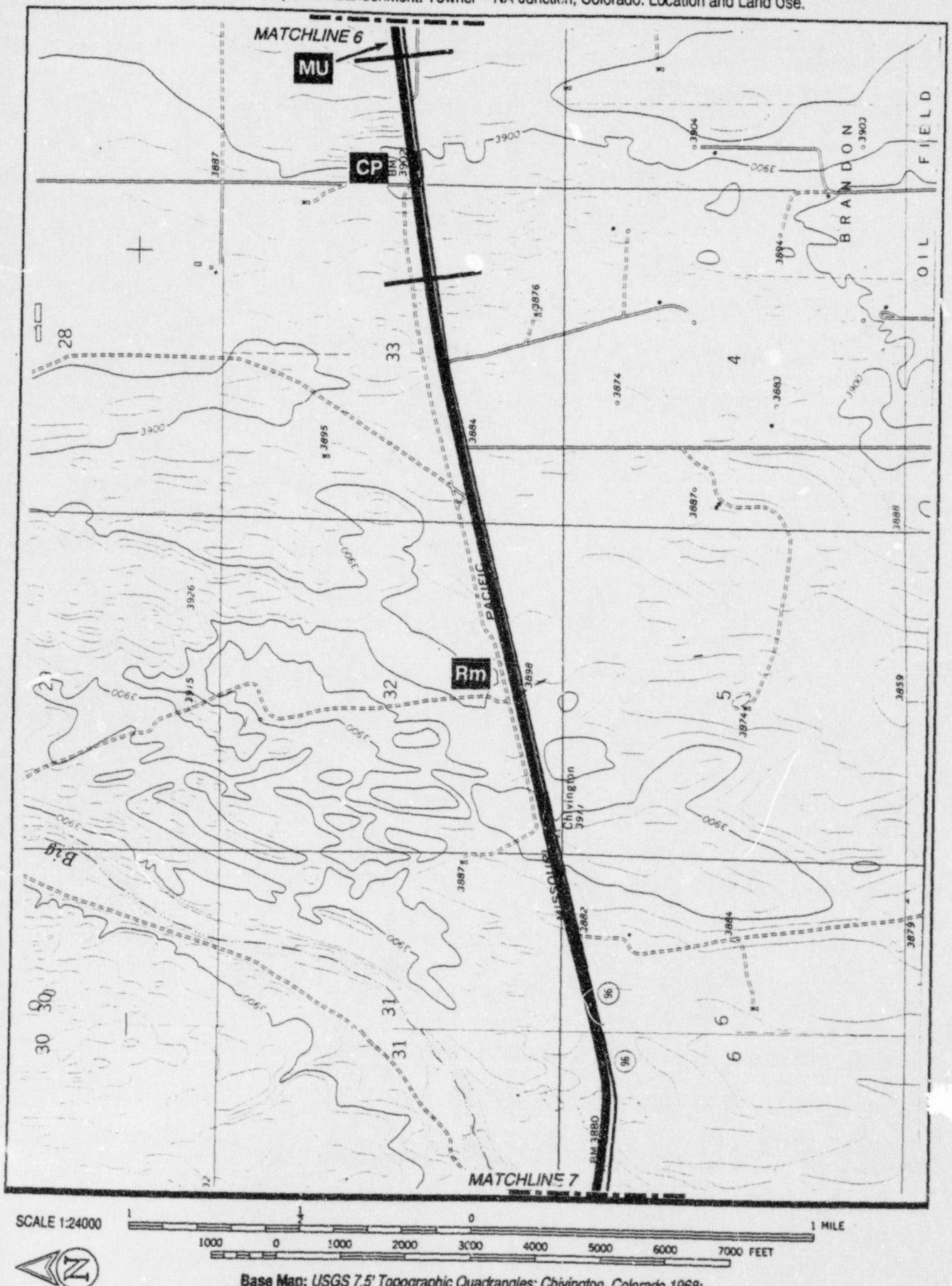
Base Map: *USGS 7.5' Topographic Quadrangles: Brandon, Colorado 1968; Sheridan Lake, Colorado 1968*

Figure 5.5-6 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



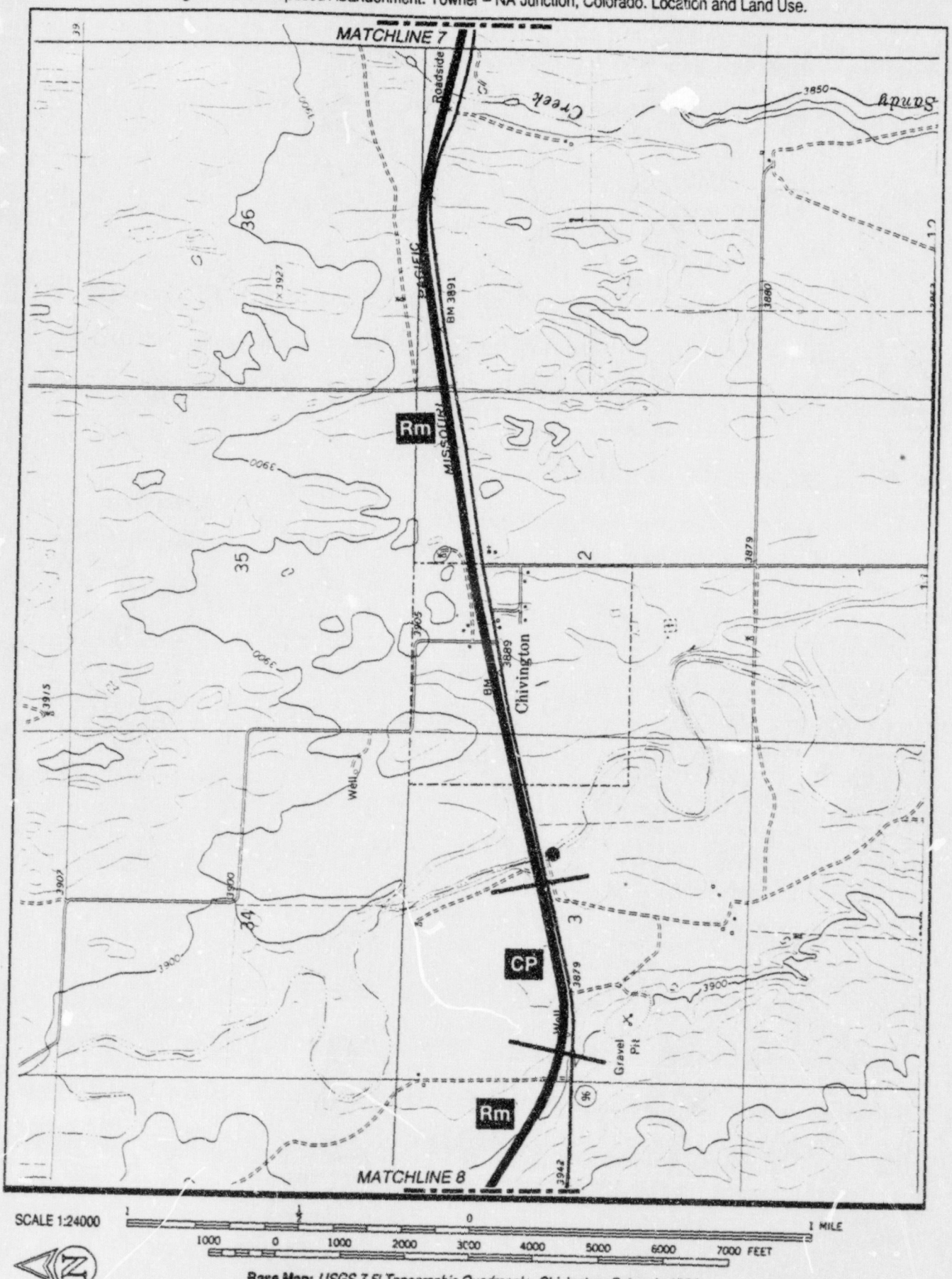
Base Map: *USGS 7.5' Topographic Quadrangle: Brandon, Colorado 1968;*

Figure 5.5-7 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



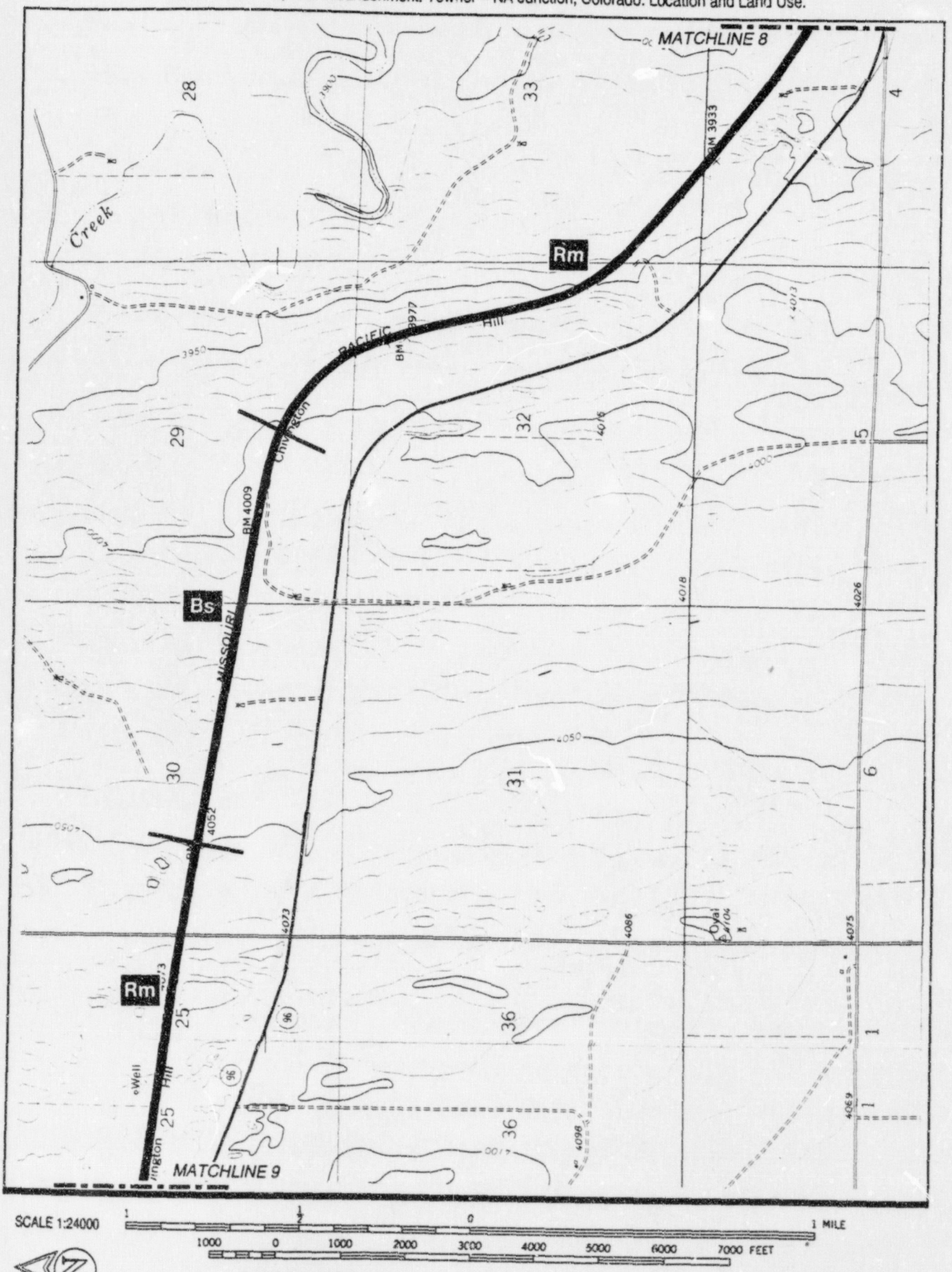
Base Map: *USGS 7.5' Topographic Quadrangles: Chivington, Colorado 1968; Brandon, Colorado 1968*

Figure 5.5-8 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



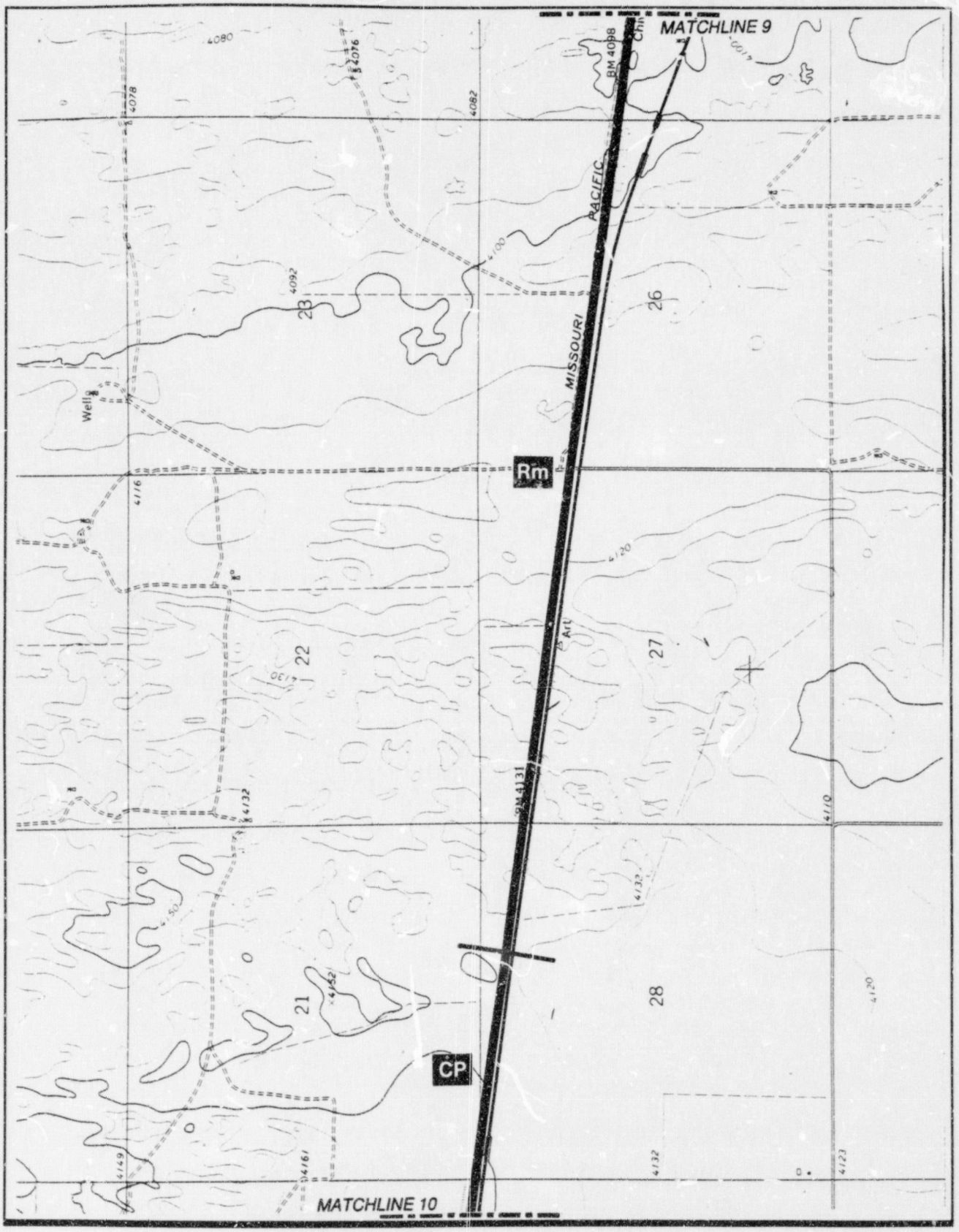
Base Map: *USGS 7.5' Topographic Quadrangle: Chivington, Colorado 1968*

Figure 5.5-9 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangles: Alkali Lake, Colorado 1968; Chivington, Colorado 1968*

Figure 5.5-10 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



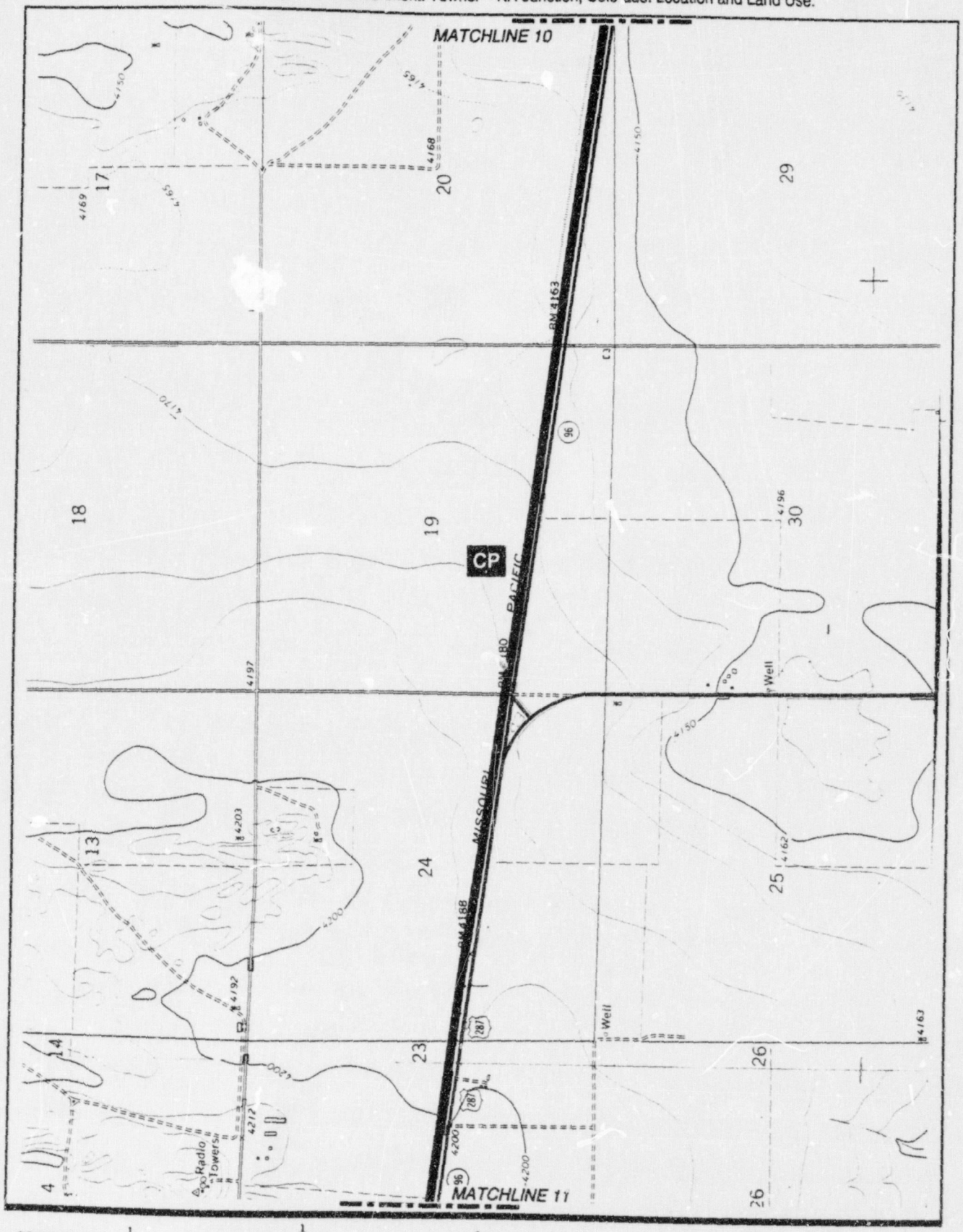
SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

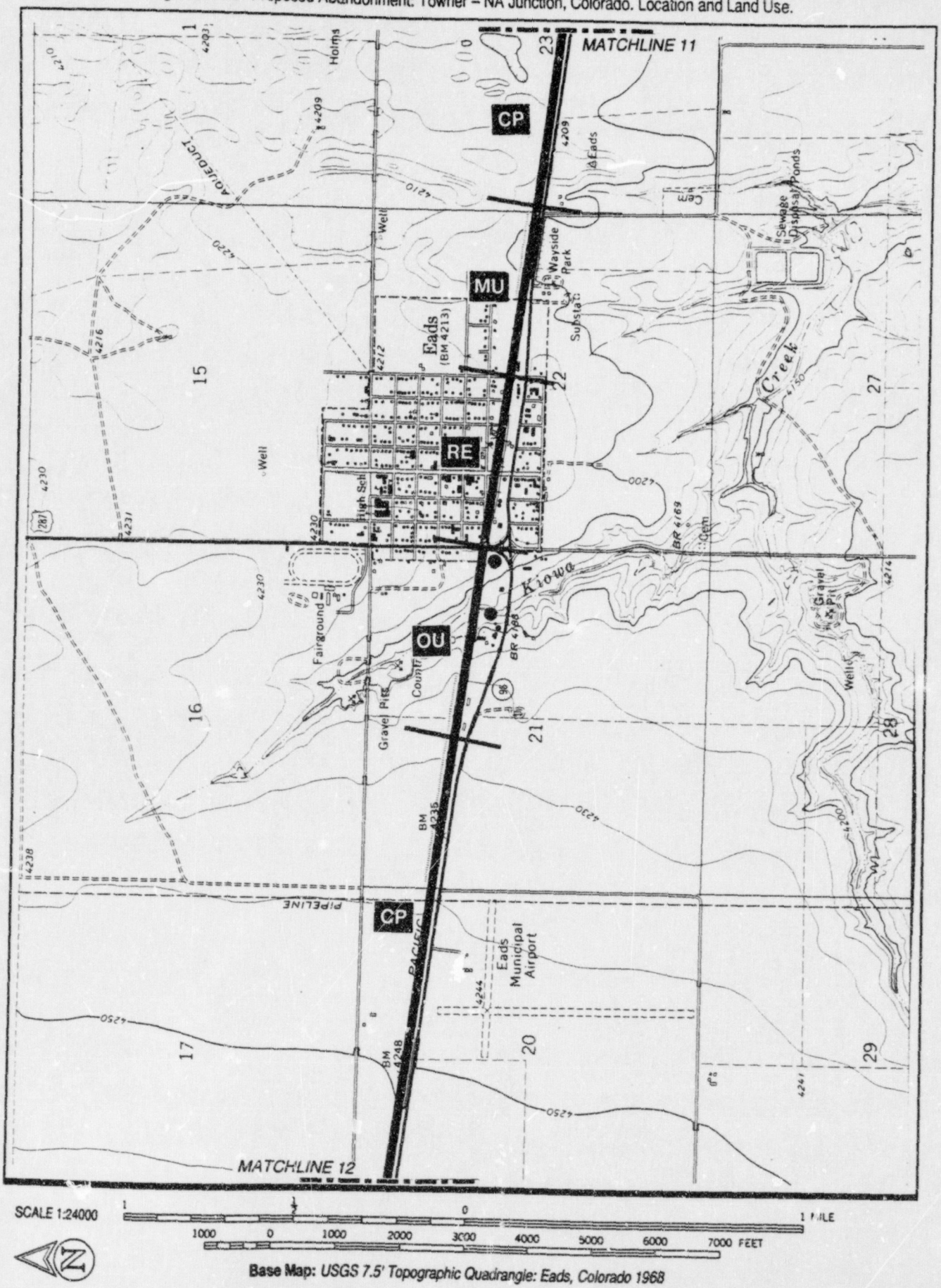
Base Map: *USGS 7.5' Topographic Quadrangle: Alkali Lake, Colorado 1968*

Figure 5.5-11 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



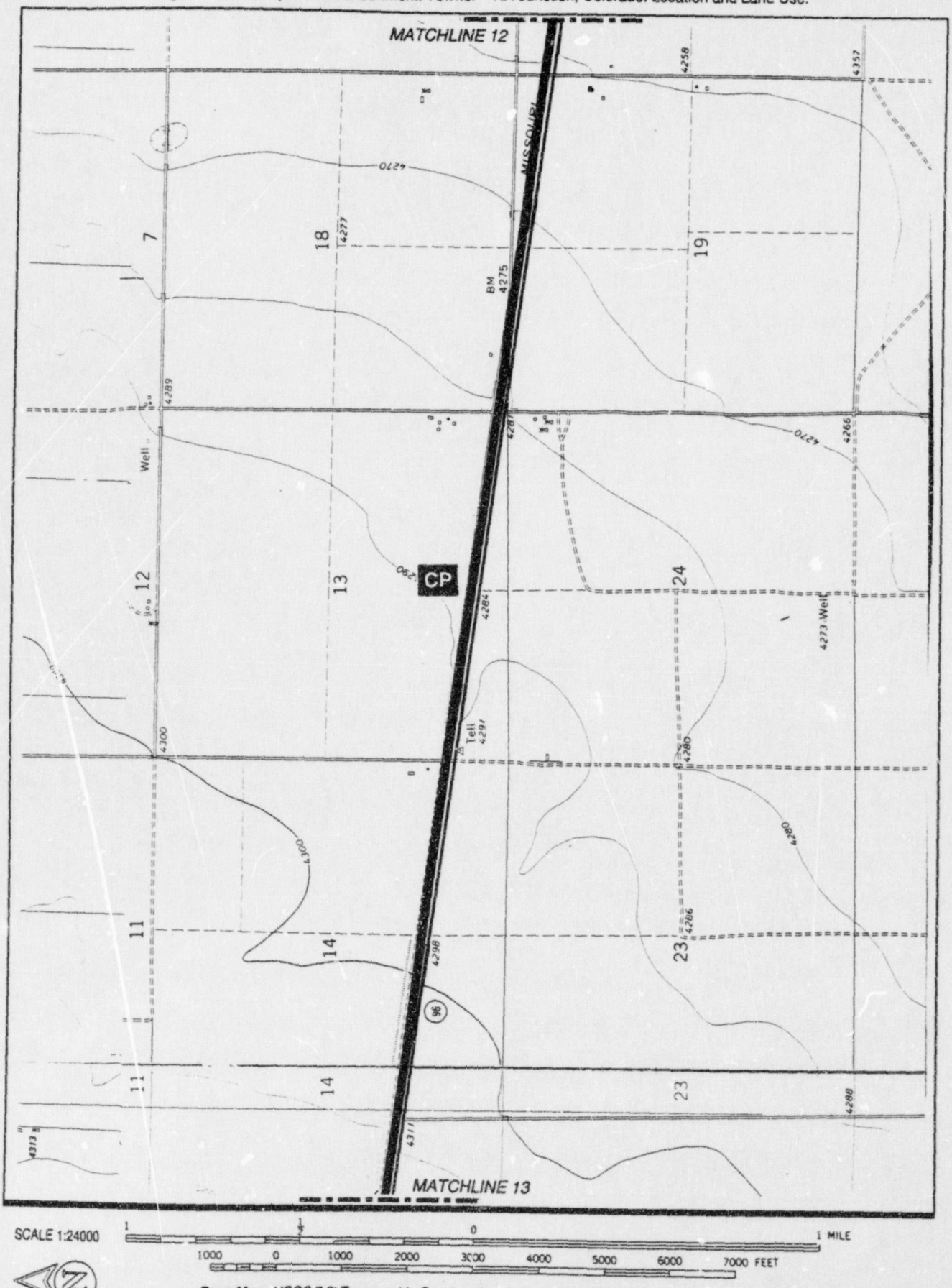
Base Map: *USGS 7.5' Topographic Quadrangles: Eads, Colorado 1968; Alkali Lake, Colorado 1968;*

Figure 5.5-12 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



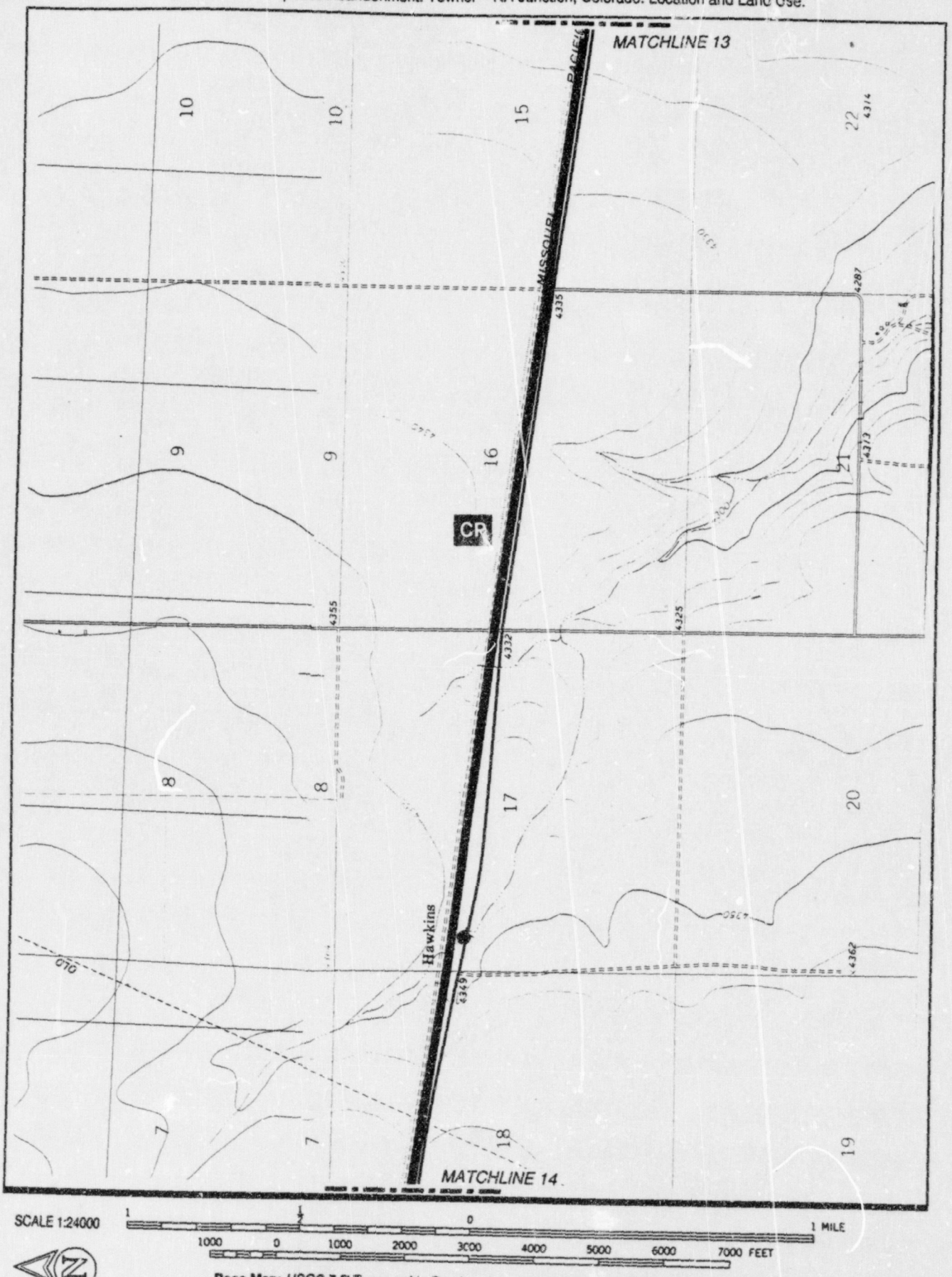
Base Map: *USGS 7.5' Topographic Quadrangle: Eads, Colorado 1968*

Figure 5.5-13 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



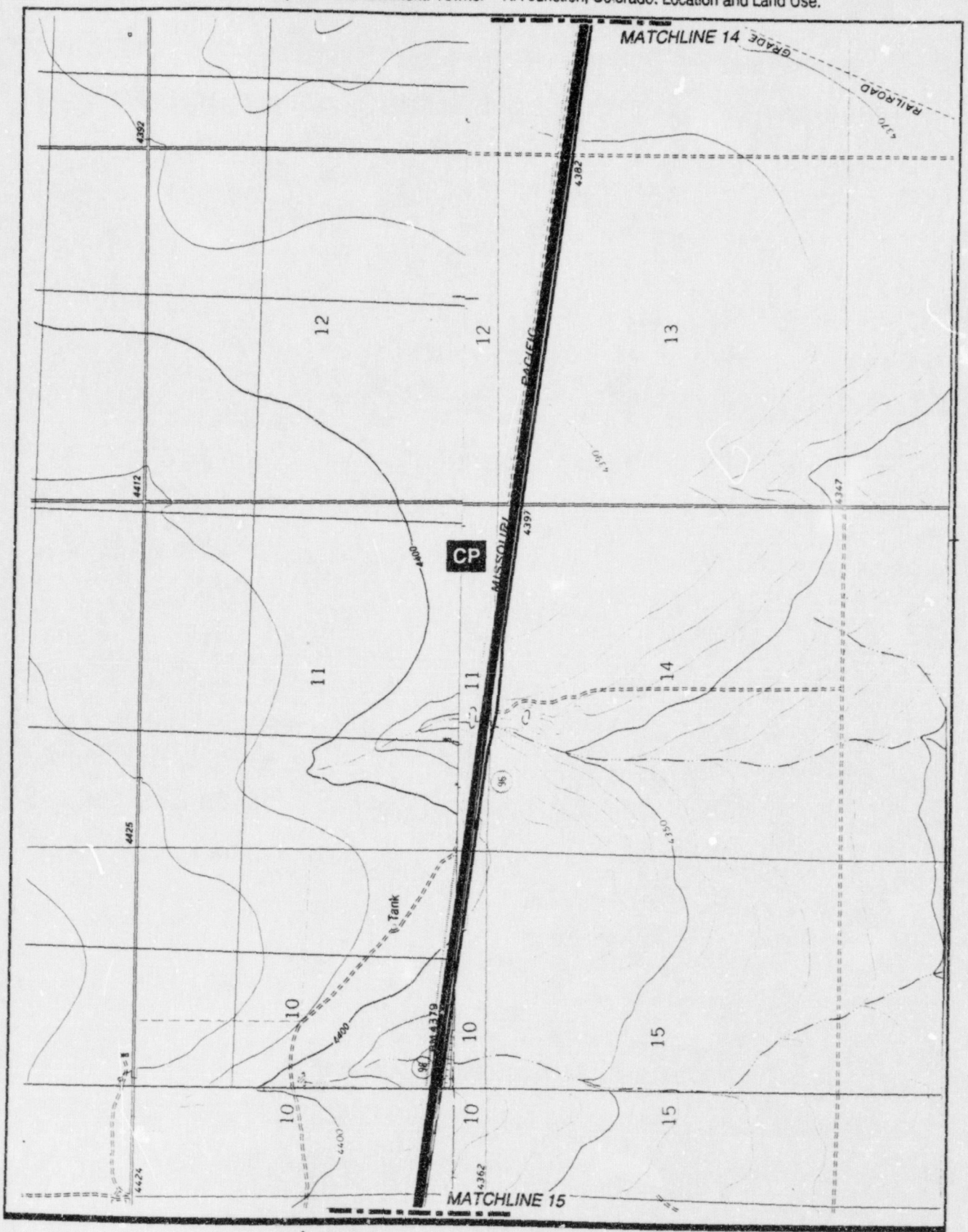
Base Map: *USGS 7.5' Topographic Quadrangles: Arsenic Lake SW, Colorado 1982; Dunlap Ranch, Colorado 1982 ; Hawkins. Colorado 1968; Eads, Colorado 1968*

Figure 5.5-14 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



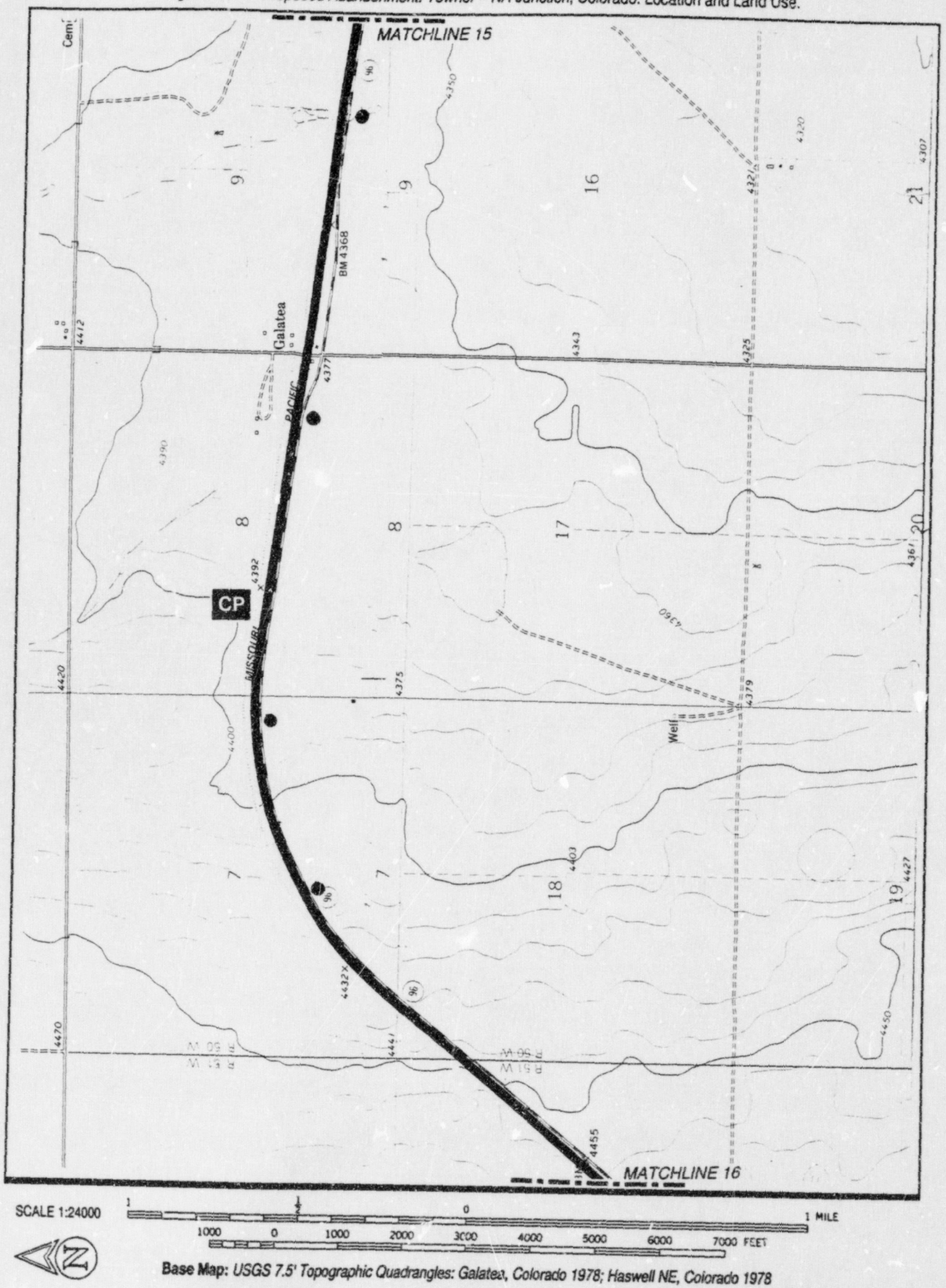
Base Map: *USGS 7.5' Topographic Quadrangles: Arsenic Lake SW, Colorado 1982; Hawkins, Colorado 1968*

Figure 5.5-15 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



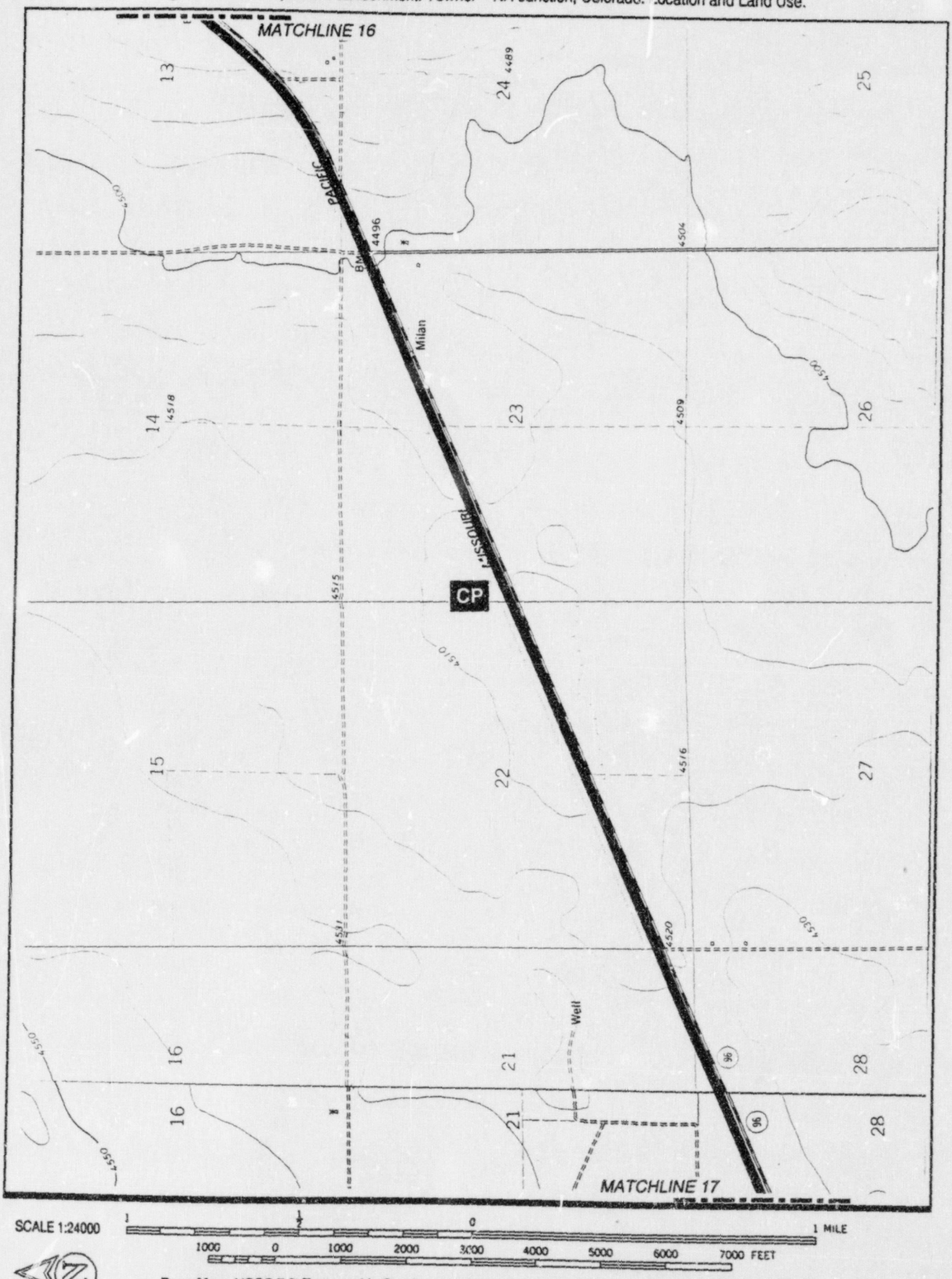
Base Map: *USGS 7.5' Topographic Quadrangles. Galatea, Colorado 1978; Arsenic Lake SW, Colorado 1982; Haswell NE, Colorado 1978; Hawkins, Colorado 1968*

Figure 5.5-16 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



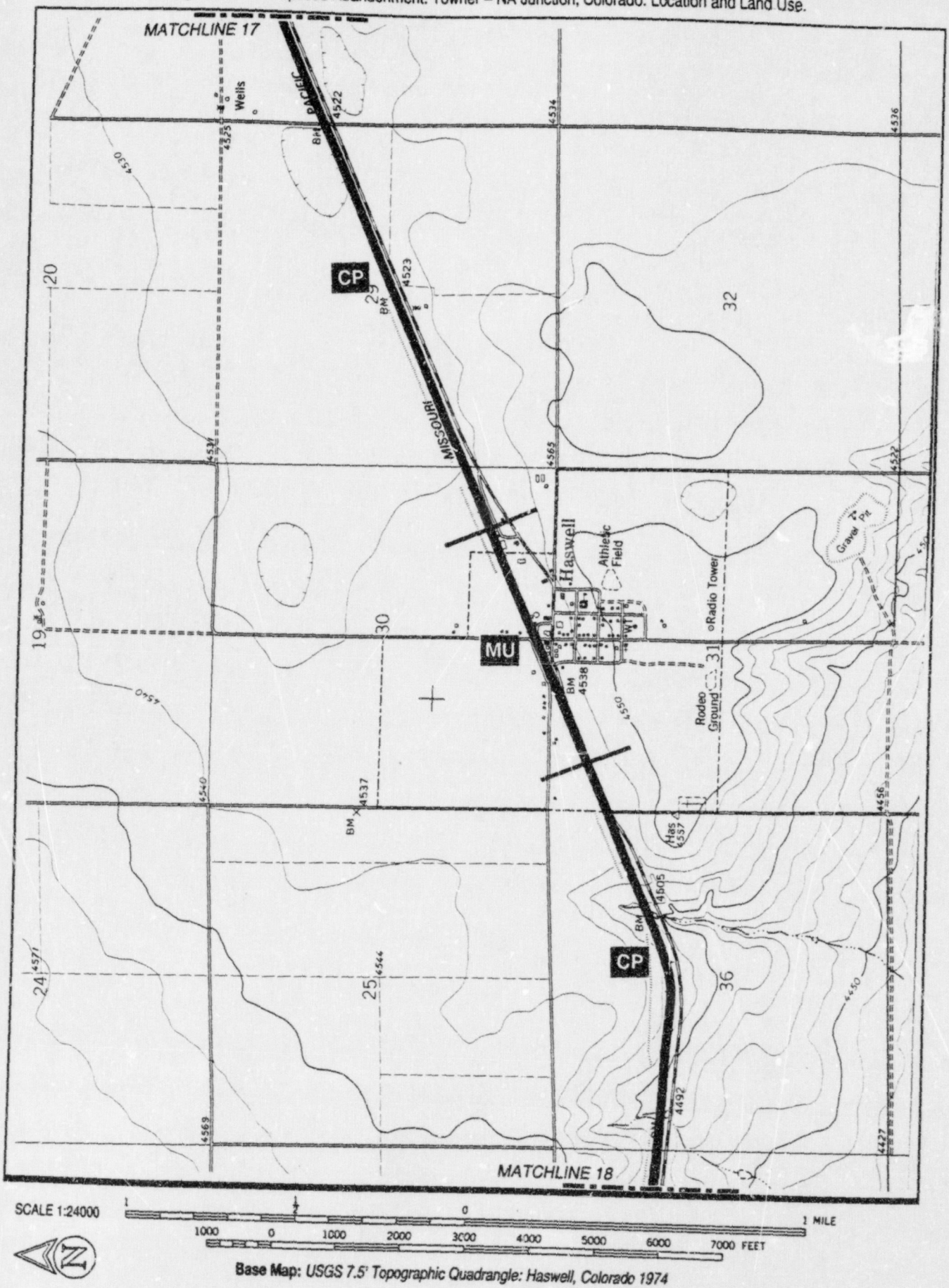
Base Map: *USGS 7.5' Topographic Quadrangles: Galatea, Colorado 1978; Haswell NE, Colorado 1978*

Figure 5.5-17 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



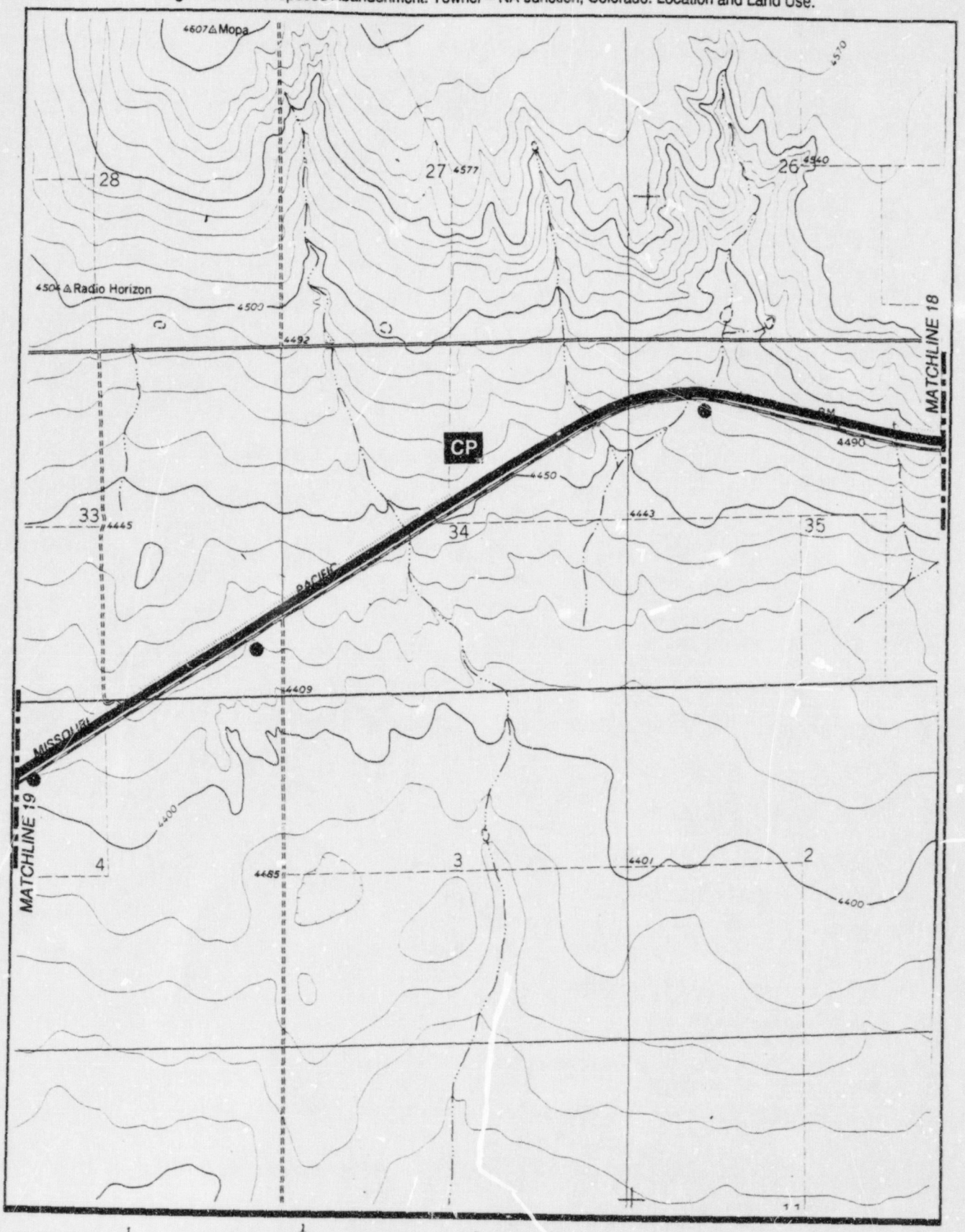
Base Map: *USGS 7.5' Topographic Quadrangles: Haswell, Colorado 1974; Haswell NE, Colorado 1978*

Figure 5.5-18 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle: Haswell, Colorado 1974*

Figure 5.5-19 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



SCALE 1:24000

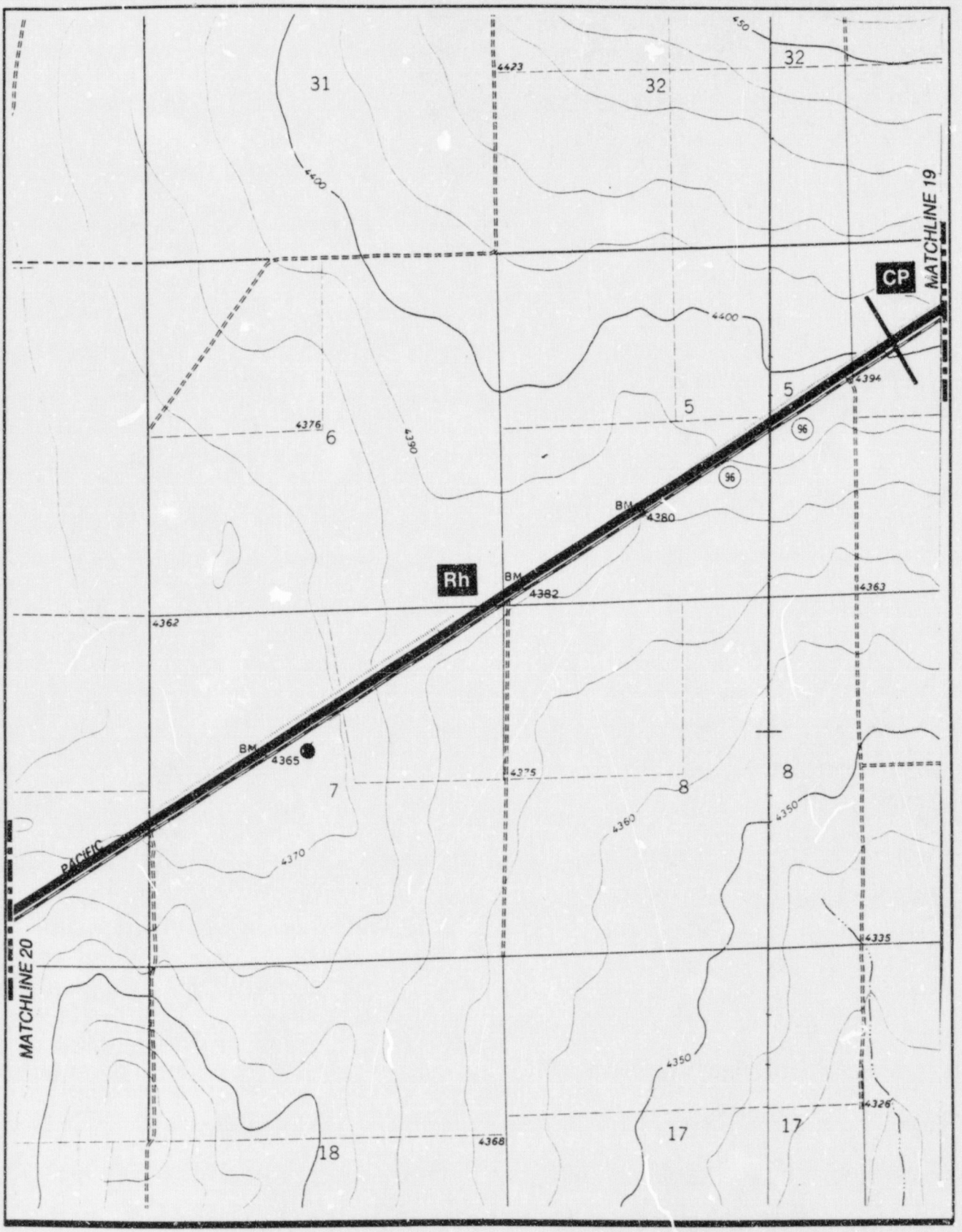
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

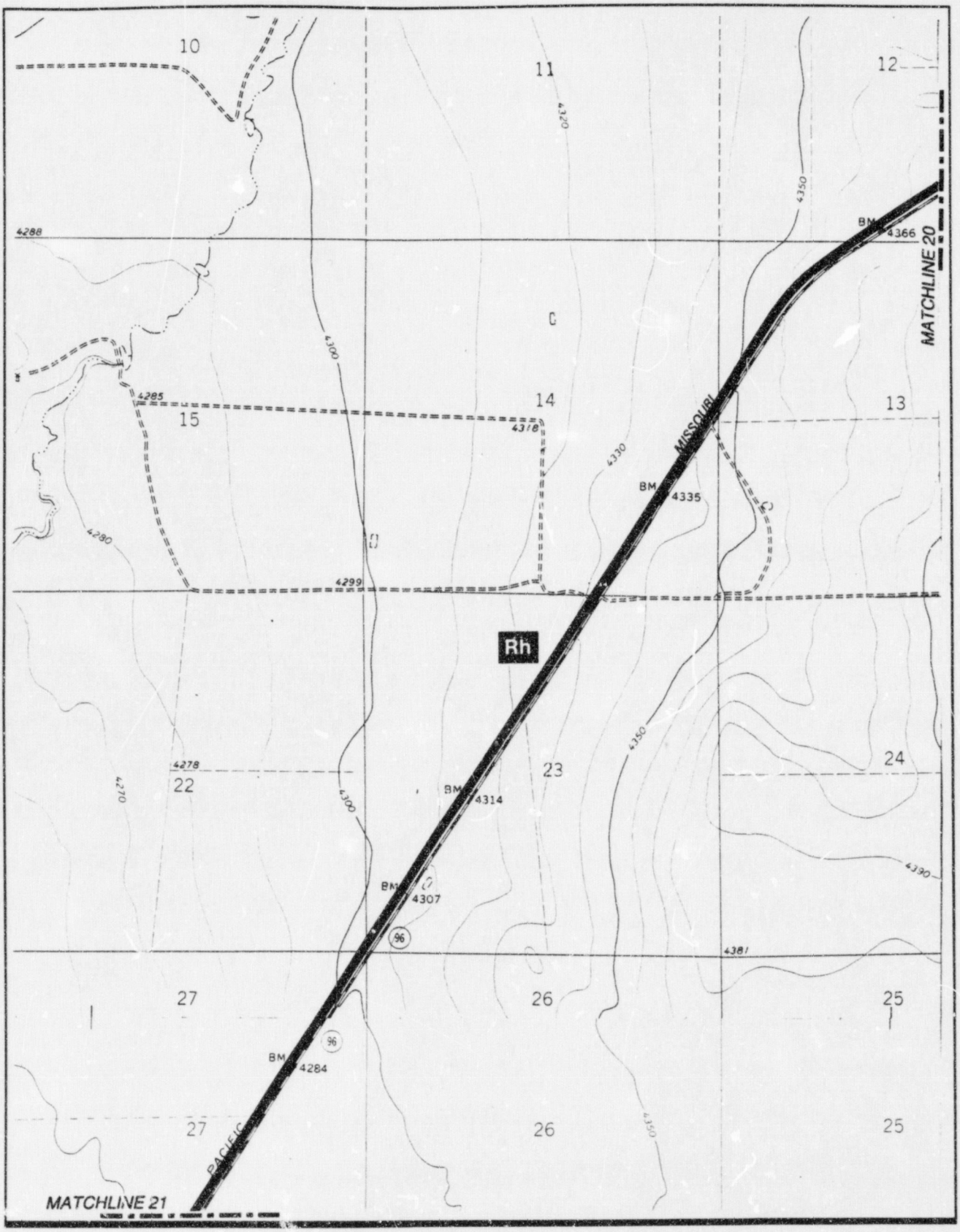
Base Map: *USGS 7.5' Topographic Quadrangle: Haswell, Colorado 1974*

Figure 5.5-20 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangles: Arlington NE, Colorado 1974; Haswell, Colorado 1974*

Figure 5.5-21 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangles: Arlington NE, Colorado 1974; Arlington, Colorado 1978*

UNION PACIFIC

Finance Docket No. 32760, VOLUME 6, PART 4

20

SOUTHERN LINES

Before the

INTERSTATE COMMERCE COMMISSION

Finance Docket No. 32760

FILED
NOV 30 1995
INTERSTATE COMMERCE COMMISSION

UNION PACIFIC CORPORATION, UNION PACIFIC RAILROAD COMPANY AND MISSOURI PACIFIC RAILROAD COMPANY
— CONTROL AND MERGER —
SOUTHERN PACIFIC RAIL CORPORATION, SOUTHERN PACIFIC TRANSPORTATION COMPANY, ST. LOUIS SOUTHWESTERN RAILWAY COMPANY, SPCSL CORP. AND THE DENVER AND RIO GRANDE WESTERN RAILROAD COMPANY

RAILROAD MERGER APPLICATION

VOLUME 6, PART 4

ENVIRONMENTAL REPORT (EXHIBIT 4) -
ABANDONMENTS

CANNON Y. HARVEY
LOUIS P. WARCHOT
CAROL A. HARRIS
Southern Pacific Transportation Company
One Market Plaza
San Francisco, California 94105
(415) 541-1000

PAUL A. CUNNINGHAM
RICHARD B. HERZOG
JAMES M. GUINIVAN
Harkins Cunningham
1300 Nineteenth Street, N.W.
Washington, D.C. 20036
(202) 973-7600

Attorneys for Southern Pacific Rail Corporation, Southern Pacific Transportation Company, St. Louis Southwestern Railway Company, SPCSL Corp. and The Denver and Rio Grande Western Railroad Company

ENTERED
Office of the Secretary
NOV 30 1995
Part of
Public Record

CARL W. VON BERNUTH
RICHARD J. RESSLER
Union Pacific Corporation
Martin Tower
Eighth and Eaton Avenues
Bethlehem, Pennsylvania 18018
(610) 861-3290

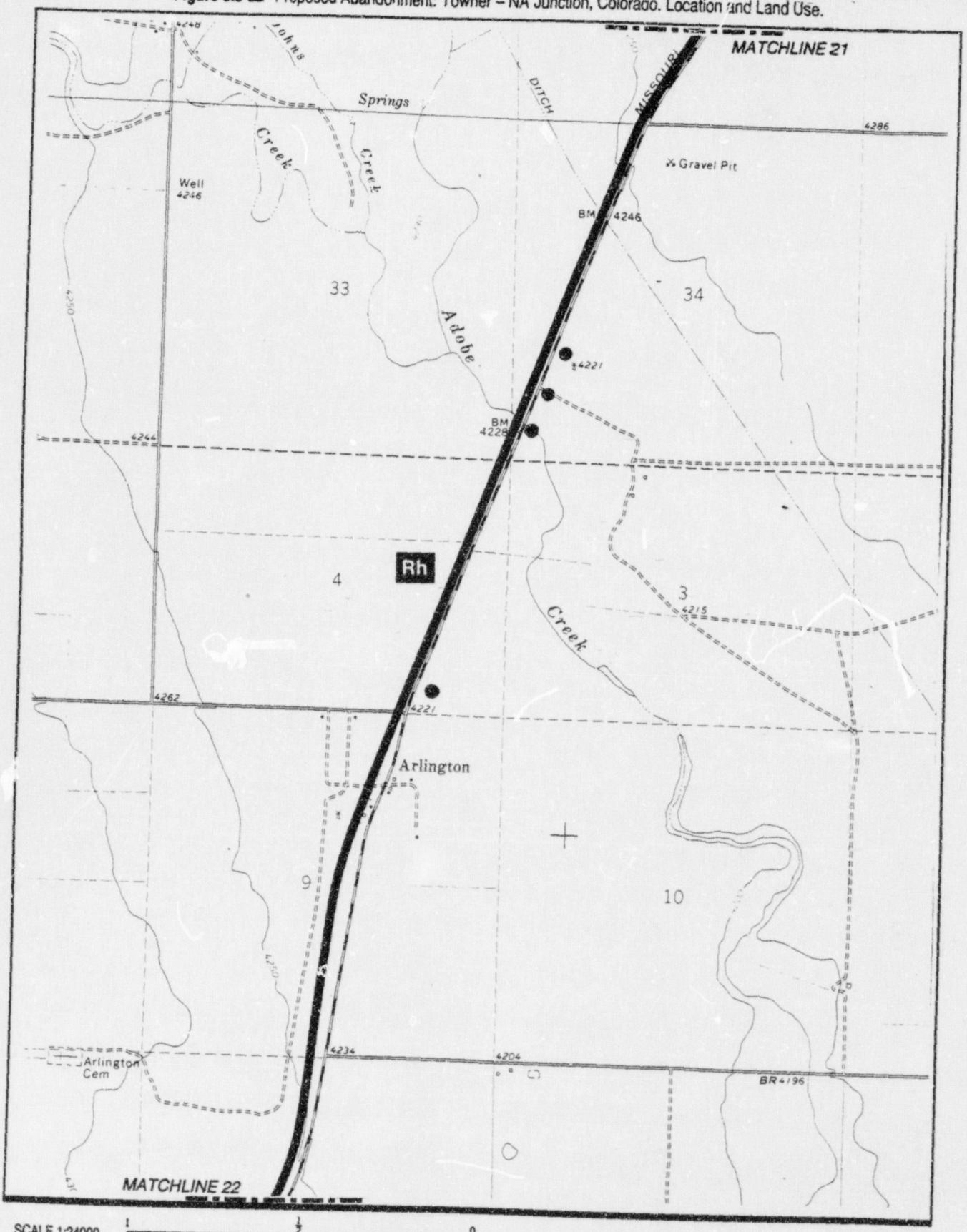
JAMES V. DOLAN
PAUL A. CONLEY, JR.
THOMAS E. GREENLAND
LOUISE A. RINN
Union Pacific Railroad Company
Missouri Pacific Railroad Company
1416 Dodge Street
Omaha, Nebraska 68179
(402) 271-5000

ARVID E. ROACH II
J. MICHAEL HEMMER
MICHAEL L. ROSENTHAL
Covington & Burling
1201 Pennsylvania Avenue, N.W.
P.O. Box 7566
Washington, D.C. 20044-7566
(202) 662-5388

Attorneys for Union Pacific Corporation, Union Pacific Railroad Company and Missouri Pacific Railroad Company

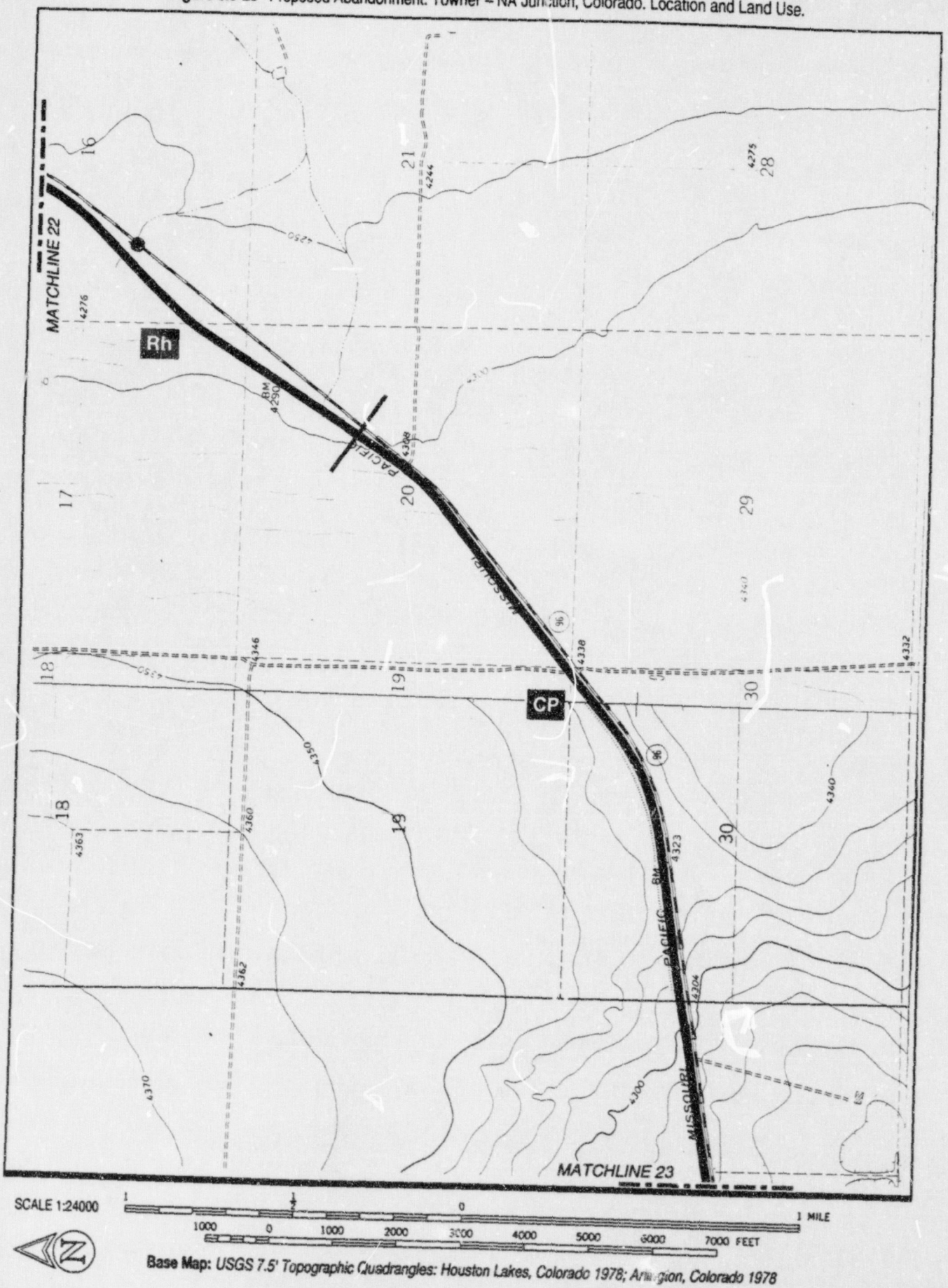
November 30, 1995

Figure 5.5-22 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



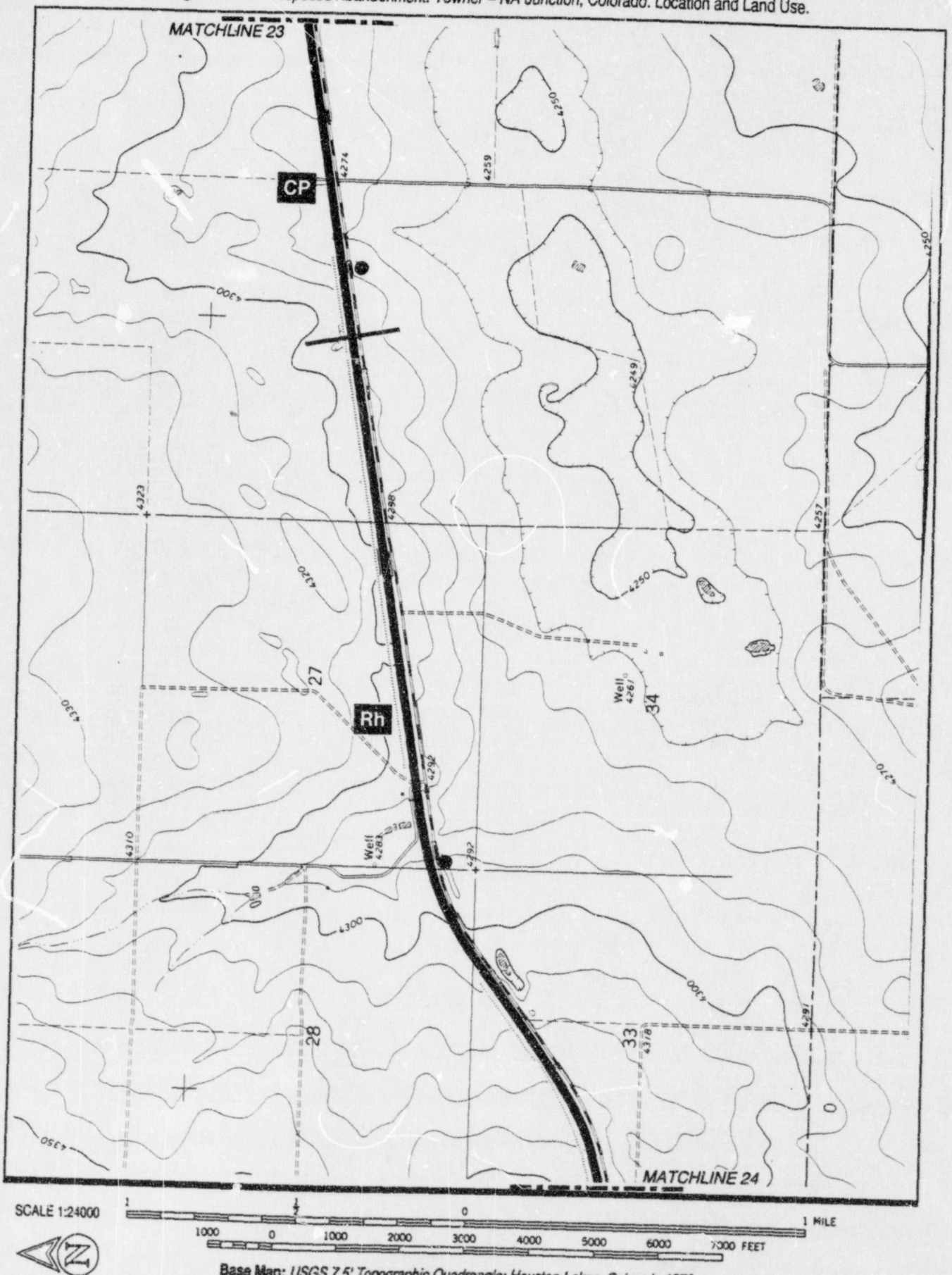
Base Map: *USGS 7.5' Topographic Quadrangle: Arlington, Colorado 1978*

Figure 5.5-23 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangles: Houston Lakes, Colorado 1978; Arlington, Colorado 1978*

Figure 5.5-24 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



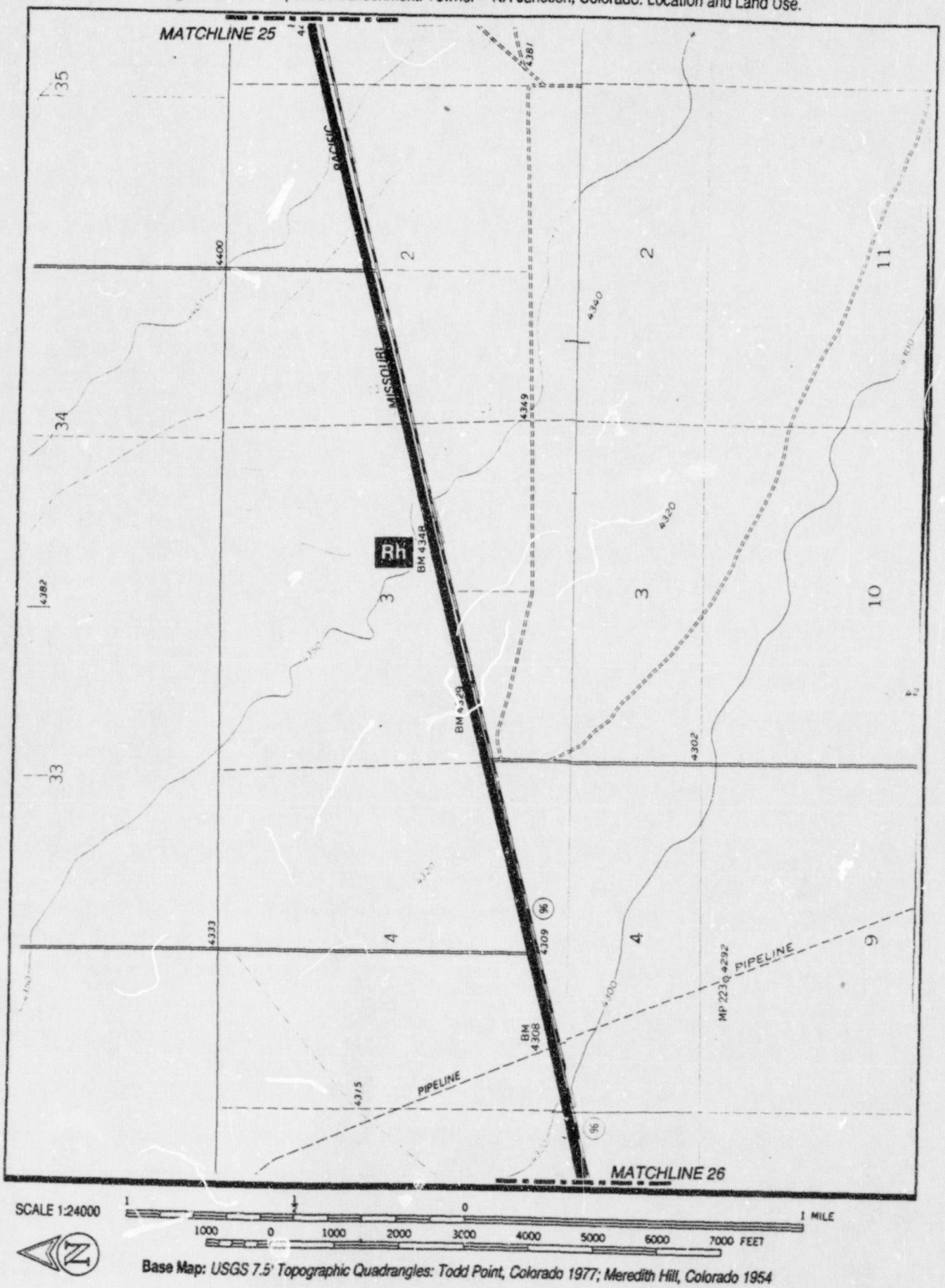
Base Map: *USGS 7.5' Topographic Quadrangle: Houston Lakes, Colorado 1978*

Figure 5.5-25 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



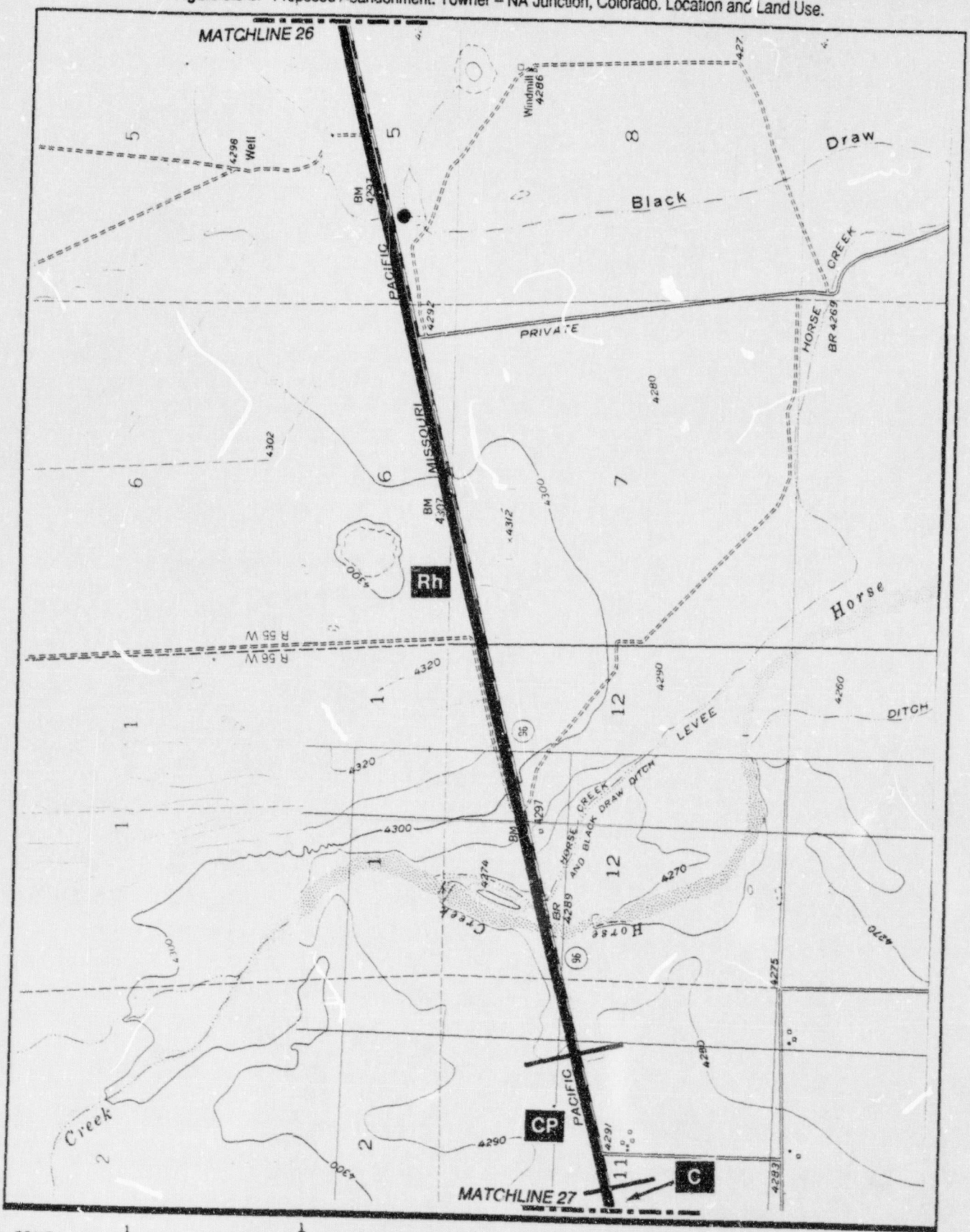
Base Map: *USGS 7.5' Topographic Quadrangles: Todd Point, Colorado 1977; Houston Lakes, Colorado 1978; Meredith Hill, Colorado 1954; Lewis Ranch, Colorado 1955*

Figure 5.5-26 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



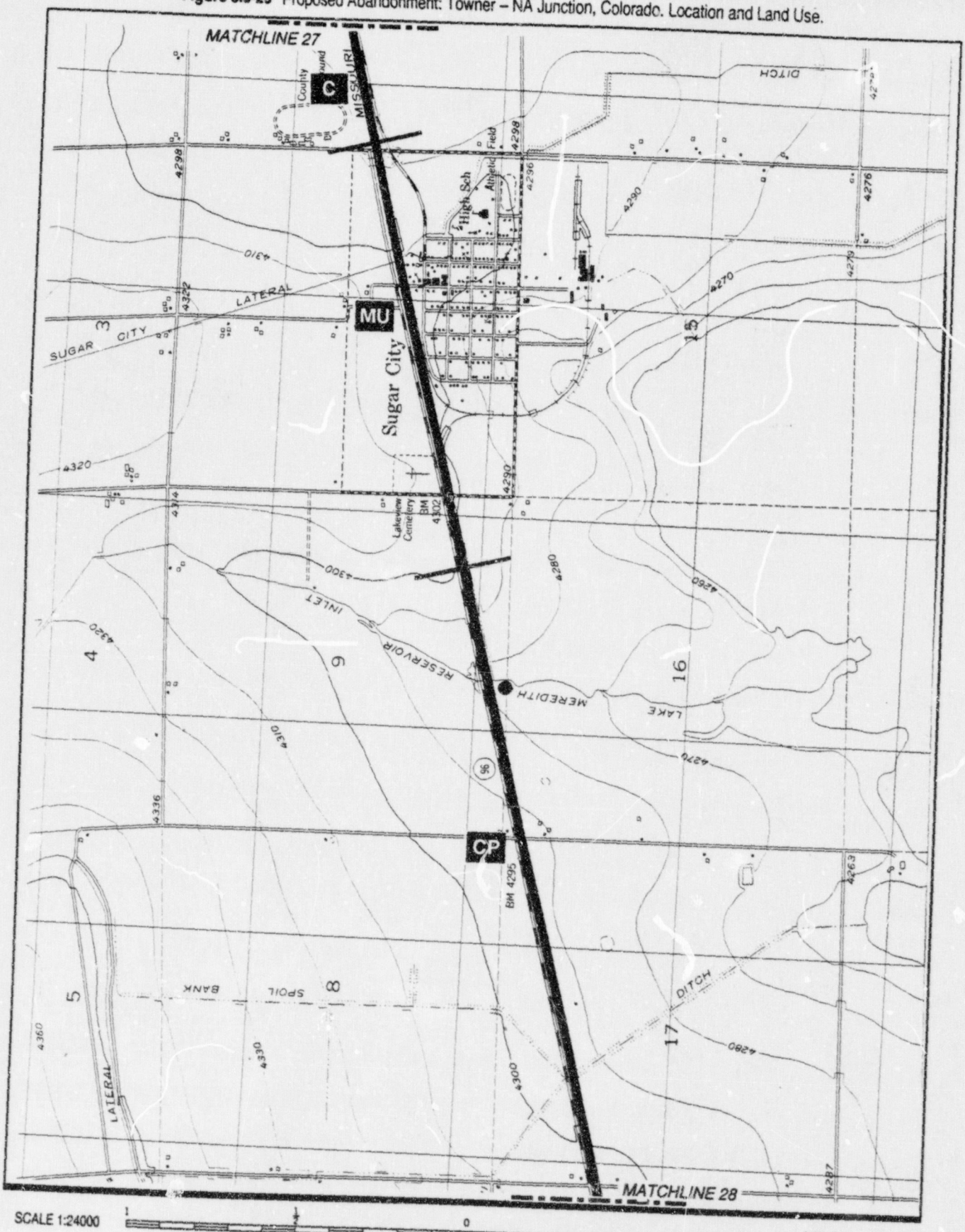
Base Map: *USGS 7.5' Topographic Quadrangles: Todd Point, Colorado 1977; Meredith Hill, Colorado 1954*

Figure 5.5-27 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



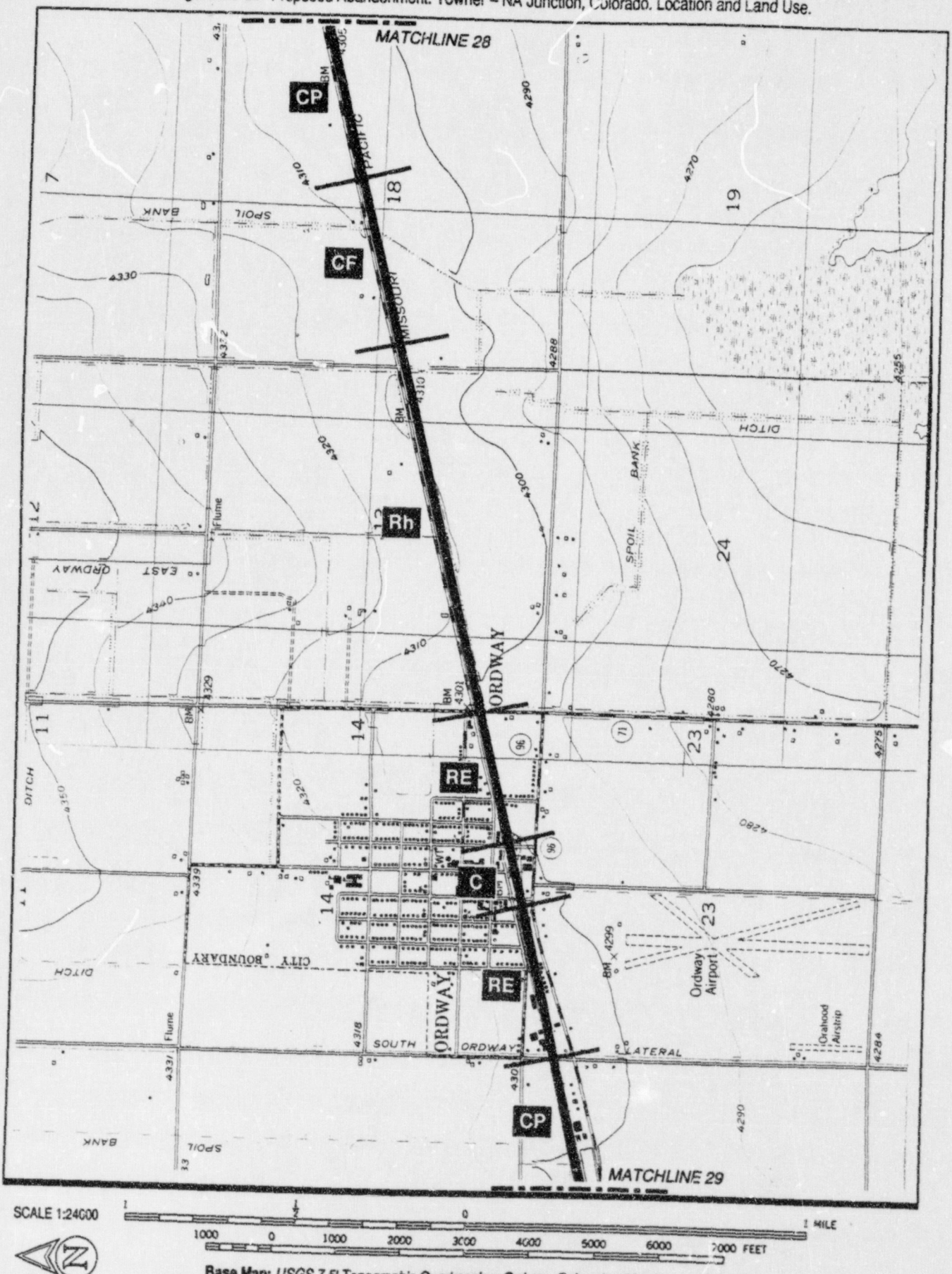
Base Map: *USGS 7.5' Topographic Quadrangles: Lake Henry, Colorado 1978; Todd Point, Colorado 1977; Sugar City, Colorado 1954 (Photoinspected 1976); Meredith Hill, Colorado 1974*

Figure 5.5-28 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



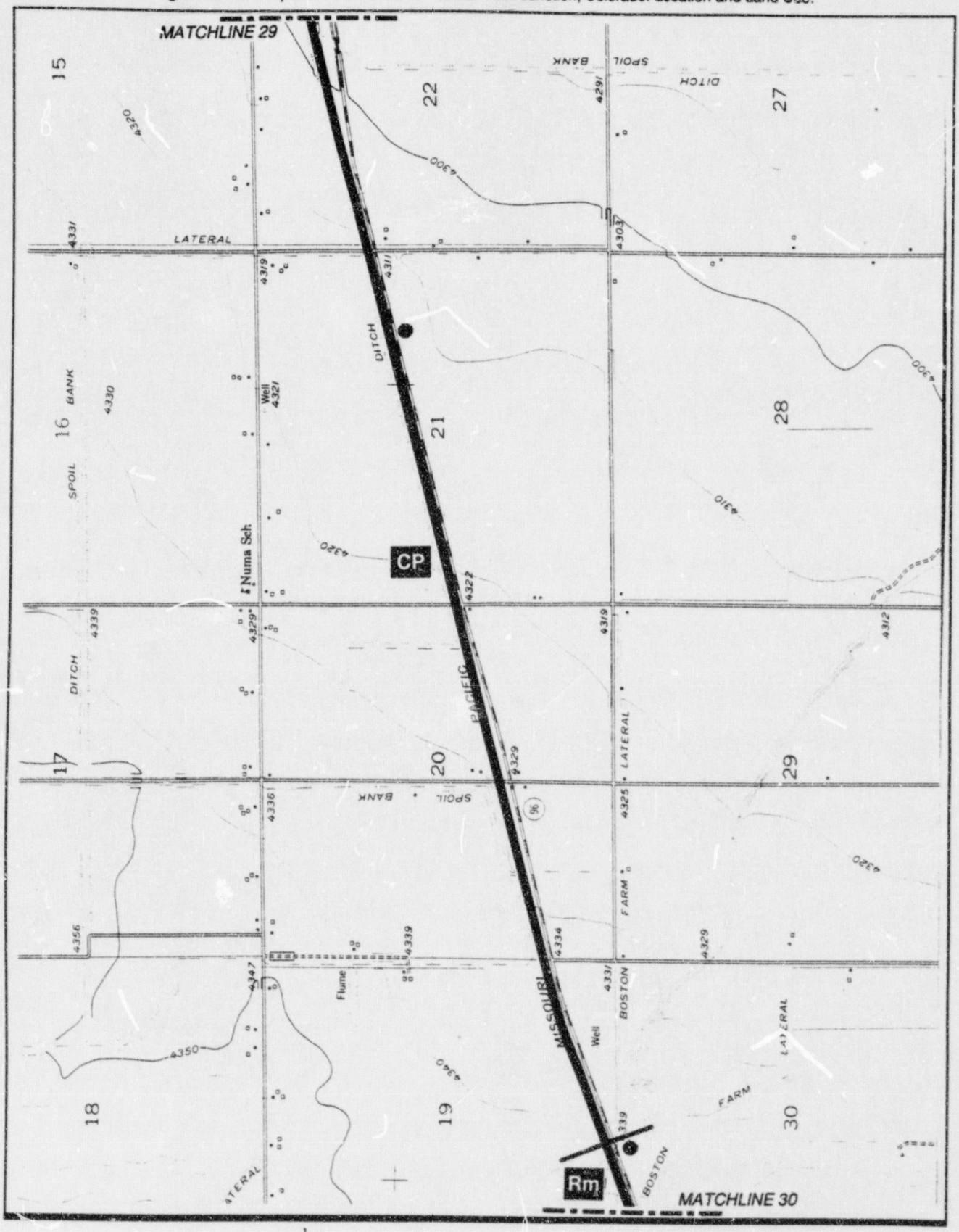
Base Map: *USGS 7.5' Topographic Quadrangle: Sugar City, Colorado 1954 (Photoinspected 1976)*

Figure 5.5-29 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



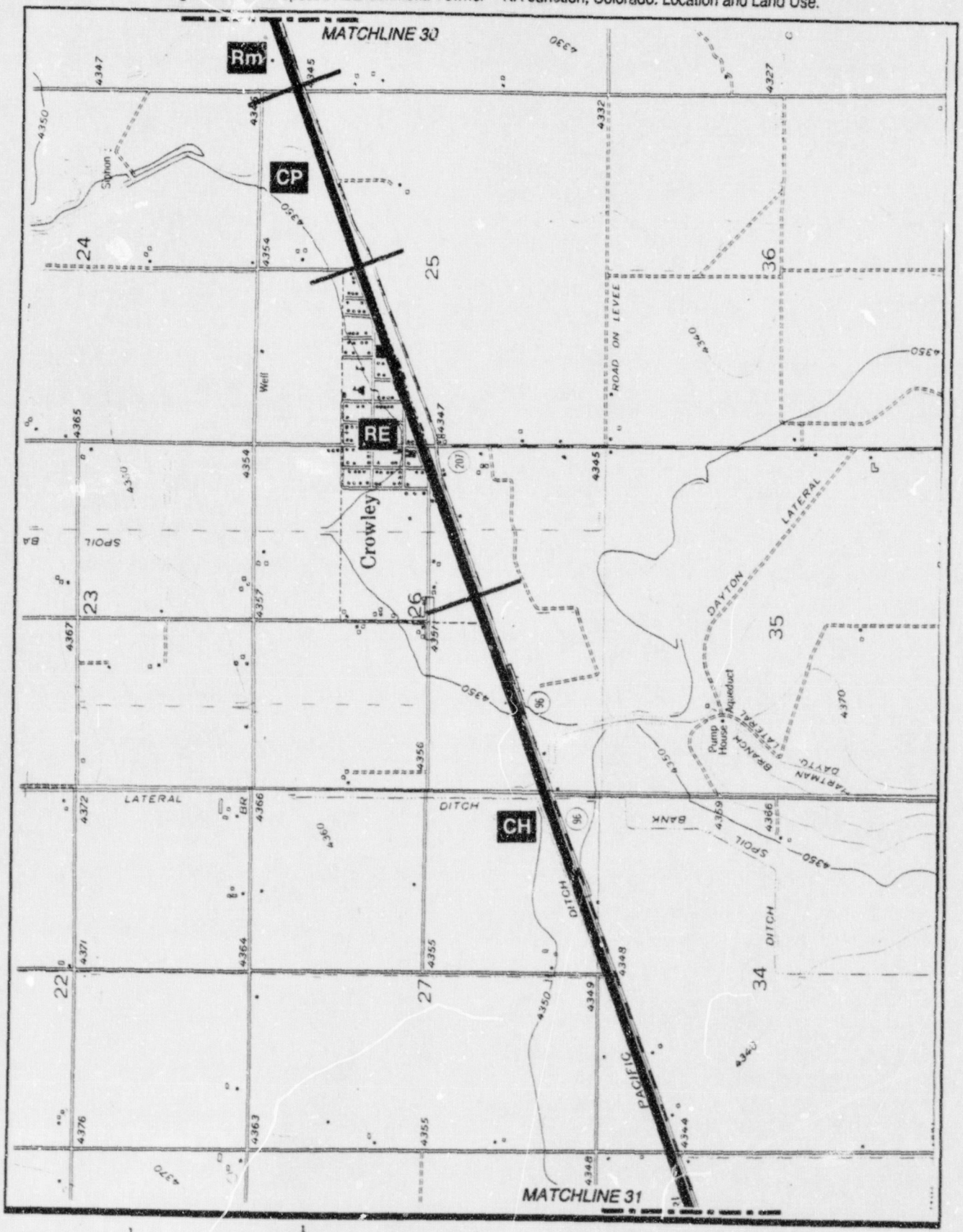
Base Map: *USGS 7.5' Topographic Quadrangles: Ordway, Colorado 1954; Sugar City, Colordado 1954 (Photoinspected 1976)*

Figure 5.5-30 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle: Ordway, Colorado 1954*

Figure 5.5.31 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



SCALE 1:24000

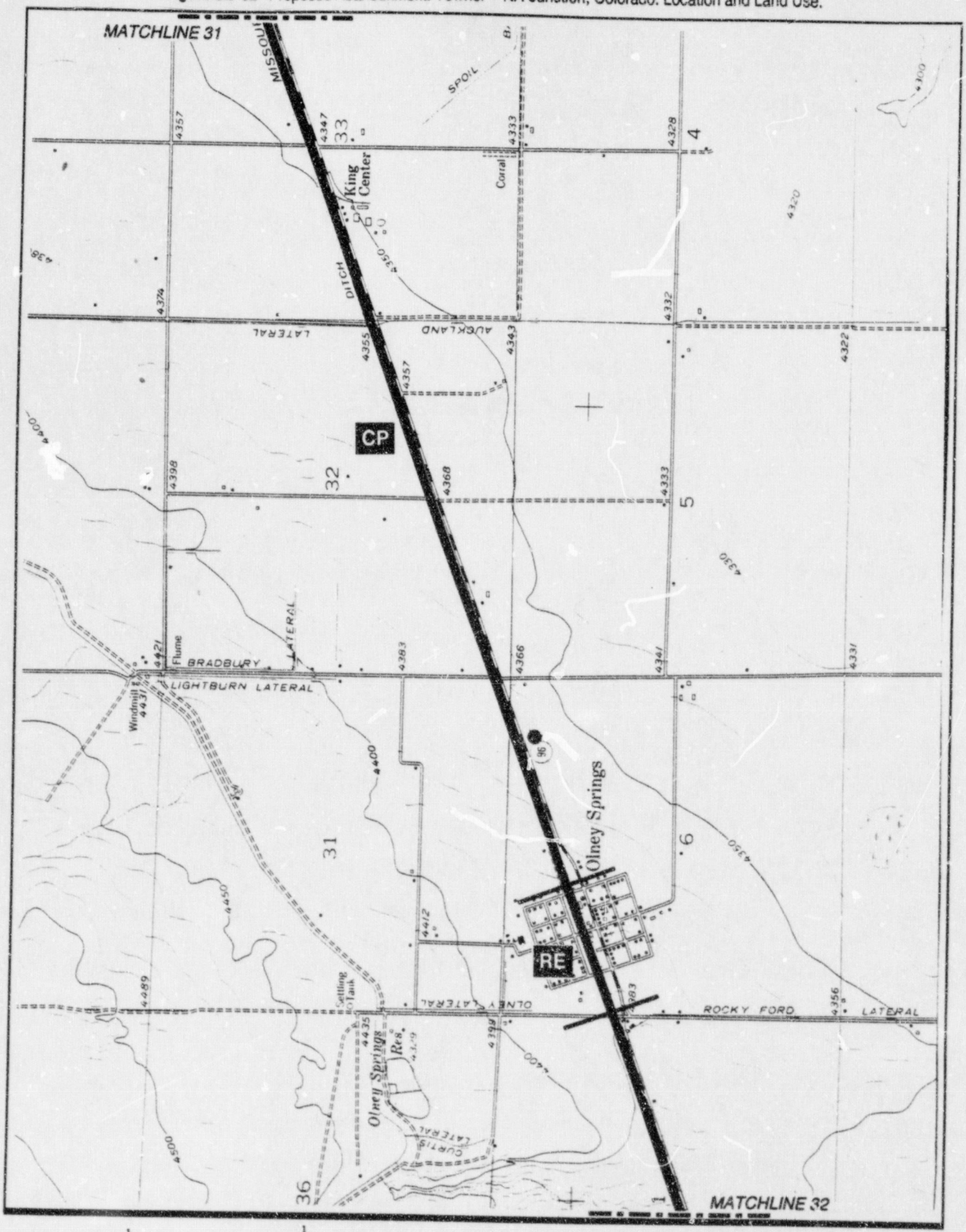
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangles: Olney Springs, Colorado 1954; Ordway, Colorado 1954*

Figure 5.5-32 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



SCALE 1:24000

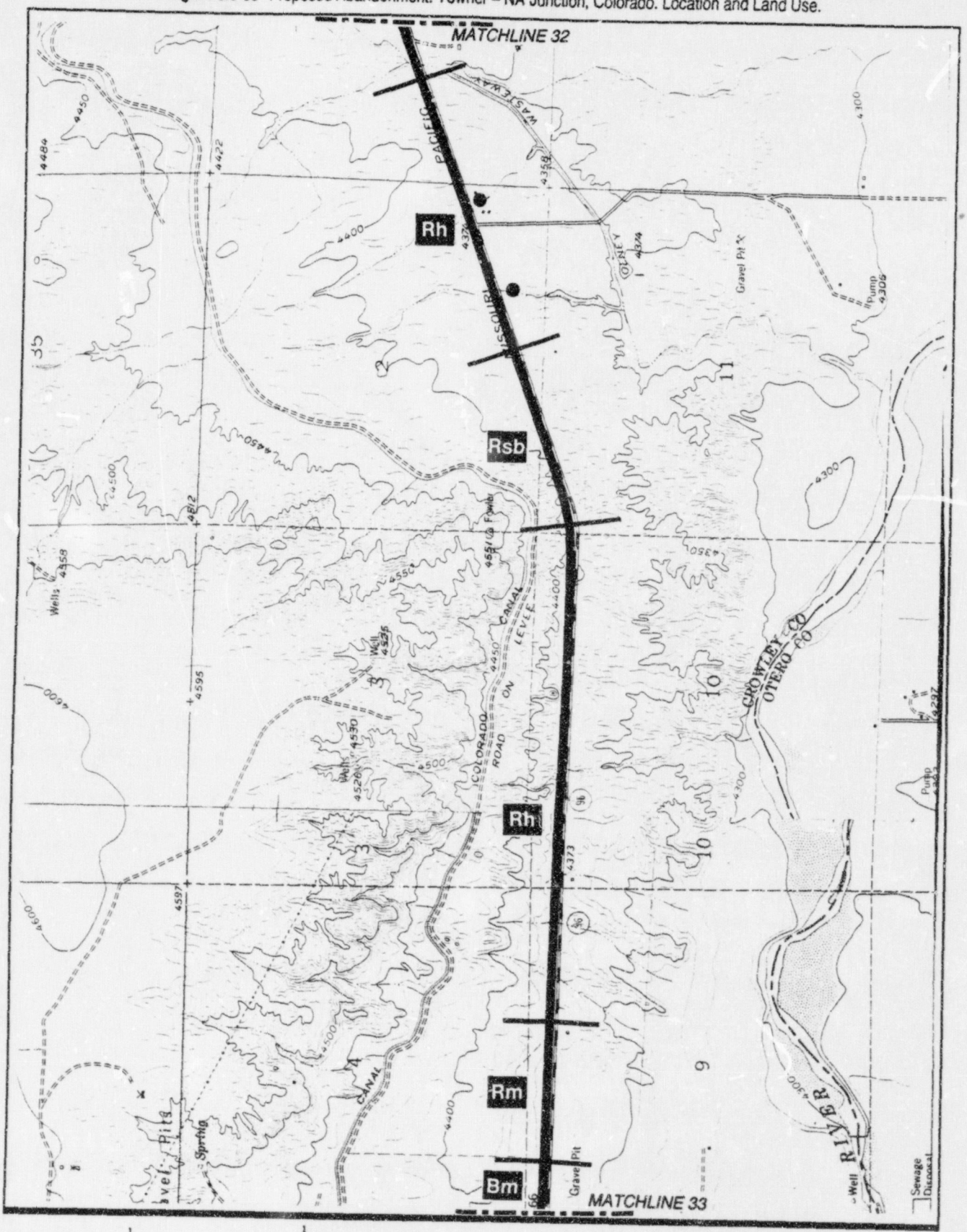
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

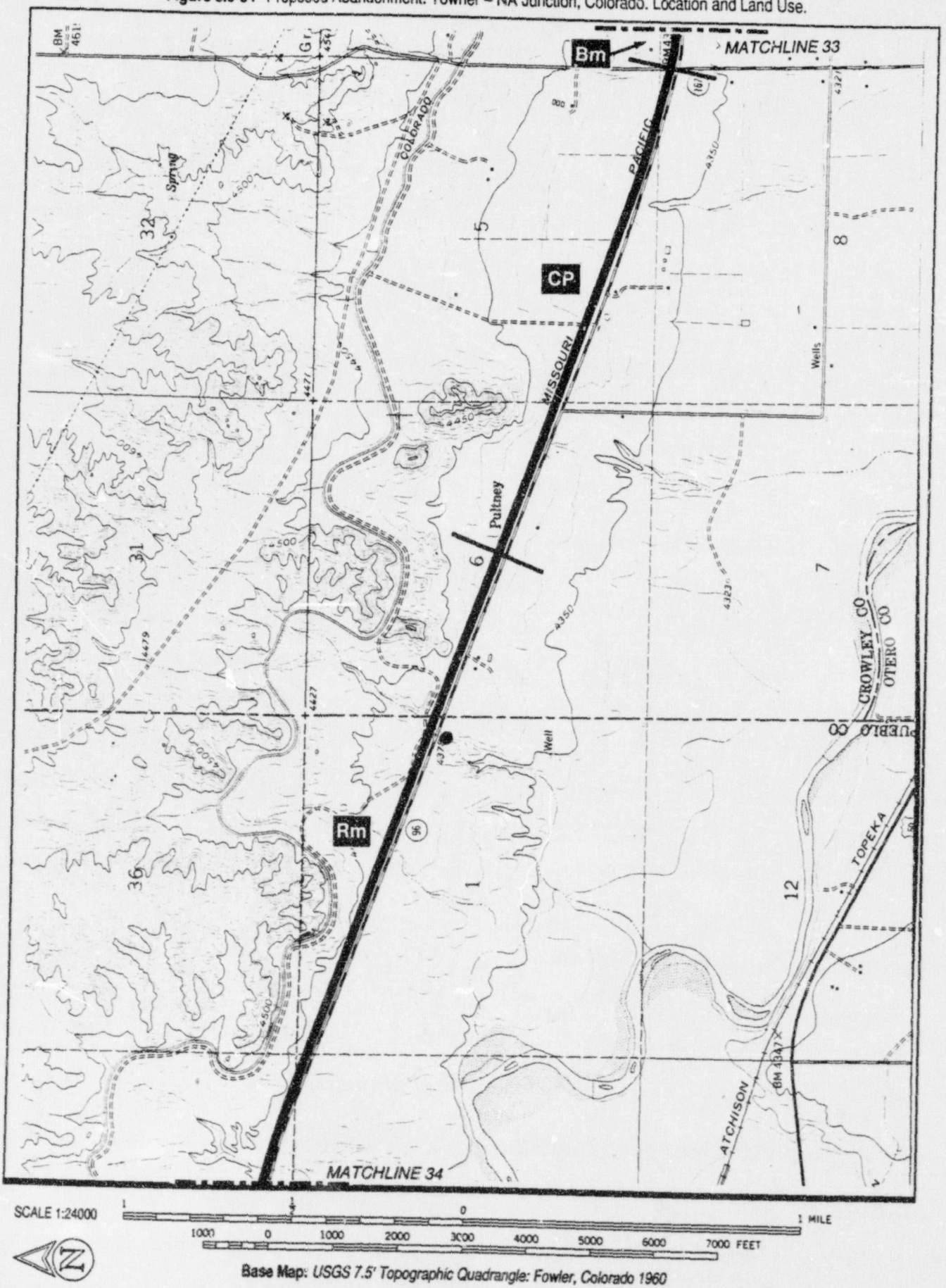
Base Map: *USGS 7.5' Topographic Quadrangle: Olney Springs, Colorado 1954*

Figure 5.5-33 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



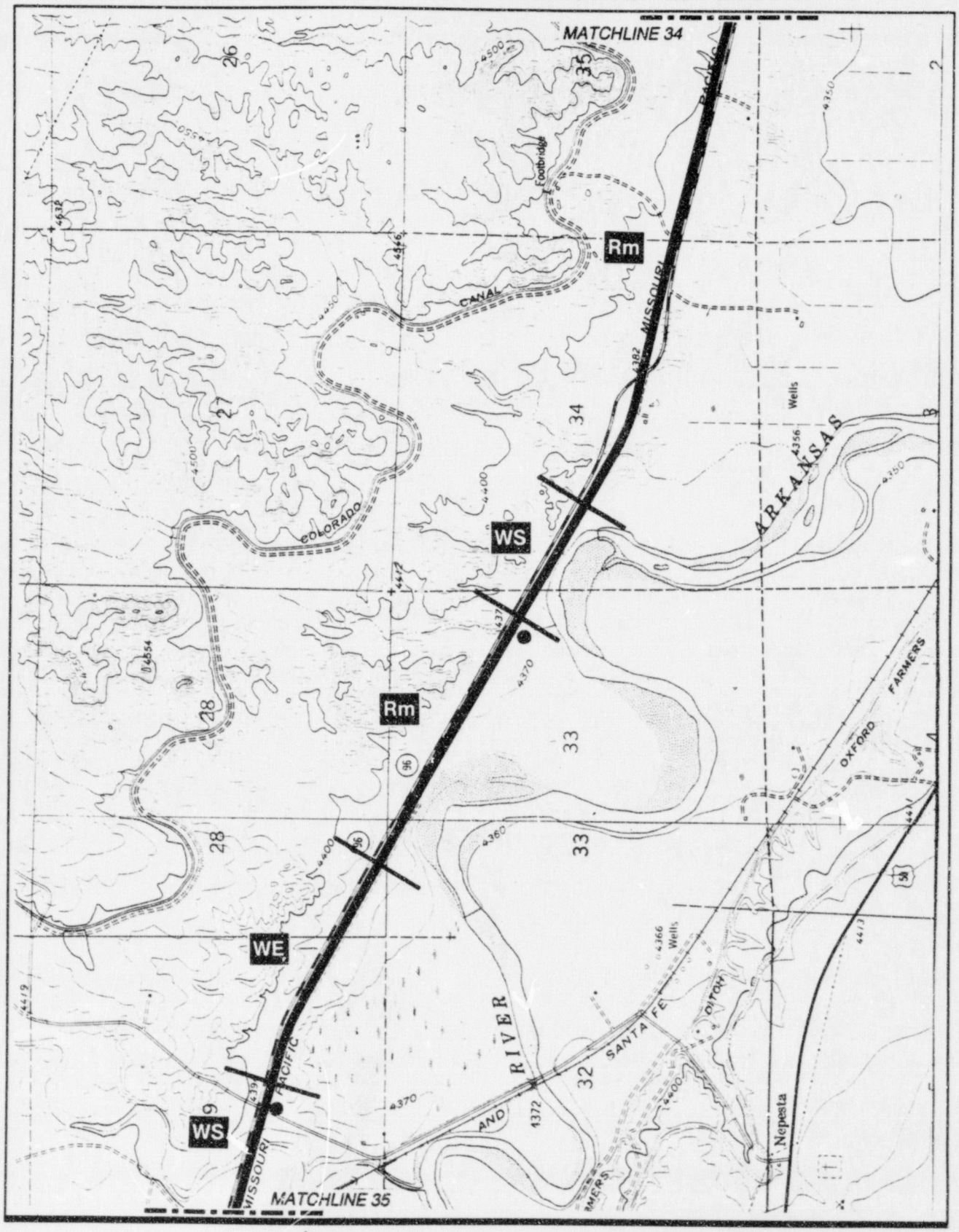
Base Map: *USGS 7.5' Topographic Quadrangles: Fowler, Colorado 1960; Olney Springs, Colorado 1954*

Figure 5.5-34 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



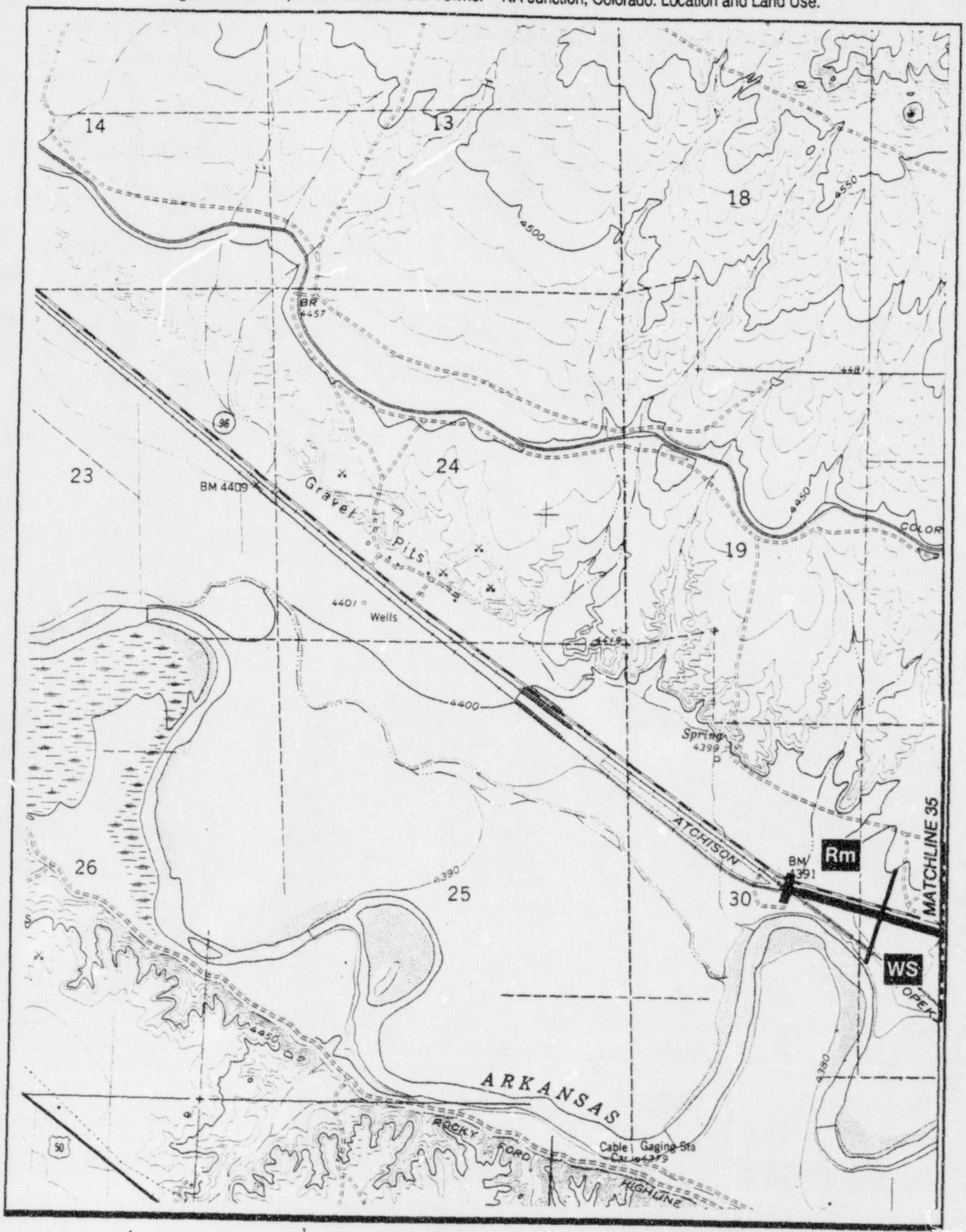
Base Map: *USGS 7.5' Topographic Quadrangle: Fowler, Colorado 1960*

Figure 5.5-35 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangles: Nepesta, Colorado 1960; Fowler, Colorado 1960*

Figure 5.5-36 Proposed Abandonment: Towner – NA Junction, Colorado. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle: Nepesta, Colorado 1960*

NWI LEGEND

E — ESTUARINE

1 — SUBTIDAL

RB — ROCK BOTTOM
1 Bedrock
2 Rubble

UB — UNCONSOLIDATED BOTTOM
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic

AB — AQUATIC BED
1 Algal
3 Rooted Vascular
4 Floating Vascular
5 *Unknown Submergent*
6 *Unknown Surface*

RF — REEF
2 Mollusc
3 Worm

OW — *OPEN WATER/ Unknown Bottom*

2 — INTERTIDAL

AB — AQUATIC BED
1 Algal
3 Rooted Vascular
4 Floating Vascular
5 *Unknown Submergent*
6 *Unknown Surface*

RF — REEF
2 Mollusc
3 Worm

SB — STREAMBED
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic

RS — ROCKY SHORE
1 Bedrock
2 Rubble

US — UNCONSOLIDATED SHORE
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic

EM — EMERGENT
1 Persistent
2 Nonpersistent

SS — SCRUB-SHRUB
1 Broad-Leaved *Deciduous*
2 Needle-Leaved *Deciduous*
3 Broad-Leaved *Evergreen*
4 Needle-Leaved *Evergreen*
5 Dead
6 *Deciduous*
7 *Evergreen*

FO — FORESTED
1 Broad-Leaved *Deciduous*
2 Needle-Leaved *Deciduous*
3 Broad-Leaved *Evergreen*
4 Needle-Leaved *Evergreen*
5 Dead
6 *Deciduous*
7 *Evergreen*

L — LACUSTRINE

1 — LIMNETIC

RB — ROCK BOTTOM
1 Bedrock
2 Rubble

UB — UNCONSOLIDATED BOTTOM
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic

AB — AQUATIC BED
1 Algal
2 Aquatic Moss
3 Rooted Vascular
4 Floating Vascular
5 *Unknown Submergent*
6 *Unknown Surface*

OW — *OPEN WATER/ Unknown Bottom*

2 — LITTORAL

RB — ROCK BOTTOM
1 Bedrock
2 Rubble

UB — UNCONSOLIDATED BOTTOM
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic

AB — AQUATIC BED
1 Algal
2 Aquatic Moss
3 Rooted Vascular
4 Floating Vascular
5 *Unknown Submergent*
6 *Unknown Surface*

RS — ROCKY SHORE
1 Bedrock
2 Rubble

US — UNCONSOLIDATED SHORE
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic
5 Vegetated

EM — EMERGENT
2 Nonpersistent

OW — *OPEN WATER/ Unknown Bottom*

MODIFIERS

In order to more adequately describe wetland and deepwater habitats one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.

WATER REGIME

Non-Tidal

A Temporarily Flooded
B Saturated
C Seasonally Flooded
D *Seasonally Flooded/ Well Drained*
E *Seasonally Flooded/ Saturated*
F Semipermanently Flooded
G Intermittently Exposed
H Permanently Flooded
J Intermittently Flooded
K *Artificially Flooded*
W Intermittently Flooded/Temporary
Y Saturated/Semipermanent/ Seasonal
Z Intermittently Exposed/Permanent
U *Unknown*

Tidal

K *Artificially Flooded*
L Subtidal
M Irregularly Exposed
N Regularly Flooded
P Irregularly Flooded
*S Temporary-Tidal
*R Seasonal-Tidal
*T Semipermanent-Tidal
*V *Permanent-Tidal*
U *Unknown*

*These water regimes are only used in tidally influenced, freshwater systems.

WATER CHEMISTRY

Coastal Halinity

1 Hyperhaline
2 Euhaline
3 Mixohaline *(Brackish)*
4 Polyhaline
5 Mesohaline
6 Oligohaline
0 Fresh

Inland Salinity

7 Hypersaline
8 Eusaline
9 Mixosaline
0 Fresh

pH Modifiers for all Fresh Water

a Acid
b Circumneutral
c Alkaline

SOIL

g Organic
n Mineral

SPECIAL MODIFIERS

b *Beaver*
d *Partially Drained/Ditched*
f Farmed
h *Diked/Impounded*
r Artificial Substrate
s *Spoil*
x Excavated

Instructions for using the legend:

The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral." The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

NWI LEGEND

SYSTEM — M — MARINE

SUBSYSTEM — 1 — SUBTIDAL; 2 — INTERTIDAL

CLASS	Subclass
RB — ROCK BOTTOM	1 Bedrock 2 Rubble
UB — UNCONSOLIDATED BOTTOM	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic
AB — AQUATIC BED	1 Algal 3 Rooted Vascular 5 *Unknown Submergent*
RF — REEF	1 Coral 3 Worm
OW — *OPEN WATER/ Unknown Bottom*	
AB — AQUATIC BED	1 Algal 3 Rooted Vascular 5 *Unknown Submergent*
RF — REEF	1 Coral 3 Worm
RS — ROCKY SHORE	1 Bedrock 2 Rubble
US — UNCONSOLIDATED SHORE	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic

SYSTEM — R — RIVERINE

SUBSYSTEM — 1 — TIDAL; 2 — LOWER PERENNIAL; 3 — UPPER PERENNIAL; 4 — INTERMITTENT; 5 — *UNKNOWN PERENNIAL*

CLASS	Subclass
RB — ROCK BOTTOM	1 Bedrock 2 Rubble
UB — UNCONSOLIDATED BOTTOM	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic
*SB — STREAMBED	1 Bedrock 2 Rubble 3 Cobble-Gravel 4 Sand 5 Mud 6 Organic 7 Vegetated
AB — AQUATIC BED	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 *Unknown Submergent* 6 *Unknown Surface*
RS — ROCKY SHORE	1 Bedrock 2 Rubble
US — UNCONSOLIDATED SHORE	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated
**EM — EMERGENT	2 Nonpersistent
OW — *OPEN WATER/ Unknown Bottom*	

*STREAMBED is limited to TIDAL and INTERMITTENT SUBSYSTEMS, and comprises the only CLASS in the INTERMITTENT SUBSYSTEM
**EMERGENT is limited to TIDAL and LOWER PERENNIAL SUBSYSTEMS

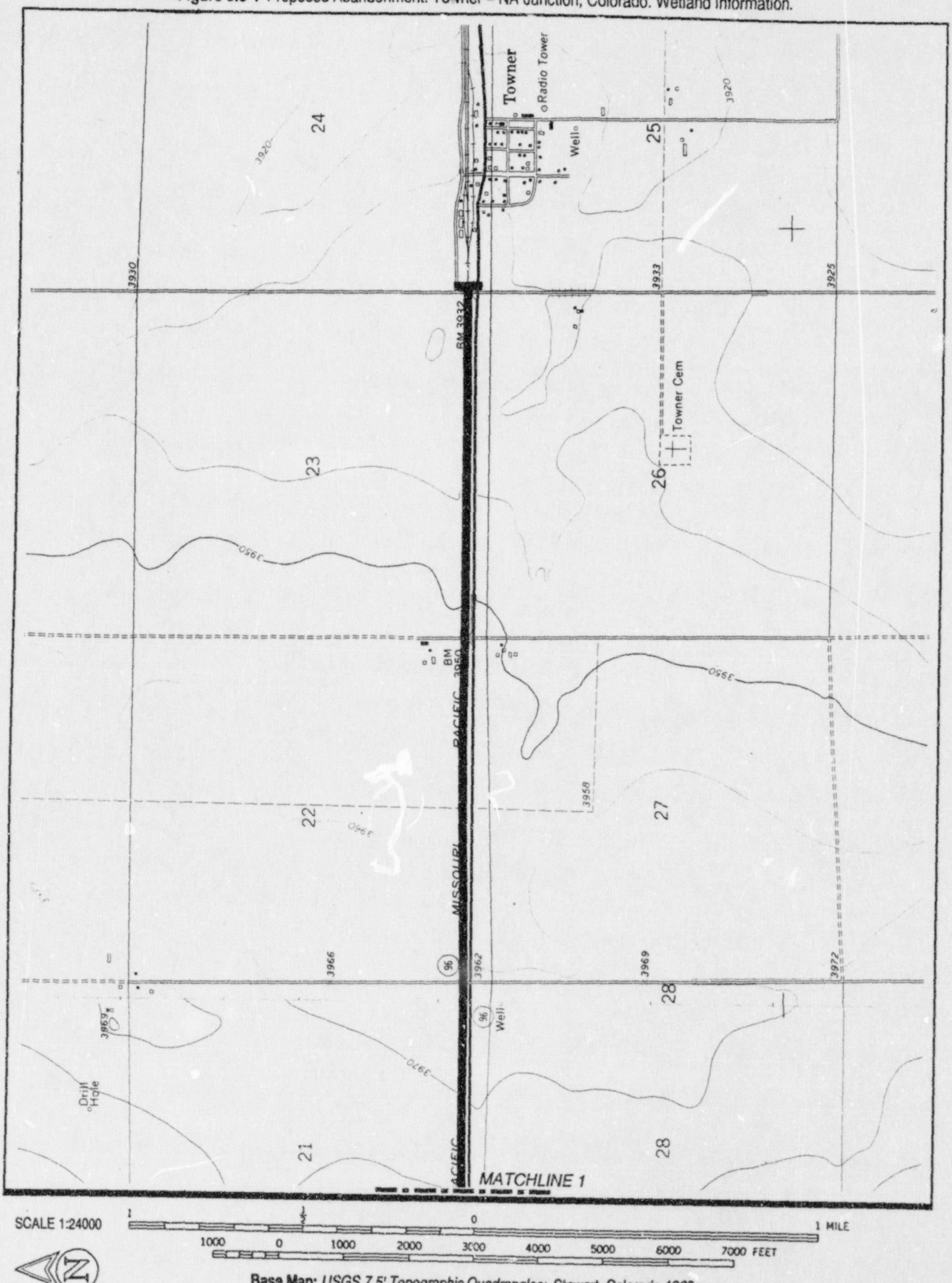
SYSTEM — P — PALUSTRINE

CLASS	Subclass
RB — ROCK BOTTOM	1 Bedrock 2 Rubble
UB — UNCONSOLIDATED BOTTOM	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic
AB — AQUATIC BED	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 *Unknown Submergent* 6 *Unknown Surface*
US — UNCONSOLIDATED SHORE	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated
ML — MOSS LICHEN	1 Moss 2 Lichen
EM — EMERGENT	1 Persistent 2 Nonpersistent
SS — SCRUB-SHRUB	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 *Deciduous* 7 *Evergreen*
FO — FORESTED	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 *Deciduous* 7 *Evergreen*
OW — *OPEN WATER/ Unknown Bottom*	

instructions for using the legend:

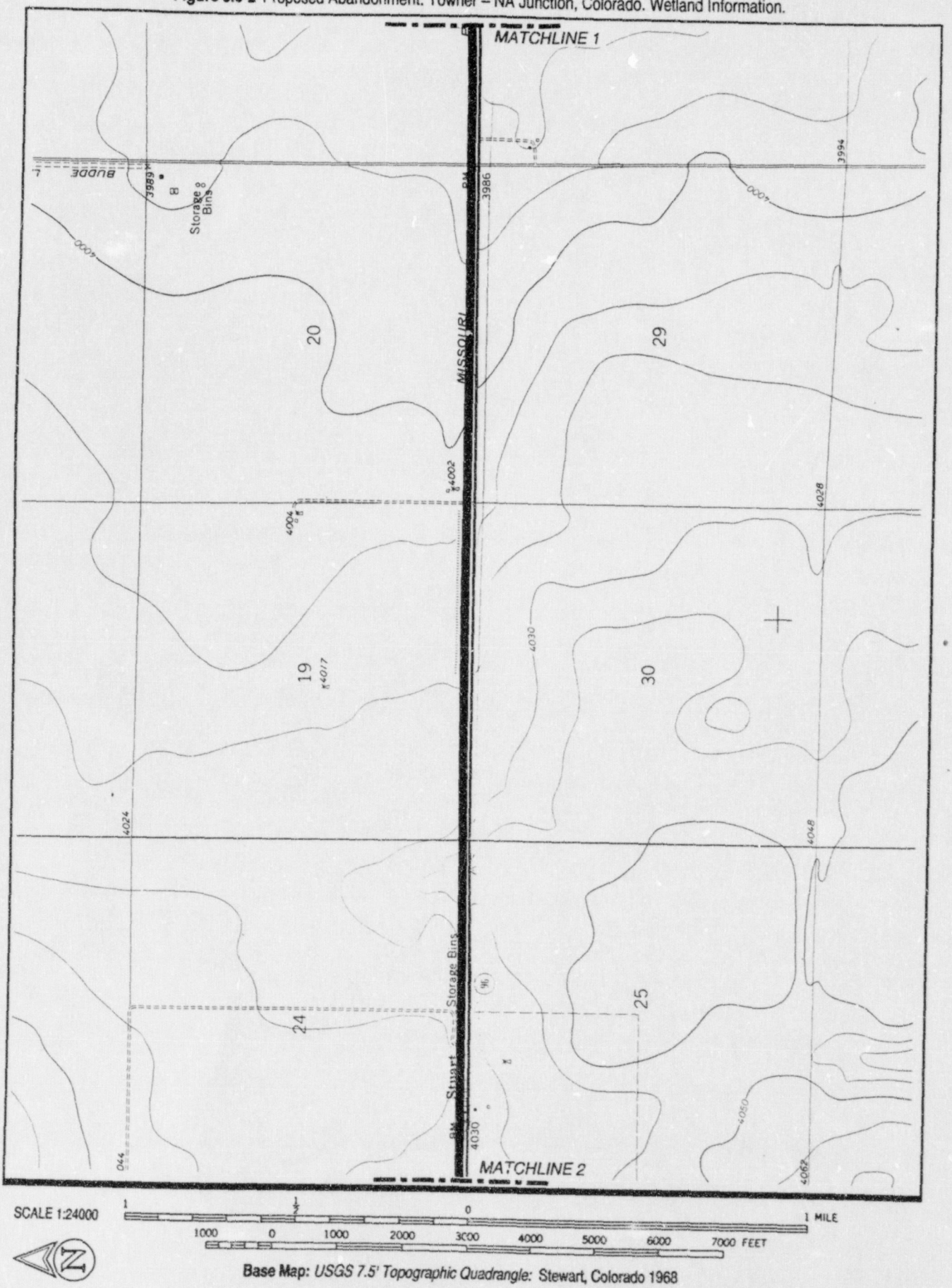
The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral." The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

Figure 5.6-1 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



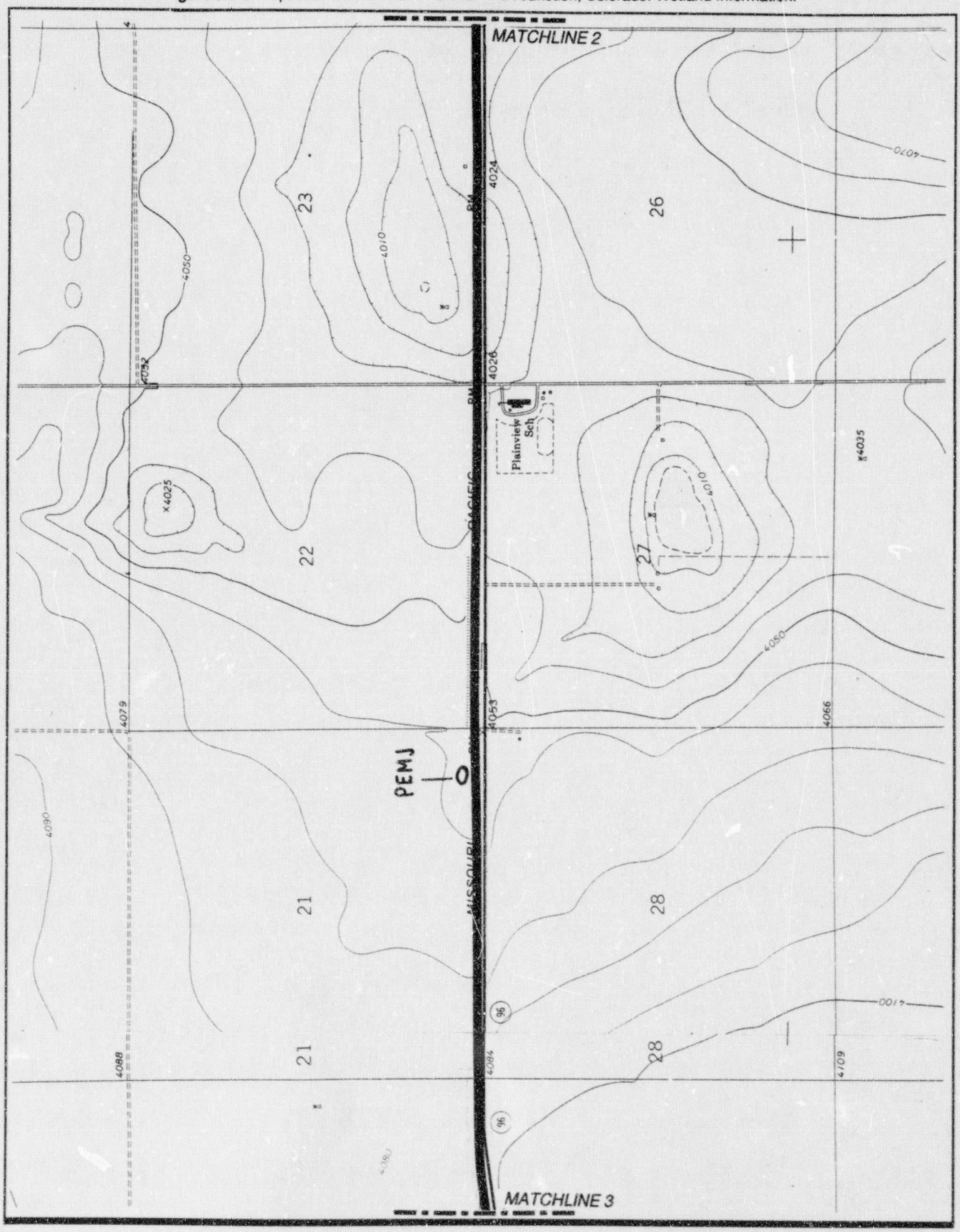
Base Map: *USGS 7.5' Topographic Quadrangles:* Stewart, Colorado 1968; Towner, Colorado – Kansas 1968

Figure 5.6-2 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangle:* Stewart, Colorado 1968

Figure 5.6-3 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

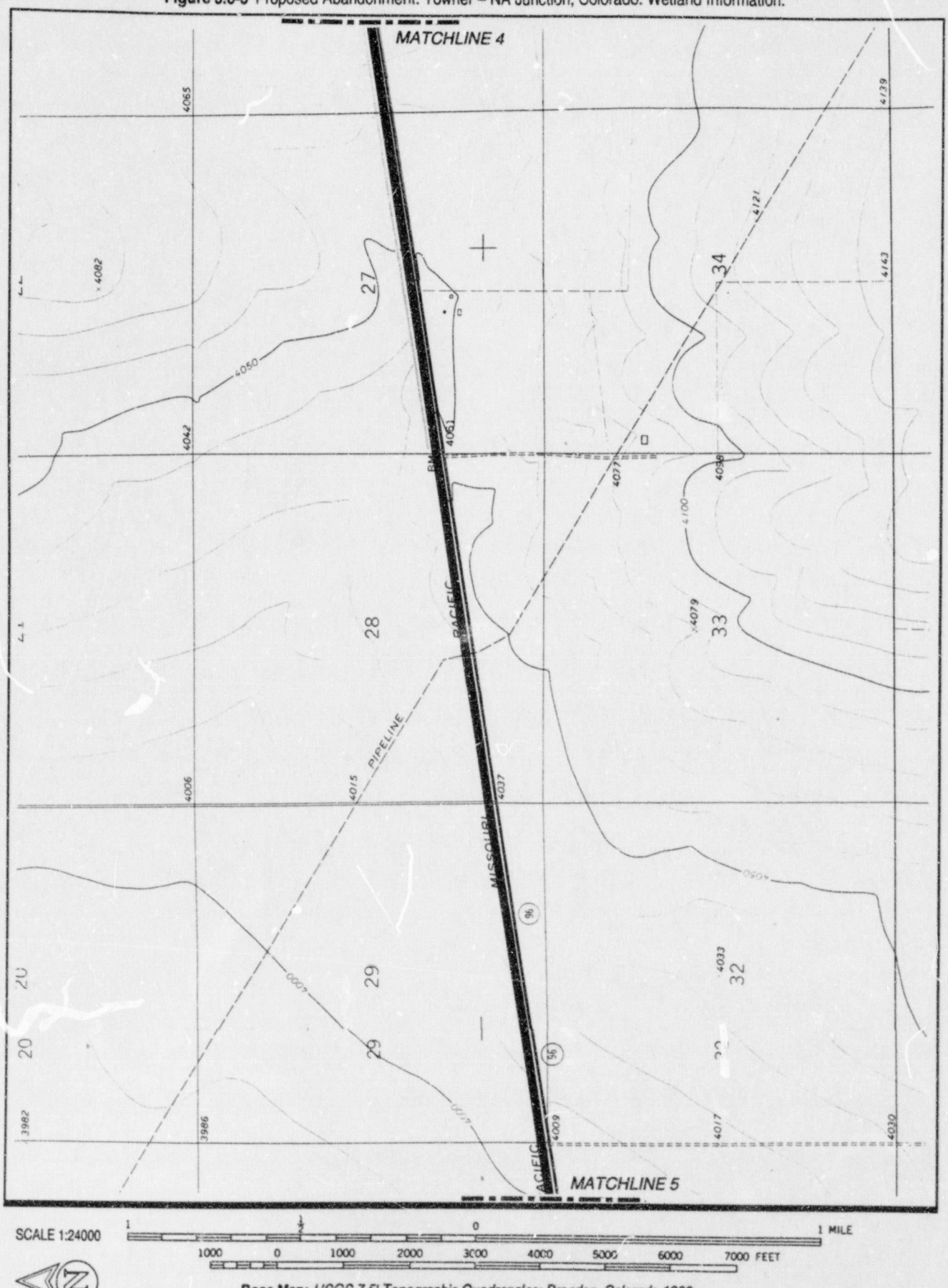
Base Map: *USGS 7.5' Topographic Quadrangles: Sheridan Lake, Colorado 1968; Stewart, Colorado 1968*

Figure 5.6-4 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



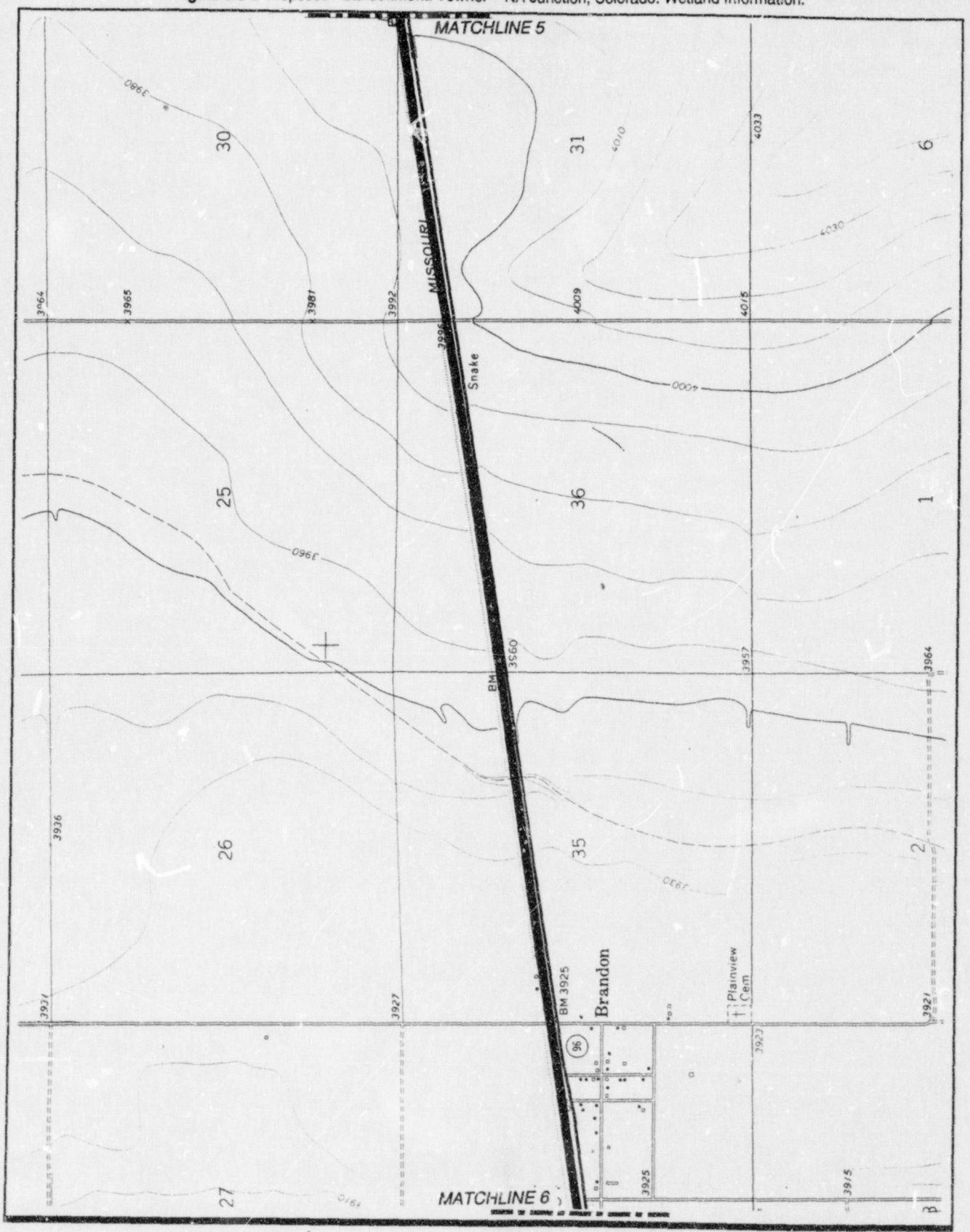
Base Map: *USGS 7.5' Topographic Quadrangle: Sheridan Lake, Colorado 1968*

Figure 5.6-5 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



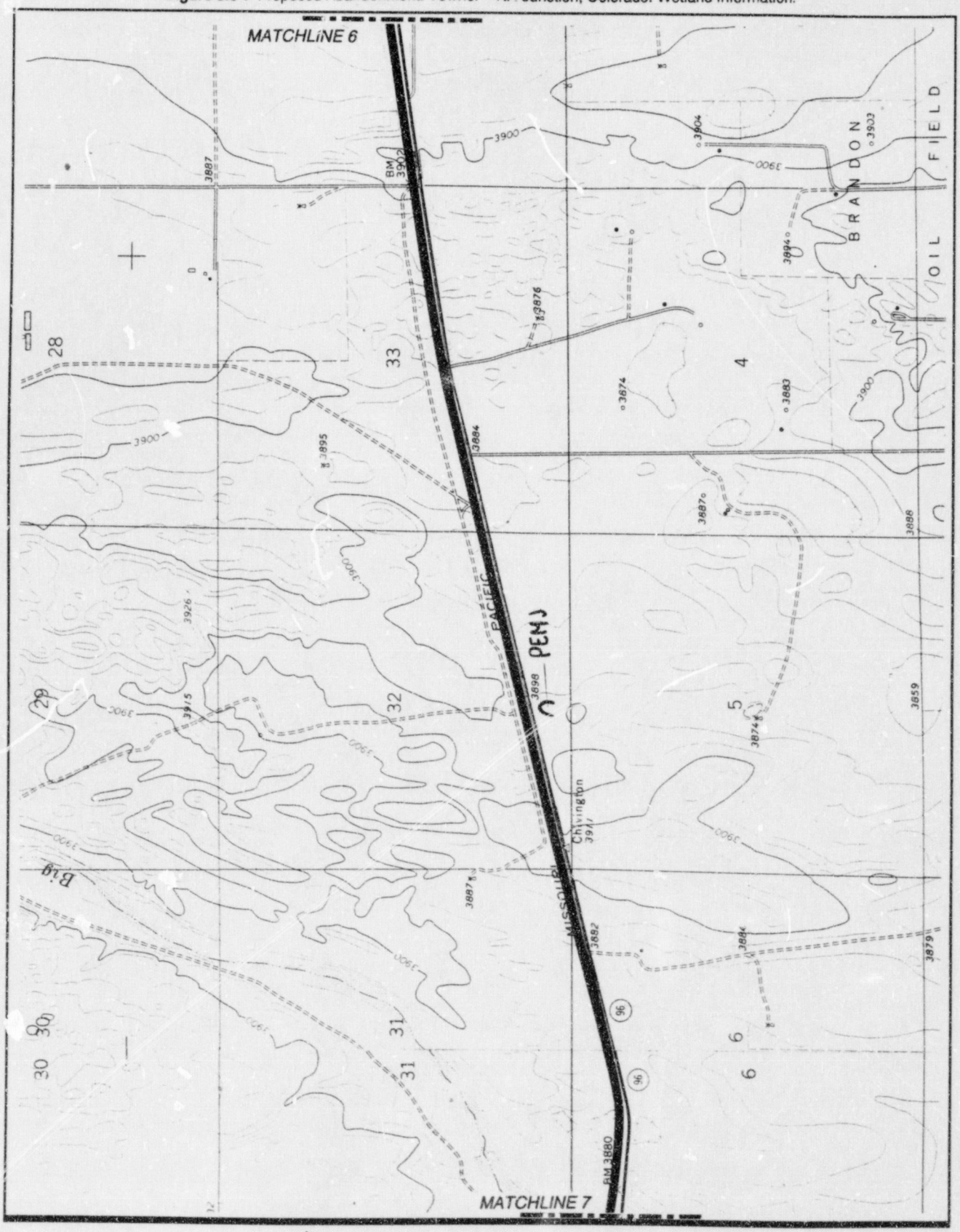
Base Map: *USGS 7.5' Topographic Quadrangles: Brandon, Colorado 1968; Sheridan Lake, Colorado 1968*

Figure 5.6-6 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



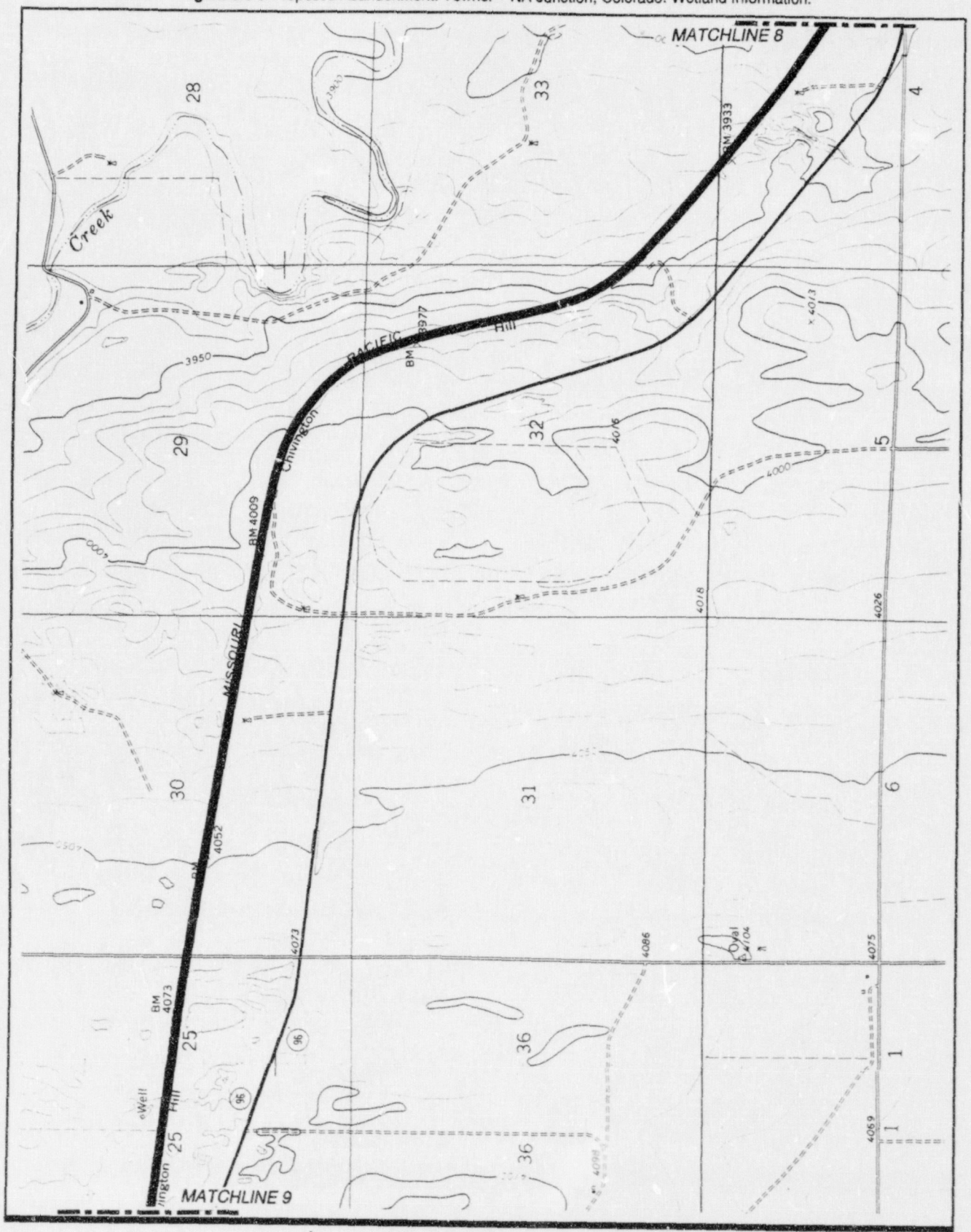
Base Map: *USGS 7.5' Topographic Quadrangle: Brandon, Colorado 1968;*

Figure 5.6-7 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



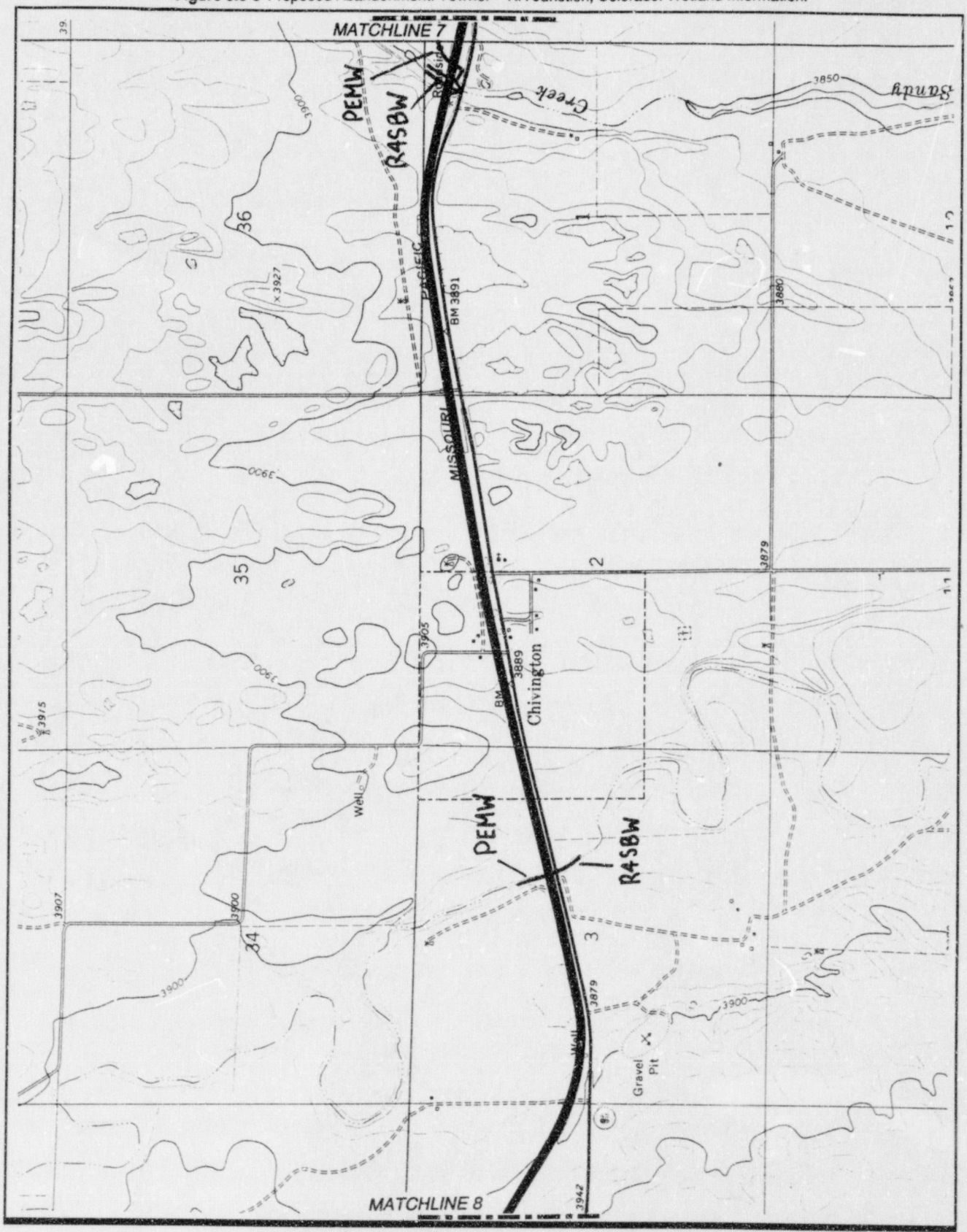
Base Map: *USGS 7.5' Topographic Quadrangles: Chivington, Colorado 1968; Brandon, Colorado 1968*

Figure 5.6-9 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangles: Alkali Lake, Colorado 1968; Chivington, Colorado 1968*

Figure 5.6-8 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



SCALE 1:24000

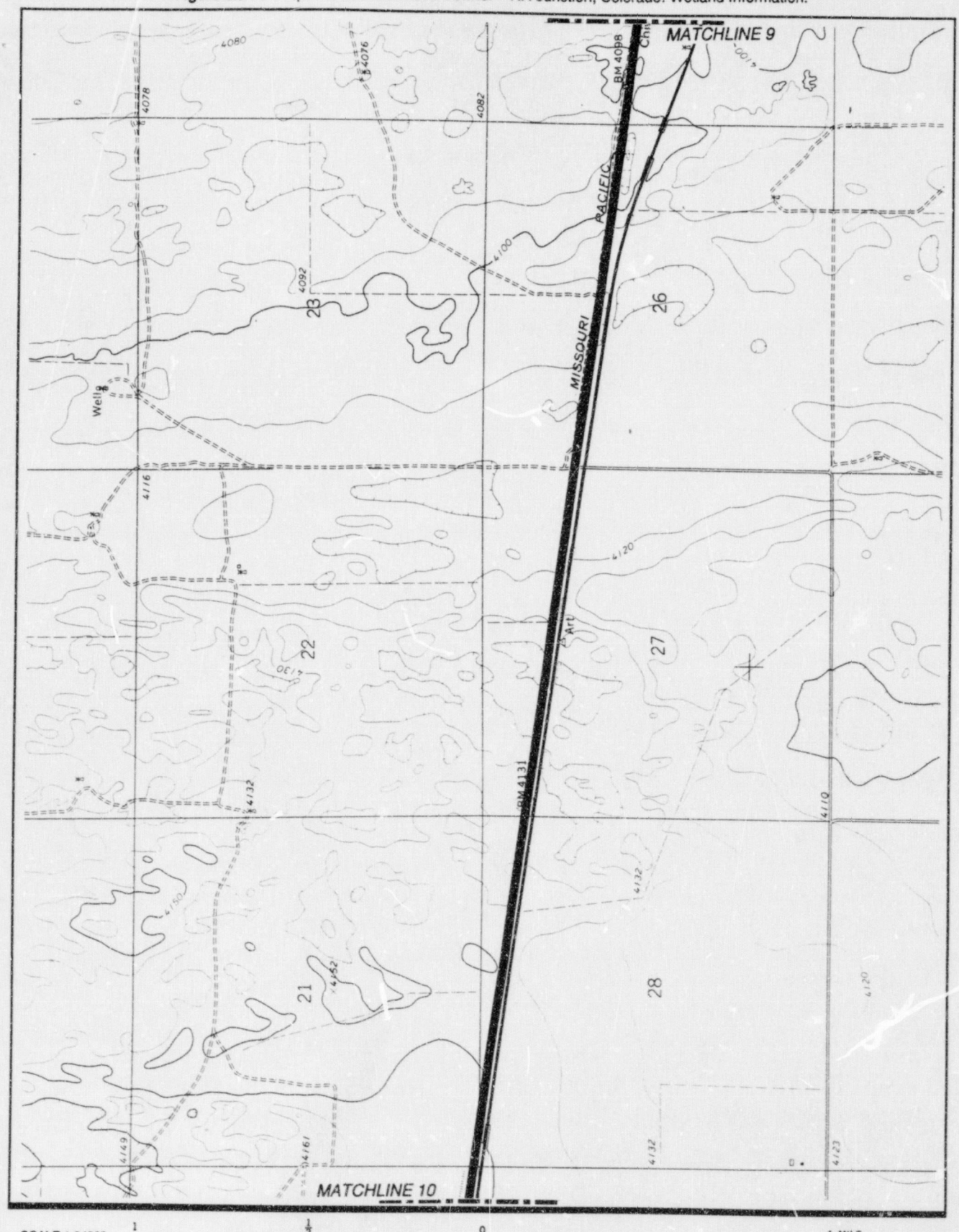
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

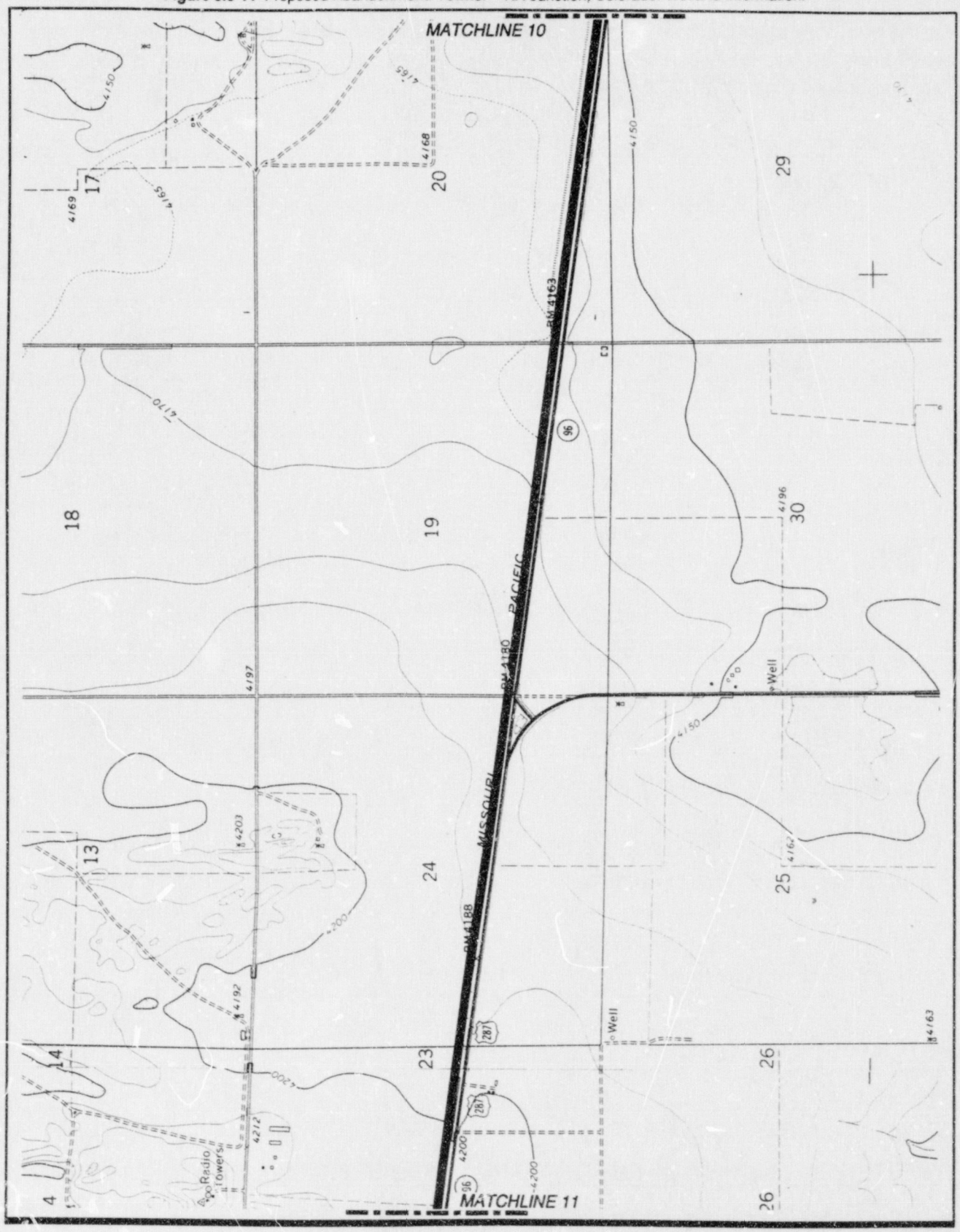
Base Map: *USGS 7.5' Topographic Quadrangle: Chivington, Colorado 1968*

Figure 5.9-10 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



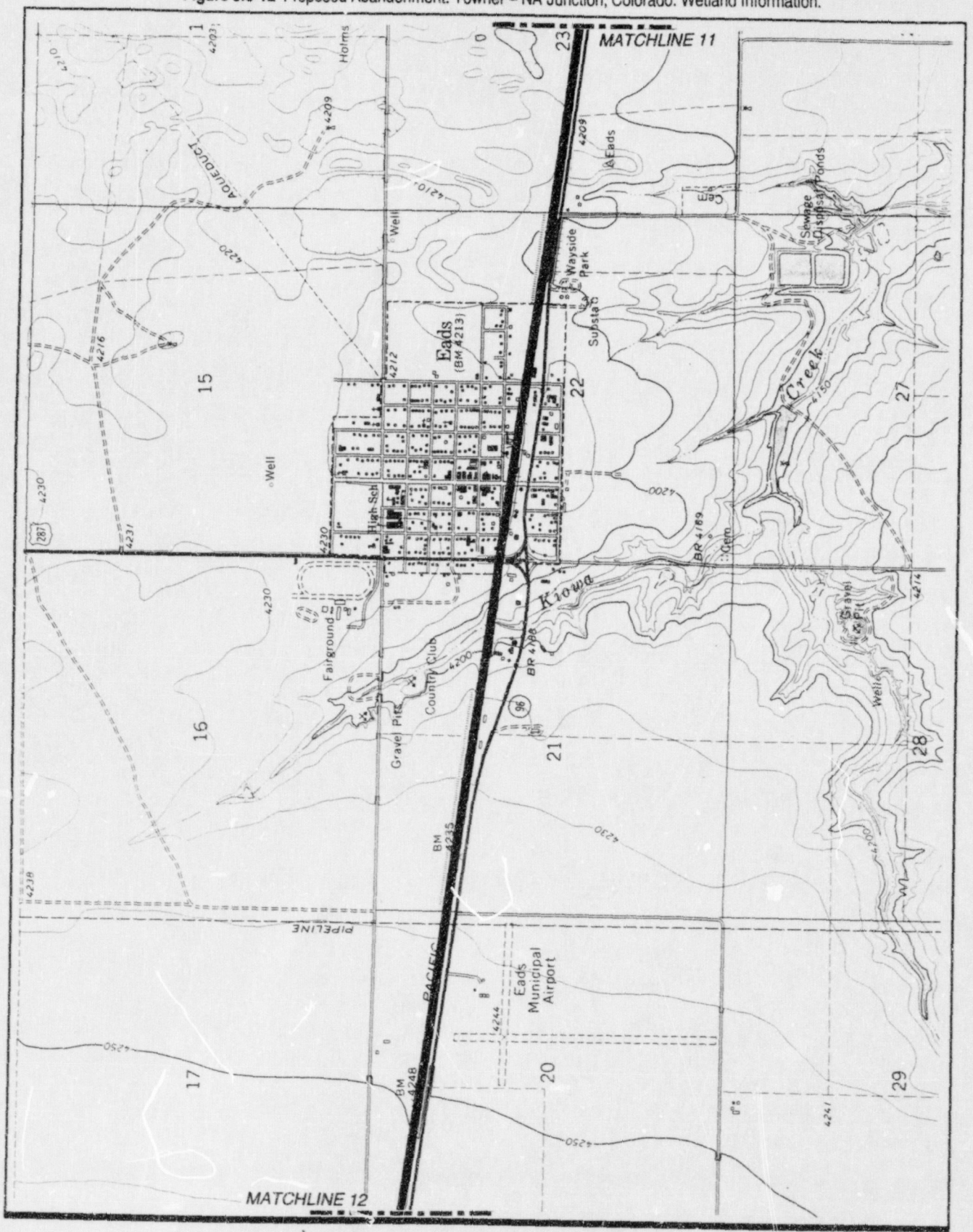
Base Map: *USGS 7.5' Topographic Quadrangle: Alkali Lake, Colorado 1968*

Figure 5.6-11 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangles: Eads, Colorado 1968; Alkali Lake, Colorado 1968;*

Figure 5.6-12 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



SCALE 1:24000

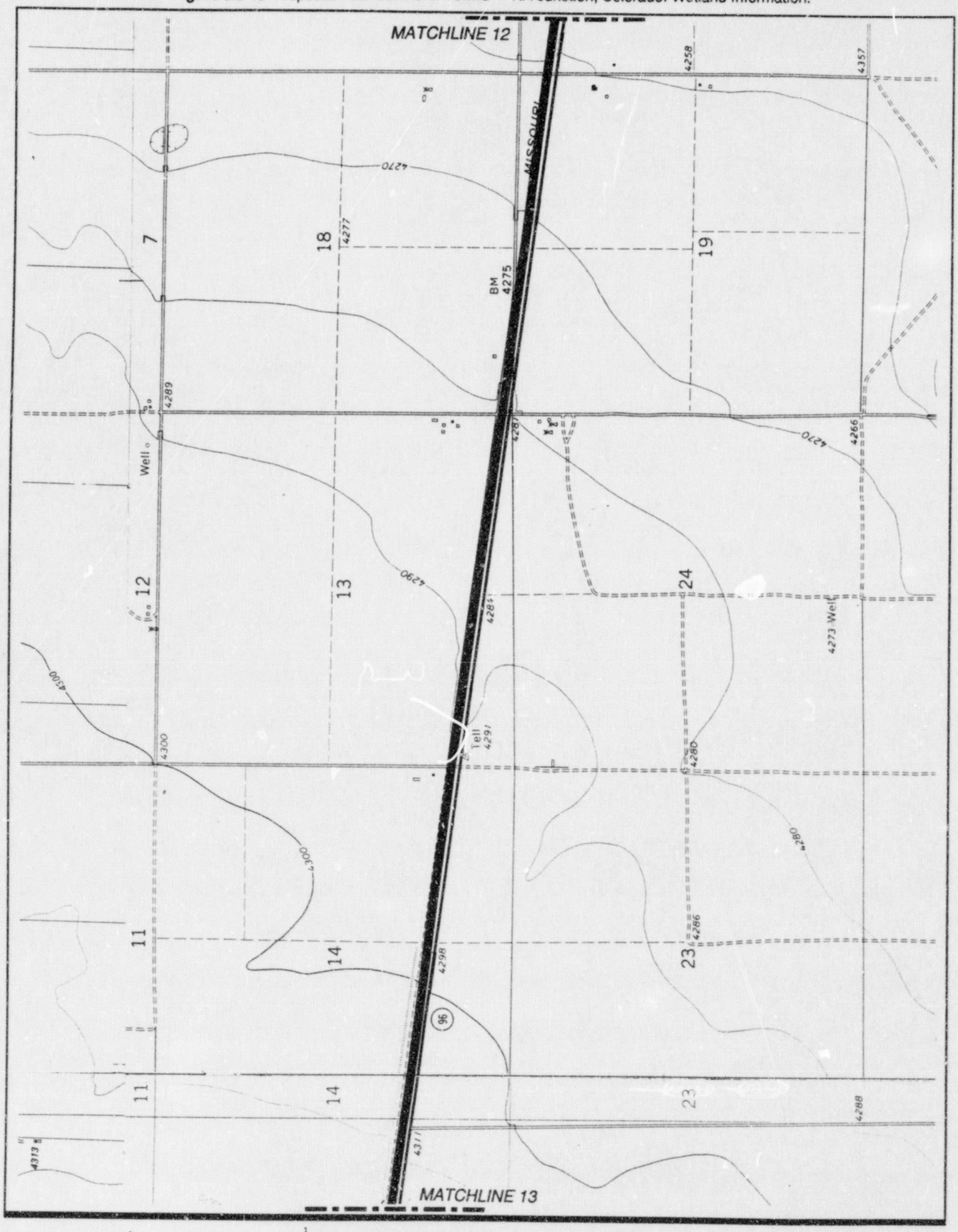
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangle: Eads, Colorado 1968*

Figure 5.6-13 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



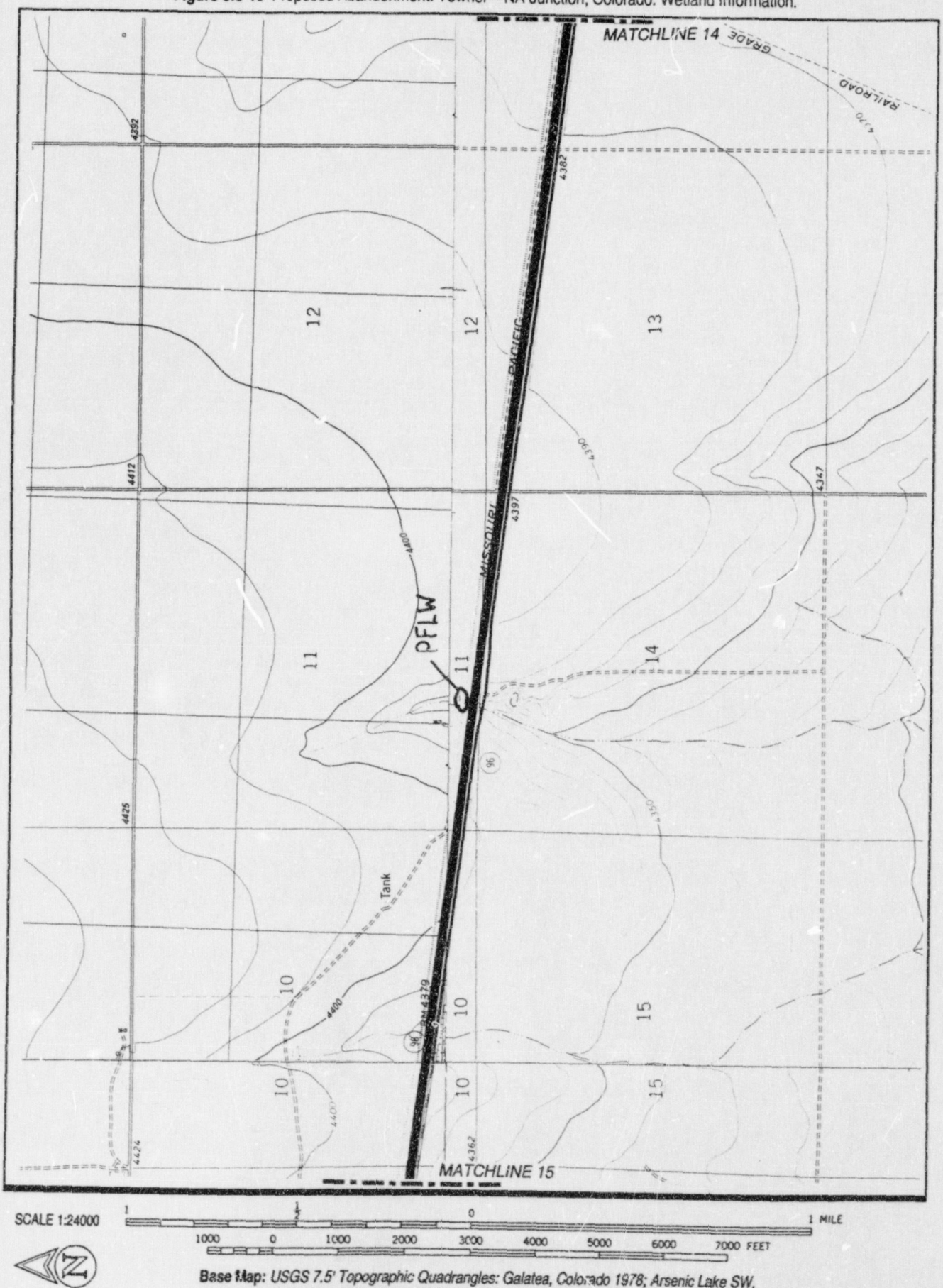
Base Map: *USGS 7.5' Topographic Quadrangles: Arsenic Lake SW, Colorado 1982; Dunlap Ranch, Colorado 1982 ; Hawkins, Colorado 1968; Eads, Colorado 1968*

Figure 5.6-14 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



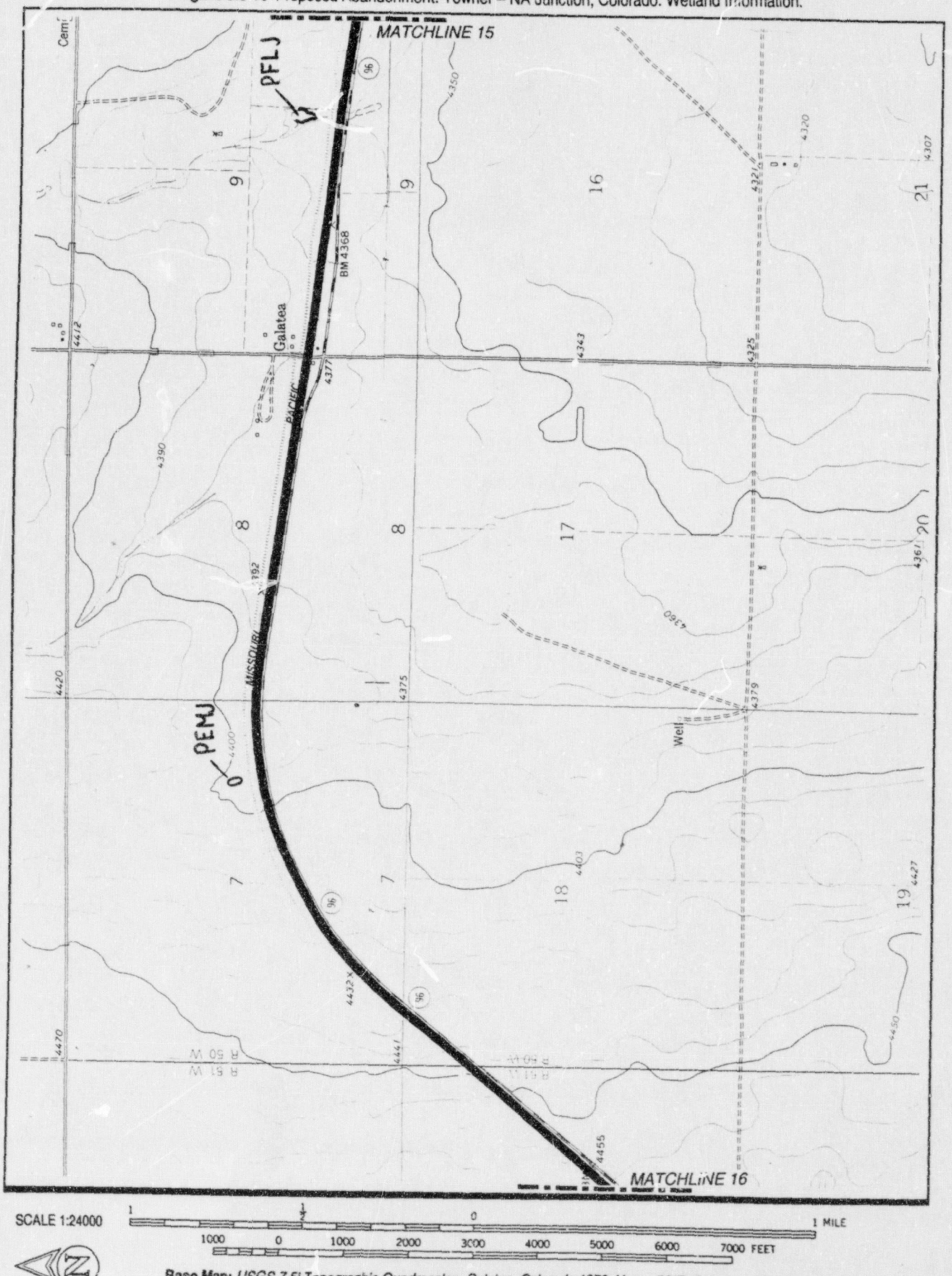
Base Map: *USGS 7.5' Topographic Quadrangles: Arsenic Lake SW, Colorado 1982; Hawkins, Colorado 1968*

Figure 5.6-15 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



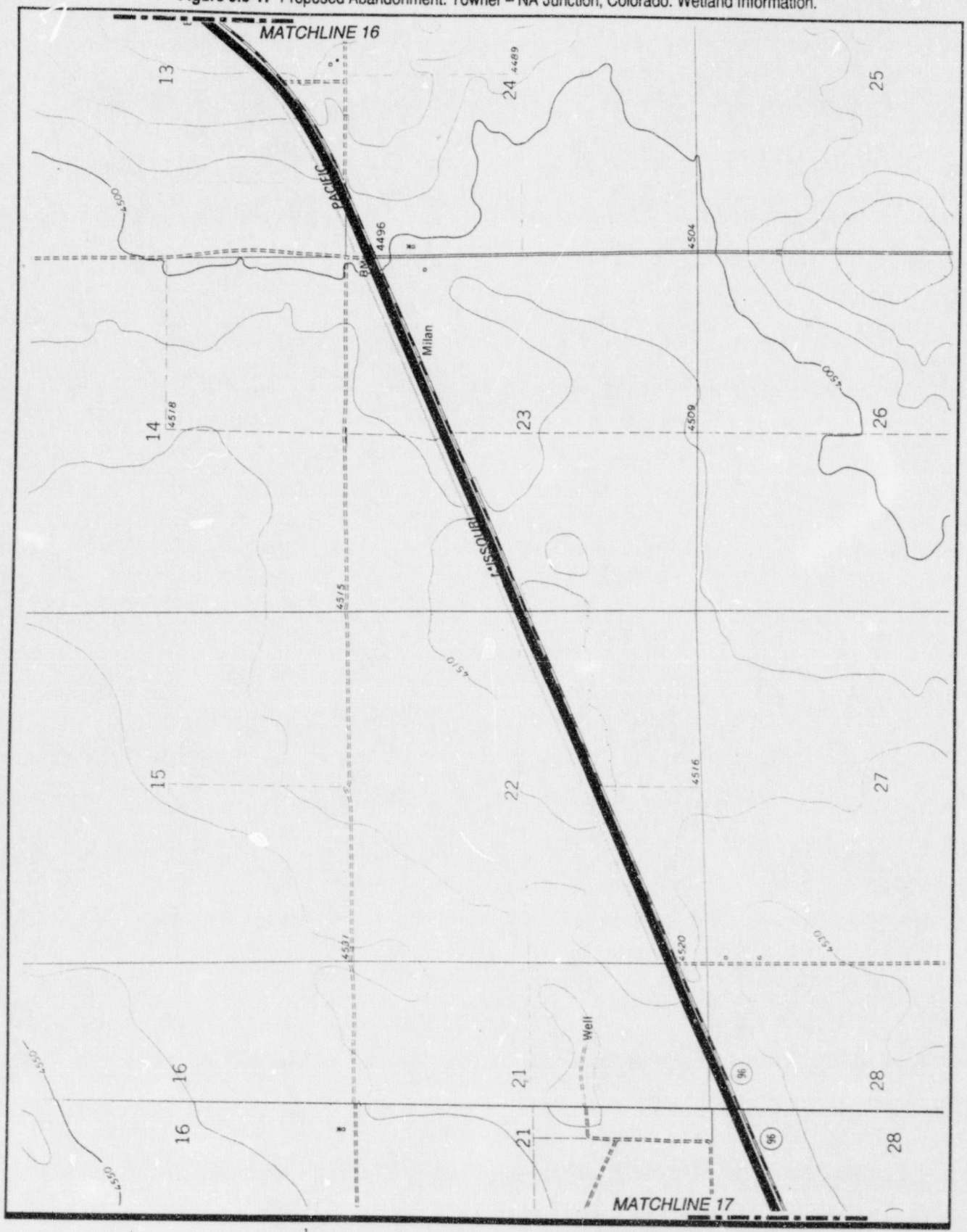
Base Map: *USGS 7.5' Topographic Quadrangles: Galatea, Colorado 1978; Arsenic Lake SW, Colorado 1982; Haswell NE, Colorado 1978; Hawkins, Colorado 1968*

Figure 5.6-16 Proposed Abandonment: Towner -- NA Junction, Colorado. Wetland Information.



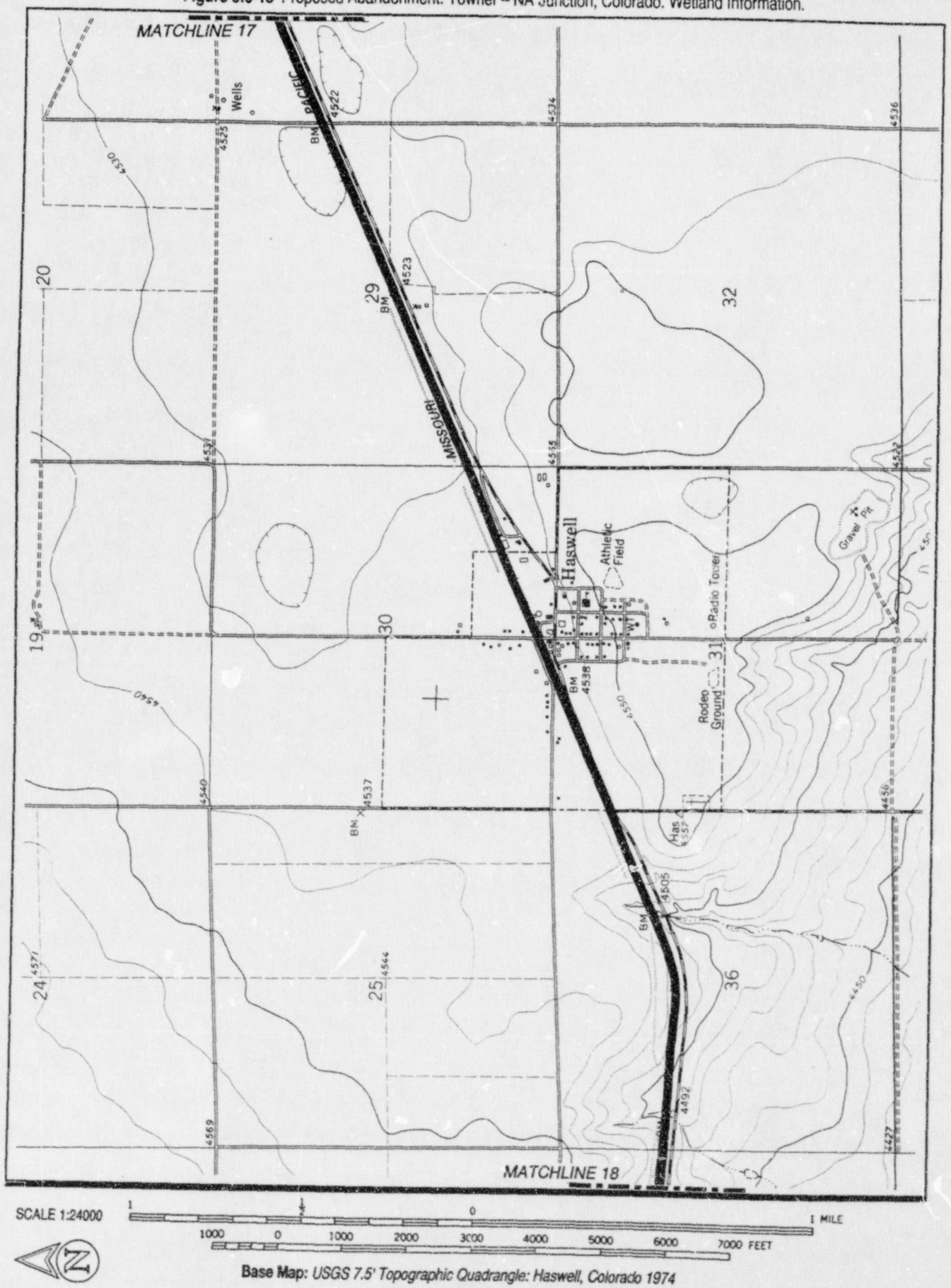
Base Map: *USGS 7.5' Topographic Quadrangles: Galatea, Colorado 1978; Haswell NE, Colorado 1978*

Figure 5.6-17 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



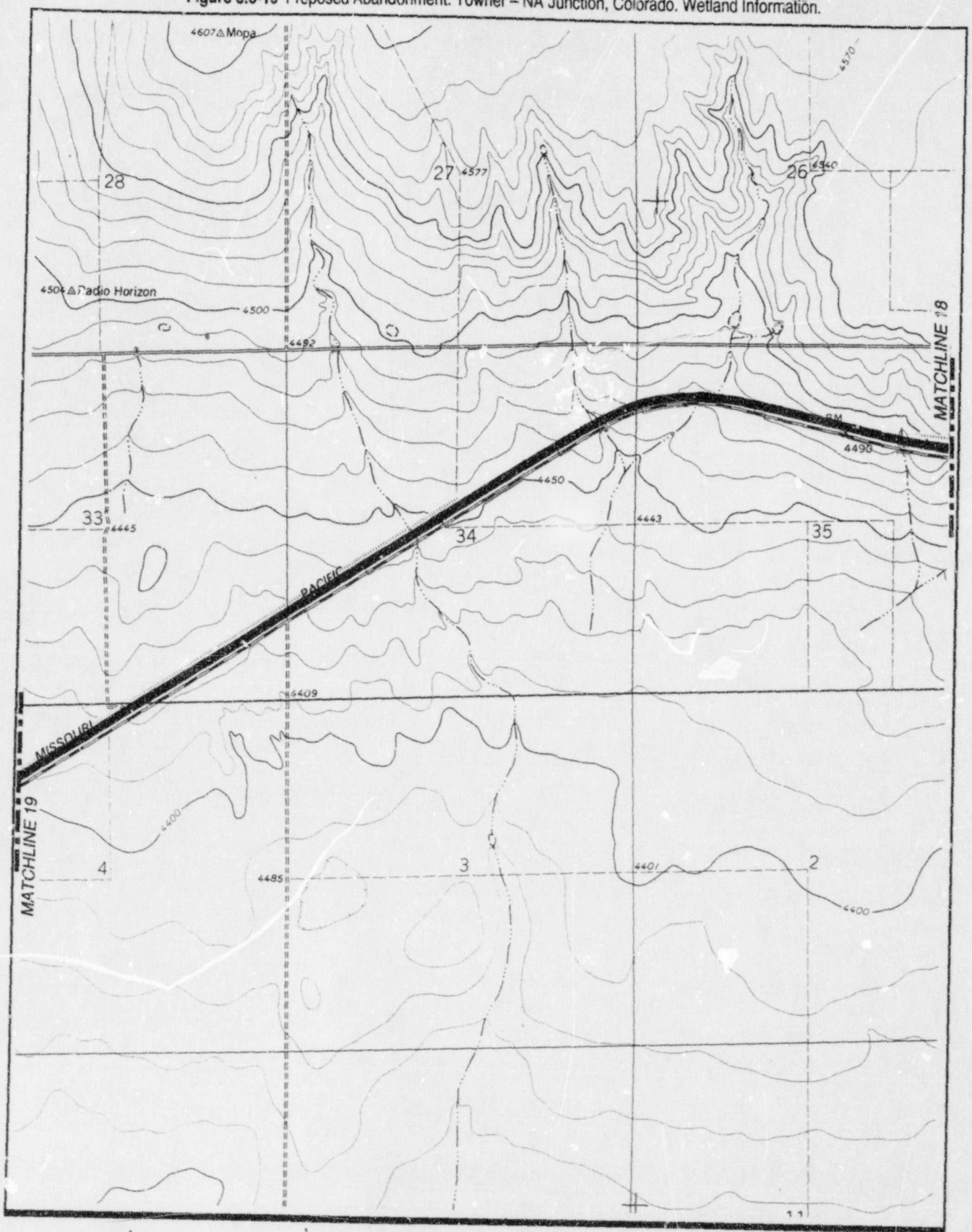
Base Map: *USGS 7.5' Topographic Quadrangles: Haswell, Colorado 1974; Haswell NE, Colorado 1978*

Figure 5.6-18 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



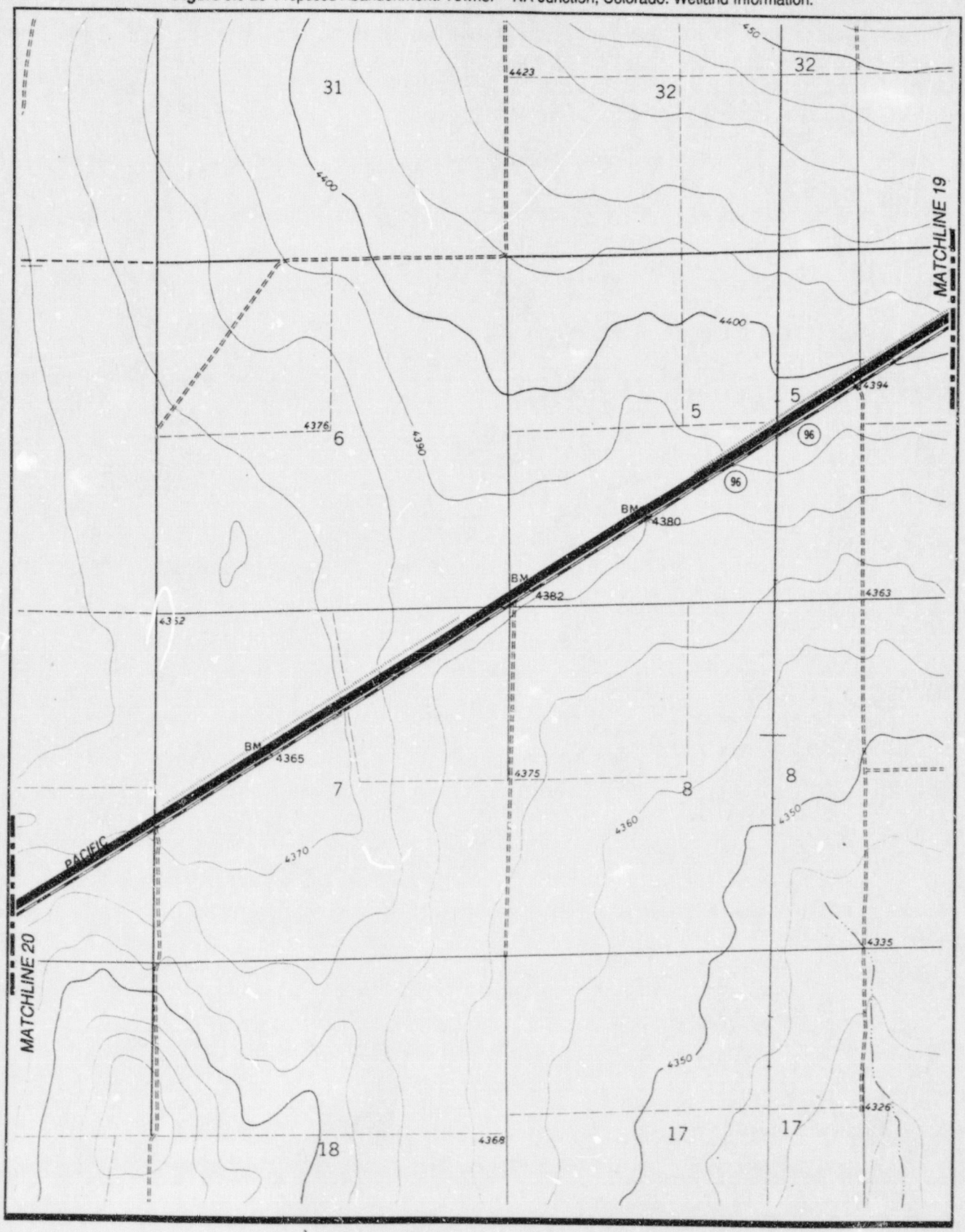
Base Map: *USGS 7.5' Topographic Quadrangle: Haswell, Colorado 1974*

Figure 5.6-19 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



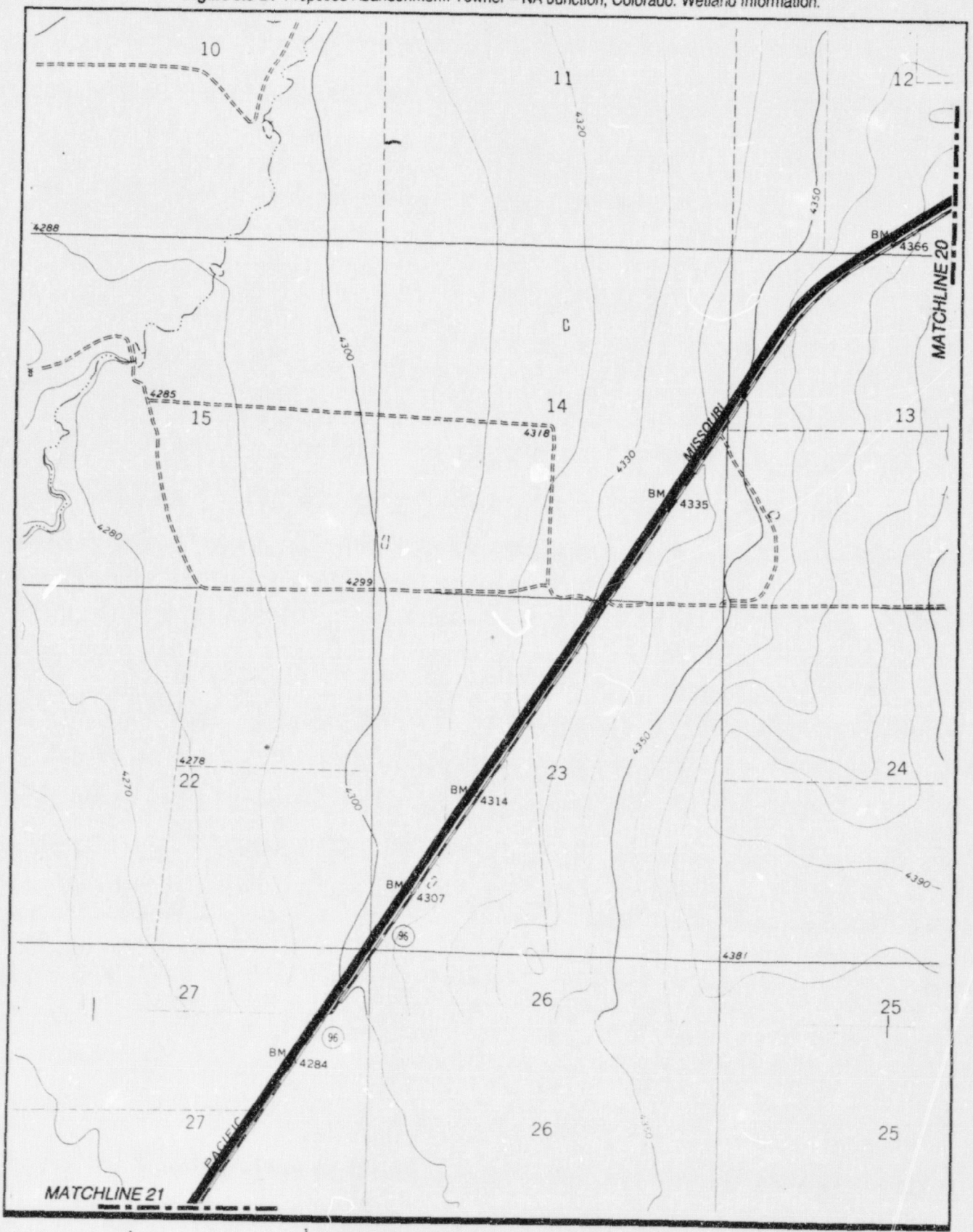
Base Map: *USGS 7.5' Topographic Quadrangle: Haswell, Colorado 1974*

Figure 5.6-20 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



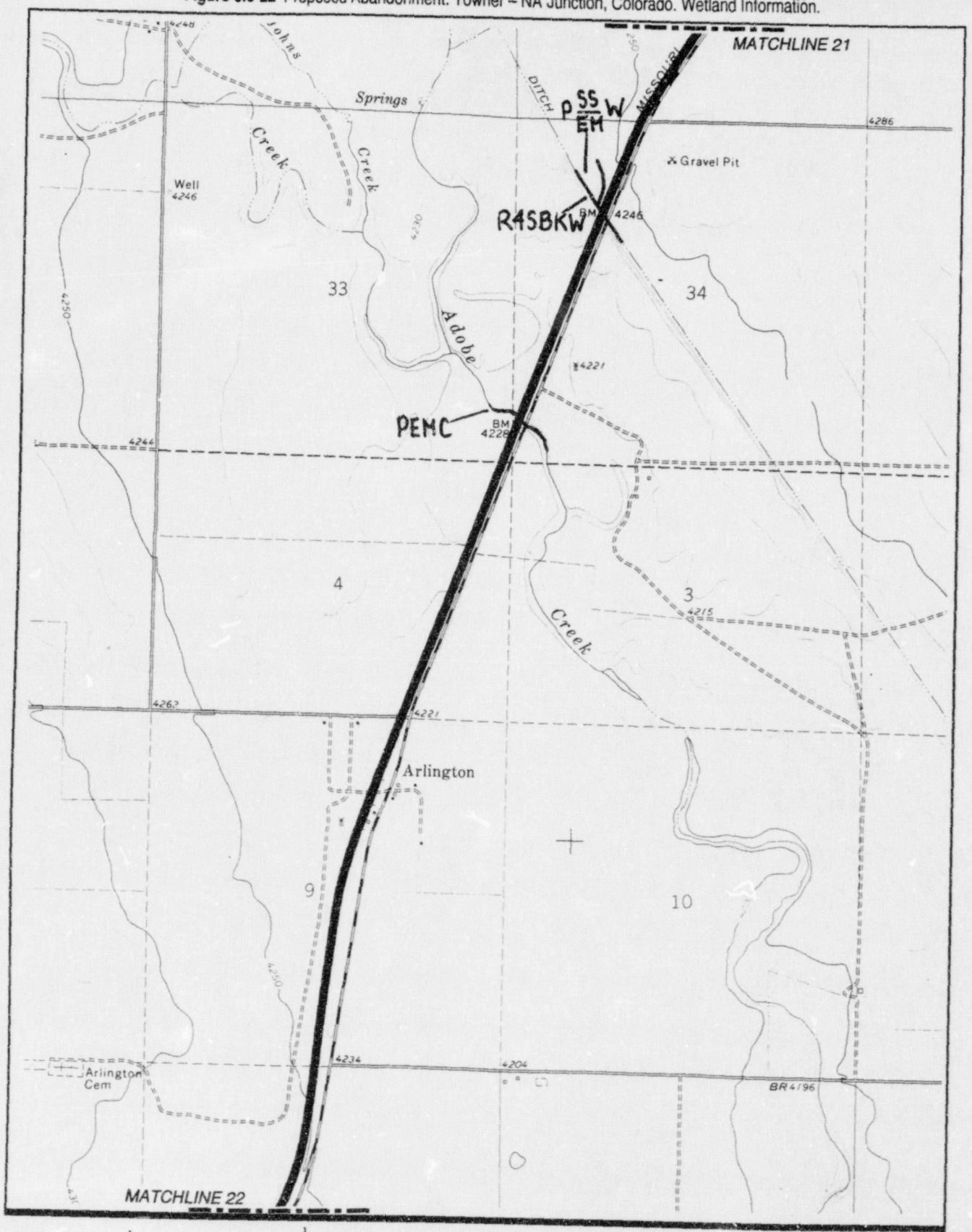
Base Map: *USGS 7.5' Topographic Quadrangles: Arlington NE, Colorado 1974; Haswell, Colorado 1974*

Figure 5.6-21 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



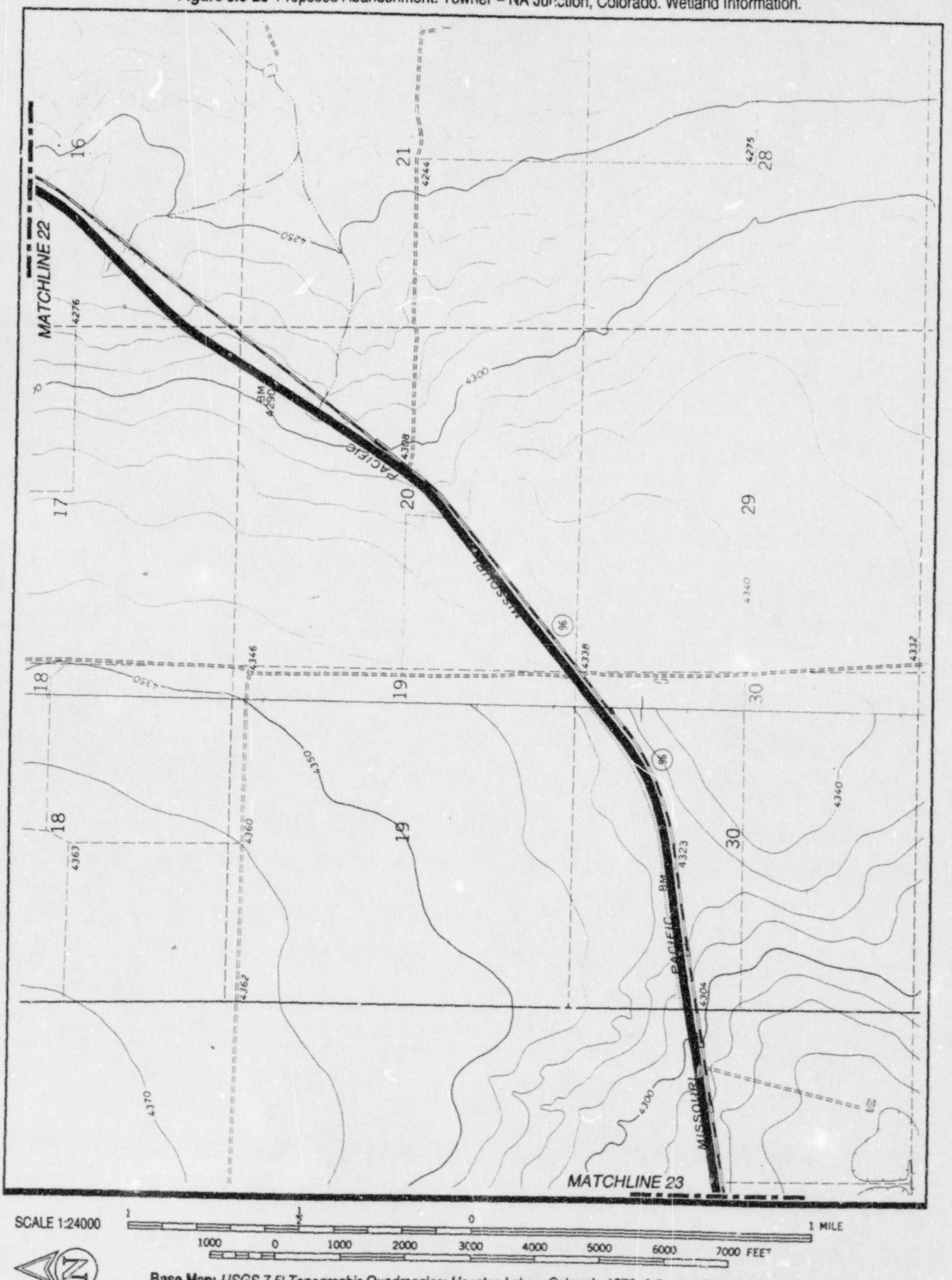
Base Map: *USGS 7.5' Topographic Quadrangles: Arlington NE, Colorado 1974; Arlington, Colorado 1978*

Figure 5.6-22 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



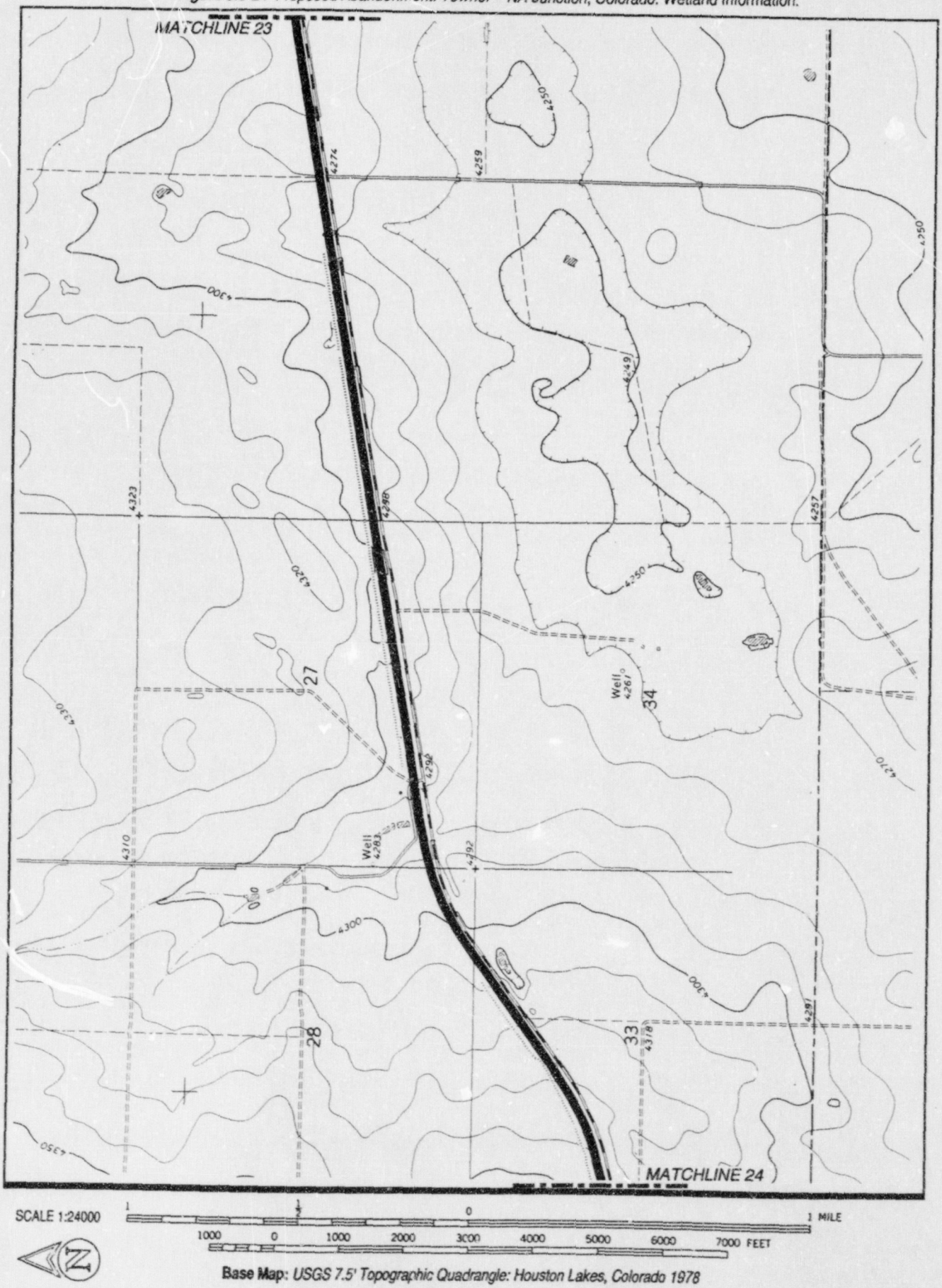
Base Map: *USGS 7.5' Topographic Quadrangle: Arlington, Colorado 1978*

Figure 5.6-23 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangles: Houston Lakes, Colorado 1978; Arlington, Colorado 1978*

Figure 5.6-24 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



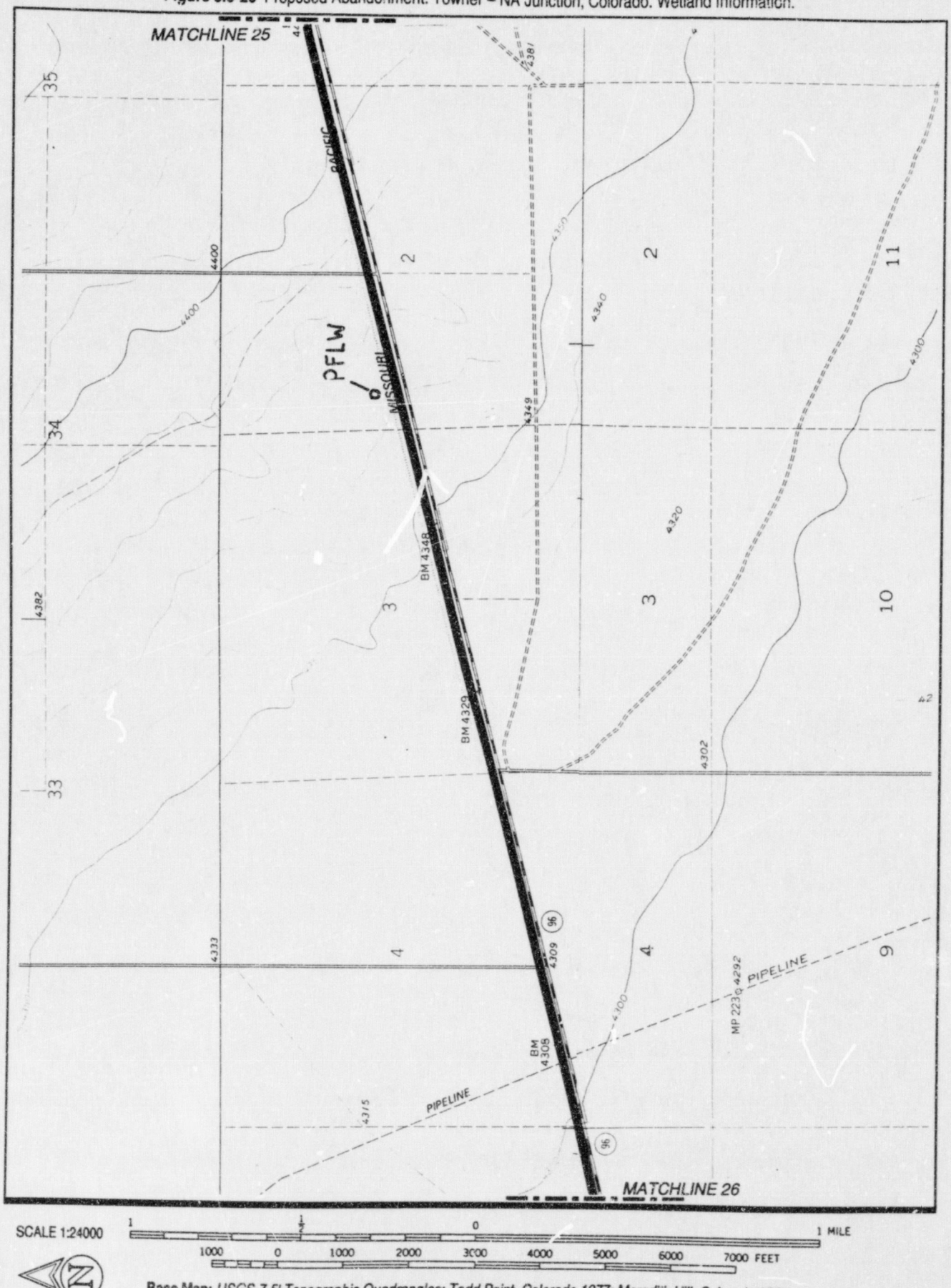
Base Map: *USGS 7.5' Topographic Quadrangle: Houston Lakes, Colorado 1978*

Figure 5.6-25 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



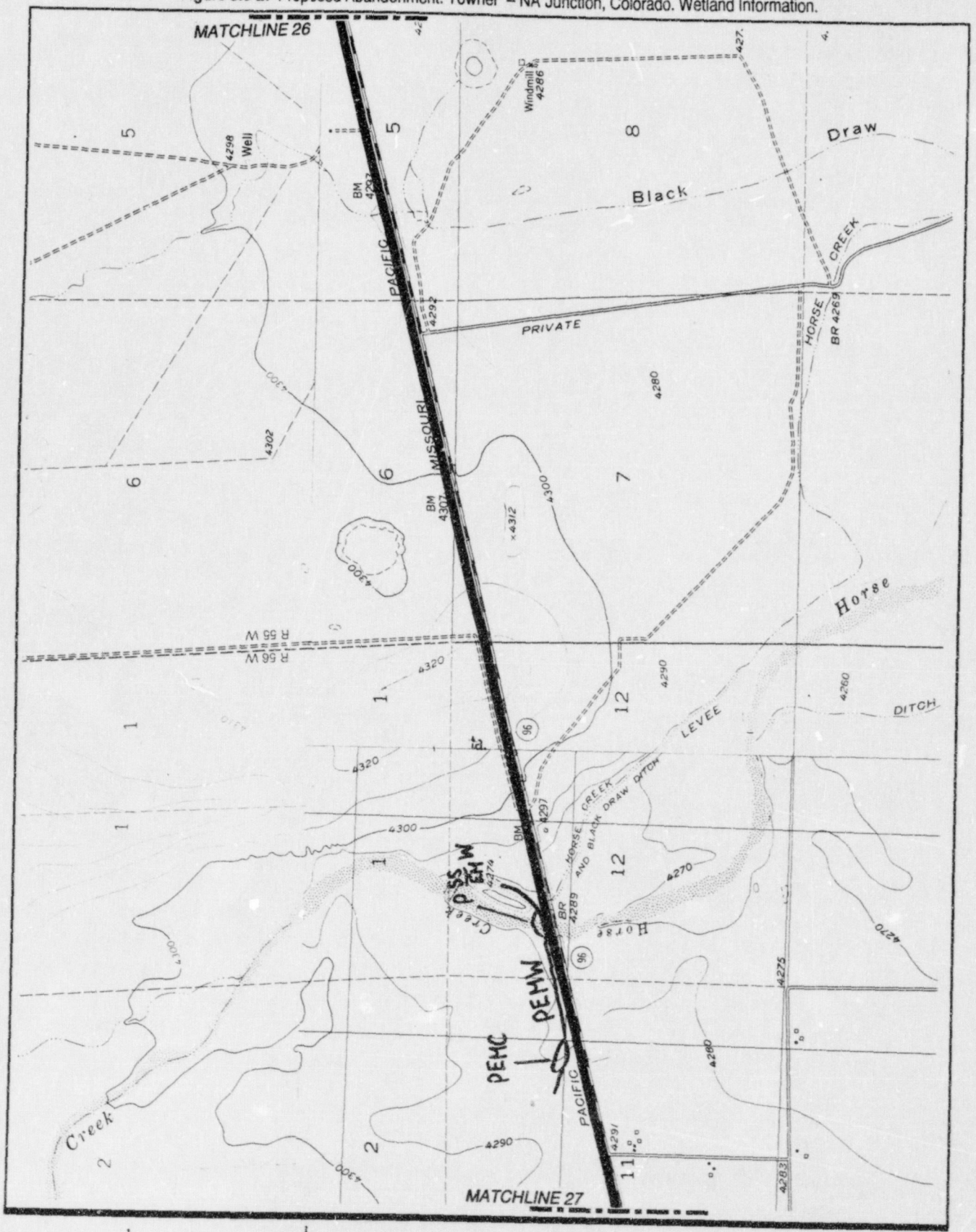
Base Map: *USGS 7.5' Topographic Quadrangles: Todd Point, Colorado 1977; Houston Lakes, Colorado 1978; Meredith Hill, Colorado 1954; Lewis Ranch, Colorado 1955*

Figure 5.6-26 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



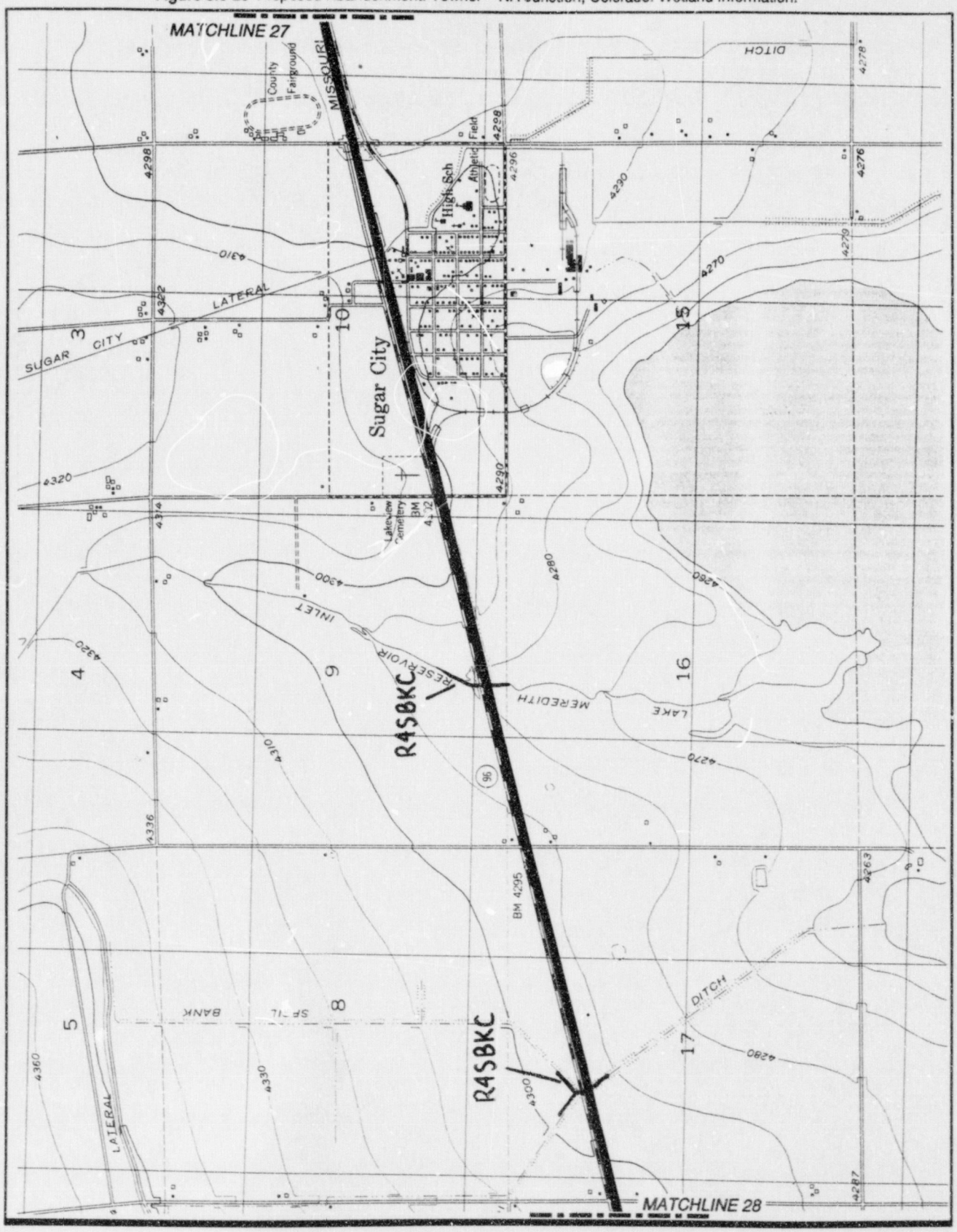
Base Map: *USGS 7.5' Topographic Quadrangles: Todd Point, Colorado 1977; Meredith Hill, Colorado 1954*

Figure 5.6-27 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangles: Lake Henry, Colorado 1978; Todd Point, Colorado 1977; Sugar City, Colorado 1954 (Photoinspected 1976); Meredith Hill, Colorado 1954*

Figure 5.6-28 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

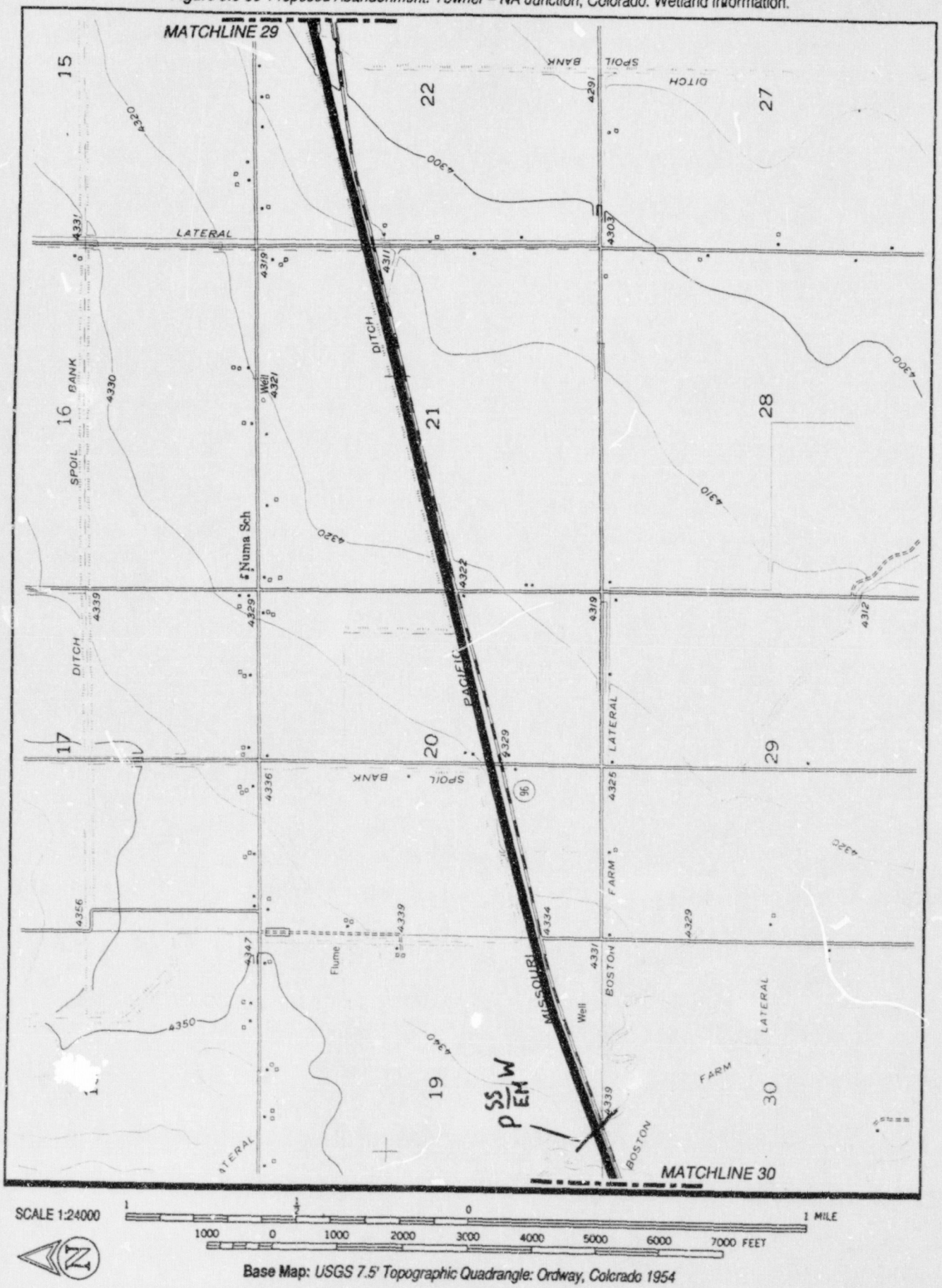
Base Map: *USGS 7.5' Topographic Quadrangle: Sugar City, Colorado 1954 (Photoinspected 1976)*

Figure 5.6-29 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



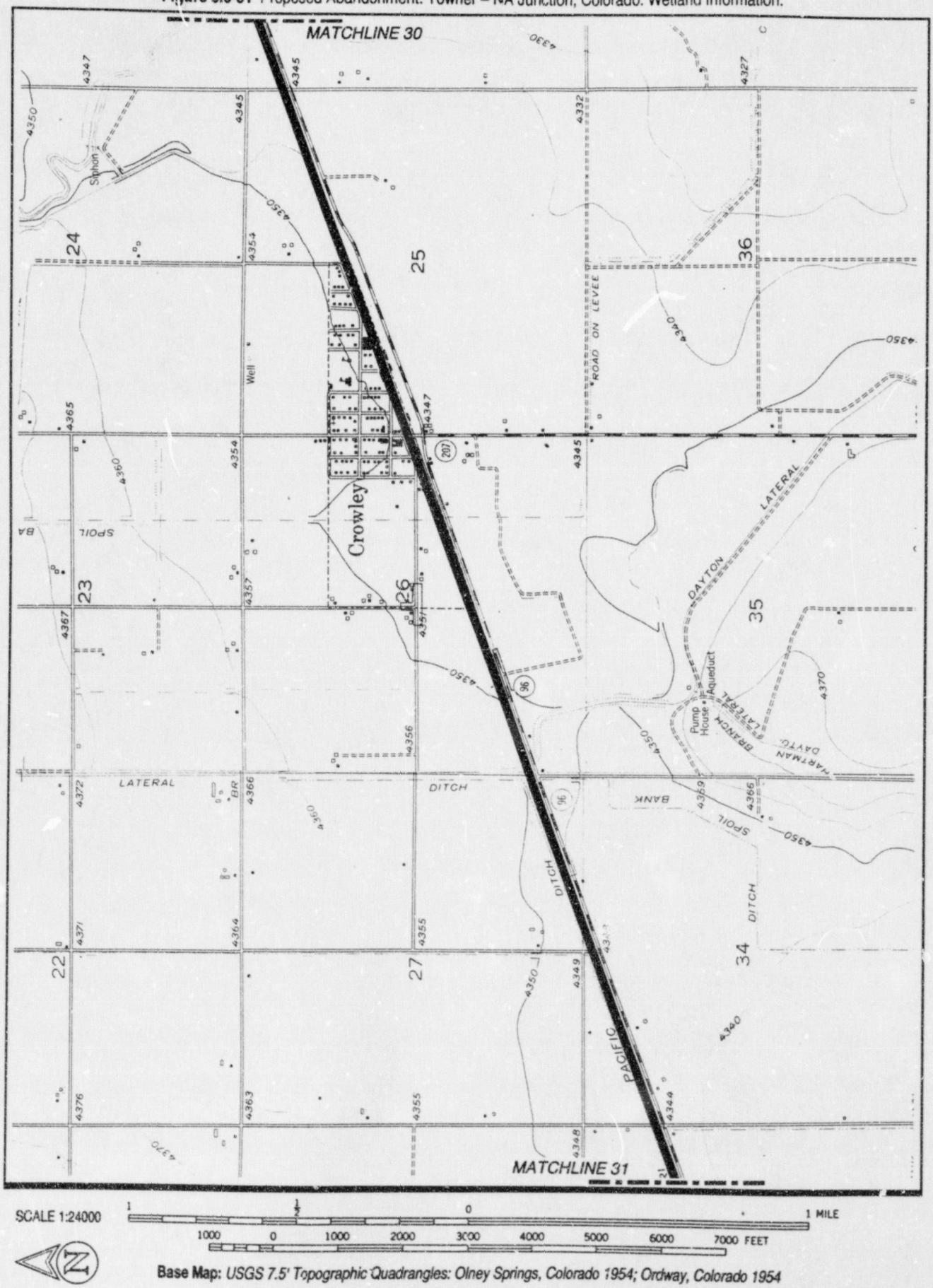
Base Map: *USGS 7.5' Topographic Quadrangles: Ordway, Colorado 1954; Sugar City, Colordado 1954 (Photoinspected 1976)*

Figure 5.6-30 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



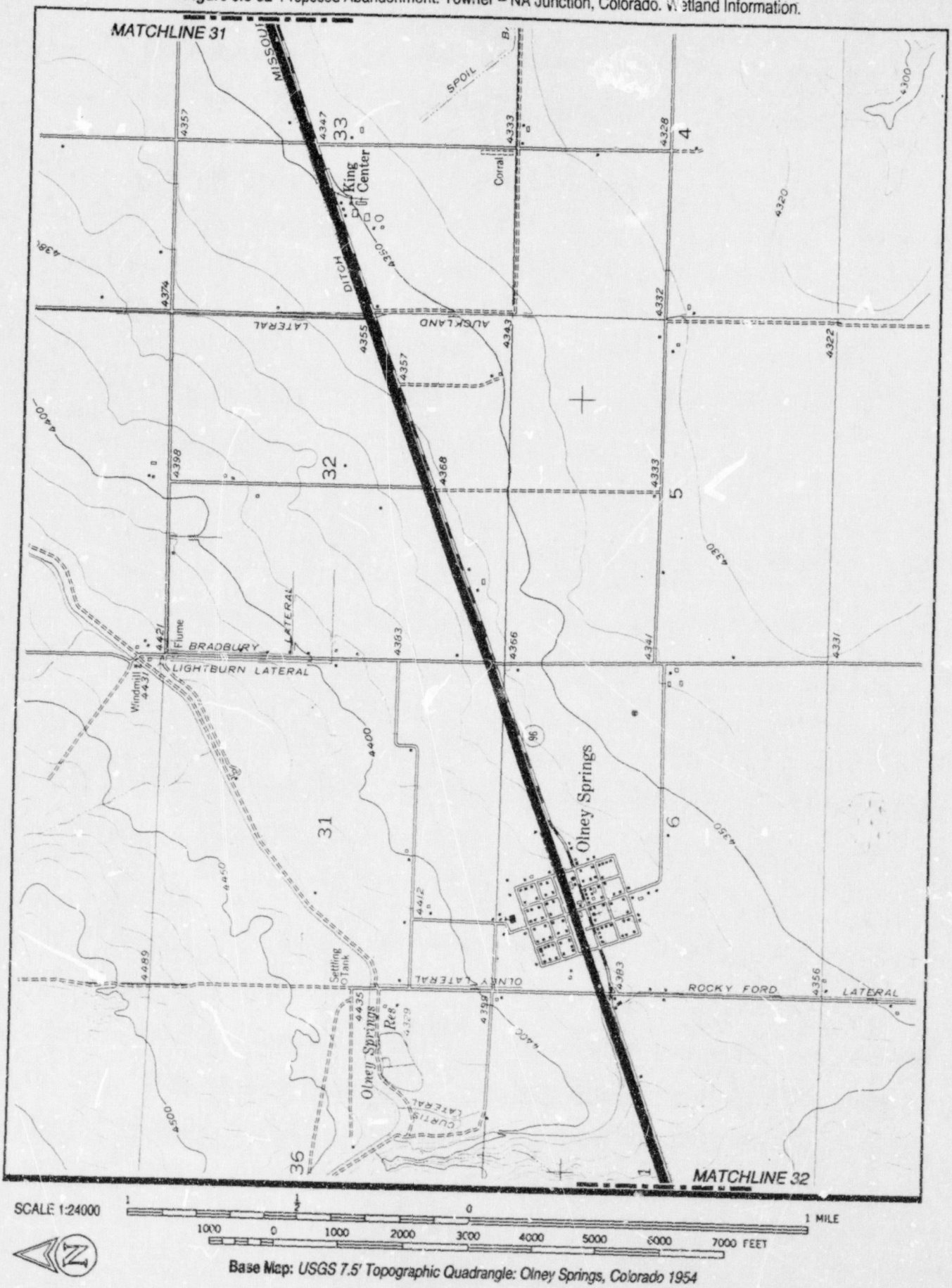
Base Map: *USGS 7.5' Topographic Quadrangle: Ordway, Colorado 1954*

Figure 5.6-31 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



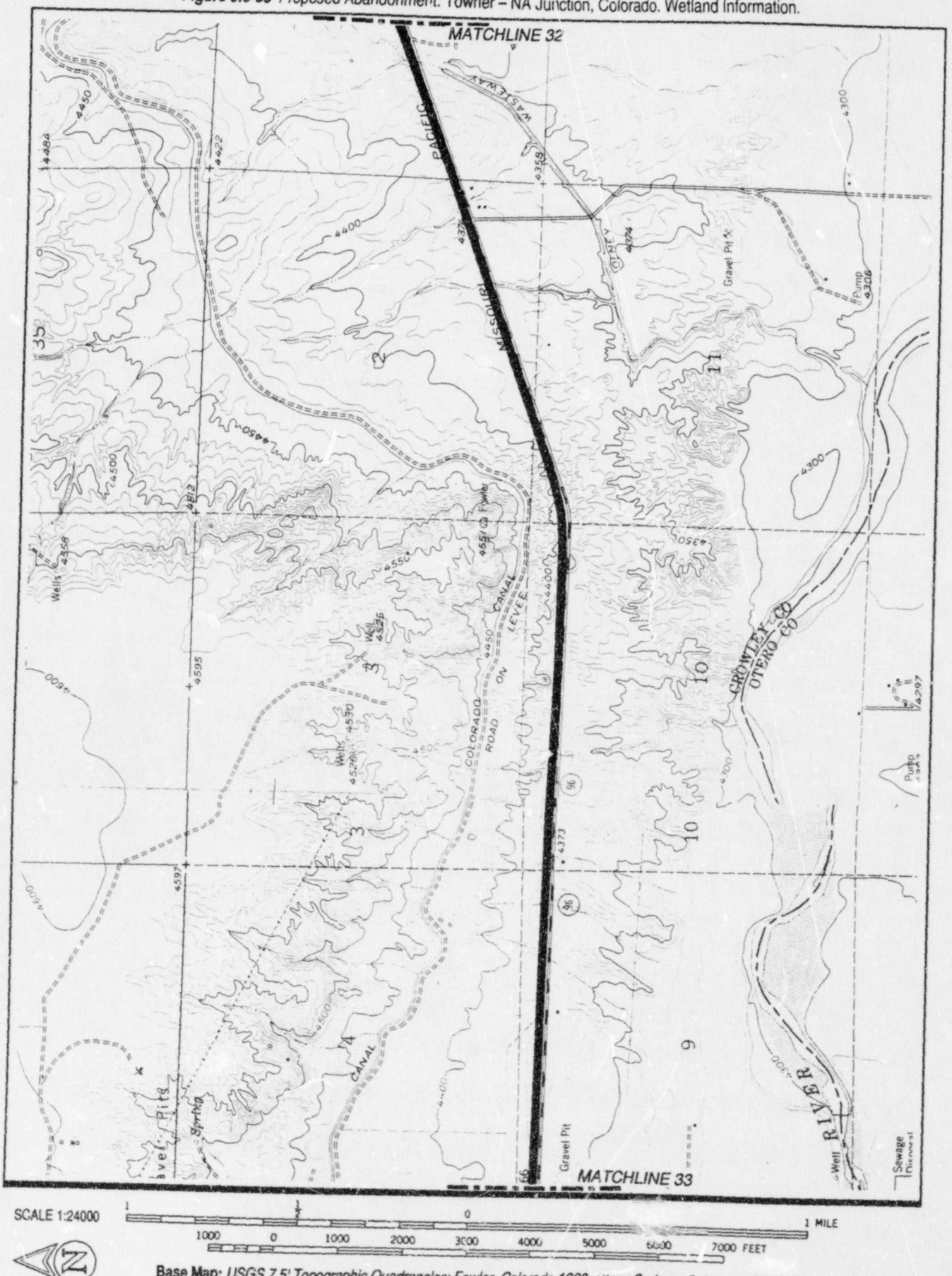
Base Map: *USGS 7.5' Topographic Quadrangles: Olney Springs, Colorado 1954; Ordway, Colorado 1954*

Figure 5.6-32 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



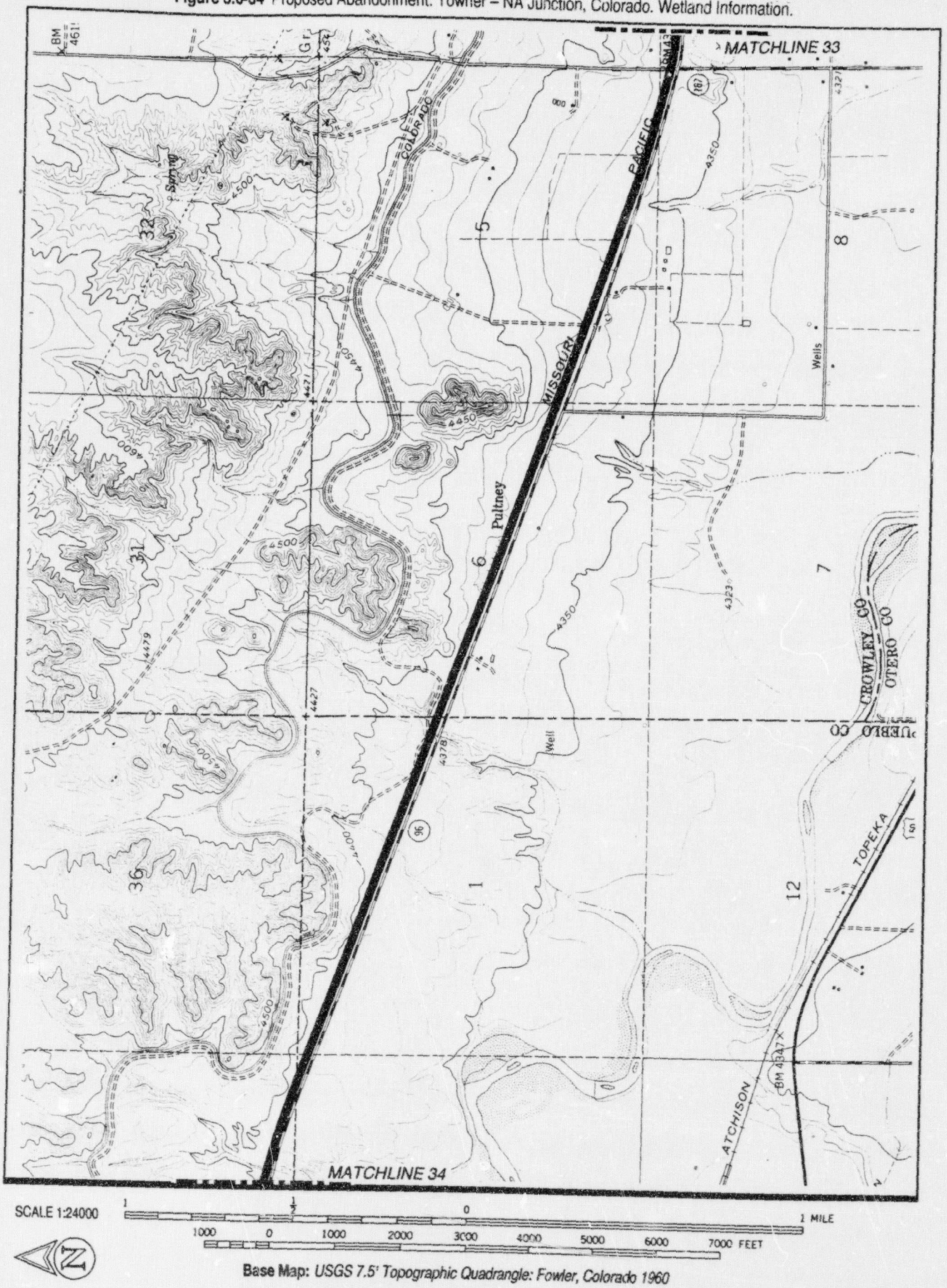
Base Map: *USGS 7.5' Topographic Quadrangle: Olney Springs, Colorado 1954*

Figure 5.6-33 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



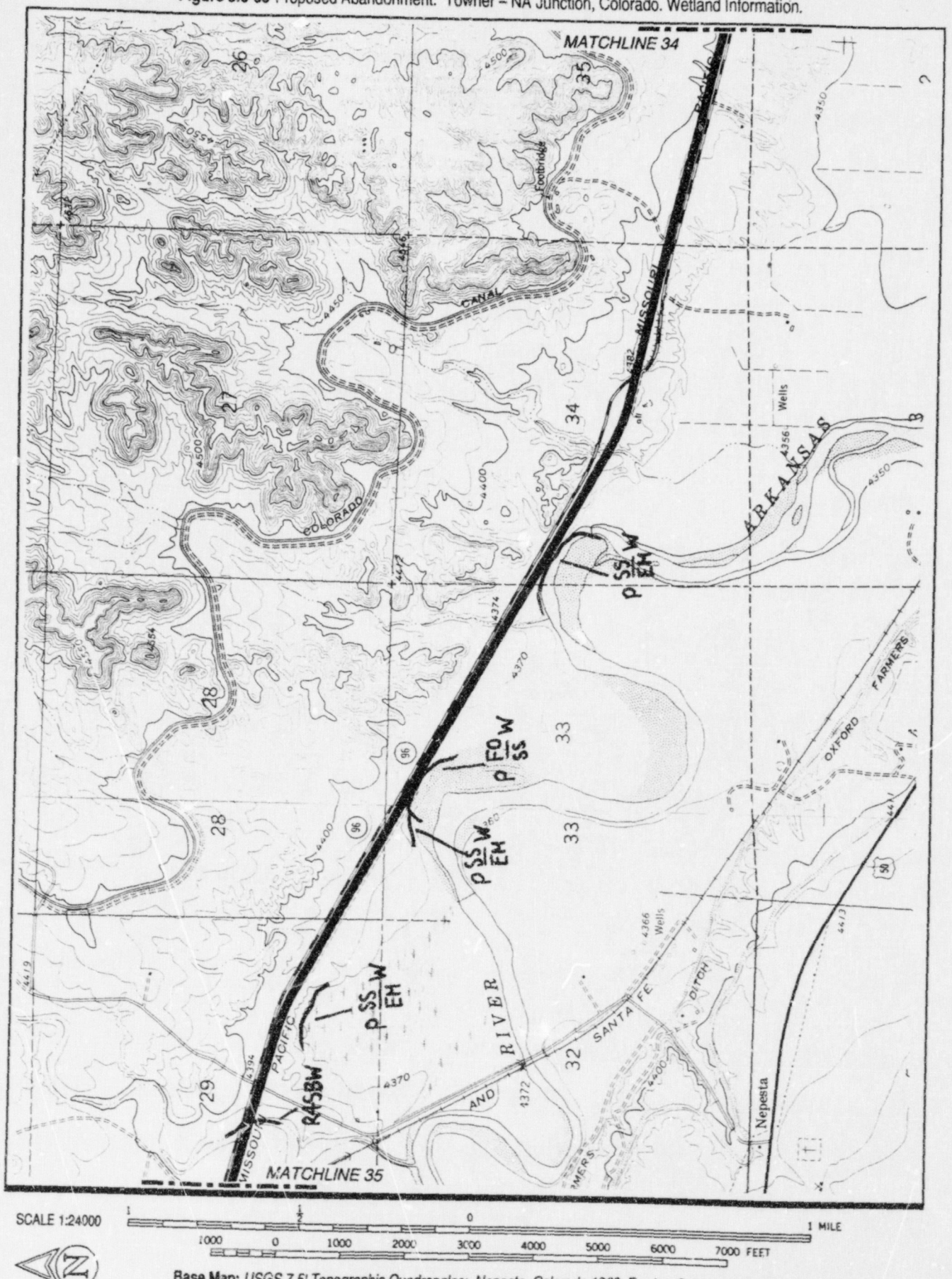
Base Map: *USGS 7.5' Topographic Quadrangles: Fowler, Colorado 1960; Olney Springs, Colorado 1954*

Figure 5.6-34 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



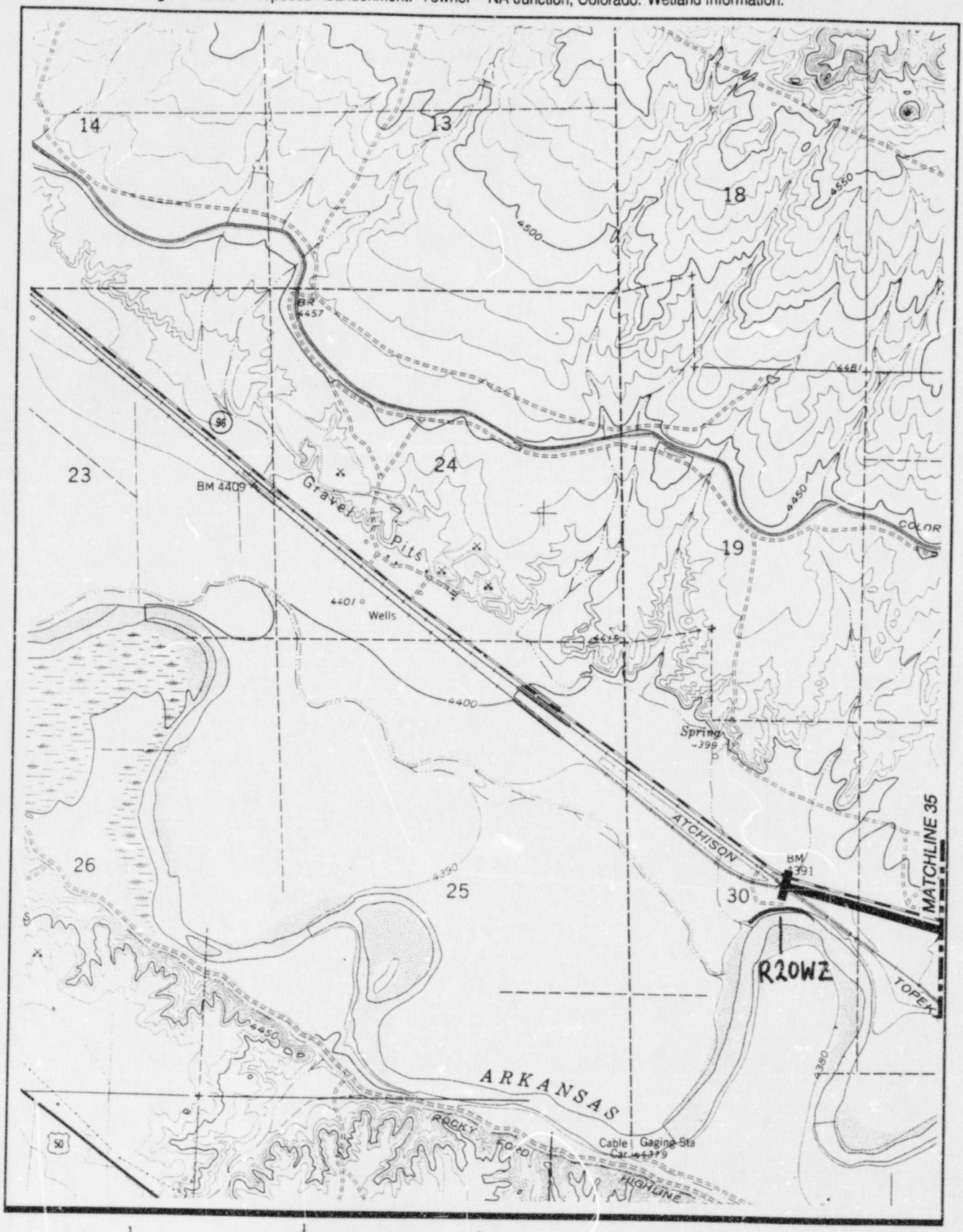
Base Map: *USGS 7.5' Topographic Quadrangle: Fowler, Colorado 1960*

Figure 5.6-35 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangles: Nepesta, Colorado 1960; Fowler, Colorado 1960*

Figure 5.6-36 Proposed Abandonment: Towner – NA Junction, Colorado. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangle: Nepesta, Colorado 1960*

6.0 ILLINOIS

6.1 BARR TO GIRARD

The Barr to Girard, Illinois rail line proposed for abandonment is 38.4 miles long (Figures 6A and 6.1-1 to 6.1-12). Barr is located in Menard County, approximately 15 miles north of Springfield. Girard is located in Macoupin County, approximately 25 miles south of Springfield. The proposed abandonment is along a former CNW line that serves as one of the UP routes between the Chicago area and St. Louis.

6.1.1 Proposed Action and No-action Alternative

6.1.1.1 Proposed Action

The proposed action would involve the abandonment of 38.4 miles of rail line following procedures described in Section 2.0. This segment currently serves as a UP route between Chicago and St. Louis. Local traffic in 1994 was 38 cars. Any through traffic would be diverted to a superior north-south route that would operate over the Chicago & Illinois Midland from Barr to Springfield. From that point, it would operate over an SP line from Springfield to St. Louis.

6.1.1.2 No-action Alternative

If the merger is approved and implemented, it is anticipated that all overhead traffic would be moved from this line to another UP/SP route whether or not the abandonment is implemented.

6.1.2 Description of Existing Environment and Potential Environmental Impacts of Proposed Action

6.1.2.1 Land Use

Information for existing land use conditions is presented in Table 6-1 and on Figures 6.1-1 through 6.1-12. Potential land use impacts are listed in Table 6-1. No significant land use impacts are expected.

6.1.2.2 Water Resources and Wetlands

Existing water resources and wetlands information is summarized in Table 6-2. NWI data along the Barr-Girard, Illinois abandonment were collected, as available. Those data are shown on Figures 6.2-1 to 6.2-12. Significant impacts are not expected.

6.1.2.3 Biological Resources

Existing biological resources information and potential impacts are summarized in Table 6-3. The prairie fringed orchid is known to exist in the region; however, we have not determined that they are actually located along this line. Potentially significant impacts to biological resources due to this proposed abandonment are not expected.

If disturbance associated with salvage operations is restricted to the existing ROW, the likelihood of significant impacts to this species would be low; in most areas along rail lines, ruderal and introduced species dominate the species composition.

6.1.2.4 Historic and Cultural Resources

This line was constructed as part of a line between Pekin, Illinois and Girard, Illinois in 1914 by the St. Louis, Prairie & North Western Railway Company, subsequently CNW, and in 1995, UP.

There are 26 bridges that are 50 years old or older: 10 steel bridges built between 1912 and 1938; eight wooden bridges (1913, 1939, 1939); two 1923 steel/concrete bridges; and six bridges listed in the bridge book but not identified in the field verification (UP, 1995). Based solely on age, these bridges are potentially eligible for the NRHP; however, UP currently has no other evidence that any such bridges meet NRHP criteria. The Illinois SHPO has been contacted and has requested that the project location be delineated on a USGS quad map, and that photographs, the date of construction, and location be provided for the bridges in order to complete its review

(Soulle, 1995). Further consultation with the Illinois SHPO is expected concerning mitigation measures for bridges and structures if any are determined eligible.

Since salvage operations associated with abandonments usually cause little disturbance to lands within or adjacent to the railroad ROW, impacts to archaeological resources are not normally anticipated (ICC, 1976:6.36). Where significant ground disturbance is necessary, impacts to archaeological resources may occur. An example of this would be the ground disturbance associated with the removal of bridges. To date, no evidence of archaeological resources has been discovered.

6.1.2.5 Safety

Hazardous waste sites, developed from the database search, are included in Table 6-4.

6.1.2.5.1 Conditions of the Rail Segment

No recognized environmental conditions were identified on the Barr to Girard, Illinois rail segment based on the database review.

6.1.2.5.2 Conditions Adjacent to the Rail Segment

The database search indicated one CERCLIS, 12 SPL, 14 LUST, and two SWLF sites potentially in the vicinity of the rail segment. Information provided by VISTA does not indicate that these sites have adversely affected the rail segment.

6.1.2.6 Transportation

This line is served by a train operating seven days a week between Madison and South Pekin, Illinois. Local traffic on the Barr to Girard line consists of 38 carloads per year of plastic resin and fertilizer. It is expected that this traffic would be diverted to trucks in the St. Louis area and shipped north via Interstate 55. This would result in approximately 152 trucks per year additional traffic along State Route 104 and Interstate 55. This is not expected to be a significant impact to the highway system.

6.1.3 Potential Environmental Impacts of No-action Alternative

Under the no-action alternative, the overhead traffic on this segment would be rerouted to another UP/SP line. As such, there would be no new potential adverse environmental impacts.

6.2 DeCAMP TO EDWARDSVILLE

The DeCamp to Edwardsville, Illinois rail line proposed for abandonment is 14.6 miles long (Figures 6B and 6.3-1 to 6.3-4). DeCamp is located in Madison County, approximately 35 miles northeast of St. Louis. Edwardsville is located in Madison County, approximately 20 miles northeast of St. Louis. The proposed abandonment is along a former CNW line that serves St. Louis.

6.2.1 Proposed Action and No-action Alternative

6.2.1.1 Proposed Action

The proposed action involves the abandonment of 14.6 miles following procedures described in Section 2.0. This segment currently serves St. Louis and handles coal trains from Monterey, Illinois. The coal trains would be interchanged to Norfolk Southern at DeCamp, rather than at Edwardsville. There is no local traffic on the DeCamp portion of this line.

6.2.1.2 No-action Alternative

If the merger is approved and implemented, it is anticipated that all overhead traffic would be moved from this line to another UP/SP route whether or not the abandonment is implemented.

6.2.2 Description of Existing Environment and Potential Environmental Impacts of Proposed Action

6.2.2.1 Land Use

Information for existing land use conditions is presented in Table 6-1 and on Figures 6.3-1 through 6.3-4. Potential land use impacts are listed in Table 6-1. No significant land use impacts are expected.

6.2.2.2 Water Resources and Wetlands

Existing water resources and wetlands information is summarized in Table 6.2. NWI data along the DeCamp-Edwardsville, Illinois abandonment were collected, as available. Those data are shown on Figures 6.4-1 to 6.4-4. Significant impacts are not expected. Any potential effects to water resources and wetlands could be minimized by implementation of appropriate mitigation measures.

6.2.2.3 Biological Resources

Existing biological resources information and potential impacts are summarized in Table 6-3. Rare, threatened, and endangered species potentially occurring in the vicinity include eight species of plants (Table 6-3). The actual occurrence of these plants along this line has not yet been discovered. Potentially significant impacts to biological resources due to this proposed abandonment are not expected.

If disturbance associated with salvage operations is restricted to the existing ROW, the likelihood of significant impacts to these species would be low; in most areas along rail lines, ruderal and introduced species dominate the species composition.

6.2.2.4 Historic and Cultural Resources

This line was constructed between 1889 and 1890 by the Chicago, Peoria & St. Louis Railroad, subsequently the Litchfield & Madison Railway, subsequently the CNW, and subsequently in 1995, the UP.

No bridges or structures were identified as being 50 years old or older in the UP bridge reports (UP, 1995).

6.2.2.5 Safety

Hazardous waste sites, developed from the database search, are included in Table 6-4.

6.2.2.5.1 Conditions of the Rail Segment

The CNW rail line from DeCamp to Edwardsville, Illinois was identified to have had a gasoline spill in 1987 at Mile Post 116.6.

6.2.2.5.2 Conditions Adjacent to the Rail Segment

The database search identified one CERCLIS, one ERNS, and four LUST sites within the vicinity of the rail segment. None of the nearby sites are known to have adversely affected the rail segment.

6.2.2.6 Transportation

This line is served by a train operating seven days a week between Madison and South Pekin, Illinois. It also carries coal trains from the Monterrey mine. Since there is no local traffic on the DeCamp to Edwardsville line, no rail to truck diversions would occur. Coal trains that currently use this route would be interchanged at DeCamp rather than Edwardsville.

6.2.3 Potential Environmental Impacts of No-action Alternative

Under the no-action alternative, the overhead traffic on this segment would be rerouted to another SP/UP line. As such, there would be no new potential adverse environmental impacts.

6.3 EDWARDSVILLE TO MADISON

The Edwardsville to Madison, Illinois rail line proposed for abandonment is 15 miles (Figures 6C and 6.5-1 to 6.5-6). Edwardsville, Illinois is located in Madison

County, approximately 25 miles northeast of St. Louis. Madison, Illinois is located in Madison County within the St. Louis area. The proposed abandonment is along a UP line that formerly was a CNW line.

6.3.1 Proposed Action and No-action Alternative

6.3.1.1 Proposed Action

The proposed action would involve the abandonment of 15 miles of rail line following procedures described in Section 2.0. This segment currently serves as a route to St. Louis. Local traffic in 1994 was 26 passenger rail cars which cannot be readily diverted to trucks.

6.3.1.2 No-action Alternative

If the merger is approved and implemented, it is anticipated that all overhead traffic would be moved from this line to another UP/SP route whether or not the abandonment is implemented.

6.3.2 Description of Existing Environment and Potential Environmental Impacts of Proposed Action

6.3.2.1 Land Use

Information for existing land use conditions is presented in Table 6-1 and on Figures 6.5-1 through 6.5-6. Potential land use impacts are listed in Table 6-1. No significant land use impacts are expected.

6.3.2.2 Water Resources and Wetlands

Existing water resources and wetlands information is summarized in Table 6-2. NWI data along the Edwardsville-Madison, Illinois abandonment were collected, as available. Those data are shown on Figures 6.6-1 to 6.6-5. Significant impacts are not expected.

6.3.2.3 Biological Resources

Existing biological resources information and potential impacts are summarized in Table 6-3. Rare, threatened, and endangered species potentially occurring in the vicinity include eight species of plants (Table 6-3). The actual occurrence of these plants along this line has not yet been discovered. Potentially significant impacts to biological resources due to this proposed abandonment are not expected.

If disturbance associated with salvage operations is restricted to the existing ROW, the likelihood of significant impacts to these species would be low; in most areas along rail lines, ruderal and introduced species dominate the species composition.

6.3.2.4 Historic and Cultural Resources

This line was constructed between 1889 and 1890 by the Chicago, Peoria & St. Louis Railroad, subsequently the Litchfield & Madison Railway, subsequently the CNW, and subsequently in 1995, the UP.

No bridges or structures were identified as being 50 years old or older in the UP bridge reports (UP, 19[illegible]

6.3.2.5 Safety

Hazardous waste sites near the abandonment identified from the database search are included in Table 6-4.

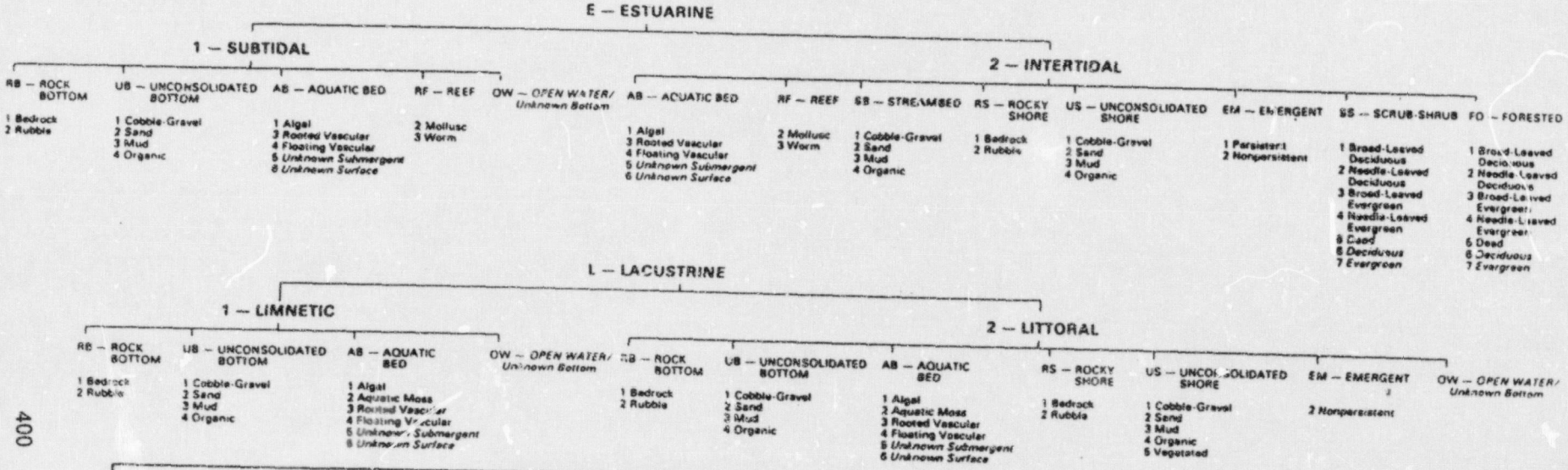
6.3.2.5.1 Conditions of the Rail Segment

No hazardous waste sites were identified on the Edwardsville to Madison, Illinois rail segment based on the database review.

6.3.2.5.2 Conditions Adjacent to the Rail Segment

The database search indicated two CERCLIS, 14 ERNS, and one LUST within 500 feet of the rail segment; and one CERCLIS, two RCRA TSD, 12 ERNS, seven SPL, seven LUST and six SWLF sites are indicated within the vicinity of the rail. The

NWI LEGEND



MODIFIERS

In order to more adequately describe wetland and deepwater habitats one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The formed modifier may also be applied to the ecological system.

WATER REGIME

Non-Tidal

- A Temporarily Flooded
- B Saturated
- C Seasonally Flooded
- D *Seasonally Flooded/ Well Drained*
- E *Seasonally Flooded/ Saturated*
- F Semipermanently Flooded
- G Intermittently Exposed
- H Permanently Flooded
- J Intermittently Flooded
- K Artificially Flooded
- W Intermittently Flooded/Temporary
- Y Saturated/Semipermanent/ Seasonal
- Z Intermittently Exposed/Permanent
- U *Unknown*

Tidal

- X *Artificially Flooded*
- L Subtidal
- M Irregularly Exposed
- N Regularly Flooded
- P Irregularly Flooded
- *S Temporary-Tidal
- *R Seasonal-Tidal
- *T Semipermanent-Tidal
- *V Permanent-Tidal
- U *Unknown*

*These water regimes are only used in tidally influenced freshwater systems

WATER CHEMISTRY

Coastal Salinity

- 1 Hyperhaline
- 2 Euhaline
- 3 Mixohaline *(Brackish)*
- 4 Polyhaline
- 5 Mesohaline
- 6 Oligohaline
- 0 Fresh

Inland Salinity

- 7 Hypersaline
- 8 Eusaline
- 9 Mixosaline
- 0 Fresh

pH Modifiers for all Fresh Water

- a Acid
- b Circumneutral
- c Alkaline

SOIL

- g Organic
- h Mineral

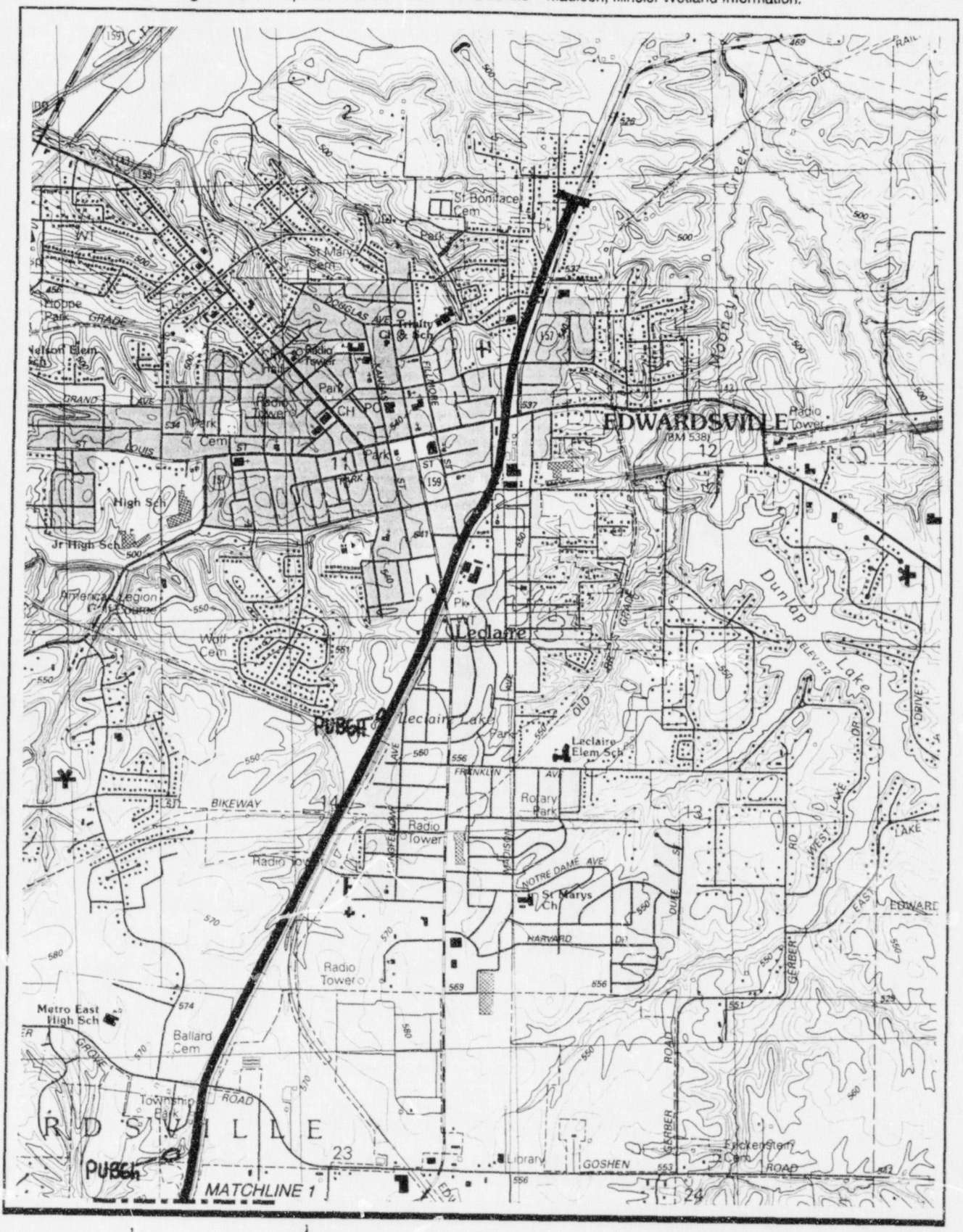
SPECIAL MODIFIERS

- b *Beaver*
- d *Partially Drained/Ditched*
- f Formed
- h *Diked/Impounded*
- r *Artificial Substrate*
- s *Spoil*
- x Excavated

Instructions for using the legend:

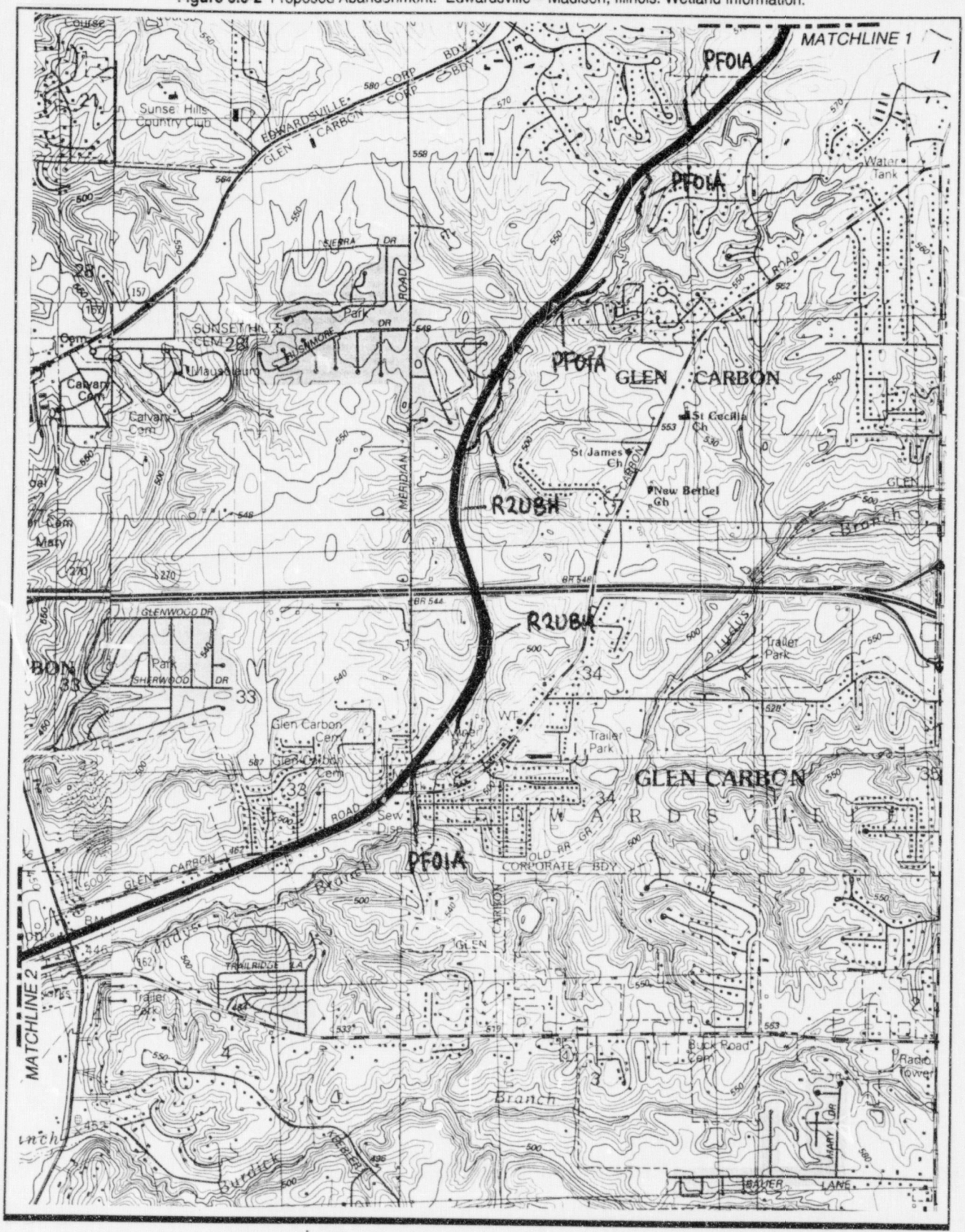
The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral." The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

Figure 6.6-1 Proposed Abandonment: Edwardsville – Madison, Illinois. Wetland Information.



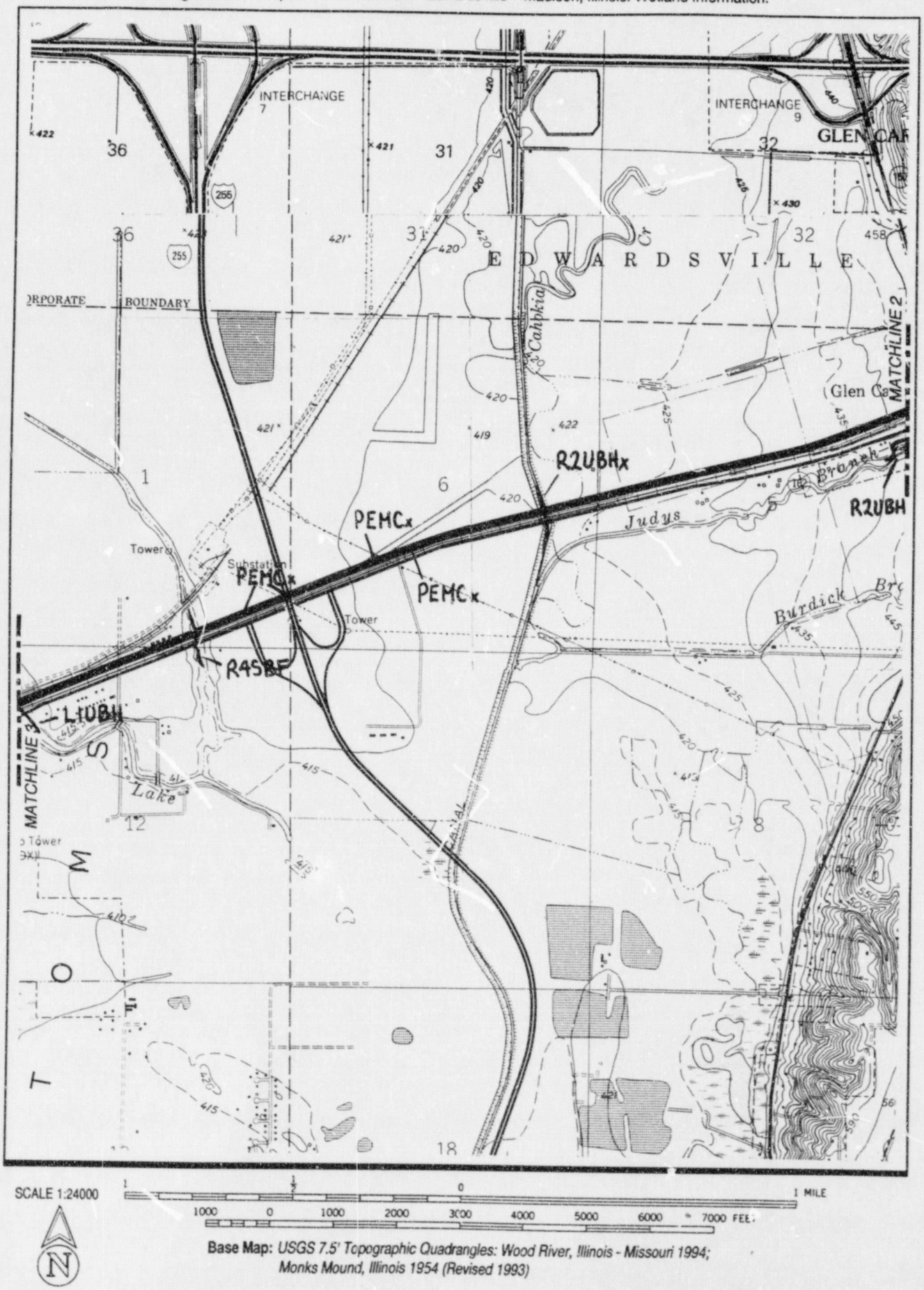
Base Map: *USGS 7.5' Topographic Quadrangles: Edwardsville, Illinois 1991*

Figure 6.6-2 Proposed Abandonment: Edwardsville – Madison, Illinois. Wetland Information.



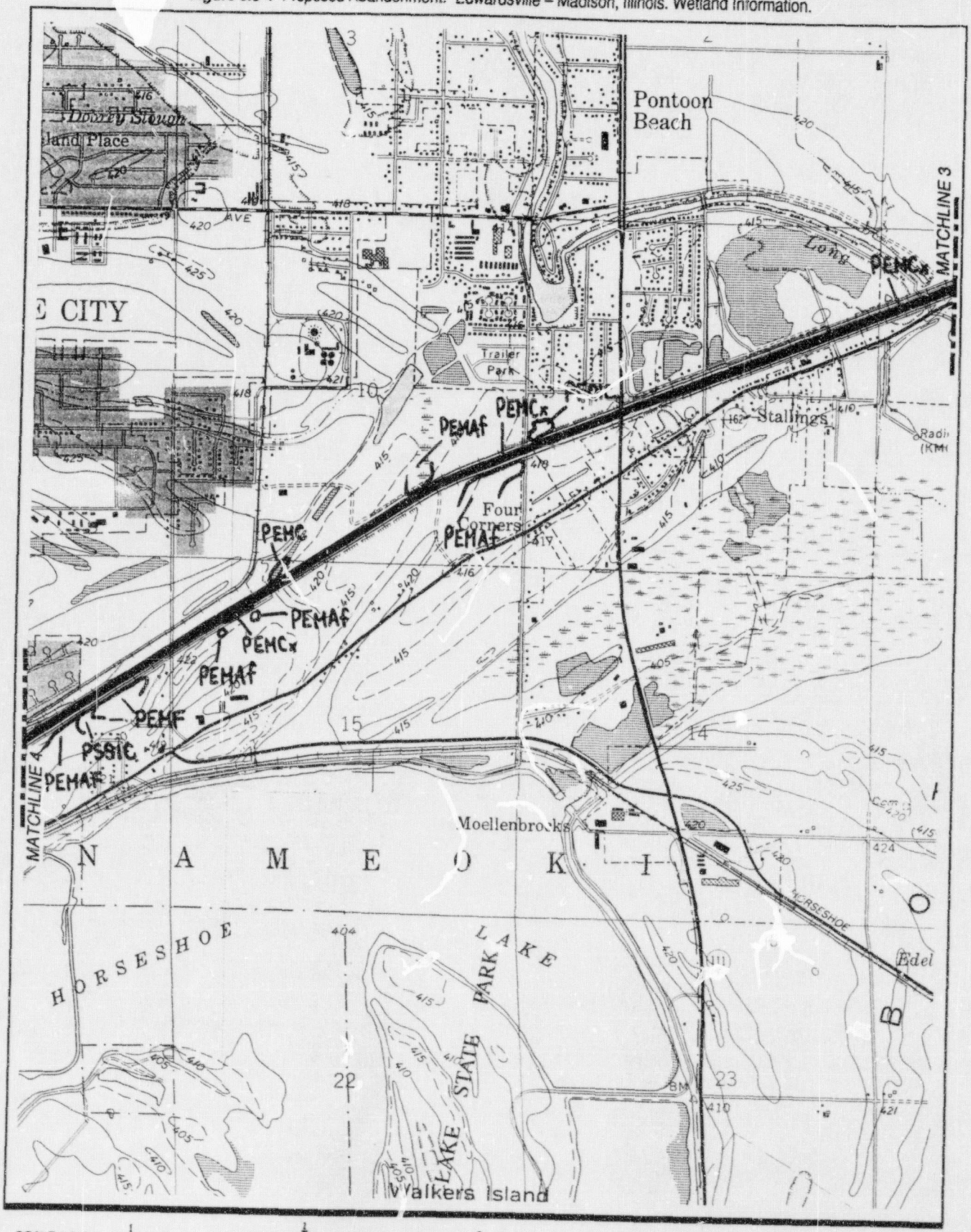
Base Map: *USGS 7.5' Topographic Quadrangles: Wood River, Illinois - Missouri 1994; Edwardsville, Illinois 1991; Monks Mound, Illinois 1954 (Revised 1993); Collinsville, Illinois 1991*

Figure 6.6-3 Proposed Abandonment: Edwardsville – Madison, Illinois. Wetland Information.



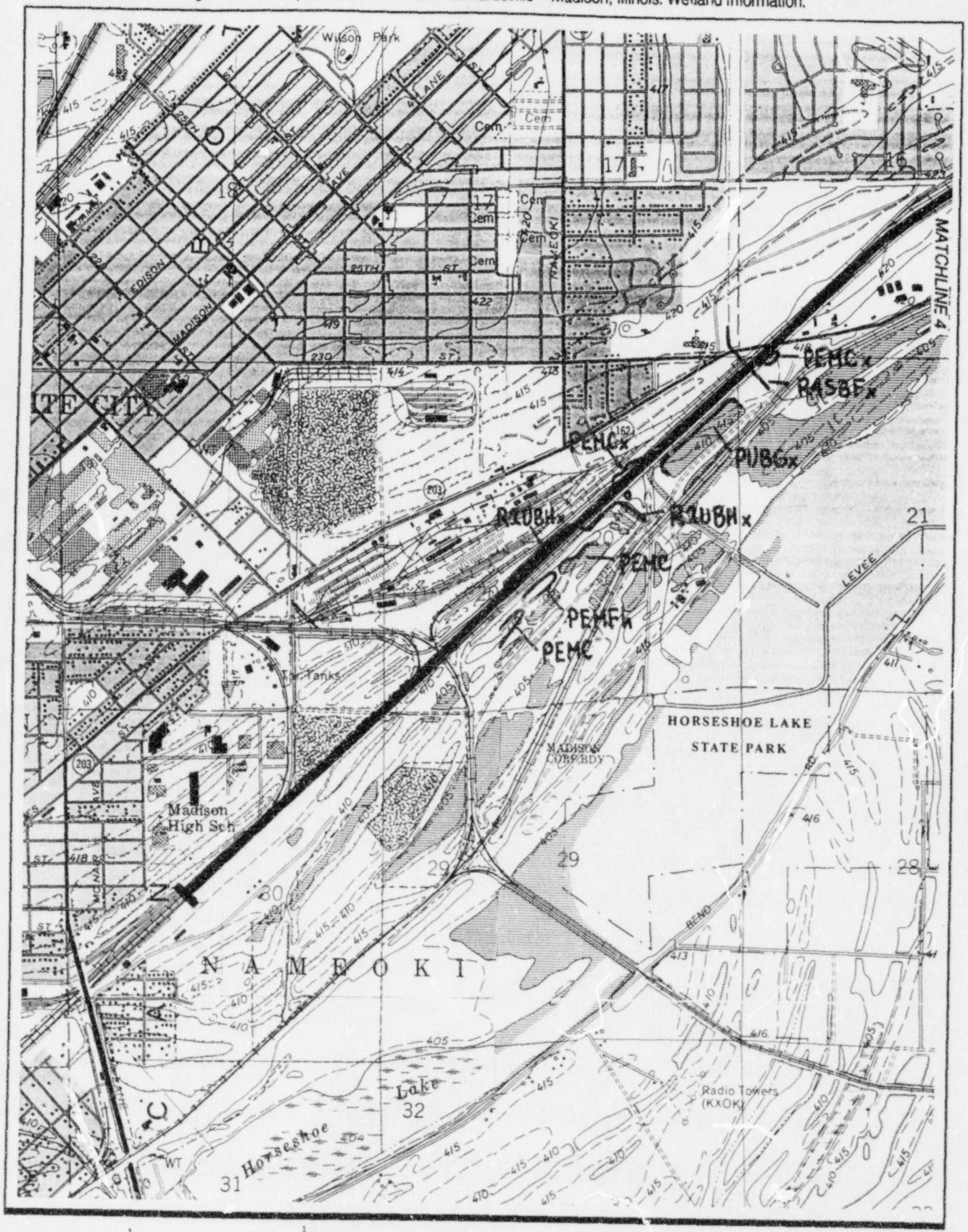
Base Map: *USGS 7.5' Topographic Quadrangles: Wood River, Illinois - Missouri 1994; Monks Mound, Illinois 1954 (Revised 1993)*

Figure 6.6-4 Proposed Abandonment: Edwardsville – Madison, Illinois. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangles: Monks Mound, Illinois 1954 (Revised 1993)*

Figure 6.6-5 Proposed Abandonment: Edwardsville – Madison, Illinois. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangles: Granite City, Illinois - Missouri 1954 (Revised 1993); Monks Mound, Illinois 1954 (Revised 1993)*

7.0 KANSAS

7.1 HOPE TO BRIDGEPORT

The Hope to Bridgeport, Kansas rail line proposed for abandonment is 31.2 miles long (Figures 7A and 7.1-1 to 7.1-10). Hope, Kansas is located in Dickinson County, approximately 30 miles east of Salina. Bridgeport is located in Saline County, approximately 15 miles south of Salina. The proposed abandonment is along the UP line from Herington, Kansas to Bridgeport.

7.1.1 Proposed Action and No-action Alternative

7.1.1.1 Proposed Action

The proposed action would involve the abandonment of 31.2 miles of rail line following procedures described in Section 2.0. This segment is a UP line used by SP for through traffic. Local traffic in 1994 was 167 cars. Overhead traffic would be diverted to nearby, more efficient lines.

7.1.1.2 No-action Alternative

If the merger is approved and implemented, it is anticipated that all overhead traffic would be moved from this line to another UP/SP route whether or not the abandonment is implemented.

7.1.2 Description of Existing Environment and Potential Environmental Impacts of Proposed Action

7.1.2.1 Land Use

Information for existing land use conditions is presented in Table 7-1 and on Figures 7.1-1 through 7.1-10. Potential land use impacts are listed in Table 7-1. No significant land use impacts are expected.

7.1.2.2 Water Resources and Wetlands

Existing water resources and wetlands information is summarized in Table 7-2. NWI data along the Hope-Bridgeport, Kansas abandonment were collected, as

available. Those data are shown on Figures 7.2-1 to 7.2-10. Significant impacts are not expected.

7.1.2.3 Biological Resources

Existing biological resources information and potential impacts are summarized in Table 7-3. Potentially significant impacts to biological resources due to this proposed abandonment are not expected.

7.1.2.4 Historic and Cultural Resources

This line appears to have been originally constructed in two sections, between Hope and MP 476.4 in 1886 by the Topeka, Salina & Western Railroad and from Gypsum to Bridgeport, by the Council Grove, Smoky Valley Western Railway in 1887.

There are 26 bridges that are 50 years old or older: 11 wooden bridges built between 1919 and 1939; and 15 concrete/steel bridges built between 1931 and 1940 (UP, 1995). Based solely on age, these bridges may be potentially eligible for the NRHP; however, UP currently has no other evidence that any such bridges meet NRHP criteria. The Kansas SHPO has been contacted, and has requested that the project location be delineated on a USGS quad map and that photographs, the date and type of construction, and location be provided for the bridges in order to complete its review (Anyanwu, 1995). There is one 1948 wooden bridge. Further consultation with the Kansas SHPO is expected concerning mitigation measures for bridges and structures if any are determined eligible.

Since salvage operations associated with abandonments usually cause little disturbance to lands within or adjacent to the railroad ROW, impacts to archaeological resources are not normally anticipated (ICC, 1976:6.36). Where significant ground disturbance is necessary, impacts to archaeological resources could possibly occur. An example of this would be the ground disturbance associated with the removal of bridges.

To date, however, no evidence of archaeological resources on this line has been discovered.

7.1.2.5 Safety

Hazardous waste sites near the abandonment identified from the database search are included in Table 7-4.

7.1.2.5.1 Conditions of the Rail Segment

No hazardous waste sites were identified on the Hope to Bridgeport, Kansas rail segment based on the available information.

7.1.2.5.2 Conditions Adjacent to the Rail Segment

The database search indicated five ERNS sites, four SPL sites, and one SWLF site are reported to have been located within the vicinity of the rail segment. Information provided by VISTA does not indicate that these sites have adversely affected the rail segment.

7.1.2.6 Transportation

This line is served three days a week eastbound and three days a week westbound by one local UP train and is also used as a through route for SP trains. The Hope to Bridgeport line carried 167 cars of grain and fertilizer to and from four stations on the line in 1994. The diversion of this traffic to truck would potentially result in an additional 668 trucks per year on local highways. Alternative highway access is available on State Route 4, which parallels the line. This highway is adjacent to the line at Gypsum, where the major shipper is located. North-south routes include US 135 at Bridgeport, SR 43 at Hope, and SR 15 near Dillon. Diversion of freight to trucks along this line would have no significant impact on local and regional highway networks.

The use of this UP line by SP for through trains would become unnecessary as a result of the merger, because traffic would be rerouted to another UP/SP line.

7.1.3 Potential Environmental Impacts of No-action Alternative

Under the no-action alternative, the overhead traffic on this segment would be rerouted to another UP/SP line. As such, there would be no new potential adverse environmental impacts.

7.2 WHITEWATER TO NEWTON

The Newton to Whitewater, Kansas rail line proposed for abandonment is nine miles long (Figures 7B and 7.3-1 to 7.3-4). Whitewater, Kansas is located in Butler County, approximately 20 miles northeast of Wichita. Newton is located in Harvey County, approximately 20 miles north of Wichita. The proposed abandonment is along the UP McPherson Branch.

7.2.1 Proposed Action and No-action Alternative

7.2.1.1 Proposed Action

The proposed action would involve the abandonment of nine miles of rail line following procedures described in Section 2.0. Currently, this line serves as the UP route to McPherson. There is no local traffic. Following the merger, traffic would be diverted onto the SP Tucumcari line.

7.2.1.2 No-action Alternative

If the merger is approved and implemented, it is anticipated that all overhead traffic would be moved from this line to another UP/SP route whether or not the abandonment is implemented.

7.2.2 Description of Existing Environment and Potential Environmental Impacts of Proposed Action

7.2.2.1 Land Use

Information for existing land use conditions is presented in Table 7-1 and on Figures 7.3-1 through 7.3-4. Potential land use impacts are listed in Table 7-1. No significant land use impacts are expected.

7.2.2.2 Water Resources and Wetlands

Existing water resources and wetlands information is summarized in Table 7-2. NWI data along the Whitewater-Newton, Kansas abandonment were collected, as available. Those data are shown on Figures 7.4-1 to 7.4-4. Significant impacts are not expected.

7.2.2.3 Biological Resources

Existing biological resources information and potential impacts are summarized in Table 7-3. Potentially significant impacts to biological resources due to this proposed abandonment are not expected.

7.2.2.4 Historic and Cultural Resources

This line was constructed in 1885 by the Ellsworth, McPherson, Newton & Southwestern Railway, subsequently the MPRR. There are two wooden bridges (1939, 1940) that are 50 years old or older (UP, 1995). Based solely on age, these bridge are potentially eligible for the NRHP; however, UP currently has no other evidence that any such bridges meet NRHP criteria. The Kansas SHPO has been contacted, and has requested that the project location be delineated on a USGS quad map and that photographs, the date and type of construction, and location be provided for the bridges in order to complete its review (Anyanwu, 1995).

The removal of bridges that are eligible or potentially eligible for the NRHP would be a potentially significant impact. Further consultation with the Kansas SHPO is expected concerning mitigation measures for bridges and structures if any are determined eligible.

Since salvage operations associated with abandonments usually cause little disturbance to lands within or adjacent to the railroad ROW, impacts to archaeological resources are not normally anticipated (ICC, 1976:6.36). Where significant ground disturbance is necessary, impacts to archaeological resources could possibly occur. An

example of this would be the ground disturbance associated with the removal of bridges. To date, no evidence of archaeological resources on the line has been discovered.

7.2.2.5 Safety

Hazardous waste sites near the abandonment identified from the database search are included in Table 7-4.

7.2.2.5.1 Conditions of the Rail Segment

No hazardous waste sites were identified on the Whitewater to Newton, Kansas rail segment based on the database review.

7.2.2.5.2 Conditions Adjacent to the Rail Segment

The database search identified one SWLF site within 500 feet of the rail segment; and three ERNS sites, one SPL site, and one SWLF site are reported to have been located in the vicinity of the rail segment. Information provided by VISTA does not indicate that these sites have adversely affected the rail segment.

7.2.2.6 Transportation

UP provides service on this line by trains operating between Wichita and Newton via Whitewater. The line also carries trains between Kansas City and Wichita. The Whitewater to Newton line carries no local traffic. The line provides UP its route to McPherson, which would be served by the SP Tucumcari line after the merger. Therefore, there are no adverse transportation impacts of the abandonment.

7.2.3 Potential Environmental Impacts of No-action Alternative

Under the no-action alternative, the overhead traffic on this segment would be rerouted to another UP/SP line. As such, there would be no new adverse environmental impacts.

7.3 SUMMARY OF COMMENTS

To assist in assessing the potential environmental impacts of the proposed UP/SP merger, Dames & Moore sent letters requesting information to various Federal, state, and local agencies. In these letters, information was requested for the areas of: air quality, noise, land use, biological and water resources, historic and cultural resources, transportation systems, energy, and public health and safety. Copies of all correspondence received and telephone conversation notes recorded in response to the requests for information are included in Part 6 of this Environmental Report.

There are two segments proposed for abandonment in Kansas. For abandonments in this state, the following agencies responded: Saline County Planning and Zoning Department, U.S. Fish and Wildlife Service (Kansas field office), City of Bucklin, the Kansas State Historic Preservation Office, and the COE (Kansas City, Missouri District).

A summary of comments received through October 30, 1995 is listed below.

- The Planning and Zoning Department of Saline County, Kansas reported that they do not have species information or a listing of critical habitats within five miles of the abandonment site. They stated that there are no parks or refuges in the vicinity of the project. They also stated that they do not have permitting/approval authority over the project.
- The Kansas Field Office of the U.S. Fish and Wildlife Service stated that the bald eagle could occur within the two abandonment project areas of Hope to Bridgeport and Newton to Whitewater. They encouraged the UP/SP to keep the right-of-way in a natural condition for the benefit of native wildlife, plants, and the public and gave a contact for the "Rails to Trails" Program.

- The City of Bucklin, Kansas does not know of any environmental problems, but stated that a water well occurs on railroad property on the west end of Bucklin.
- The Kansas State Historic Preservation Office requested additional information, including photographic prints of structures and bridges along the abandonments, and historical information about the roles and construction dates of the abandonment segments.
- The Kansas City District of the U.S. Army Corps of Engineers, Regulatory Branch office sent a brochure that provided general information about impacts to wetlands.

7.4 REFERENCES

7.4.1 Land Use

Allen, R. Lee, 1995. Letter to Julie Donsky, Dames & Moore, from Box Elder County Commissioners. October 3.

Dickson, Steph, 1995. Letter to Julie Donsky, Dames & Moore, from City of Bucklin. October 6.

Gurss, David E., 1995. Letter to Julie Donsky, Dames & Moore, from Saline County Planning and Zoning Department, Salina. October 11.

U.S. Department of Agriculture, 1994. State soil geographic (STATSGO) data base. July.
U.S. Geological Survey, various dates. Land use and land cover maps.
U.S. Geological Survey, various dates. 1:24,000-scale topographic maps.

7.4.2 Water Resources and Wetlands

U.S. Army Corps of Engineers, Kansas City District. Information submitted to Julie Donsky, Dames & Moore, October 27.

U.S. Fish and Wildlife Service, various dates. National Wetlands Inventory maps.
U.S. Geological Survey, various dates. 1:24,000-scale maps.

7.4.3 Biological Resources

Allen, R. Lee, 1995. Letter to Julie Donsky, Dames & Moore, from Box Elder County Commissioners. October 3.

Gill, William H., 1995. Letter to Julie Donsky, Dames & Moore, from U.S. Fish and Wildlife Service, Kansas Field Office, Manhattan. October 6.

Gurss, David E., 1995. Letter to Julie Donsky, Dames & Moore, from Saline County Planning and Zoning Department, Salina. October 11.

7.4.4 Historic and Cultural Resources

Anyanwu, Desmond (KSHS), 1995. Telephone conversation with Denise Bradley, Dames & Moore, October 26.

Beck, Lynn (UP), 1995. Information on Hope to Bridgeport, KS proposed abandonment; Whitewater to Newton, KS proposed abandonment.

Kansas State Historical Society, 1995. Letter from Bill Pankratz (Director, Historic Preservation Office) to Julie Donsky, 10/04/95; and KSHS Archeological Survey Form for Site No. 14SA403.

7.4.5 Safety

Allen, R. Lee, 1995. Letter to Julie Donsky, Dames & Moore, from Box Elder County Commissioners. October 3.

VISTA Information Solutions, Inc., 1995. Reports for all rail line abandonments pertaining to NPL, CERCLIS, ERNS, SPL, LUST, and SWL located in the 500-foot buffer zone of each rail line. Information collected between September 11 and October 18.

7.4.6 Transportation

Allen, R. Lee, 1995. Letter to Julie Donsky, Dames & Moore, from Box Elder County Commissioners. October 3.

TABLE 7-1

LAND USE INFORMATION ALONG SEGMENTS PROPOSED FOR ABANDONMENT IN KANSAS

EXISTING CONDITIONS					
		Structures Near Site		Occurrence Within	
Location	Existing Land Uses	Within 500 Feet	Length in Urbanized Areas (Feet)	Prime Farmland	Coastal Zone
Hope - Bridgeport	Cropland and pasture, herbaceous rangeland, mixed urban or built-up land, residential, streams and canals	216	600	No	No
Whitewater - Newton	Cropland and pasture	20	0	No	No

IMPACTS		
Location	Compatible with Surrounding Land Uses	Loss of Prime Farmland
Hope - Bridgeport	Yes - Not significant	No - Not significant
Whitewater - Newton	Yes - Not significant	No - Not significant

TABLE 7-2

WATER RESOURCES AND WETLANDS INFORMATION ALONG SEGMENTS PROPOSED FOR ABANDONMENT IN KANSAS

Segment	Type of Water Resource[1]	Number Along the Segment	
		Intercepted by the Segment	Adjacent to the Segment
Hope-Bridgeport	Blue-line streams	46	8
Whitewater-Newton	Blue-line streams	13	3

[1] Type:

Blue-line streams = permanent and intermittent watercourses, including creeks, streams, rivers, washes, and sloughs

TABLE 7-3

BIOLOGICAL RESOURCES INFORMATION ALONG SEGMENTS PROPOSED FOR ABANDONMENT IN KANSAS

EXISTING CONDITIONS:				
Segment	**Vegetation Types Along and Adjacent to the Segment**	**Known and Potential Occurrence of Rare, Threatened and Endangered Species in the Region**	**Critical Habitat Along the Segment**	**Parks, Forests, Refuges, Sanctuaries Within 5 Miles**
Hope to Bridgeport	Ruderal	• Sturgeon chub • Bald eagle • Peregrine falcon • Whooping crane	None	None
Whitewater to Newton	• Ruderal *	• Topeka shiner • Bald eagle • Peregrine falcon • Whooping crane	None	None
POTENTIAL IMPACTS TO:				
Segment	**Vegetation Types/ Wildlife Habitats**	**Rare, Threatened and Endangered Species**	**Critical Habitat**	**Parks, Forests, Refuges, Sanctuaries**
Hope to Bridgeport	Not significant	None	None	None
Whitewater to Newton	Not significant	None	None	None

* The occurrence of other vegetation types has not been confirmed.

TABLE 7-4

HAZARDOUS WASTE SITE ISSUES ALONG SEGMENTS PROPOSED FOR ABANDONMENT IN KANSAS

Segment	Right-of-Way Issues [1]			Adjacent Issues (Within 500 Feet)						Area Issues (Unmappable Sites)					
	Onsite ERNS	Onsite LUST	COMMENTS	NPL	CERCLIS	RCRA TSD	ERNS	SPL/ SWLF	LUST	NPL	CERCLIS	RCRA TSD	ERNS	SPL/ SWLF	LUST
Hope - Bridgeport	---	---	None	---	---	---	---	---	---	---	---	---	5	5	---
Newton - Whitewater	---	---	None	---	---	---	---	1	---	---	---	---	3	2	---

[1] - Issues identified through VISTA database search.

KEY FOR LAND USE FIGURES

URBAN OR BUILT-UP LAND

RE	Residential
C	Commercial and services
I	Industrial
T	Transportation, communications and utilities
I/C	Industrial and commercial complexes
MU	Mixed urban or built-up land
OU	Other urban or built-up land

AGRICULTURAL LAND

CP	Cropland and pasture
CH	Orchards, groves, vineyards, nurseries, and ornamental horticultural areas
CF	Confined feeding operations
CO	Other agricultural land

WATER

WS	Streams and canals
WL	Lakes
WR	Reservoirs
WB	Bays and estuaries

WETLANDS

WE	Forested wetlands, and/or nonforested wetlands

RANGELAND

Rh	Herbaceous rangeland
Rsb	Shrub and brush rangeland
Rm	Mixed rangeland

FOREST LAND

FD	Deciduous forest land
FE	Evergreen forest land
FM	Mixed forest land

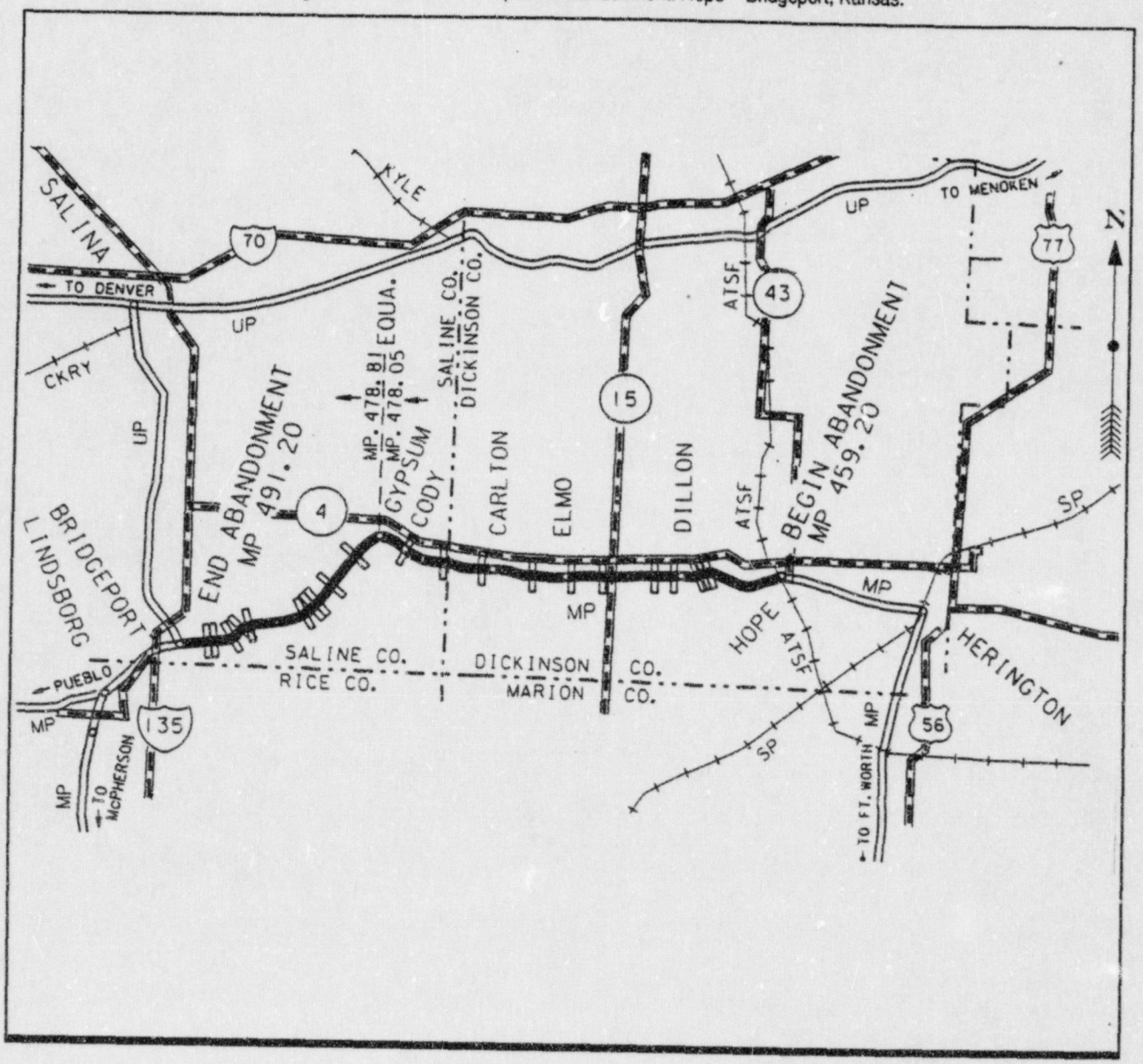
BARREN LAND

Bsf	Dry salt flats
Bb	Beaches
Bs	Sandy areas other than beaches
Br	Bare exposed rocks
Bm	Strip mines, quarries, and gravel pits
Bt	Transitional areas
B	Mixed barren land

HISTORIC AND CULTURAL RESOURCES

●	Potentially Eligible Historic Resource

Figure 7A Overview of Proposed Abandonment: Hope – Bridgeport, Kansas.



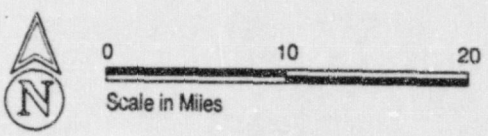
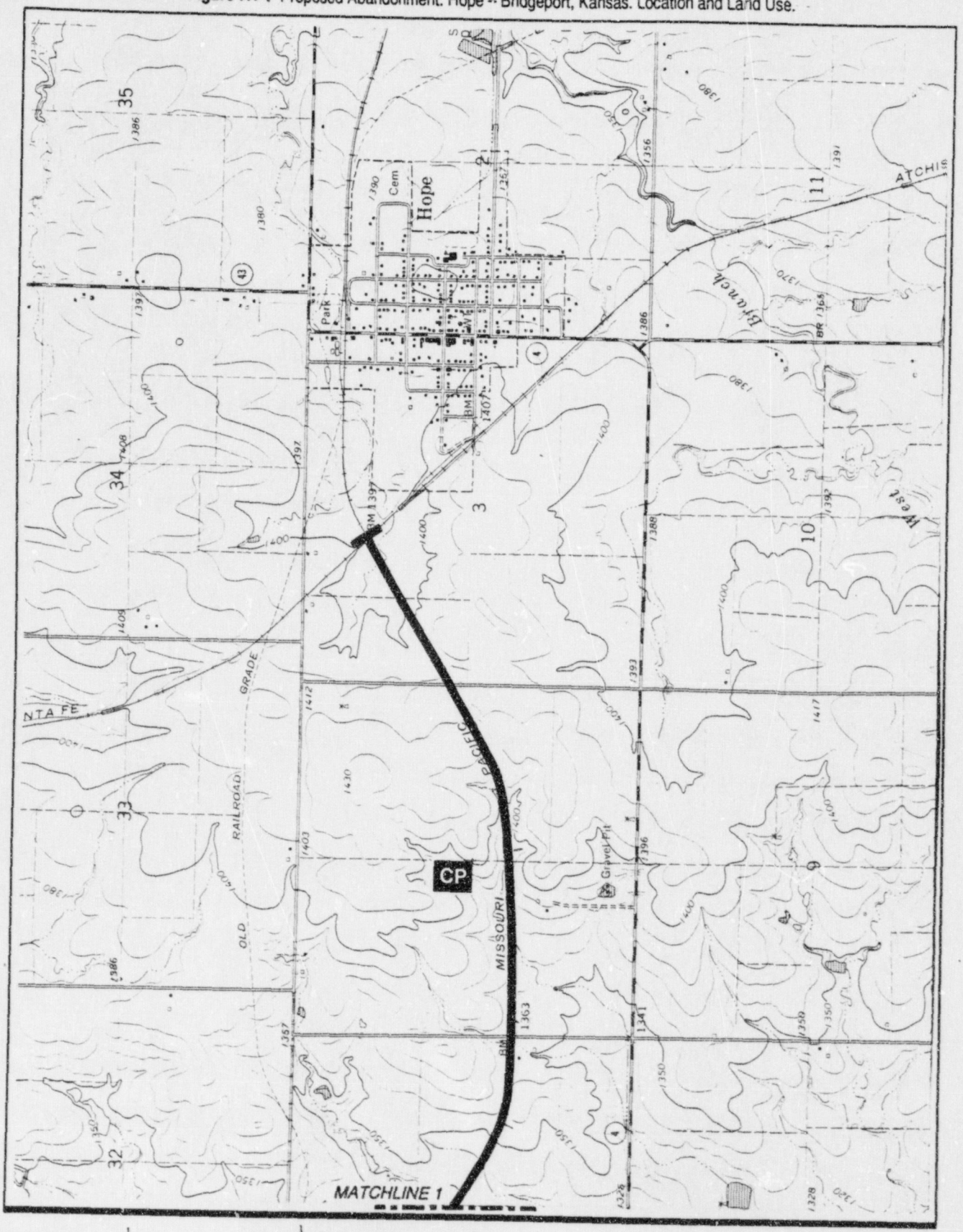
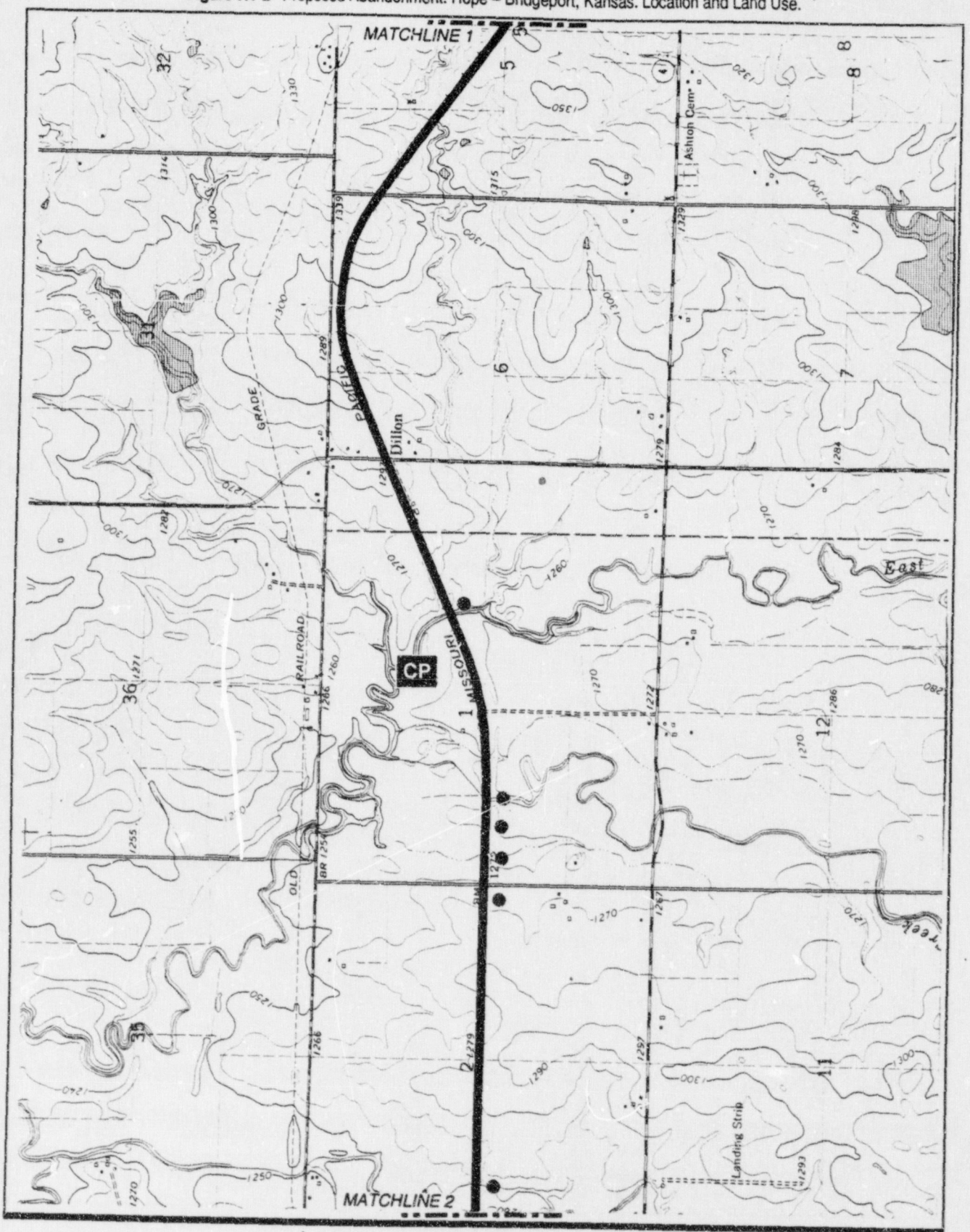


Figure 7.1-1 Proposed Abandonment: Hope -- Bridgeport, Kansas. Location and Land Use.



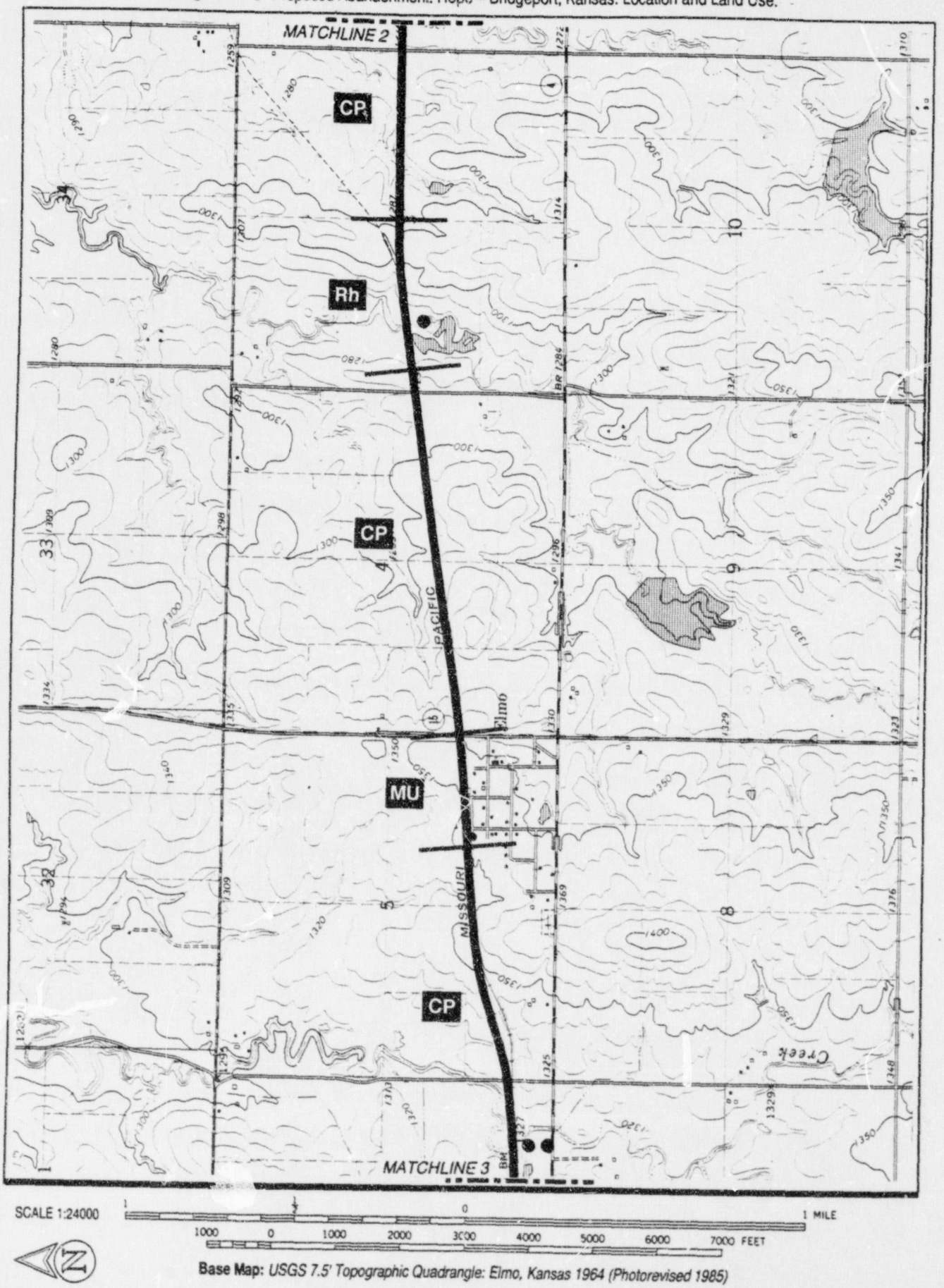
Base Map: *USGS 7.5' Topographic Quadrangle: Hope, Kansas 1964 (Photorevised 1985)*

Figure 7.1-2 Proposed Abandonment: Hope – Bridgeport, Kansas. Location and Land Use.



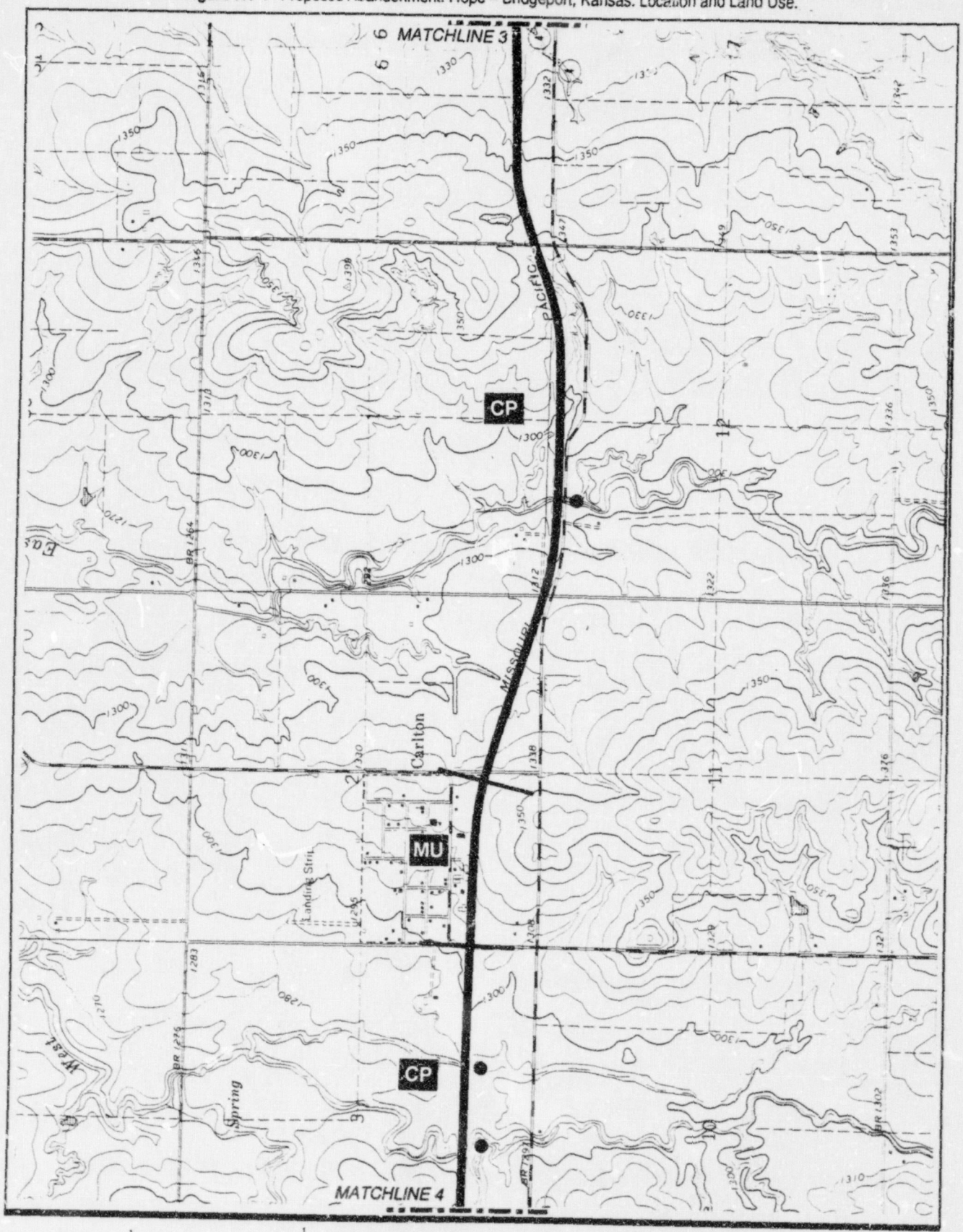
Base Map: *USGS 7.5' Topographic Quadrangle: Elmo, Kansas 1964 (Photorevised 1985); Hope, Kansas 1964 (Photorevised 1985)*

Figure 7.1-3 Proposed Abandonment: Hope – Bridgeport, Kansas. Location and Land Use.



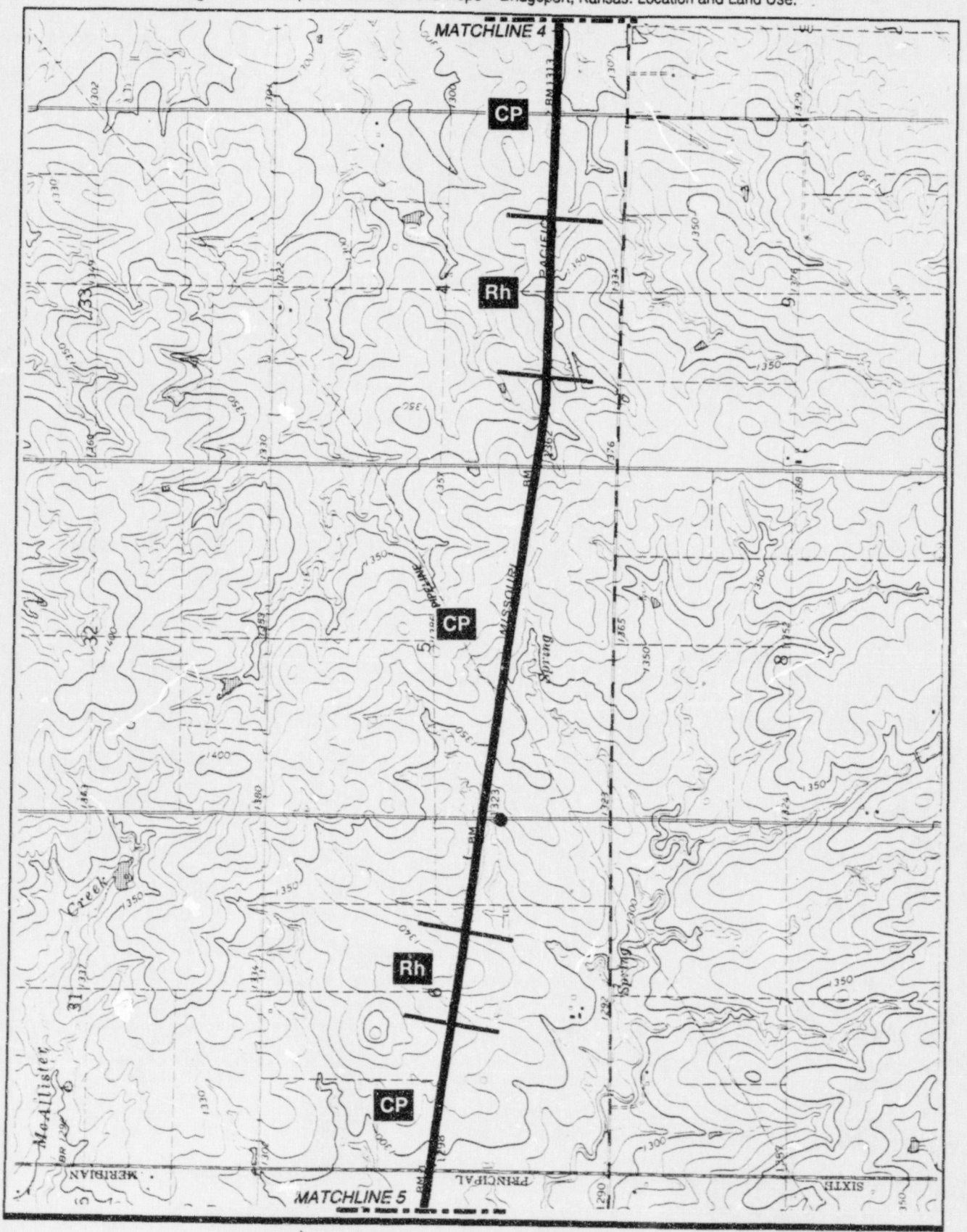
Base Map: *USGS 7.5' Topographic Quadrangle: Elmo, Kansas 1964 (Photorevised 1985)*

Figure 7.1-4 Proposed Abandonment: Hope – Bridgeport, Kansas. Location and Land Use.



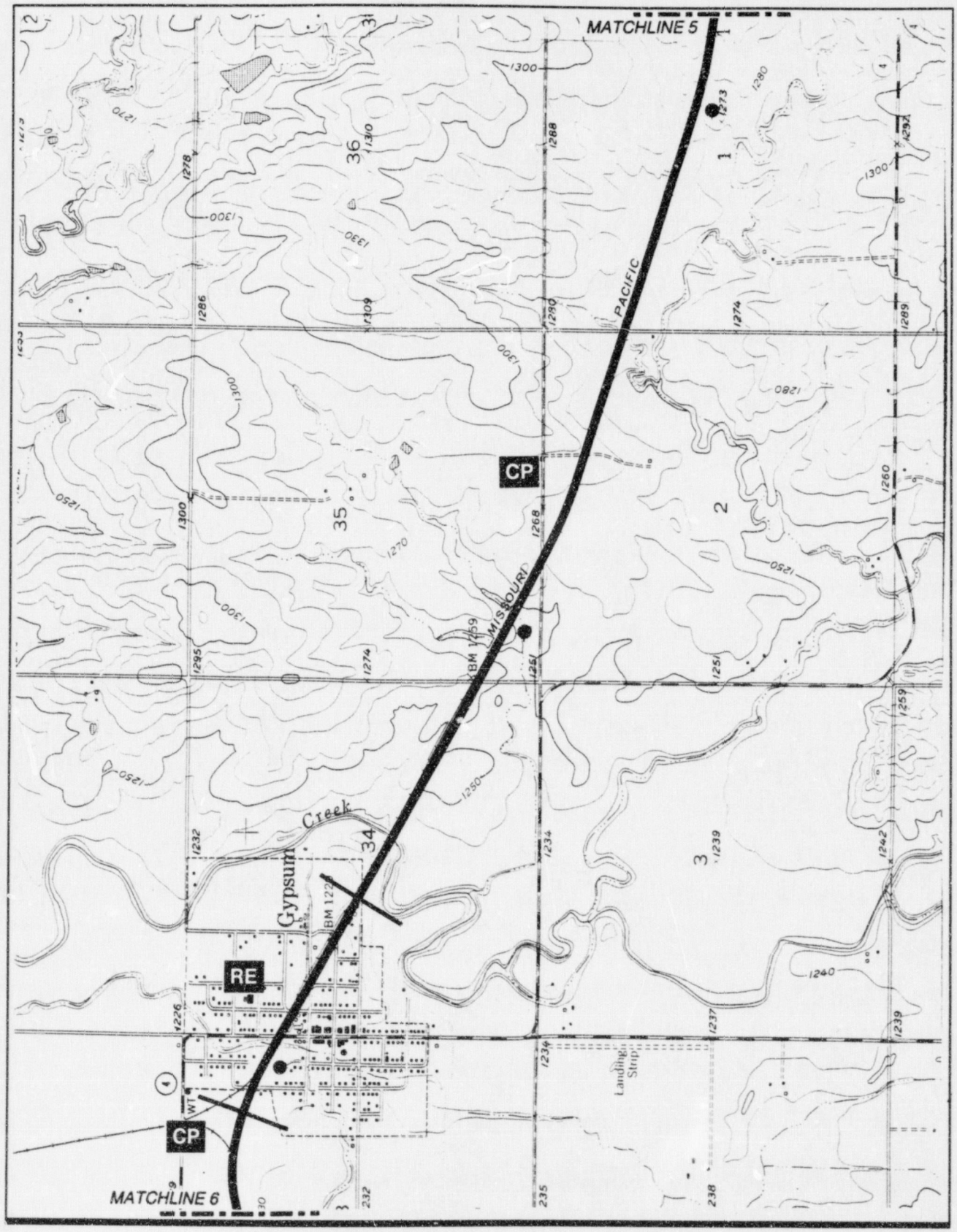
Base Map: *USGS 7.5' Topographic Quadrangle: Carlton, Kansas 1964 (Photorevised 1985); Elmo, Kansas 1964 (Photorevised 1985)*

Figure 7.1-5 Proposed Abandonment: Hope – Bridgeport, Kansas. Location and Land Use.



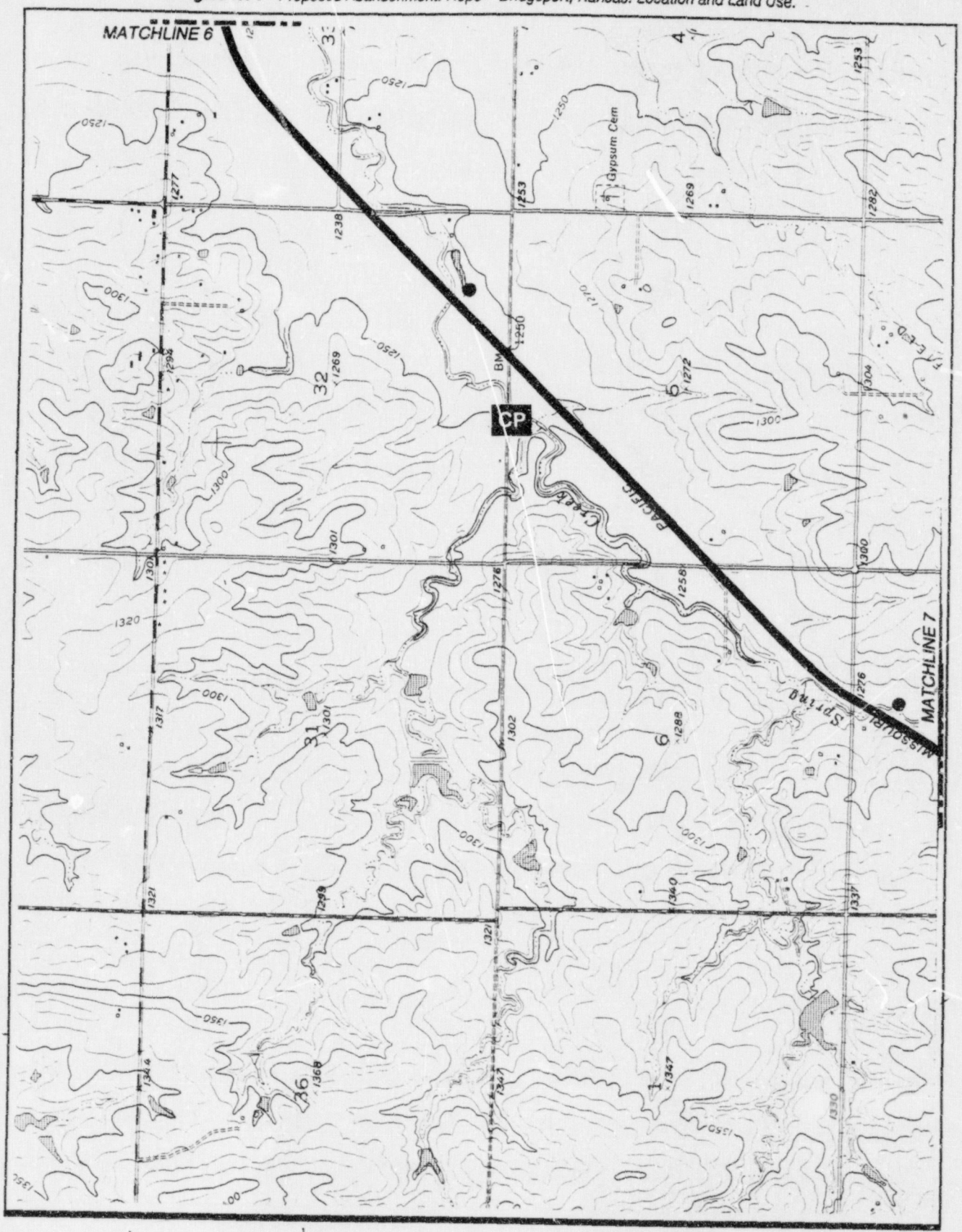
Base Map: *USGS 7.5' Topographic Quadrangle: Carlton, Kansas 1964 (Photorevised 1985)*

Figure 7.1-6 Proposed Abandonment: Hope – Bridgeport, Kansas. Location and Land Use.



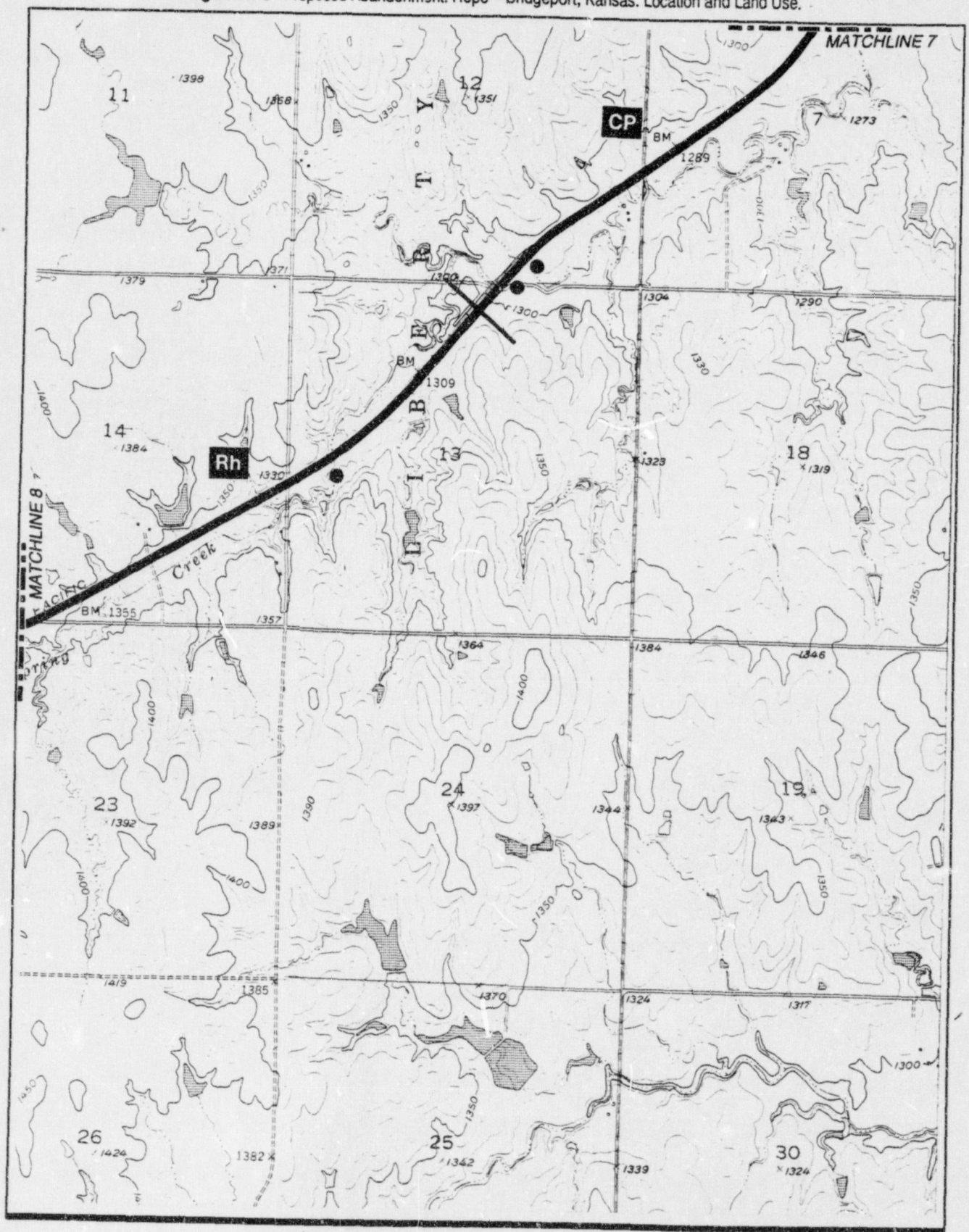
Base Map: *USGS 7.5' Topographic Quadrangle: Gypsum, Kansas 1965 (Photorevised 1985); Carlton, Kansas 1964 (Photorevised 1985)*

Figure 7.1-7 Proposed Abandonment: Hope – Bridgeport, Kansas. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle: Gypsum, Kansas 1965 (Photorevised 1985)*

Figure 7.1-8 Proposed Abandonment: Hope – Bridgeport, Kansas. Location and Land Use.



SCALE 1:24000

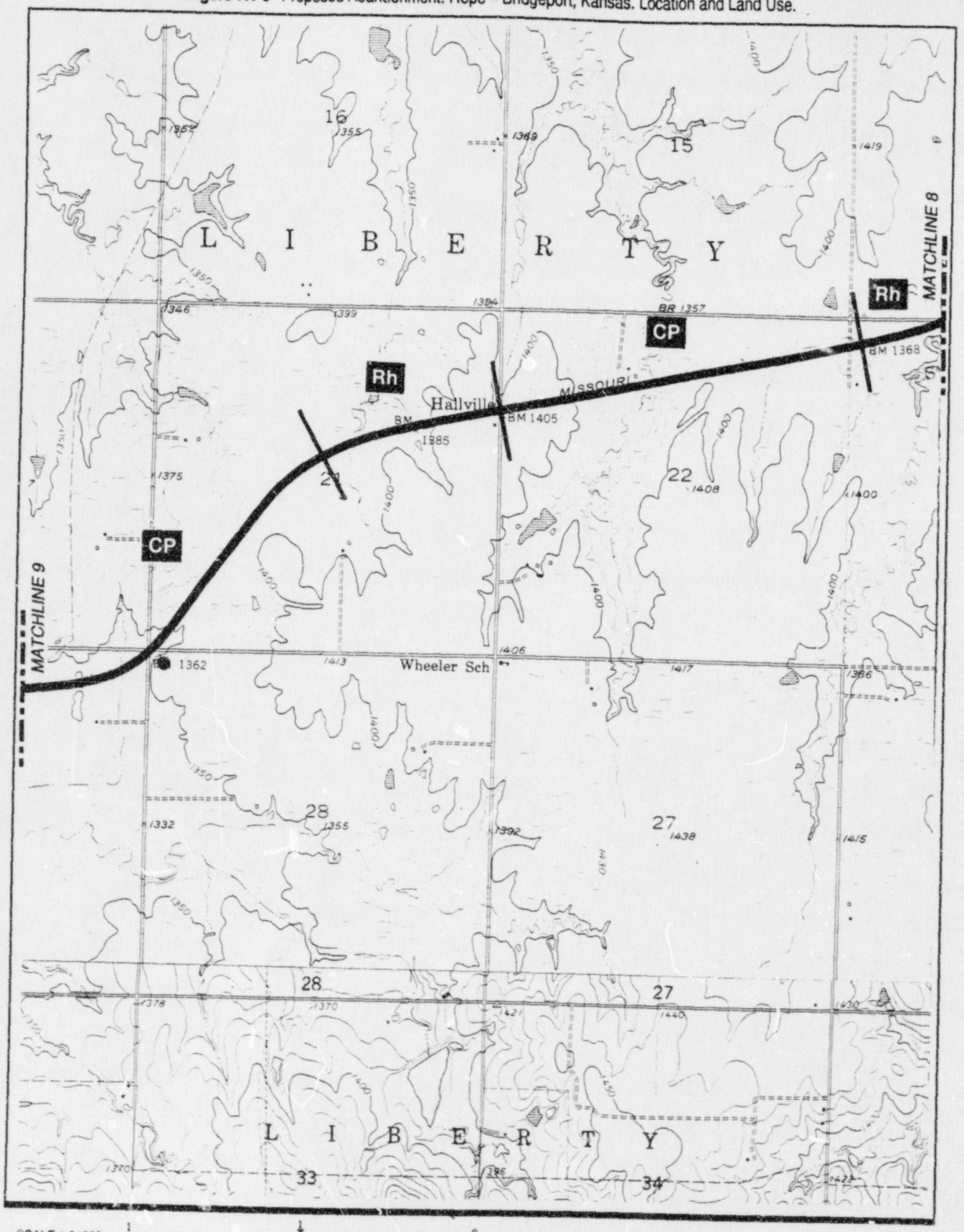
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

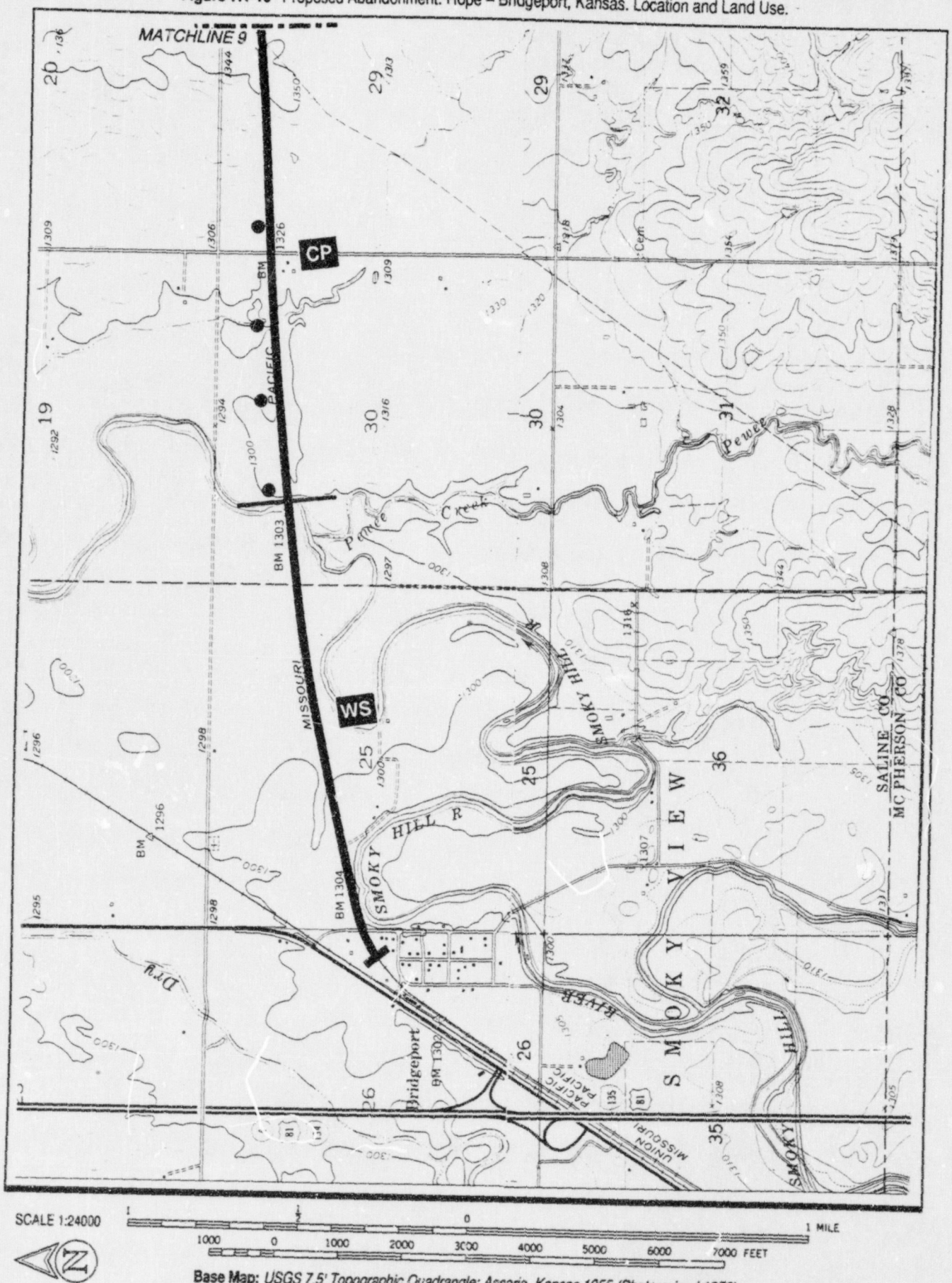
Base Map: *USGS 7.5' Topographic Quadrangle: Assaria, Kansas 1955 (Photorevised 1978); Gypsum, Kansas 1965 (Photorevised 1985)*

Figure 7.1-9 Proposed Abandonment: Hope – Bridgeport, Kansas. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle: Assaria, Kansas 1955 (Photorevised 1978); Lindsborg SE, Kansas 1965 (Photbrevised 1979)*

Figure 7.1-10 Proposed Abandonment: Hope – Bridgeport, Kansas. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle: Assaria, Kansas 1955 (Photorevised 1978); Lindsborg SE, Kansas 1965 (Photorevised 1979)*

NWI LEGEND

E — ESTUARINE

1 — SUBTIDAL

RB — ROCK BOTTOM
1 Bedrock
2 Rubble

UB — UNCONSOLIDATED BOTTOM
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic

AB — AQUATIC BED
1 Algal
3 Rooted Vascular
4 Floating Vascular
5 *Unknown Submergent*
6 *Unknown Surface*

RF — REEF
2 Mollusc
3 Worm

OW — *OPEN WATER/ Unknown Bottom*

2 — INTERTIDAL

AB — AQUATIC BED
1 Algal
3 Rooted Vascular
4 Floating Vascular
5 *Unknown Submergent*
6 *Unknown Surface*

RF — REEF
2 Mollusc
3 Worm

SB — STREAMBED
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic

RS — ROCKY SHORE
1 Bedrock
2 Rubble

US — UNCONSOLIDATED SHORE
1 *Cobble-Gravel*
2 Sand
3 Mud
4 Organic

EM — EMERGENT
1 Persistent
2 Nonpersistent

SS — SCRUB-SHRUB
1 Broad-Leaved Deciduous
2 Needle-Leaved Deciduous
3 Broad-Leaved Evergreen
4 Needle-Leaved Evergreen
5 Dead
6 *Deciduous*
7 *Evergreen*

FO — FORESTED
1 Broad-Leaved Deciduous
2 Needle-Leaved Deciduous
3 Broad-Leaved Evergreen
4 Needle-Leaved Evergreen
5 Dead
6 *Deciduous*
7 *Evergreen*

L — LACUSTRINE

1 — LIMNETIC

RB — ROCK BOTTOM
1 Bedrock
2 Rubble

UB — UNCONSOLIDATED BOTTOM
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic

AB — AQUATIC BED
1 Algal
2 Aquatic Moss
3 Rooted Vascular
4 Floating Vascular
5 *Unknown Submergent*
6 *Unknown Surface*

OW — *OPEN WATER/ Unknown Bottom*

2 — LITTORAL

RB — ROCK BOTTOM
1 Bedrock
2 Rubble

UB — UNCONSOLIDATED BOTTOM
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic

AB — AQUATIC BED
1 Algal
2 Aquatic Moss
3 Rooted Vascular
4 Floating Vascular
5 *Unknown Submergent*
6 *Unknown Surface*

RS — ROCKY SHORE
1 Bedrock
2 Rubble

US — UNCONSOLIDATED SHORE
1 Cobble-Gravel
2 Sand
3 Mud
4 Organic
5 Vegetated

EM — EMERGENT
2 Nonpersistent

OW — *OPEN WATER/ Unknown Bottom*

MODIFIERS

In order to more adequately describe wetland and deepwater habitats one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.

WATER REGIME

Non-Tidal

A Temporarily Flooded
B Saturated
C Seasonally Flooded
D *Seasonally Flooded/ Well Drained*
E *Seasonally Flooded/ Saturated*
F Semipermanently Flooded
G Intermittently Exposed
H Permanently Flooded
J Intermittently Flooded
K Artificially Flooded
W Intermittently Flooded/Temporary
Y Saturated/Semipermanent/ Seasonal
Z Intermittently Exposed/Permanent
U *Unknown*

Tidal

K *Artificially Flooded*
L Subtidal
M Irregularly Exposed
N Regularly Flooded
P Irregularly Flooded
*S Temporary-Tidal
*R Seasonal-Tidal
*T Semipermanent-Tidal
*V Permanent-Tidal
U *Unknown*

*These water regimes are only used in tidally influenced, freshwater systems

WATER CHEMISTRY

Coastal Salinity

1 Hyperhaline
2 Euhaline
3 Mixohaline (Brackish)
4 Polyhaline
5 Mesohaline
6 Oligohaline
0 Fresh

Inland Salinity

7 Hypersaline
8 Eusaline
9 Mixosaline
0 Fresh

pH Modifiers for all Fresh Water

a Acid
i Circumneutral
x Alkaline

SOIL

g Organic
n Mineral

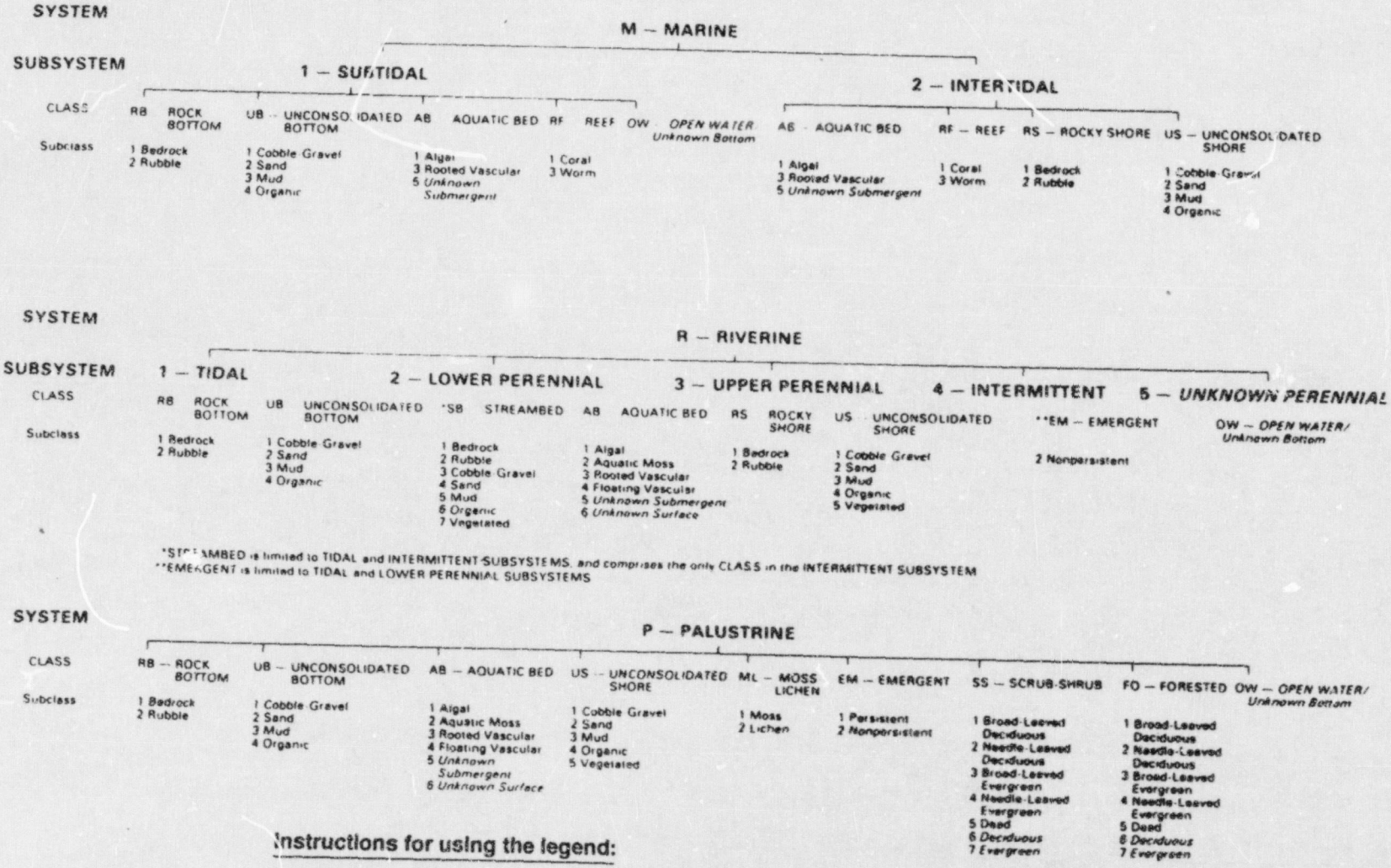
SPECIAL MODIFIERS

b *Beaver*
d *Partially Drained/Ditched*
f Farmed
h *Diked/Impounded*
r Artificial Substrate
s *Spoil*
x Excavated

Instructions for using the legend:

The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral." The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

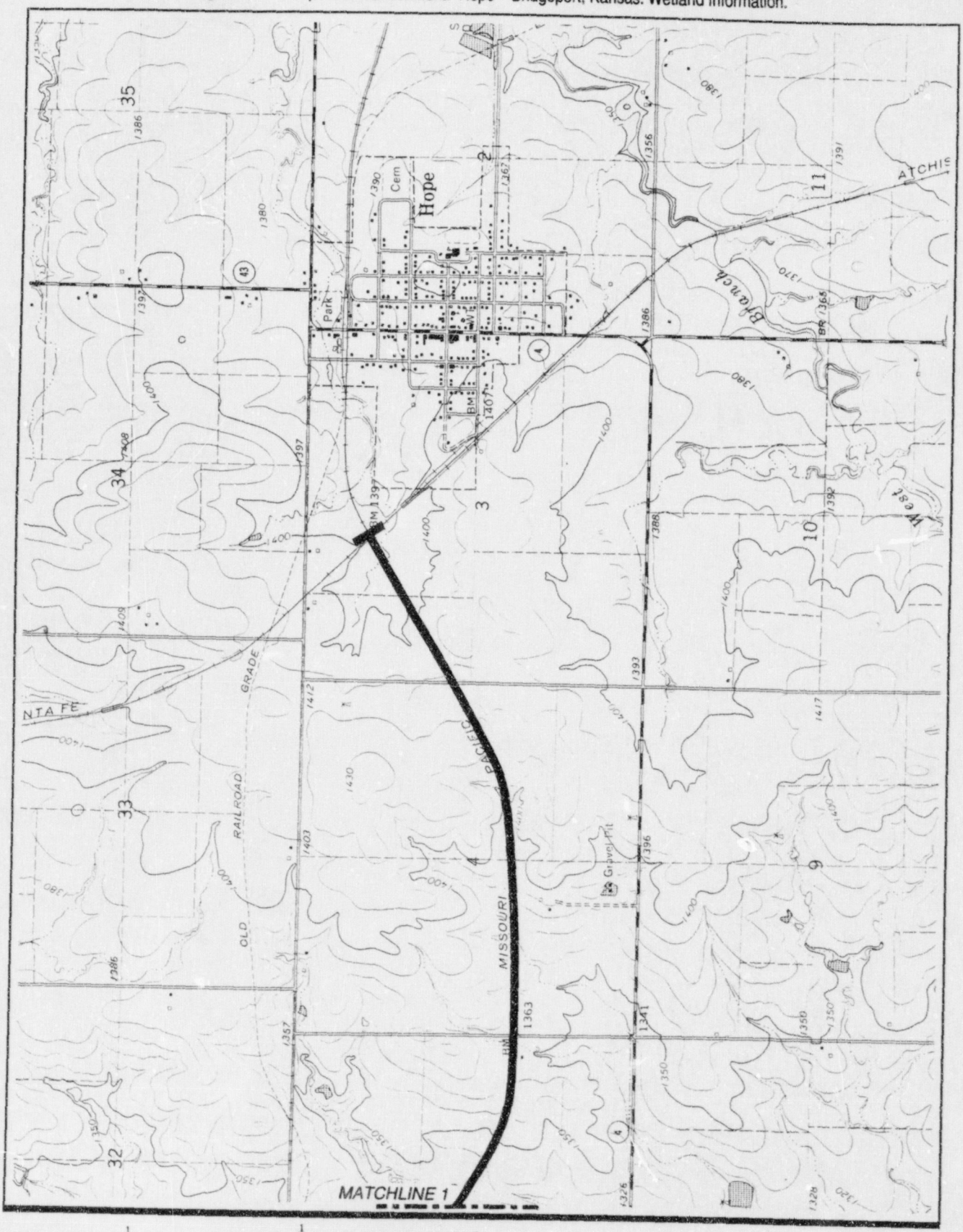
NWI LEGEND



Instructions for using the legend:

The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral." The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

Figure 7.2-1 Proposed Abandonment: Hope – Bridgeport, Kansas. Wetland Information.



SCALE 1:24000

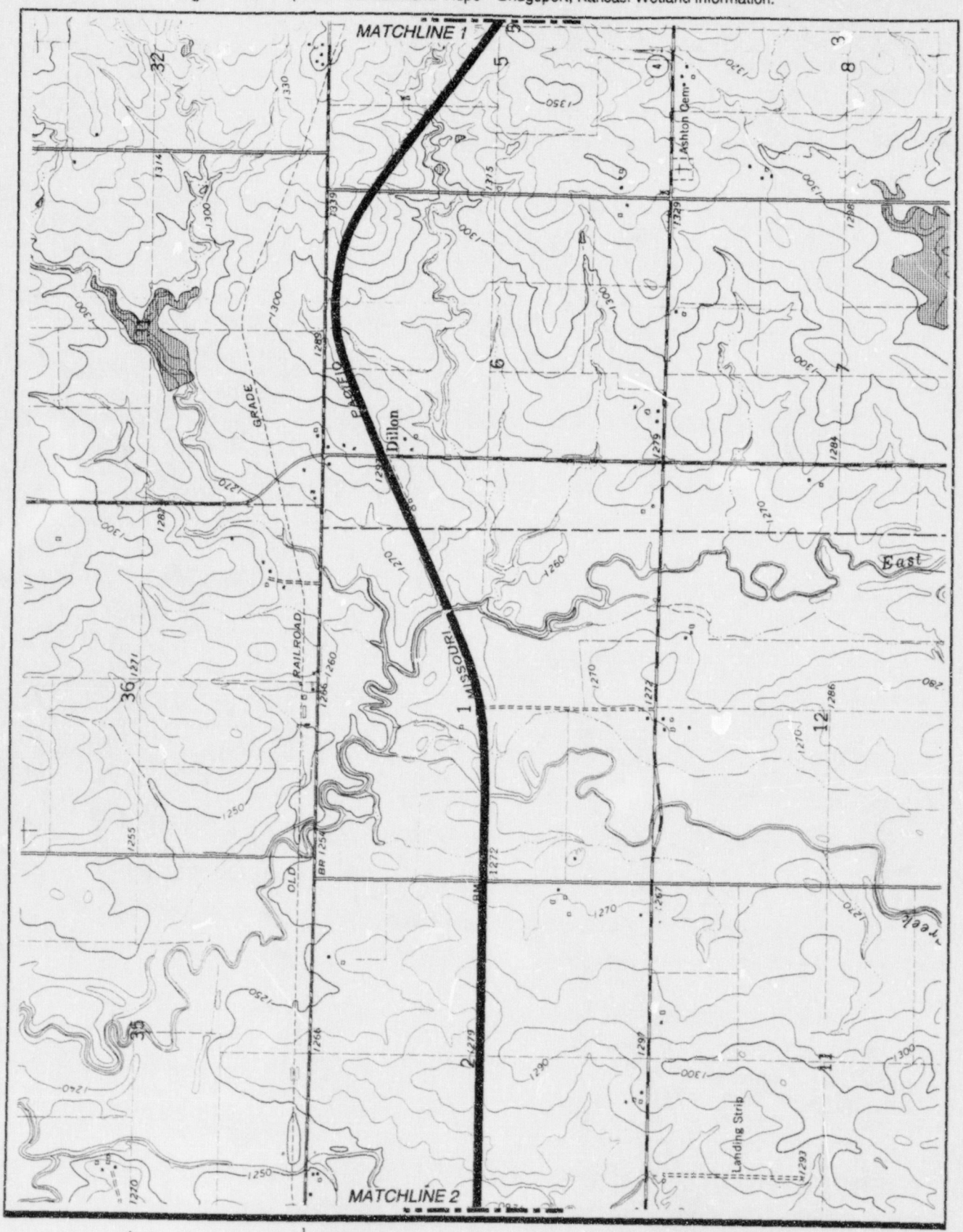
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

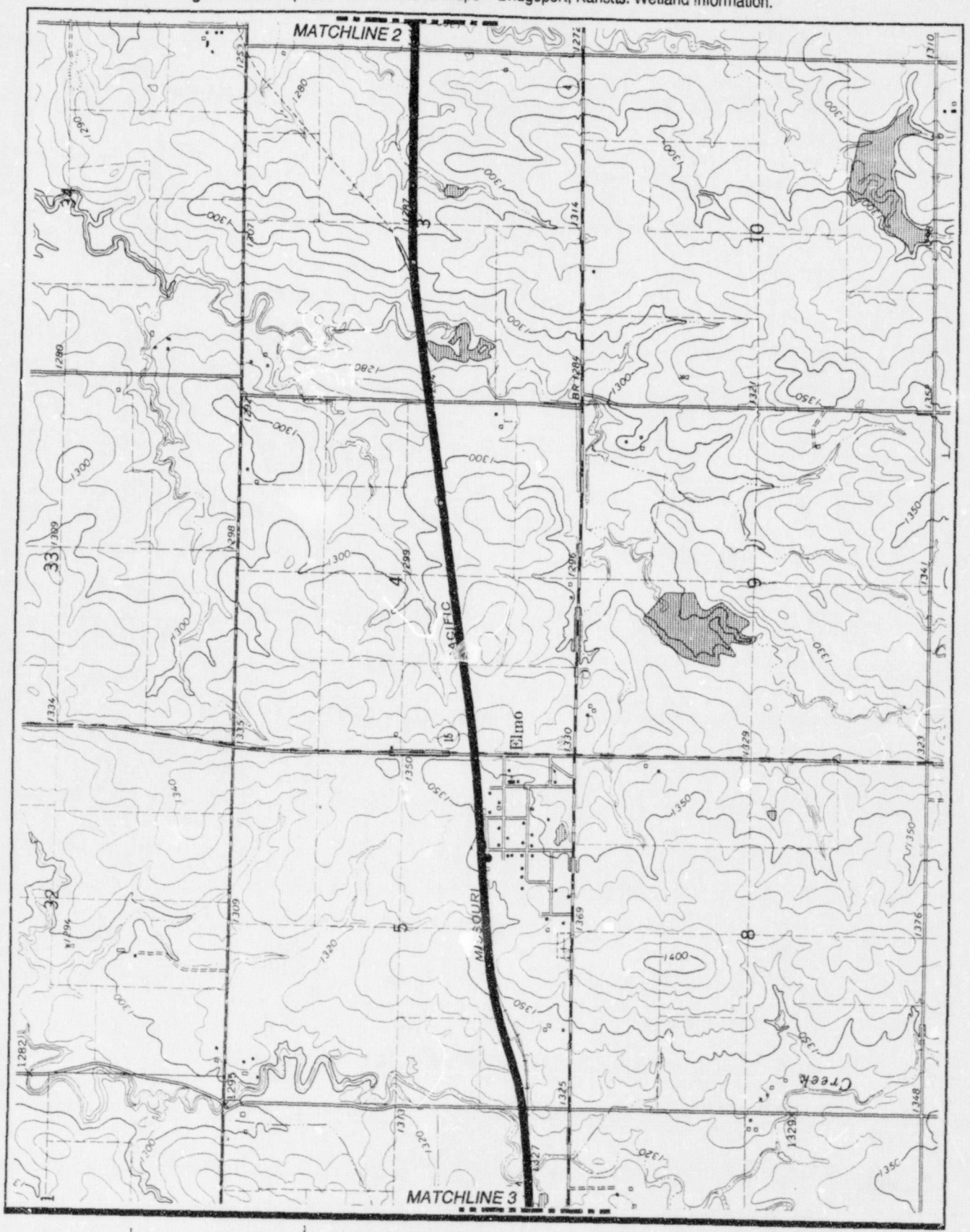
Base Map: *USGS 7.5' Topographic Quadrangle: Hope, Kansas 1964 (Photorevised 1985)*

Figure 7.2-2 Proposed Abandonment: Hope – Bridgeport, Kansas. Wetland Information.



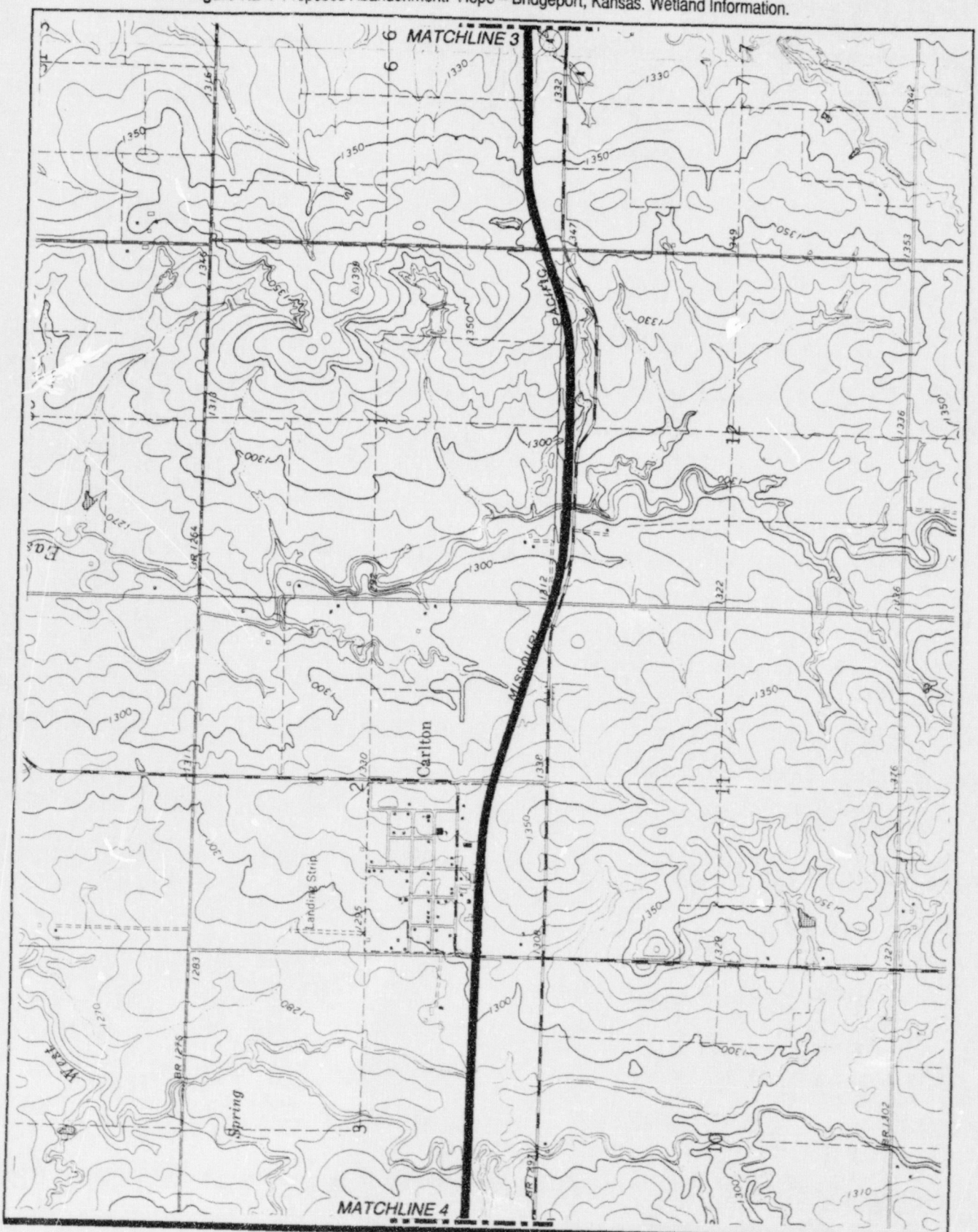
Base Map: *USGS 7.5' Topographic Quadrangle: Elmo, Kansas 1964 (Photorevised 1985); Hope, Kansas 1964 (Photorevised 1985)*

Figure 7.2-3 Proposed Abandonment: Hope – Bridgeport, Kansas. Wetland Information.



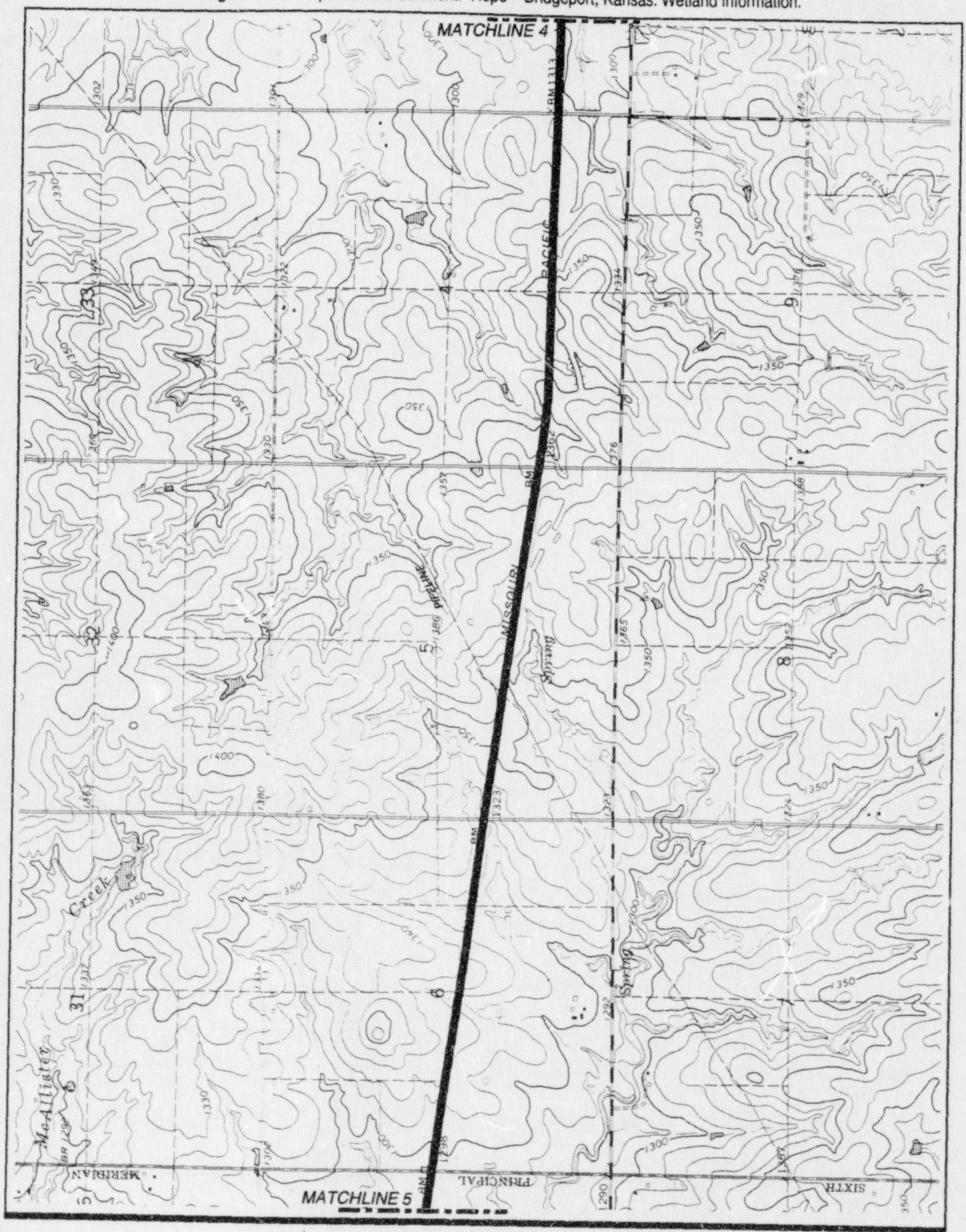
Base Map: *USGS 7.5' Topographic Quadrangle: Elmo, Kansas 1964 (Photorevised 1985)*

Figure 7.2-4 Proposed Abandonment: Hope – Bridgeport, Kansas. Wetland Information.



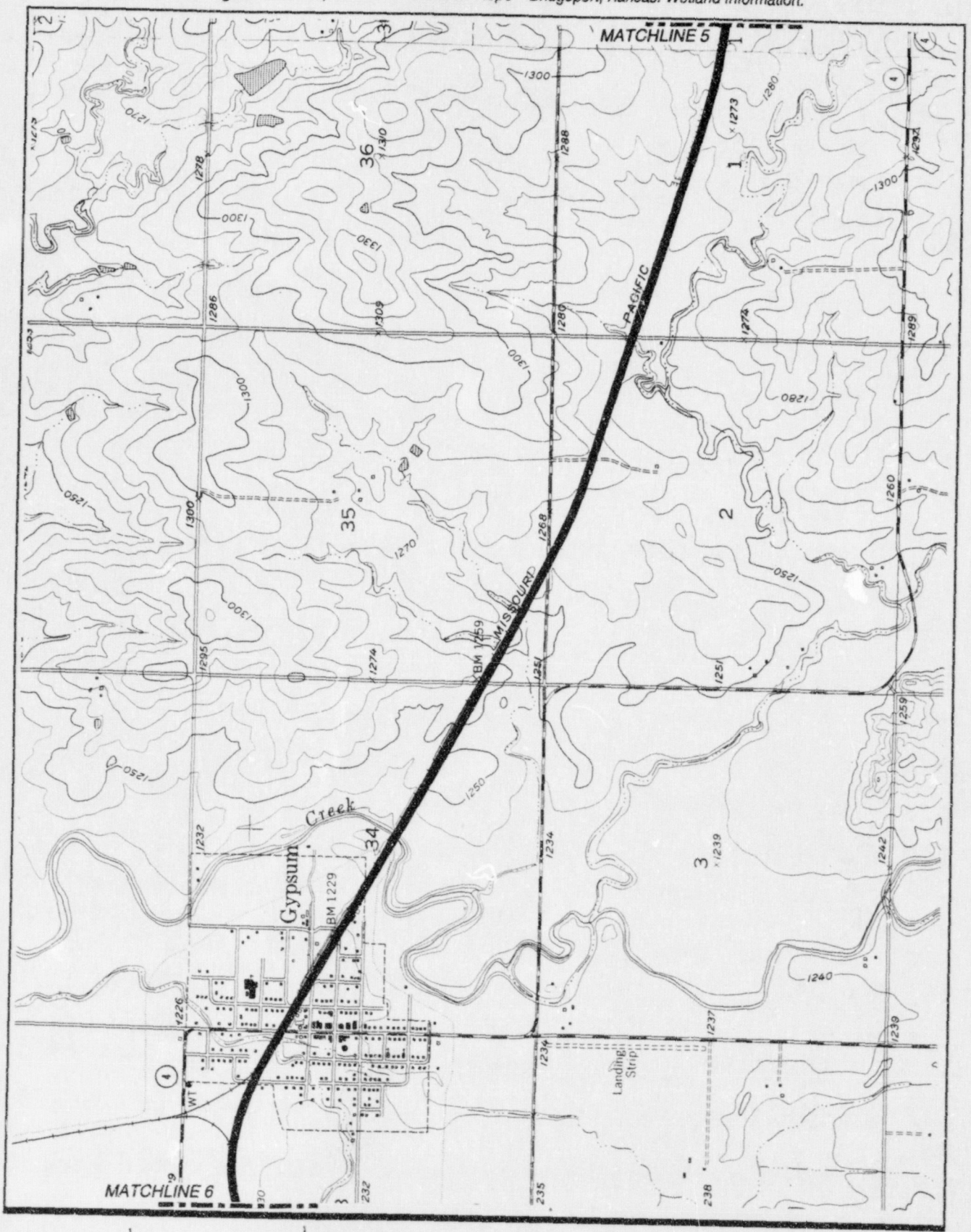
Base Map: *USGS 7.5' Topographic Quadrangle: Carlton, Kansas 1964 (Photorevised 1985); Elmo, Kansas 1964 (Photorevised 1985)*

Figure 7.2-5 Proposed Abandonment: Hope – Bridgeport, Kansas. Wetland Information.



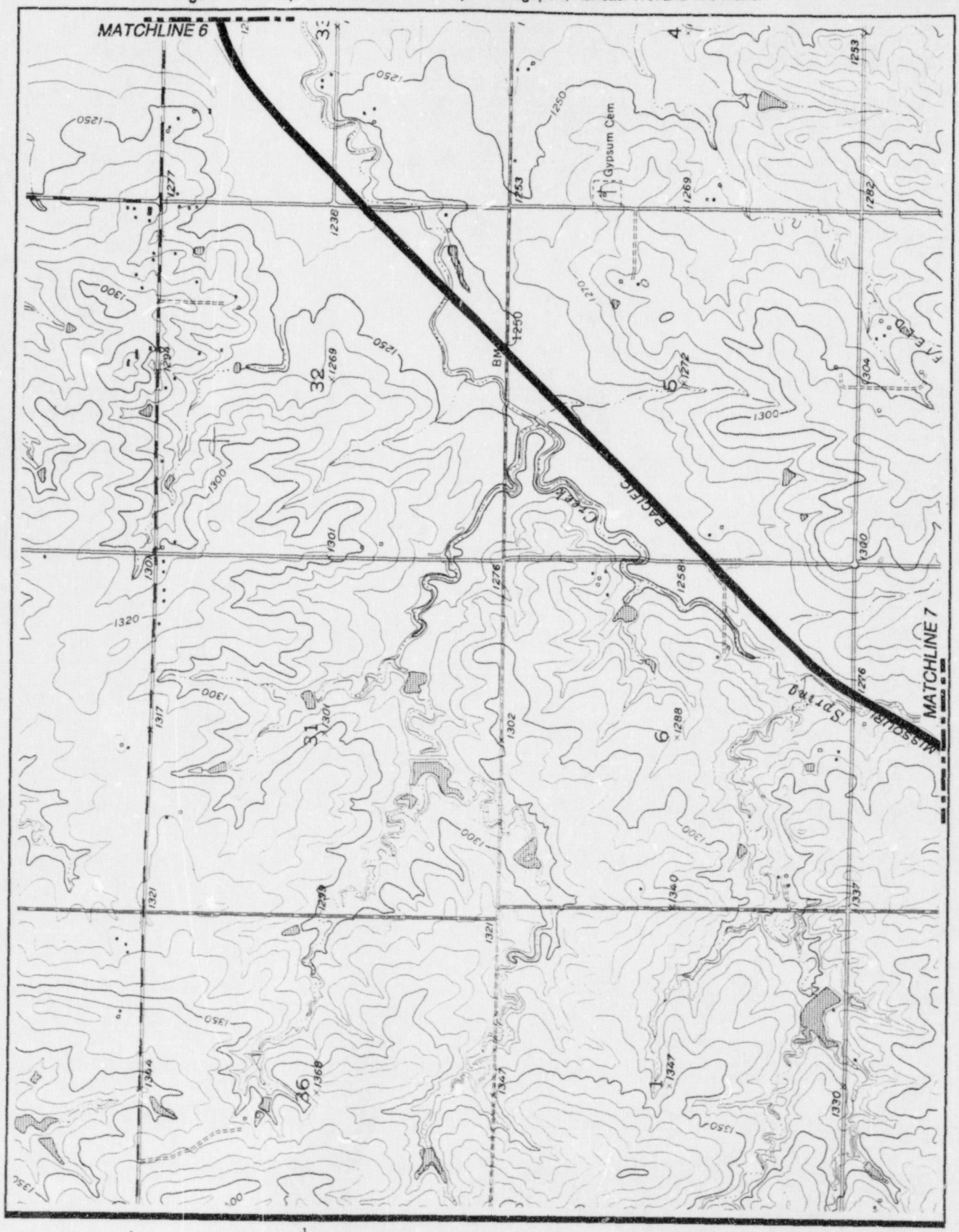
Base Map: *USGS 7.5' Topographic Quadrangle: Carlton, Kansas 1964 (Photorevised 1985)*

Figure 7.2-6 Proposed Abandonment: Hope – Bridgeport, Kansas. Wetland Information.



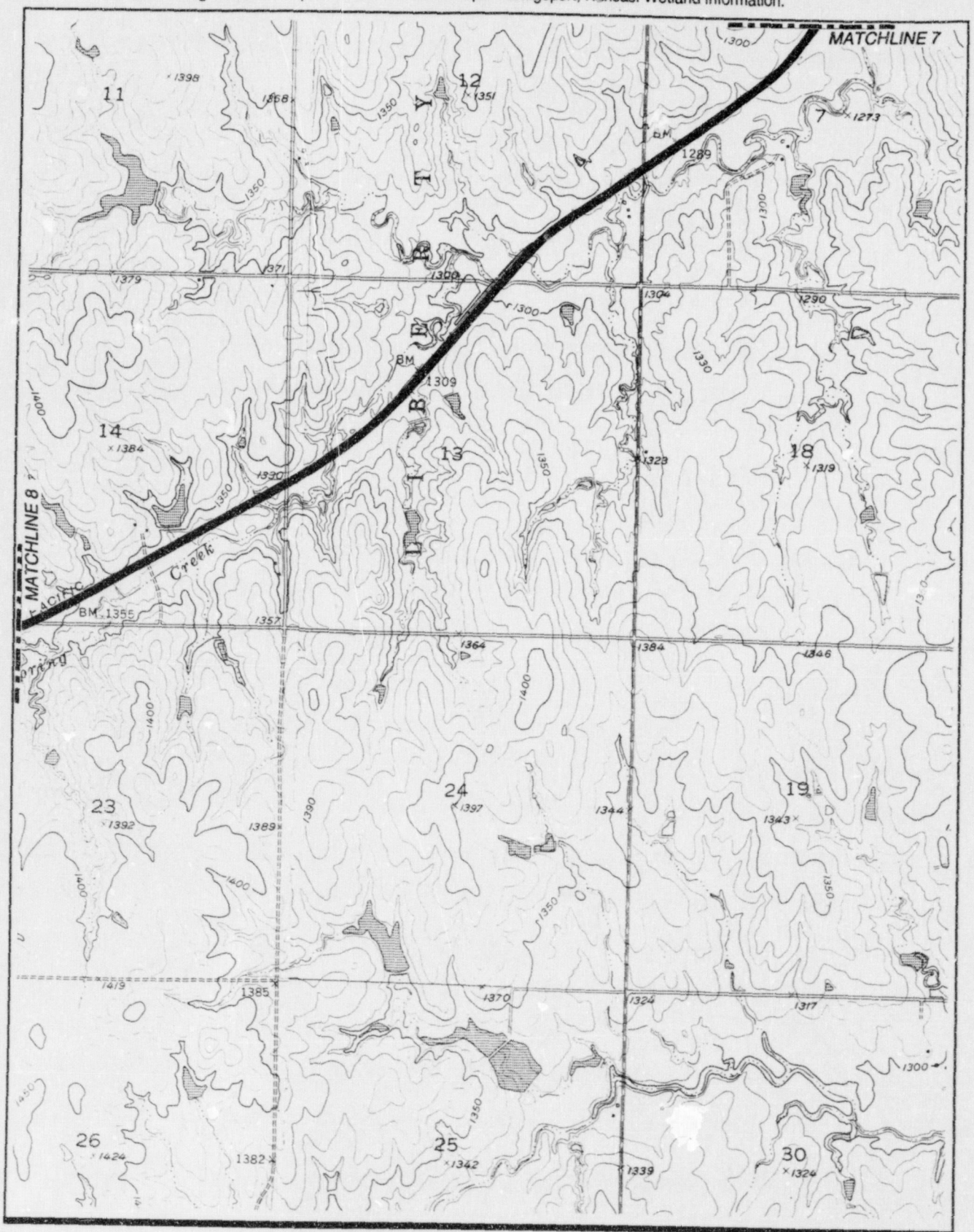
Base Map: *USGS 7.5' Topographic Quadrangle: Gypsum, Kansas 1965 (Photorevised 1985); Carlton, Kansas 1964 (Photorevised 1985)*

Figure 7.2-7 Proposed Abandonment: Hope – Bridgeport, Kansas. Wetland Information.



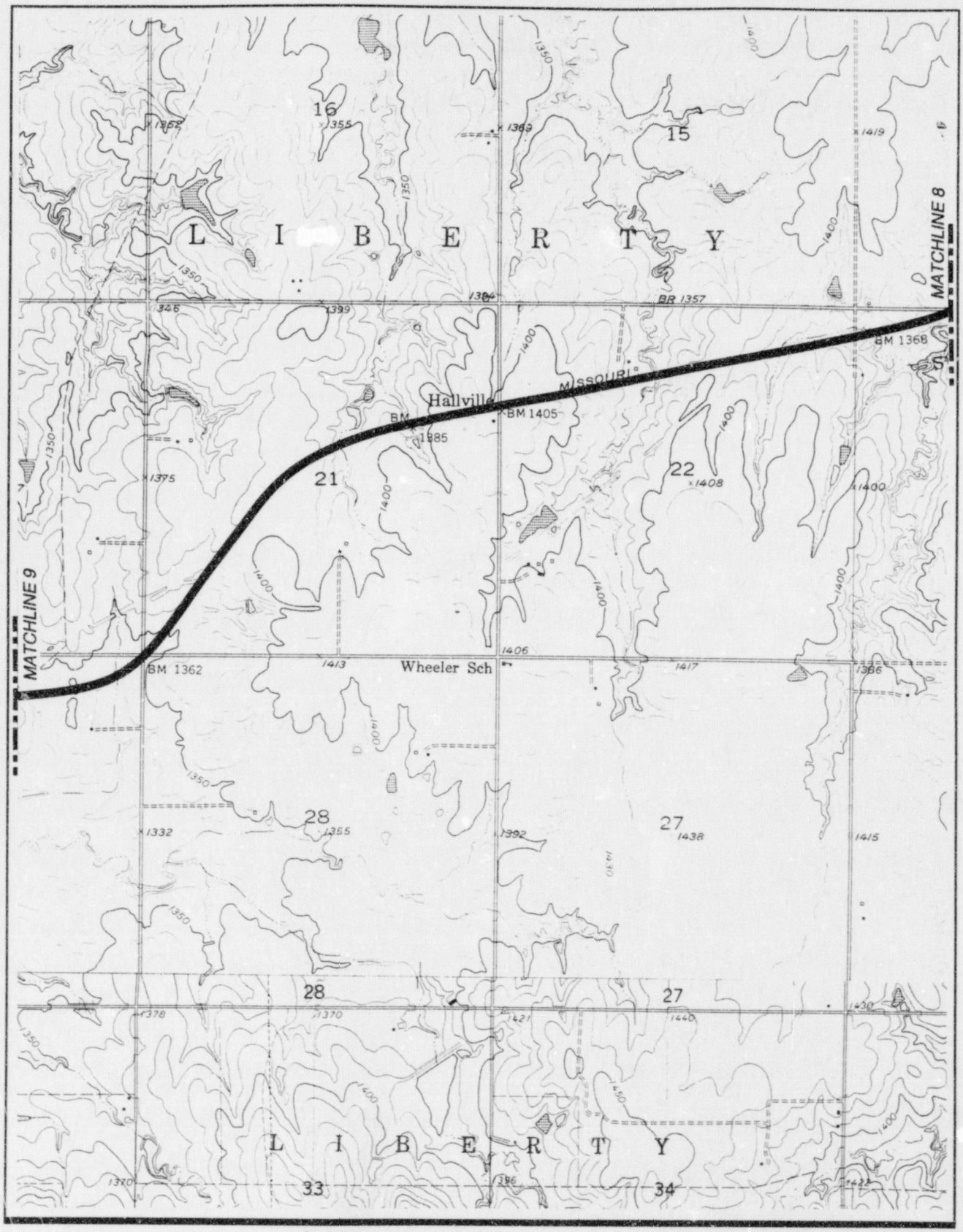
Base Map: *USGS 7.5' Topographic Quadrangle: Gypsum, Kansas 1965 (Photorevised 1985)*

Figure 7.2-8 Proposed Abandonment: Hope – Bridgeport, Kansas. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangle: Assaria, Kansas 1955 (Photorevised 1978); Gypsum, Kansas 1965 (Photorevised 1985)*

Figure 7.2-9 Proposed Abandonment: Hope – Bridgeport, Kansas. Wetland Information.



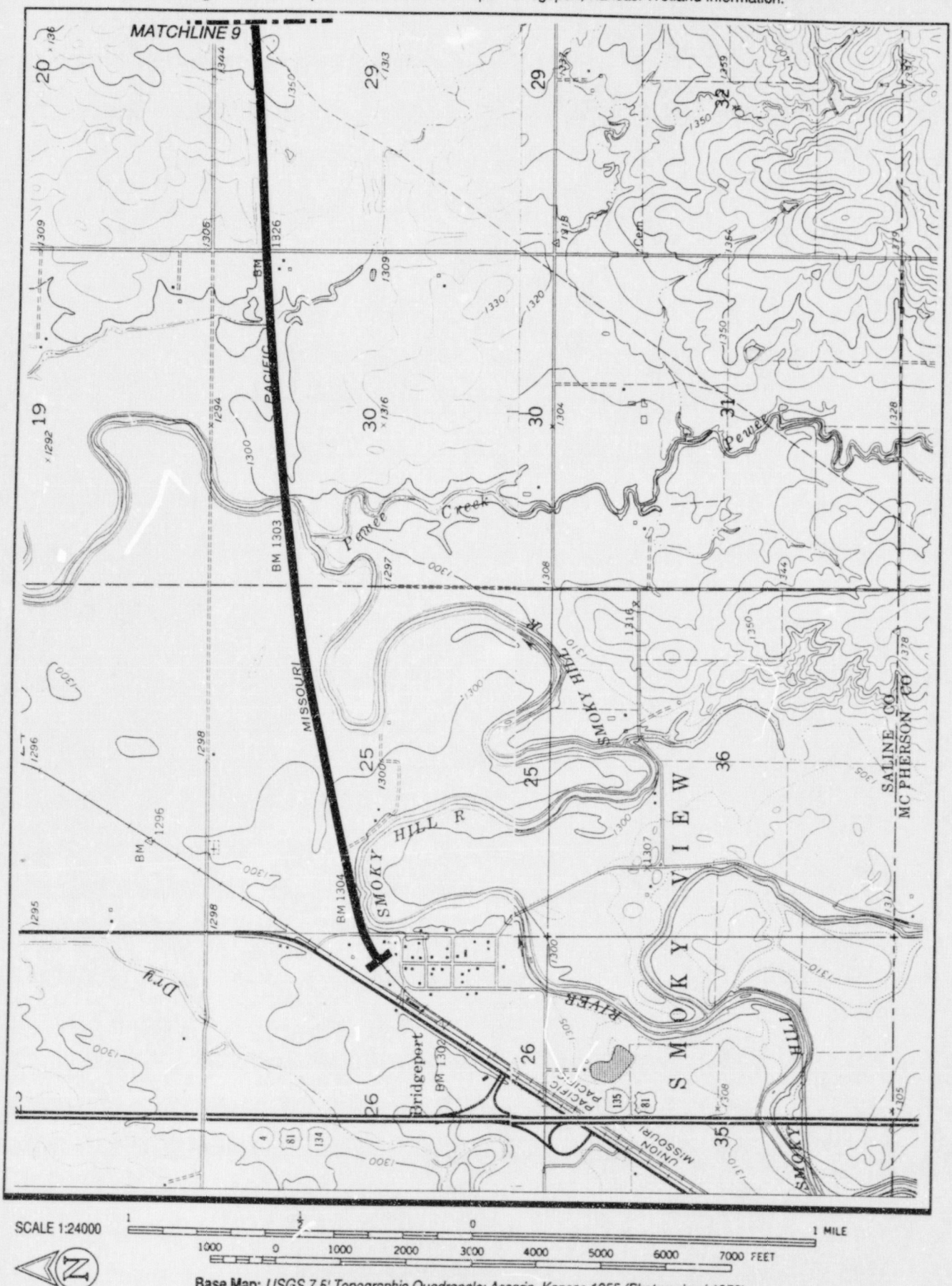
SCALE 1:24000

1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

Base Map: *USGS 7.5' Topographic Quadrangle: Assaria, Kansas 1955 (Photorevised 1978); Lindsborg SE, Kansas 1965 (Photorevised 1979)*

Figure 7.2-10 Proposed Abandonment: Hope – Bridgeport, Kansas. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangle: Assaria, Kansas 1955 (Photorevised 1978); Lindsborg SE, Kansas 1965 (Photorevised 1979)*

KEY FOR LAND USE FIGURES

URBAN OR BUILT-UP LAND

RE	Residential
C	Commercial and services
I	Industrial
T	Transportation, communications and utilities
I/C	Industrial and commercial complexes
MU	Mixed urban or built-up land
OU	Other urban or built-up land

AGRICULTURAL LAND

CP	Cropland and pasture
CH	Orchards, groves, vineyards, nurseries, and ornamental horticultural areas
CF	Confined feeding operations
CO	Other agricultural land

WATER

WS	Streams and canals
WL	Lakes
WR	Reservoirs
WB	Bays and estuaries

WETLANDS

WE	Forested wetlands, and/or nonforested wetlands

RANGELAND

Rh	Herbaceous rangeland
Rsb	Shrub and brush rangeland
Rm	Mixed rangeland

FOREST LAND

FD	Deciduous forest land
FE	Evergreen forest land
FM	Mixed forest land

BARREN LAND

Bsf	Dry salt flats
Bb	Beaches
Bs	Sandy areas other than beaches
Br	Bare exposed rocks
Bm	Strip mines, quarries, and gravel pits
Bt	Transitional areas
B	Mixed barren land

HISTORIC AND CULTURAL RESOURCES

●	Potentially Eligible Historic Resource

Figure 7B Overview of Proposed Abandonment: Whitewater – Newton, Kansas

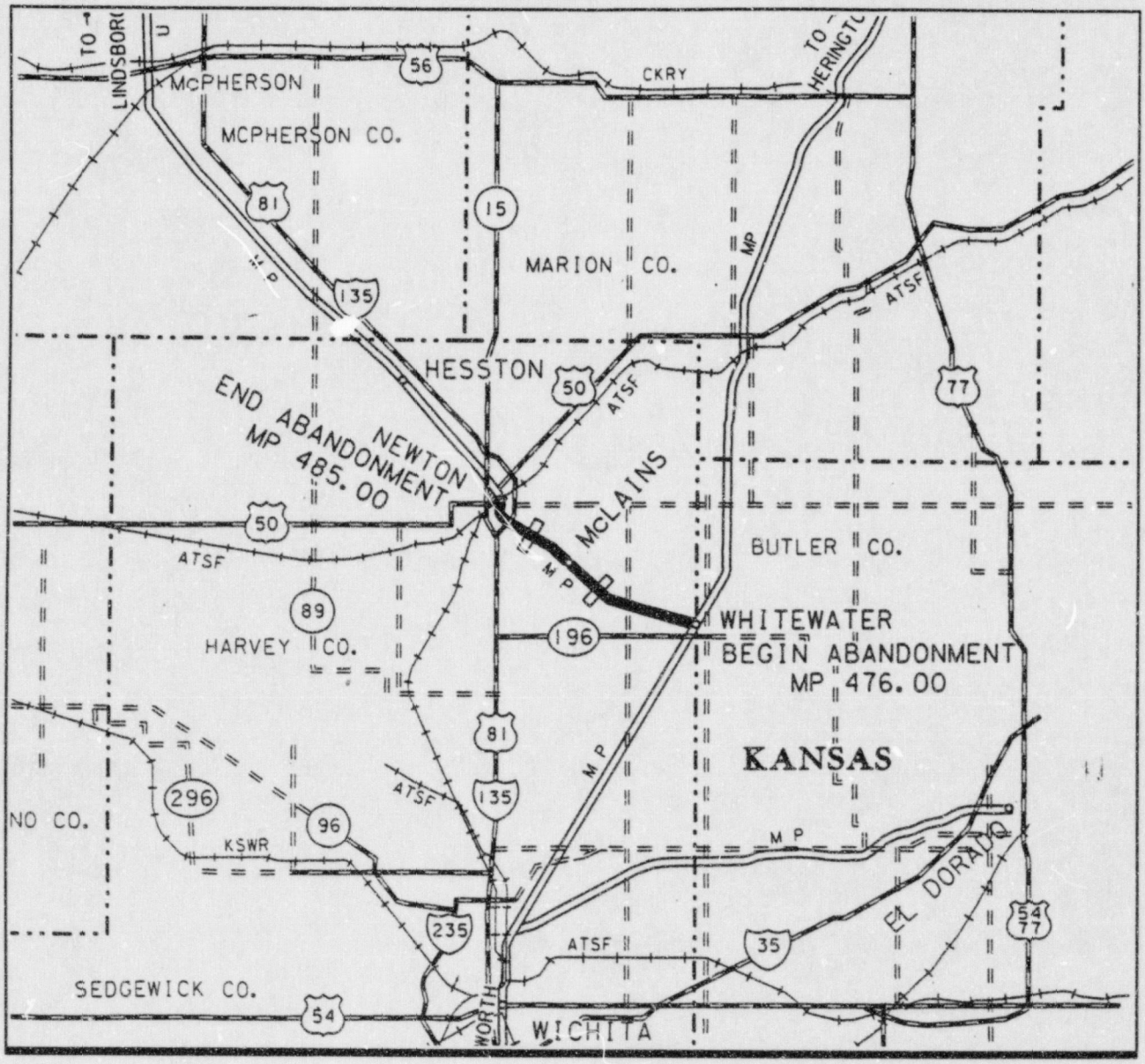
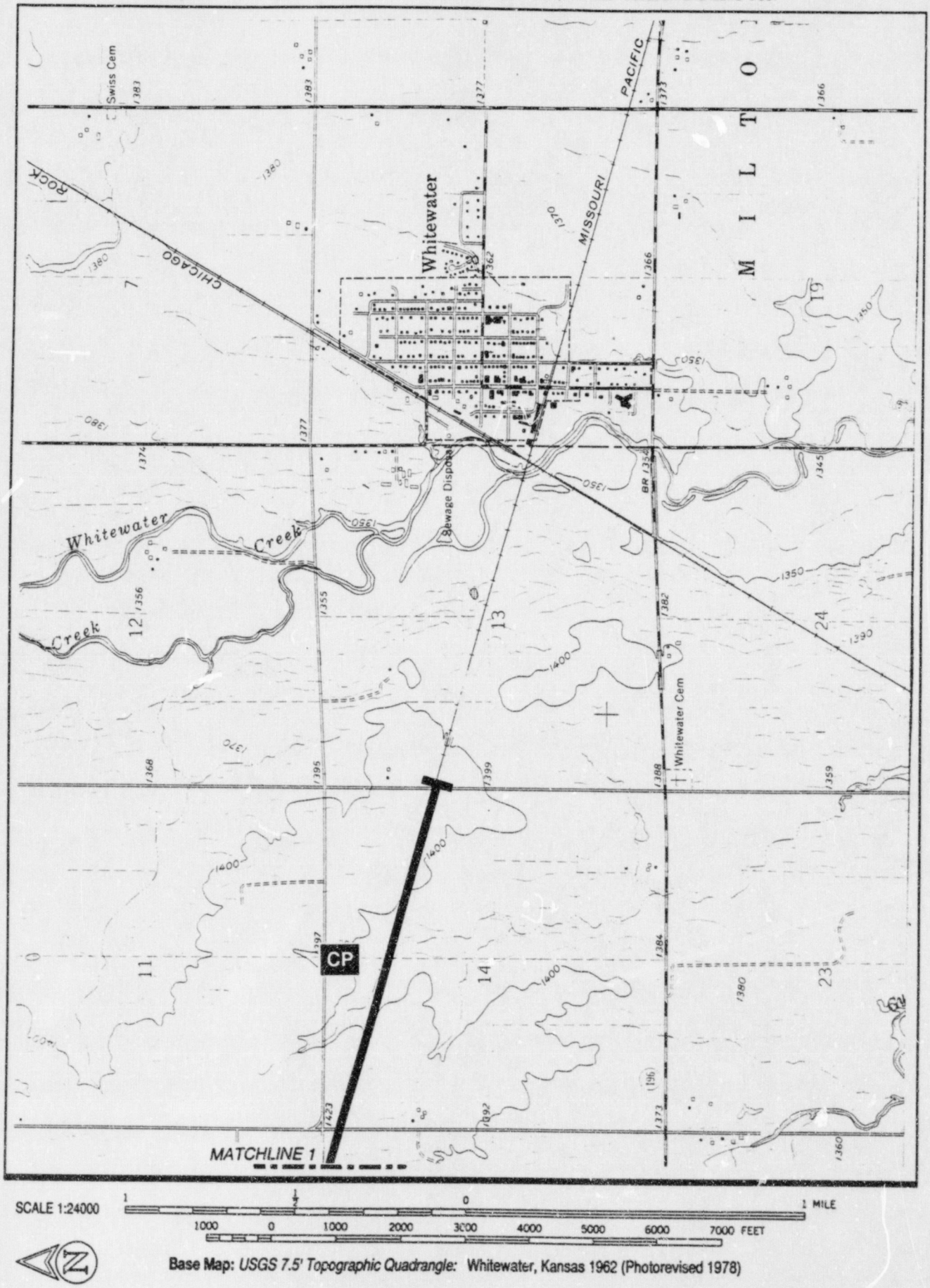
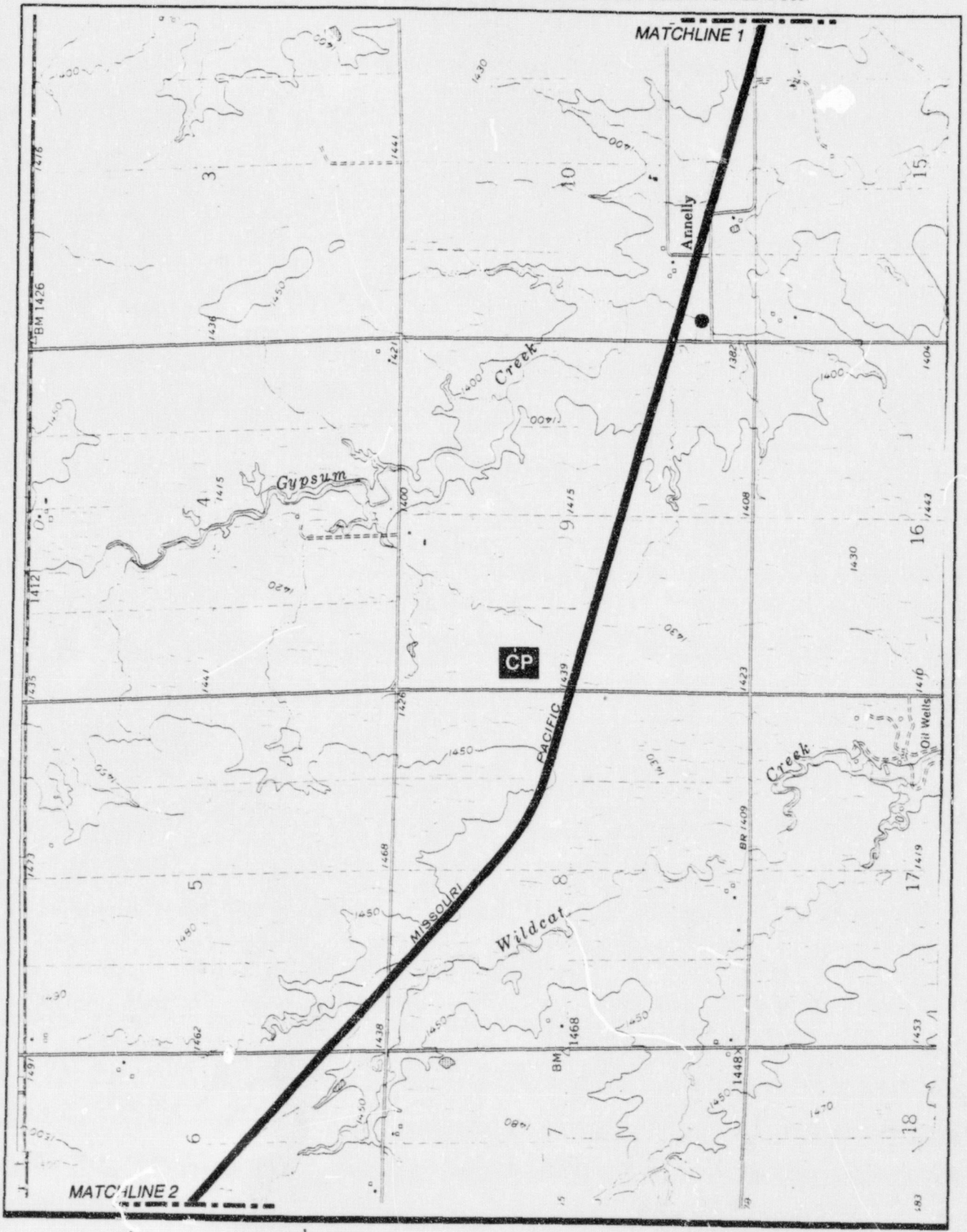


Figure 7.3-1 Proposed Abandonment: Whitewater – Newton, Kansas. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle:* Whitewater, Kansas 1962 (Photorevised 1978)

Figure 7.3-2 Proposed Abandonment: Whitewater – Newton, Kansas. Location and Land Use.



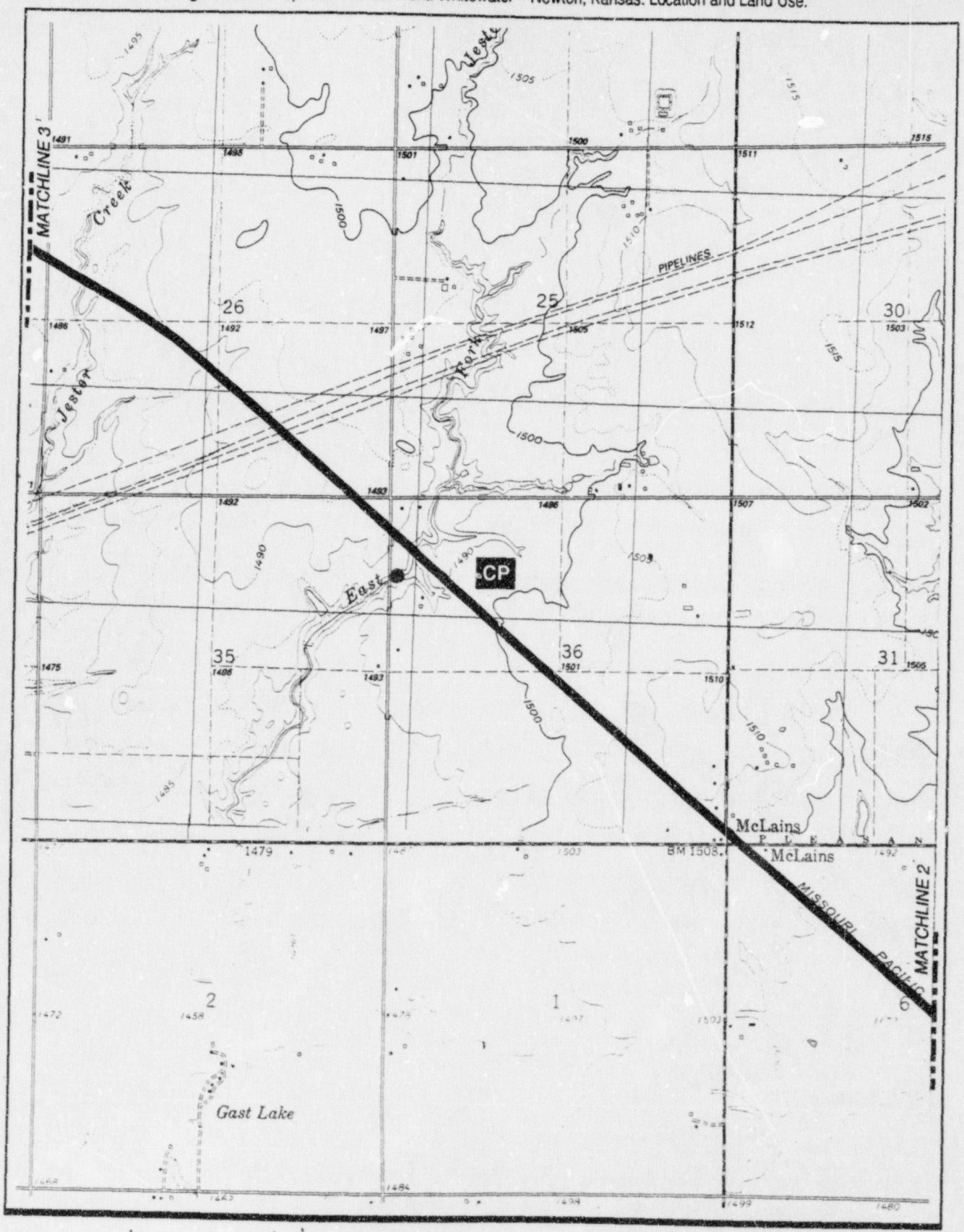
SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

Base Map: *USGS 7.5' Topographic Quadrangles:* Sedgwick NE, Kansas 1959 (Photorevised 1978); Whitewater, Kansas 1962 (Photorevised 1978)

Figure 7.3-3 Proposed Abandonment: Whitewater -- Newton, Kansas. Location and Land Use.



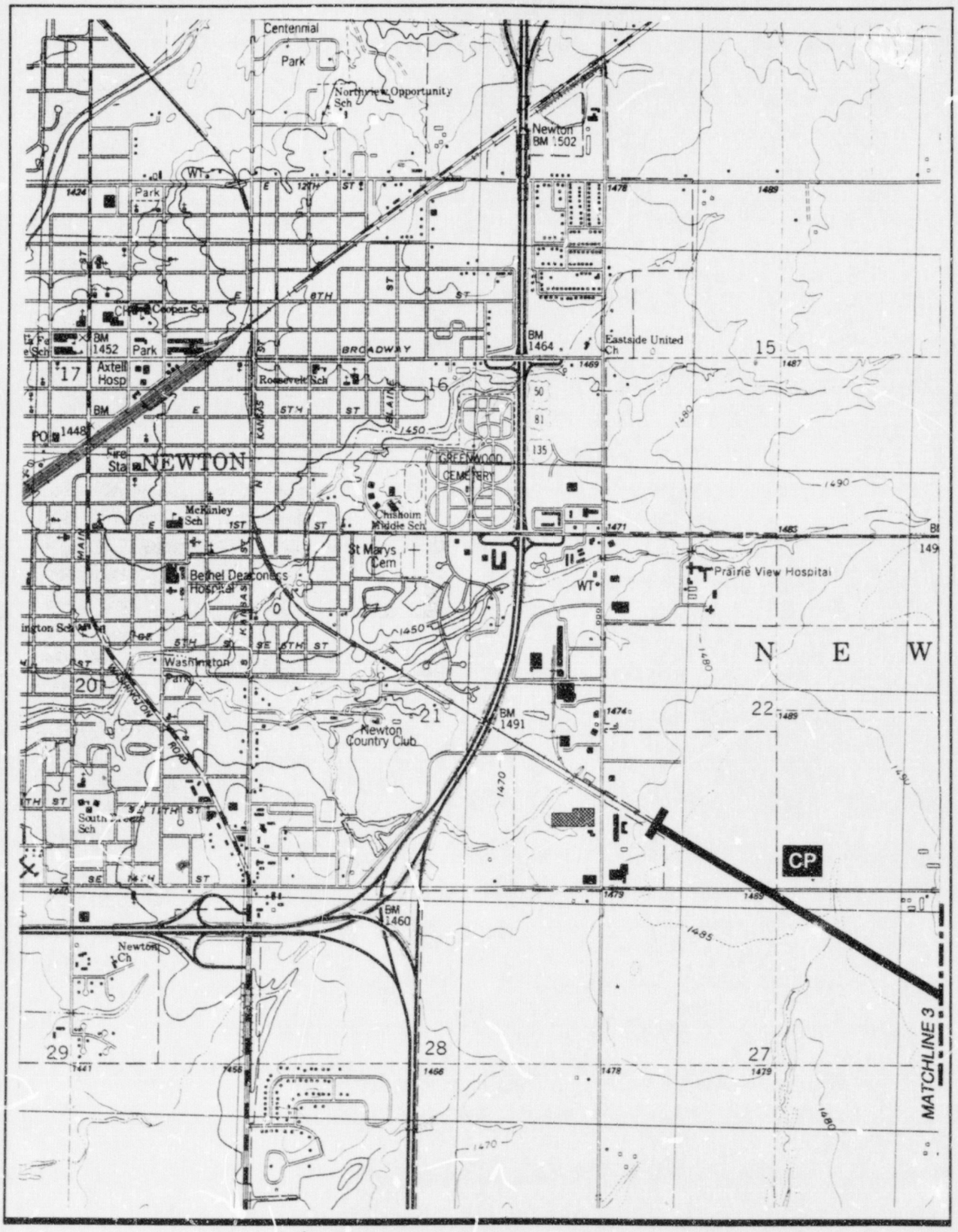
SCALE 1:24000

1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

Base Map: *USGS 7.5' Topographic Quadrangles:* Newton, Kansas 1989; Sedgwick NE, Kansas 1959 (Photorevised 1978)

Figure 7.3-4 Proposed Abandonment: Whitewater – Newton, Kansas. Location and Land Use.



SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangle:* Newton, Kansas 1989

NWI LEGEND

SYSTEM: M — MARINE

SUBSYSTEM: 1 — SUBTIDAL; 2 — INTERTIDAL

CLASS	Subclass
RB — ROCK BOTTOM	1 Bedrock 2 Rubble
UB — UNCONSOLIDATED BOTTOM	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic
AB — AQUATIC BED	1 Algal 3 Rooted Vascular 5 *Unknown Submergent*
RF — REEF	1 Coral 3 Worm
OW — *OPEN WATER/ Unknown Bottom*	
AB — AQUATIC BED (2 — INTERTIDAL)	1 Algal 3 Rooted Vascular 5 *Unknown Submergent*
RF — REEF (2 — INTERTIDAL)	1 Coral 3 Worm
RS — ROCKY SHORE (2 — INTERTIDAL)	1 Bedrock 2 Rubble
US — UNCONSOLIDATED SHORE (2 — INTERTIDAL)	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic

SYSTEM: R — RIVERINE

SUBSYSTEM: 1 — *TIDAL*; 2 — LOWER PERENNIAL; 3 — UPPER PERENNIAL; 4 — INTERMITTENT; 5 — *UNKNOWN PERENNIAL*

CLASS	Subclass
RB — ROCK BOTTOM	1 Bedrock 2 Rubble
UB — UNCONSOLIDATED BOTTOM	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic
*SB — STREAMBED	1 Bedrock 2 Rubble 3 Cobble-Gravel 4 Sand 5 Mud 6 *Organic* 7 Vegetated
AB — AQUATIC BED	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 *Unknown Submergent* 6 *Unknown Surface*
RS — ROCKY SHORE	1 Bedrock 2 Rubble
US — UNCONSOLIDATED SHORE	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated
**EM — EMERGENT	2 Nonpersistent
OW — *OPEN WATER/ Unknown Bottom*	

*STREAMBED is limited to *TIDAL* and *INTERMITTENT* SUBSYSTEMS, and comprises the only CLASS in the INTERMITTENT SUBSYSTEM

**EMERGENT is limited to TIDAL and LOWER PERENNIAL SUBSYSTEMS

SYSTEM: P — PALUSTRINE

CLASS	Subclass
RB — ROCK BOTTOM	1 Bedrock 2 Rubble
UB — UNCONSOLIDATED BOTTOM	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic
AB — AQUATIC BED	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 *Unknown Submergent* 6 *Unknown Surface*
US — UNCONSOLIDATED SHORE	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated
ML — MOSS LICHEN	1 Moss 2 Lichen
EM — EMERGENT	1 Persistent 2 Nonpersistent
SS — SCRUB-SHRUB	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 *Deciduous* 7 *Evergreen*
FO — FORESTED	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 *Deciduous* 7 *Evergreen*
OW — *OPEN WATER/ Unknown Bottom*	

Instructions for using the legend:

The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral." The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

NWI LEGEND

E — ESTUARINE

1 — SUBTIDAL

RB — ROCK BOTTOM	UB — UNCONSOLIDATED BOTTOM	AB — AQUATIC BED	RF — REEF	OW — *OPEN WATER/ Unknown Bottom*
1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 3 Rooted Vascular 4 Floating Vascular 5 *Unknown Submergent* 6 *Unknown Surface*	2 Mollusc 3 Worm	

2 — INTERTIDAL

AB — AQUATIC BED	RF — REEF	SB — STREAMBED	RS — ROCKY SHORE	US — UNCONSOLIDATED SHORE	EM — EMERGENT	SS — SCRUB-SHRUB	FO — FORESTED
1 Algal 3 Rooted Vascular 4 Floating Vascular 5 *Unknown Submergent* 6 *Unknown Surface*	2 Mollusc 3 Worm	1 *Cobble-Gravel* 2 Sand 3 Mud 4 Organic	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Persistent 2 Nonpersistent	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 *Deciduous* 7 *Evergreen*	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 *Deciduous* 7 *Evergreen*

L — LACUSTRINE

1 — LIMNETIC

RB — ROCK BOTTOM	UB — UNCONSOLIDATED BOTTOM	AB — AQUATIC BED	OW — *OPEN WATER/ Unknown Bottom*
1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 *Unknown Submergent* 6 *Unknown Surface*	

2 — LITTORAL

RB — ROCK BOTTOM	UB — UNCONSOLIDATED BOTTOM	AB — AQUATIC BED	RS — ROCKY SHORE	US — UNCONSOLIDATED SHORE	EM — EMERGENT	OW — *OPEN WATER/ Unknown Bottom*
1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 2 *Aquatic Moss* 3 Rooted Vascular 4 Floating Vascular 5 *Unknown Submergent* 6 *Unknown Surface*	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	2 Nonpersistent	

MODIFIERS

In order to more adequately describe wetland and deepwater habitats one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.

WATER REGIME

Non-Tidal

- A Temporarily Flooded
- B Saturated
- C Seasonally Flooded
- D *Seasonally Flooded/ Well Drained*
- E *Seasonally Flooded/ Saturated*
- F Semipermanently Flooded
- G Intermittently Exposed
- H Permanently Flooded
- J Intermittently Flooded
- K Artificially Flooded
- W Intermittently Flooded/*Temporary*
- Y Saturated/Semipermanent/ Seasonal
- Z Intermittently Exposed/Permanent
- U *Unknown*

Tidal

- K *Artificially Flooded*
- L Subtidal
- M Irregularly Exposed
- N Regularly Flooded
- P Irregularly Flooded
- *S Temporary-Tidal
- *R Seasonal-Tidal
- *T Semipermanent-Tidal
- *V Permanent-Tidal
- U *Unknown*

*These water regimes are only used in tidally influenced, freshwater systems

WATER CHEMISTRY

Coastal Salinity

- 1 Hyperhaline
- 2 Euhaline
- 3 Mixohaline *(Brackish)*
- 4 Polyhaline
- 5 Mesohaline
- 6 Oligohaline
- 0 Fresh

Inland Salinity

- 7 Hypersaline
- 8 Eusaline
- 9 Mixosaline
- 0 Fresh

pH Modifiers for all Fresh Water

- a Acid
- i Circumneutral
- r Alkaline

SOIL

- g Organic
- n Mineral

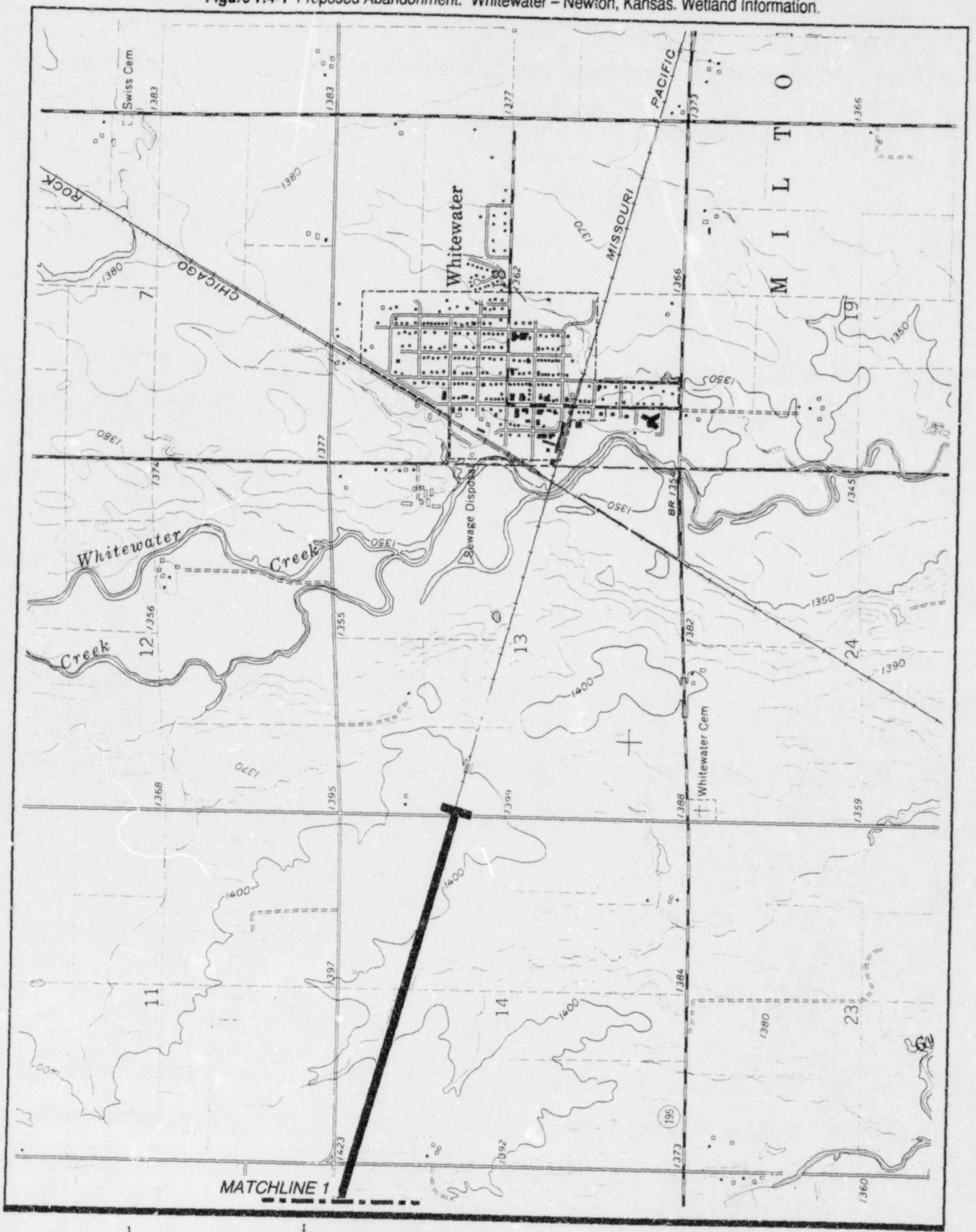
SPECIAL MODIFIERS

- b *Beaver*
- d *Partially Drained/Ditched*
- f Farmed
- h *Diked/Impounded*
- r Artificial Substrate
- s *Spoil*
- x Excavated

Instructions for using the legend:

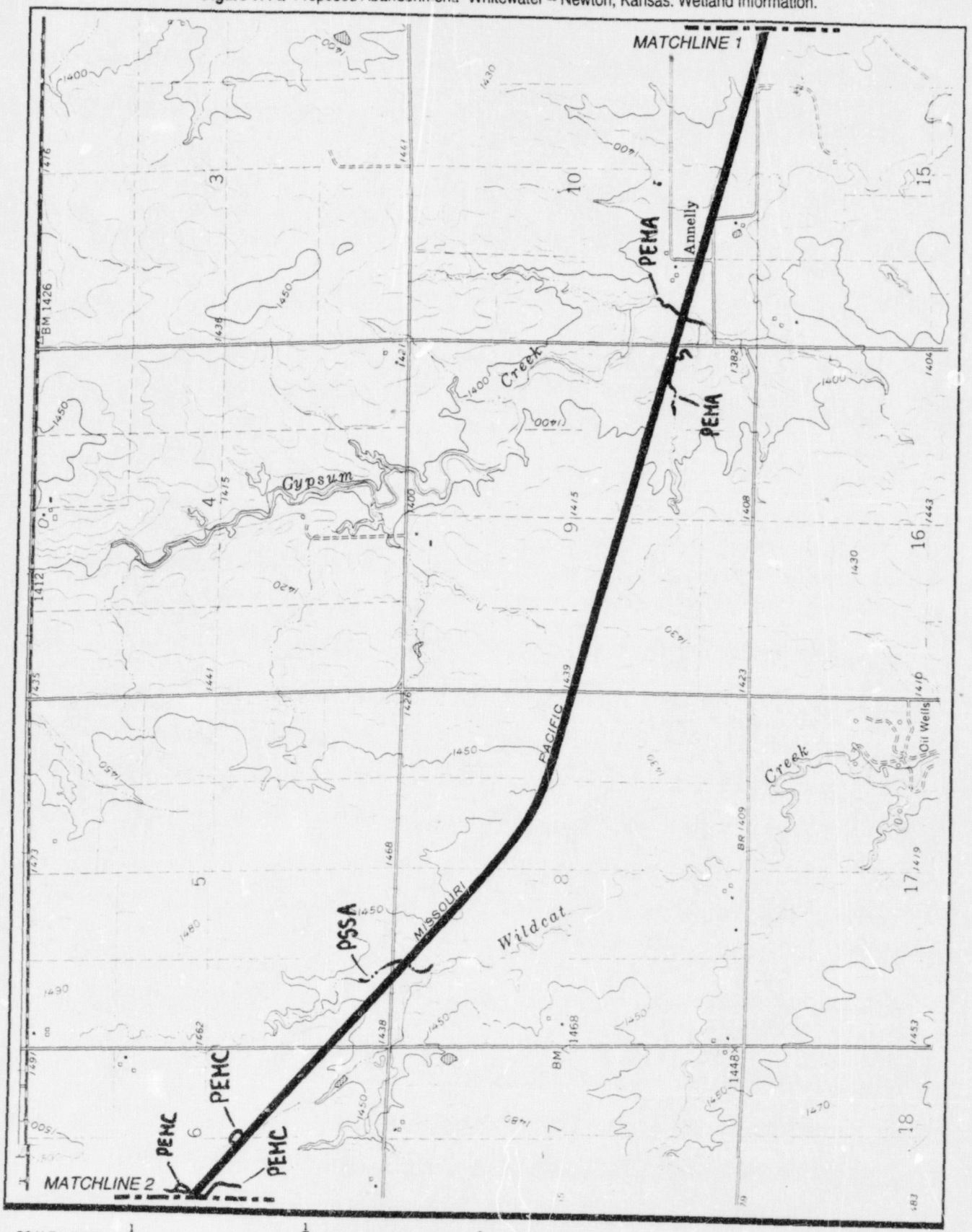
The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "Lacustrine." The next symbol "2" indicates that the system type is "Littoral." The symbols "AB" indicate that the class is "Aquatic Bed." The symbol "3" indicates that the subclass is "Rooted Vascular." The last symbol "a" is explained in the Modifiers part of the system; the modifier indicates "acid."

Figure 7.4-1 Proposed Abandonment: Whitewater – Newton, Kansas. Wetland Information.



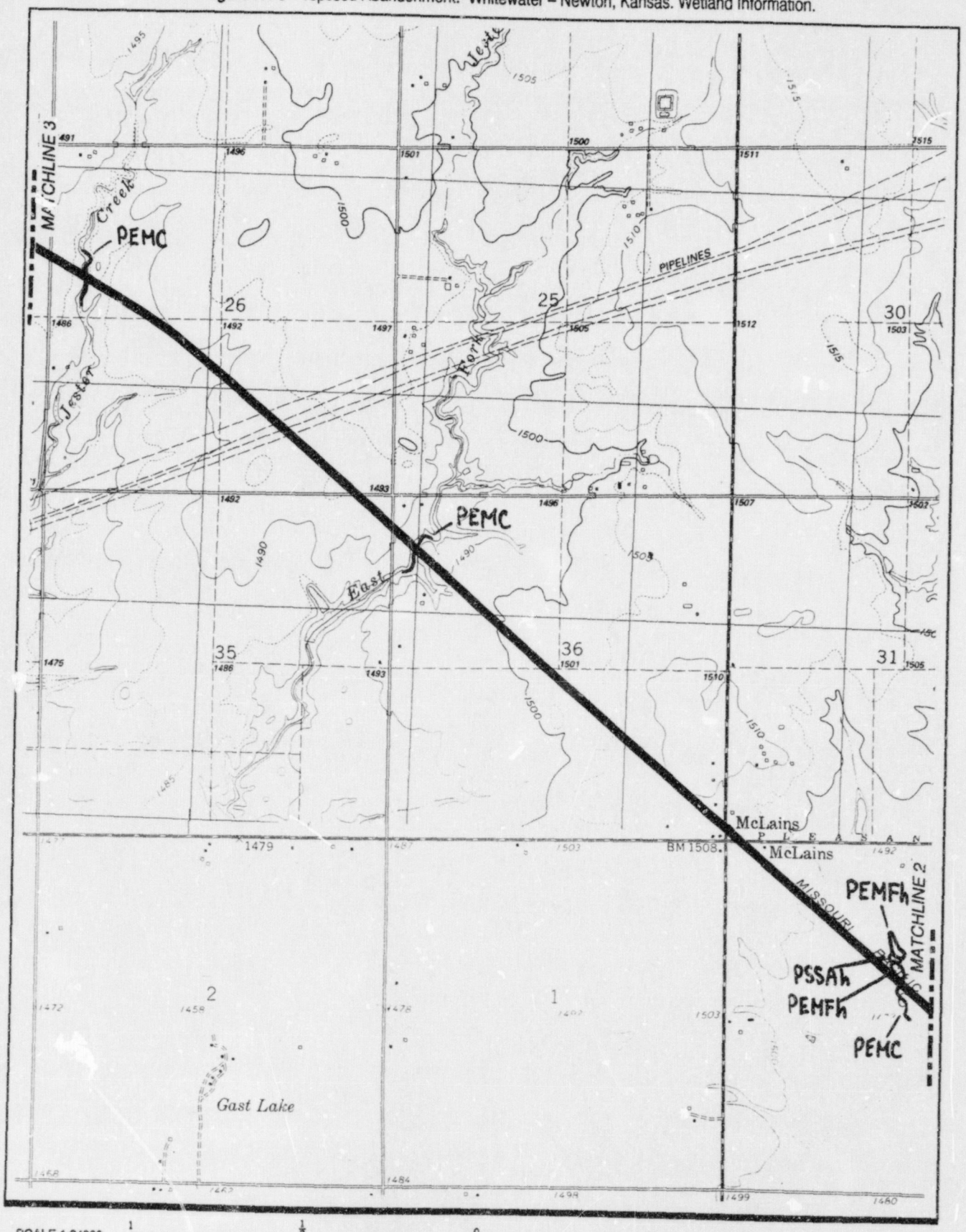
Base Map: *USGS 7.5' Topographic Quadrangle:* Whitewater, Kansas 1962 (Photorevised 1978)

Figure 7.4-2 Proposed Abandonment: Whitewater – Newton, Kansas. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangles:* Sedgwick NE, Kansas 1959 (Photorevised 1978); Whitewater, Kansas 1962 (Photorevised 1978)

Figure 7.4-3 Proposed Abandonment: Whitewater – Newton, Kansas. Wetland Information.



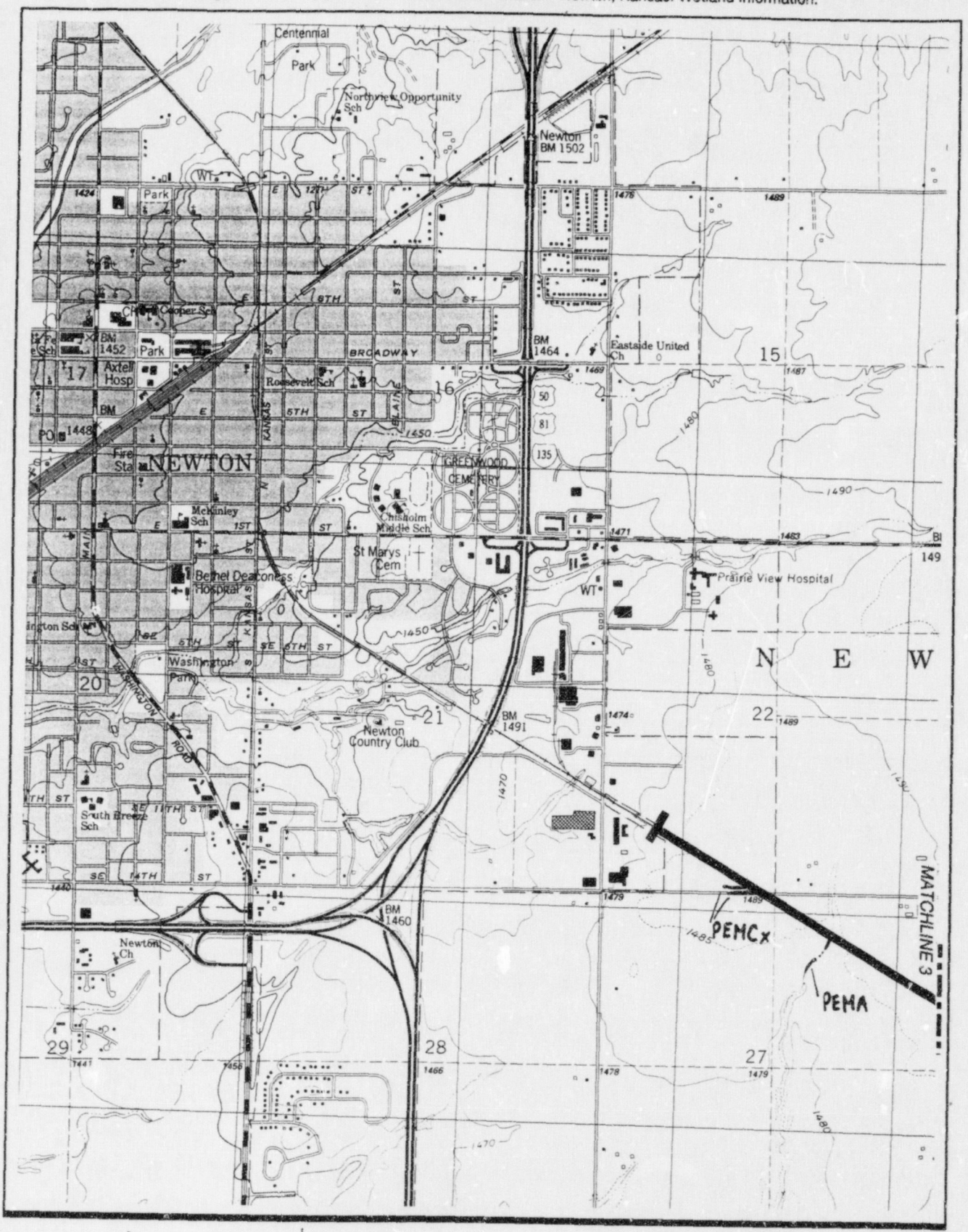
SCALE 1:24000

1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

Base Map: *USGS 7.5' Topographic Quadrangles:* Newton, Kansas 1989; Sedgwick NE, Kansas 1959 (Photorevised 1978)

Figure 7.4-4 Proposed Abandonment: Whitewater – Newton, Kansas. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangle:* Newton, Kansas 1989

8.0 LOUISIANA

8.1 IOWA JCT. TO MANCHESTER

The Iowa Jct. to Manchester, Louisiana rail line proposed for abandonment is 8.5 miles long (Figures 8A and 8.1-1 to 8.1-3). Iowa Jct. and Manchester are both located in Calcasieu Parish, within 15 miles of Lake Charles. The proposed abandonment is along the UP Lake Charles Subdivision.

8.1.1 Proposed Action and No-action Alternative

8.1.1.1 Proposed Action

The proposed action would involve the abandonment of 8.5 miles of rail line following procedures described in Section 2.0. This segment currently serves as UP access to Lake Charles which would be reached after the merger via an adjacent SP line. Local traffic is limited to approximately two cars per year.

8.1.1.2 No-action Alternative

If the merger is approved and implemented, it is anticipated that all overhead traffic would be moved from this line to another UP/SP route whether or not the abandonment is implemented.

8.1.2 Description of Existing Environment and Potential Environmental Impacts of Proposed Action

8.1.2.1 Land Use

Information for existing land use conditions is presented in Table 8-1 and on Figures 8.1-1 through 8.1-3. Potential land use impacts are listed in Table 8-1. No significant land use impacts are expected.

8.1.2.2 Water Resources and Wetlands

Existing water resources and wetlands information is summarized in Table 8-2. NWI data along the Iowa Jct.-Manchester, Louisiana abandonment were collected,

as available. Those data are shown on Figures 8.2-1 to 8.2-3. Significant impacts are not expected.

8.1.2.3 Biological Resources

Existing biological resources information and potential impacts are summarized in Table 8-3. Potentially significant impacts to biological resources due to this proposed abandonment are not expected.

8.1.2.4 Historic and Cultural Resources

This line was constructed in 1892 by the Kansas City, Watkins & Gulf Railway, subsequently the Missouri Pacific Railroad. There are two wooden bridges (1929) that are 50 years old or older (UP, 1995). Based solely on age, these bridges may be potentially eligible for the NRHP; however, UP currently has no other evidence that any such bridges meet NRHP criteria. The Louisiana SHPO has been contacted, and has requested that the project location be delineated on a USGS quad map, and that photographs, the date and type of construction, and location be provided for the bridges in order to complete its review (Barrow, 1995).

The removal of bridges or structures that are eligible or potentially eligible for the NRHP would be a potentially significant impact. Further consultation with the Louisiana SHPO is expected concerning mitigation measures for bridges and structures of any are determined eligible.

Since salvage operations associated with abandonments usually cause little disturbance to lands within or adjacent to the railroad ROW, impacts to archaeological resources are not normally anticipated (ICC, 1976:6.36). Where significant ground disturbance is necessary, impacts to archaeological resources could possibly occur. An example of this would be the ground disturbance associated with the removal of bridges. To date, however, no evidence of archaeological resources on the line has been discovered.

8.1.2.5 Safety

Hazardous waste sites near the abandonment identified from the database search are included in Table 8-4.

8.1.2.5.1 Conditions of the Rail Segment

No hazardous waste sites were identified on the Iowa Jct. to Manchester, Louisiana rail segment based on the available information.

8.1.2.5.2 Conditions Adjacent to the Rail Segment

The database search indicated one CERCLIS, one RCRA TSD, one SWLF, and one LUST site potentially in the vicinity of the rail segment. Information provided by VISTA does not indicate that the sites have adversely affected the rail segment.

8.1.2.6 Transportation

This line is served by tri-weekly local trains between Alexandria and Lake Charles and Lake Charles and Alexandria. The only local traffic on the Iowa Jct. to Manchester line is two carloads of grass seed annually. The diversion of this traffic to truck could result in an additional eight trucks per year on local highways. Alternative transportation appears to be available via a parallel street to US 90 near Iowa Jct. Diversion of two carloads on an annual basis would have negligible impacts on the local or regional transportation system.

8.1.3 Potential Environmental Impacts of No-action Alternative

Under the no-action alternative, any overhead traffic on this segment would be rerouted to another UP/SP line. As such, there would be no new adverse environmental impacts.

8.2 SUMMARY OF COMMENTS

To assist in assessing the potential environmental impacts of the proposed UP/SP merger, Dames & Moore sent letters requesting information to various Federal,

state, and local agencies. In these letters, information was requested for the areas of: air quality, noise, land use, biological and water resources, historic and cultural resources, transportation systems, energy, and public health and safety. Copies of all correspondence received and telephone conversation notes recorded in response to the requests for information are included in an appendix in Part 6 of this Environmental Report.

There is one segment proposed for abandonment in Louisiana. Agencies from which comments were received included the Louisiana Department of Natural Resources (Coastal Management Division). A summary of the comments received through October 30, 1995 follows.

- The Louisiana Department of Natural Resources, Coastal Management Division, Baton Rouge office stated that Lake Charles to Iowa Jct. line was found to be outside of the Louisiana Coastal Zone; therefore a Coastal Use Permit is not required.

8.3 REFERENCES

8.3.1 Land Use

Howey, Terry, W., 1995. Letter to Julie Donsky , Dames & Moore, from the Louisiana Department of Natural Resources, Coastal Management Division, October 13.

U.S. Department of Agriculture, 1994. State soil geographic (STATSGO) data base. July.
U.S. Geological Survey, various dates. Land use and land cover maps.
U.S. Geological Survey, various dates. 1:24,000-scale maps.

8.3.2 Water Resources

U.S. Fish and Wildlife Service, various dates. National Wetlands Inventory maps.
U.S. Geological Survey, various dates. 1:24,000-scale maps.

8.3.3 Biological Resources

Howay, Terry, W., 1995. Letter to Julie Donsky , Dames & Moore, from the Louisiana Department of Natural Resources, Coastal Management Division, October 13.