information provided by VISTA does not indicate that these sites have adversely affected the rail segment.

6.3.2.6 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 which, after the merger, would be interchanged to the Norfolk Southern at DeCamp. The line was used in 1994 to transport 26 passenger rail cars which were repaired at a facility in Edwardsville. There are no alternatives available to divert this traffic.

The effect of abandoning the Edwardsville to Madison line would be to eliminate the existing rail car shipments. Since it is not possible to divert these shipments to trucks, there would be no effects on the local highway system.

6.3.3 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 environmental impacts.

6.4 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 three segments proposed for abandonment in Illinois. For abandonments in this state, the following agencies responded: Illinois Department of Conservation,

Natural Resources Conservation Service, COE (Rock Island District), and U.S. Fish and Wildlife Service (Rock Island, IL field office).

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

- The USDA Natural Resources Conservation Service provided a list of threatened and endangered species found within Madison County, Illinois. They state that because of the area covered from DeCamp to Madison (300 square miles) and because of the diverse topography it dissects, the potential for disturbance to threatened and endangered species was high. They additionally provided copies of USGS topographic sheets and indicated five environmentally sensitive areas and refuges within five miles. There may also be wetland and other natural habitats for these species within these corridors. They stated that they know of no other major environmental concerns related to this proposed abandonment.
- The Rock Island field office of the U.S. Fish and Wildlife Service provided information concerning species that are listed or proposed to be listed, and which may be present in the area of proposed action within Menard, Sangamon, Macoupin or Madison counties of Illinois.
- The Illinois Department of Conservation examined the Illinois Natural Heritage Database and reported known occurrences of threatened or endangered species, Illinois Nature Preserves, and Illinois Natural Area Inventory sites associated with portions of these abandonments. They stated that, as authorized by the Illinois Endangered Species Protection Act, a proposed land-altering action cannot start until the completion of the consultation process.
- The Natural Resources Conservation Service, Carlinville office stated that several plant and animal species listed as threatened or endangered occur

in the project area of Macoupin County. Specifically, the pondhorn mussel (*Uniomerus tetralasmus*) was sited; however, no direct or indirect impacts from the abandonment was identified. Three areas of land, identified as wetlands were stated to be adjacent to project areas. U.S. Army Corps of Engineers permits are required if wetlands are manipulated. Additionally, areas of trees and native prairie grasses near the railway were characterized as valuable habitat. No nearby refuges were identified. A potential for improved farmland drainage, when abandoned track and beds are removed, was recognized. Permission from the NRCS is needed on a case by case basis, if drainage is to be improved. Conservation plans may need to be developed for sloping areas of track bed if they are to be converted to cropland.

- The Rock Island District of the U.S. Army Corps of Engineers, Planning Department, stated that the declared abandonment lines do not involve COE administered land. They stated that no Federal levee systems would be impacted; however, details on bridge structure abandonment on the Barr-Girard line (over the Sagamon River) were requested. Contact information to coordinate impacts to historic properties as well as federally listed endangered species was given.

6.5 REFERENCES

6.5.1 Land Use

Dozier, Ivan, 1995. Letter to Julie Donsky, Dames & Moore, from Natural Resources Conservation Service, Carlinville, Illinois, October 17.

Hanson, Dudley, 1995. Letter to Julie Donsky, Dames & Moore, from U.S. Army Corps of Engineers, Rock Island District, October 16.

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.

6.5.2 Water Resources and Wetlands

Dozier, Ivan, 1995. Letter to Julie Donsky, Dames & Moore, from Natural Resources Conservation Service, Carlinville, Illinois, October 17.

Hanson, Dudley, 1995. Letter to Julie Donsky, Dames & Moore, from U.S. Army Corps of Engineers, Rock Island District, October 16.

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

6.5.3 Biological Resources

Dozier, Ivan, 1995. Letter to Julie Donsky, Dames & Moore, from Natural Resources Conservation Service, Carlinville, Illinois, October 17.

Kath, Joseph A., 1995. Letter to Julie Donsky, Dames & Moore, from Illinois Department of Conservation, Endangered and Threatened Species Protection Program. October 12.

Kinney, Wayne, 1995. Letter to Julie Donsky, Dames & Moore, from Natural Resources Conservation District, Edwardsville, Illinois. October 4.

Nelson, Richard C., 1995. Letter to Julie Donsky, Dames & Moore, from U.S. Fish and Wildlife Service, Rock Island, Illinois Field Office. October 3.

6.5.4 Historic and Cultural Resources

Beck, Lynn (UP), 1995. Information on DeCamp to Edwardsville, Edwardsville to Madison, and Barr to Girard, IL proposed abandonments.

Illinois Historic Preservation Agency (IHPA), 1995. Letter from Anne E. Haaker, October 11, 1995.

Kinney, Wayne, 1995. Letter to Julie Donsky, Dames & Moore, from Natural Resources Conservation District, Edwardsville, Illinois. October 4.

Soule, Tracy (IHPA), 1995. Telephone conversation with Denise Bradley, Dames & Moore. October 25.

6.5.5. Safety

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.

TABLE 6-1

LAND USE INFORMATION ALONG SEGMENTS PROPOSED FOR ABANDONMENT IN ILLINOIS

EXISTING CONDITIONS					
		Structures Near Site		Occurrence Within	
Segment	Existing Land Uses	Within 500 Feet	Length in Urbanized Areas (Feet)	Prime Farmland	Coastal Zone
Barr - Girard	Cropland pasture, commercial and services, other urban or built-up land, residential, mixed urban or built-up land, deciduous forest land, confined feeding operations	194	0	No	No
DeCamp - Edwardsville	Cropland and pasture, residential, deciduous forest land	171	0	No	No
Edwardsville - Madison	Residential, industrial, forested wetland or nonforested wetland, streams and canals, commercial, transportation, cropland and pasture, deciduous forest land	259	12,300	No	No

IMPACTS		
Segment	Compatible with Surrounding Land Uses	Loss of Prime Farmland
Barr - Girard	Yes - Not significant	No - Not significant
DeCamp - Edwardsville	Yes - Not significant	No - Not significant
Edwardsville - Madison	Yes - Not significant	No - Not significant

TABLE 6-2

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

Segment	Type of Water Resource[1]	Number Along the Segment	
		Intercepted by the Segment	Adjacent to the Segment
Barr-Girard	Blue-line streams	23	2
	Waterbodies	0	8
	Canals, culverts, ditches	2	1
DeCamp-Edwardsville	Blue-line streams	10	0
	Waterbodies	0	5
Edwardsville-Madison	Blue-line streams	3	3
	Waterbodies	0	4
	Canals, culverts, ditches	5	0

[1] Type:

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

Waterbodies = permanent and intermittent bodies of standing water including ponds, lakes, reservoirs, bayous, catchments, and beaver ponds

Wetlands = areas depicted with the USGS wetland symbol, primarily including marshes and wet meadows

Tidal channels = tidal channels including inlets, harbors, bays, and sloughs subject to tidal influences

Canals, culverts, ditches = human-made water conveyances

TABLE 6-3

BIOLOGICAL RESOURCES INFORMATION ALONG SEGMENTS PROPOSED FOR ABANDONMENT IN ILLINOIS

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
Barr to Girard	• Ruderal	• Loggerhead shrike • Bald eagle • Indiana bat • Prairie fringed orchid	None	Lincoln - New Salem State Park
DeCamp to Edwardsville and Edwardsville to Madison	• Ruderal	• Fat pocketbook mussel • Butterfly mussel • Elephant-ear mussel • Ebonyshell mussel • Pallid sturgeon • Lake sturgeon • Sturgeon chub • Bigeye shiner • Eastern massasauga • Illinois chorus frog • Timber rattlesnake • Great Plains rat snake • Upland sandpiper • Red-shouldered hawk • Little blue heron • Snowy egret • Peregrine falcon • Black-crowned night-heron • Bewick's wren • Yellow-headed blackbird • Least tern • Great egret • Common moorhen • Pied-billed grebe • King rail • Indiana bat • Gray bat • Decurrent false aster • Hill's thistle • Large ground plum • Prairie fringed orchid • Prairie spiderwort • Royal catchfly • Sour dock • Spring ladies' tresses • Whitlow grass	None	Cahokia Mounds State Park (near Edwardsville to Madison)

TABLE 6-3
(concluded)

EXISTING CONDITIONS:				
POTENTIAL IMPACTS TO:				
Segment	**Vegetation Types/ Wildlife Habitats**	**Rare, Threatened and Endangered Species in the Region**	**Critical Habitat**	**Parks, Forests, Refuges, Sanctuaries**
Barr to Girard	Not significant	• Prairie fringed orchid*	None	None
DeCamp to Edwardsville and Edwardsville to Madison	Not significant	• Hill's thistle* • Large ground plum* • Prairie fringed orchid* • Prairie spiderwort* • Royal catchfly* • Sour dock* • Spring ladies' tresses* • Whitlow grass*	None	None

* Potential impacts may not exist for these species as visual confirmation has not been completed. It is assumed that salvage operations would be limited to the existing ROW. Therefore, impacts to rare, threatened, and endangered species, as well as to parks, forests, refuges, and sanctuaries would be negligible. Abandonment of the rail lines would result in beneficial effects to these resources.

TABLE 6-4

HAZARDOUS WASTE SITE ISSUES ALONG SEGMENTS PROPOSED FOR ABANDONMENT IN ILLINOIS

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
Barr - Girard, IL	---	---	None	---	---	---	---	---	---	---	1	---	---	14	14
Decamp - Edwardsville[2], IL	1	---	CNW Rail Line at mile post 116.6 reported a gasoline spill (1987).	---	---	---	---	---	---	---	1	---	---	---	4
Edwardsville - Madison[2], IL	---	---	None	---	2	---	14	---	1	---	1	2	12	13	7

[1] - Issues identified through VISTA database search.

[2] - Area issues (unmappable sites) which could not be specifically identified as occurring either along DeCamp to Edwardsville or Edwardsville to Madison have been listed under the Edwardsville to Madison, IL rail segment.

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 6A Overview of Proposed Abandonment: Barr – Girard, Illinois

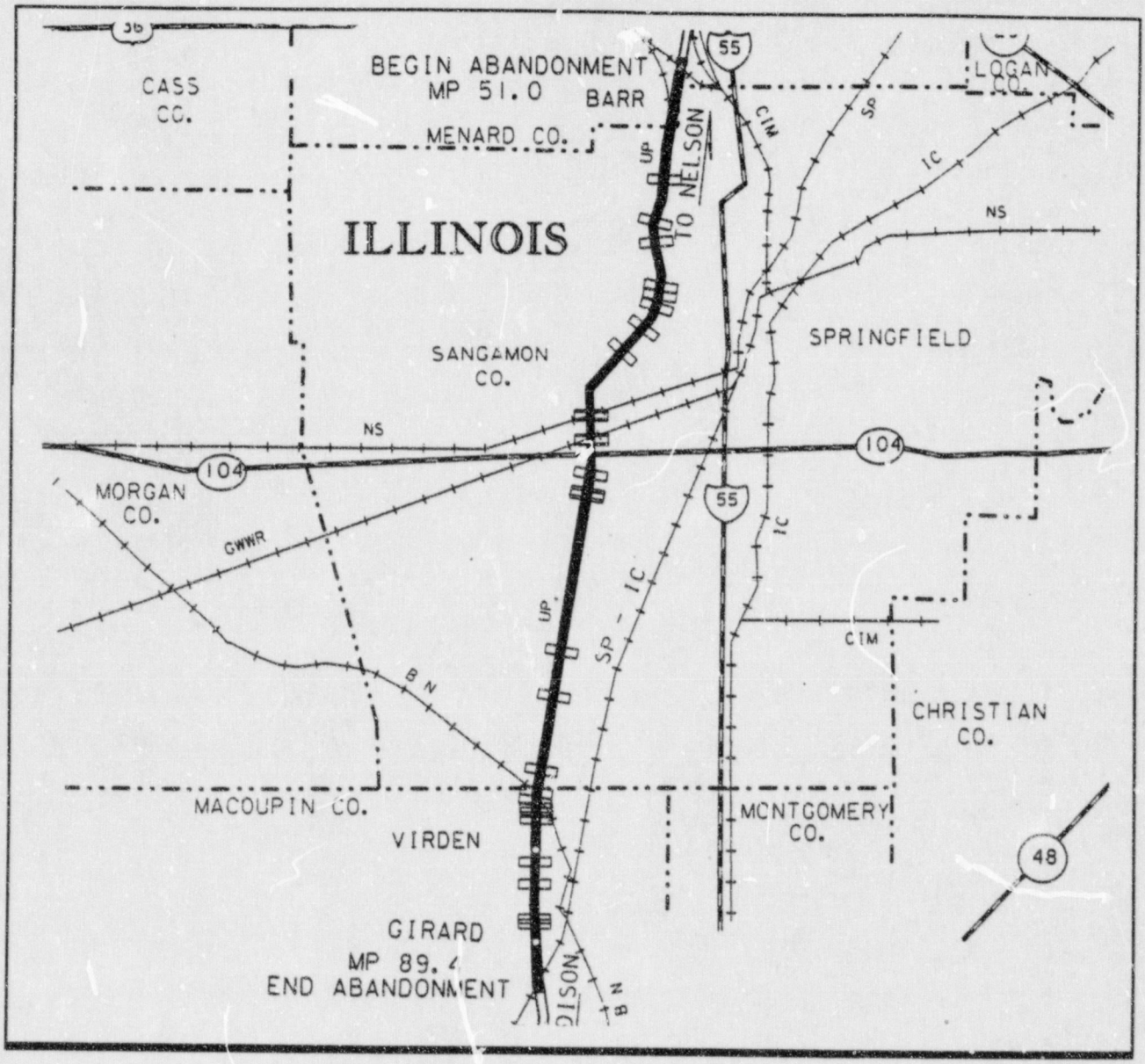
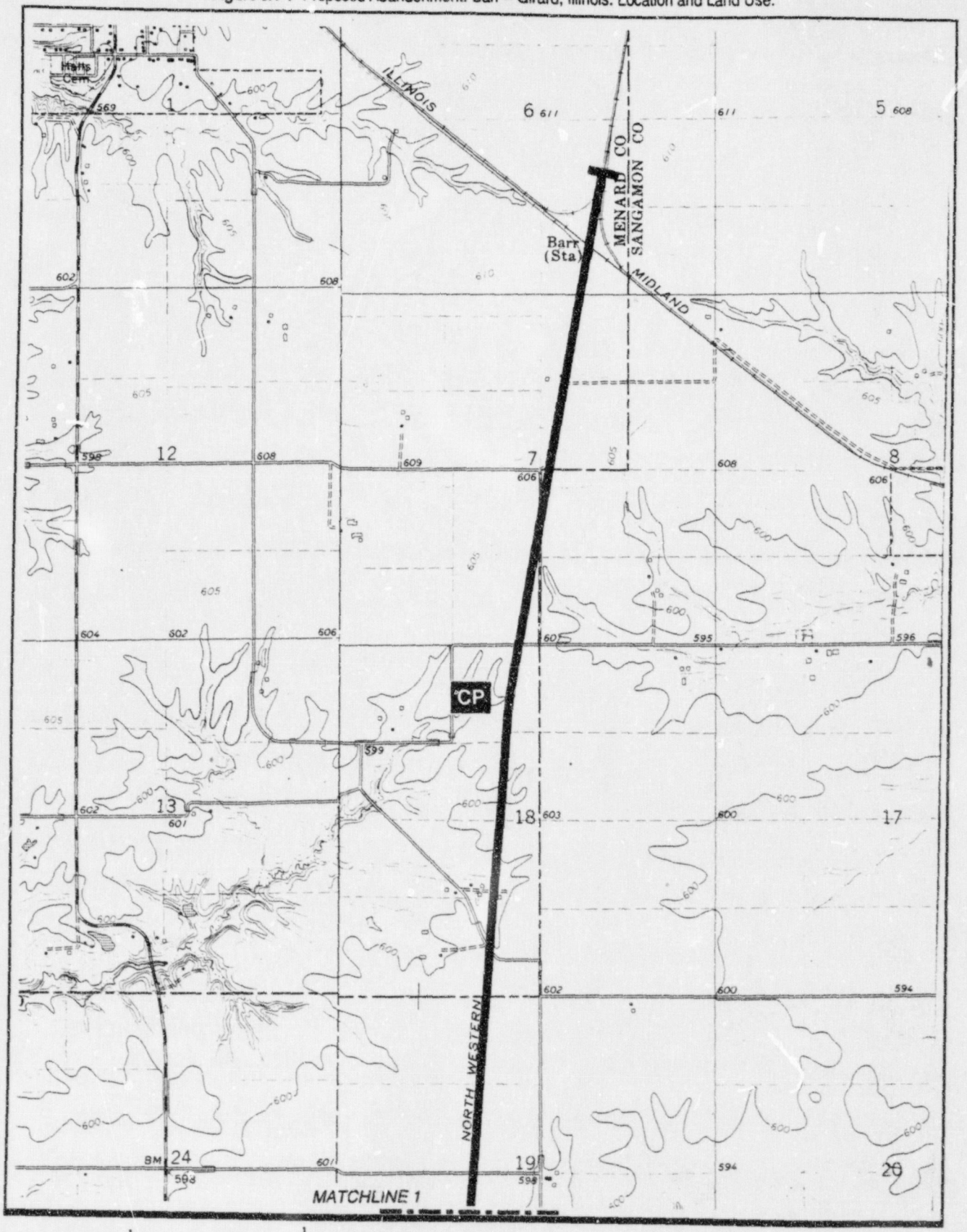
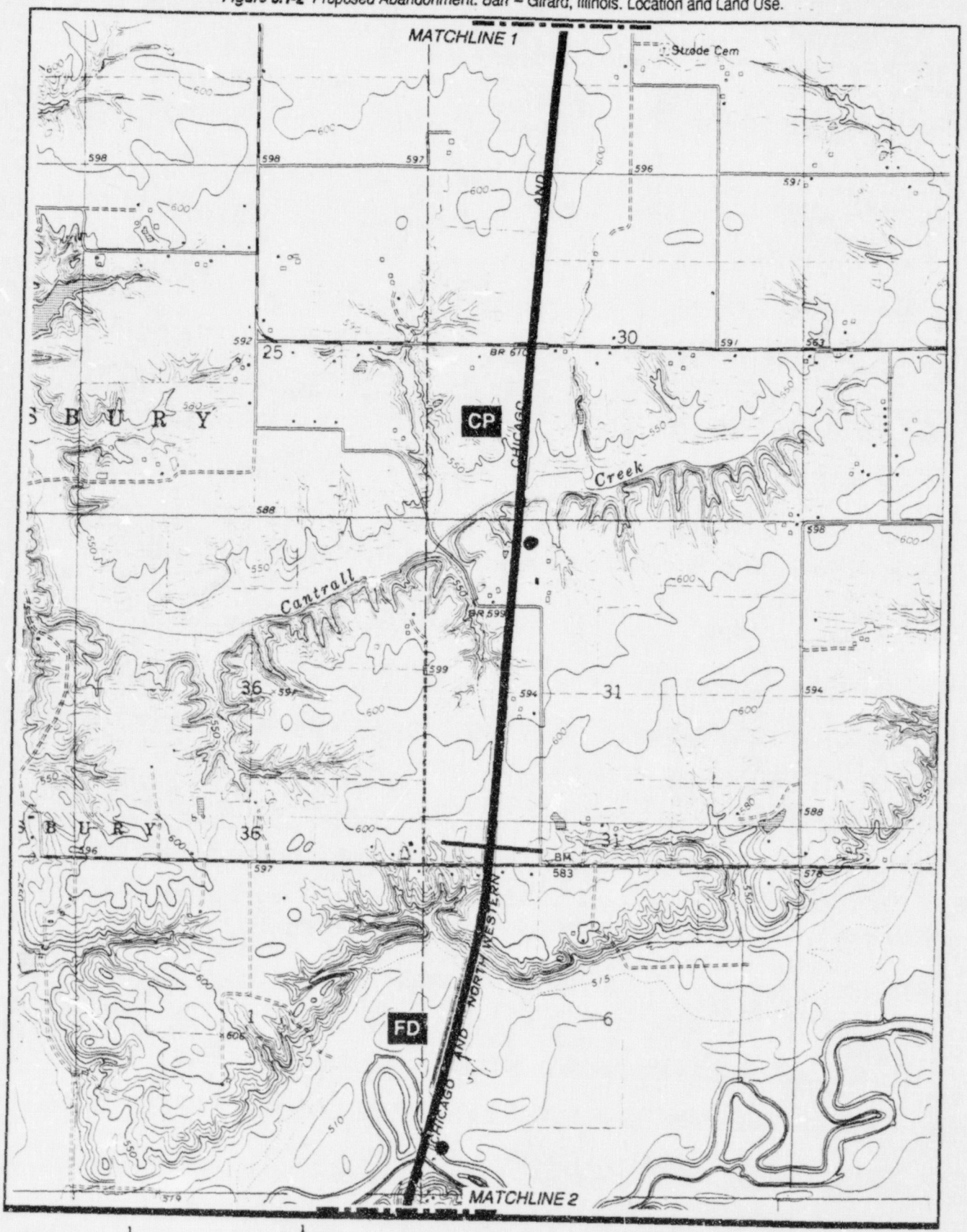


Figure 6.1-1 Proposed Abandonment: Barr – Girard, Illinois. Location and Land Use.



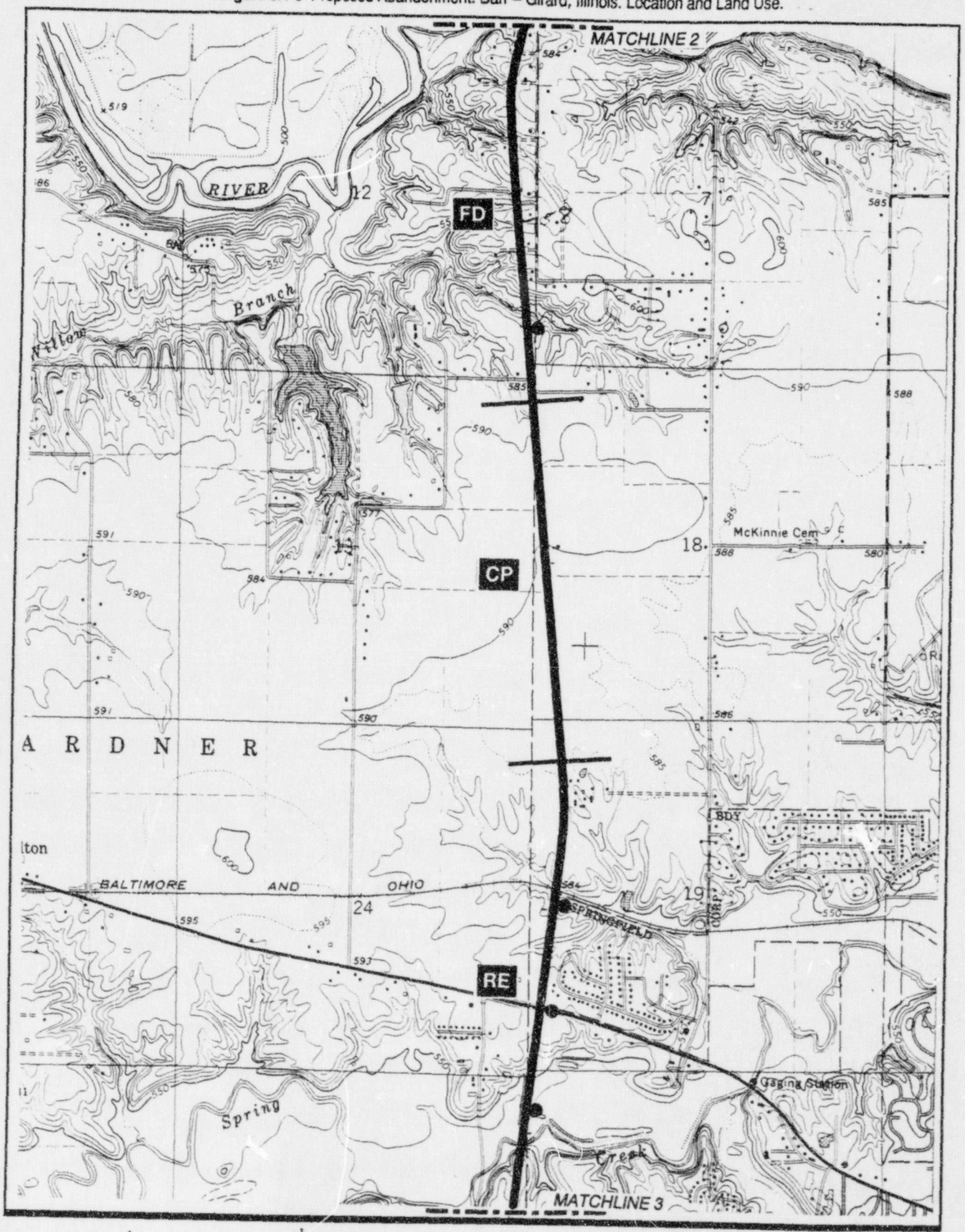
Base Map: *USGS 7.5' Topographic Quadrangle: Athens, Illinois 1966 (Photorevised 1971 and 1976)*

Figure 6.1-2 Proposed Abandonment: Barr – Girard, Illinois. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangles: Athens, Illinois 1966 (Photorevised 1971 and 1976); Springfield West, Illinois 1965 (Photorevised 1971 and 1976)*

Figure 6.1-3 Proposed Abandonment: Barr – Girard, Illinois. Location and Land Use.



SCALE 1:24000

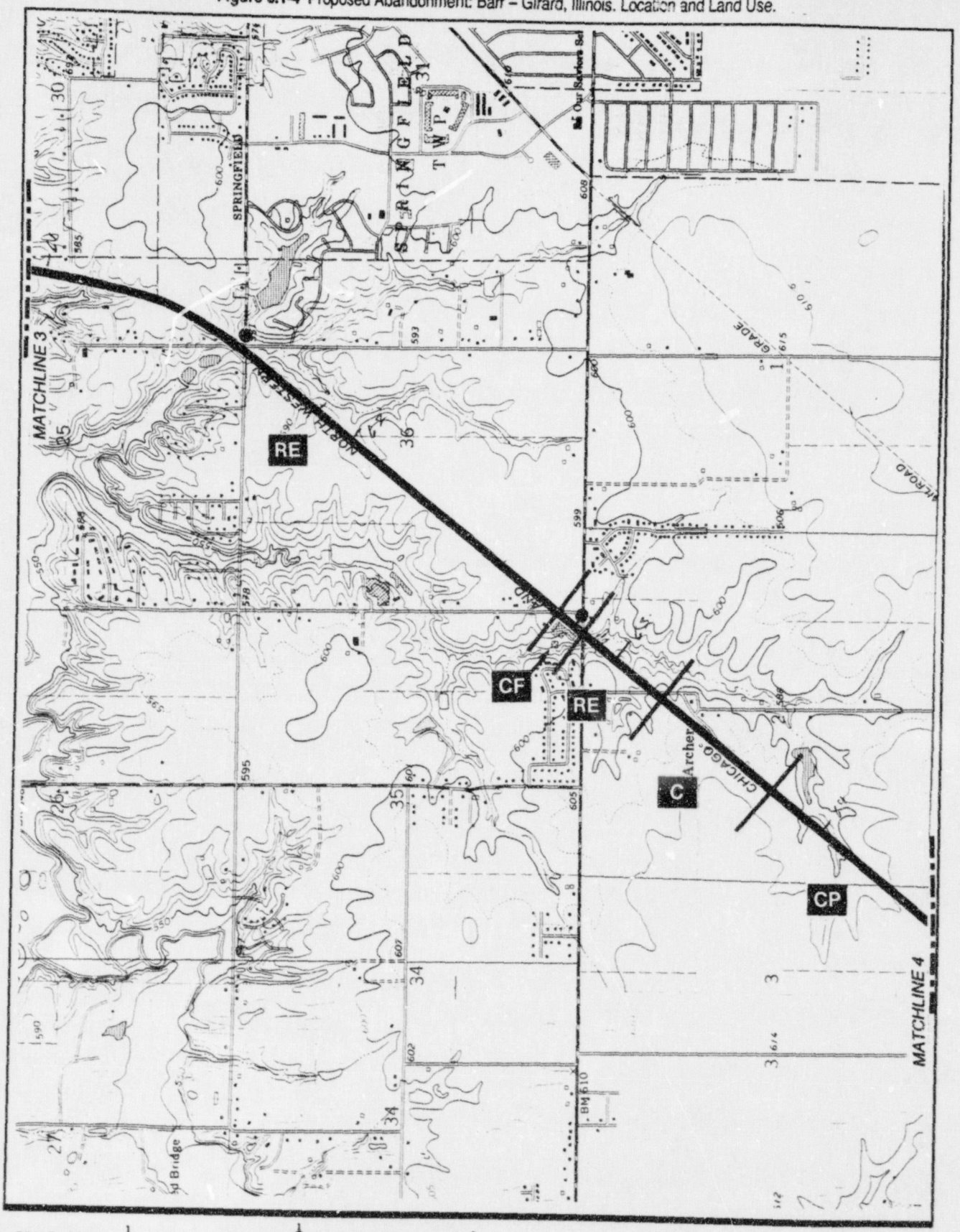
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

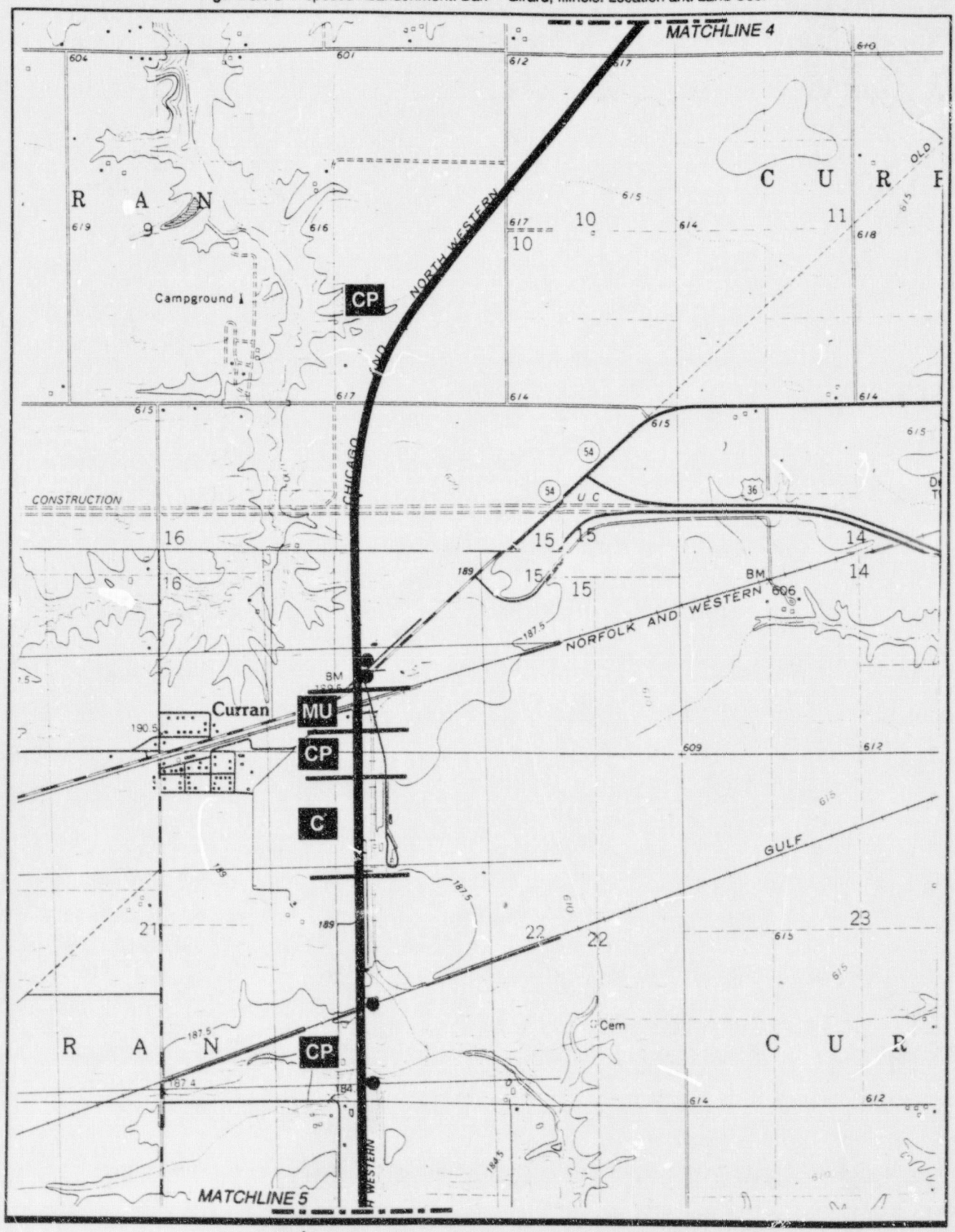
Base Map: *USGS 7.5' Topographic Quadrangle: Springfield West, Illinois 1965 (Photorevised 1971 and 1976)*

Figure 6.1-4 Proposed Abandonment: Barr – Girard, Illinois. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangles: Springfield West, Illinois 1965 (Photorevised 1971 and 1976); Farmingdale, Illinois 1971 (Photorevised 1976)*

Figure 6.1-5 Proposed Abandonment: Barr – Girard, Illinois. Location and Land Use.



SCALE 1:24000

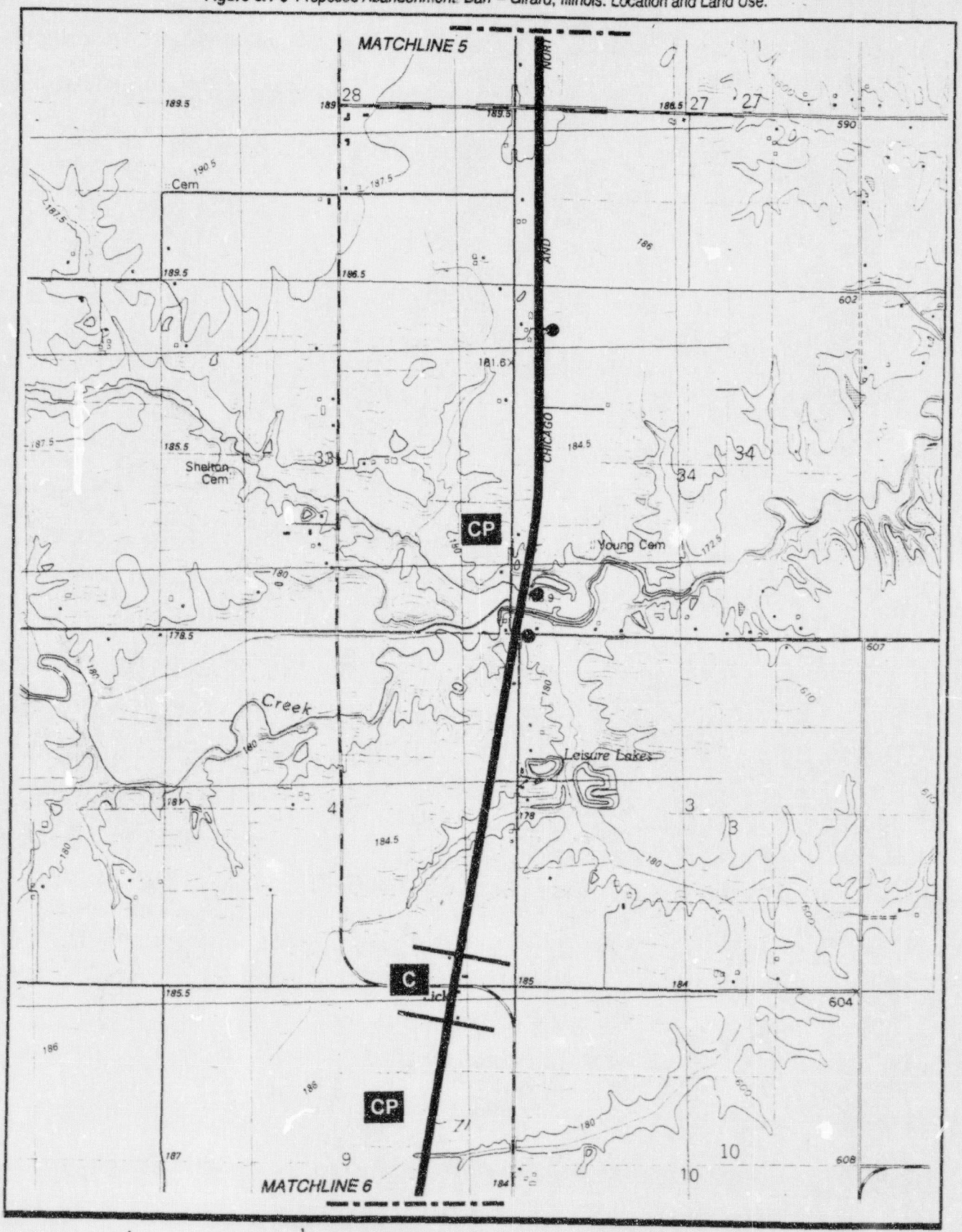
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangles: Farmingdale, Illinois 1971 (Photorevised 1976); Springfield West, Illinois 1965 (Photorevised 1971 and 1976); Loami, Illinois 1981; Chatham, Illinois 1961 (Photorevised 1971 and 1976)*

Figure 6.1-6 Proposed Abandonment: Barr – Girard, Illinois. Location and Land Use.



SCALE 1:24000

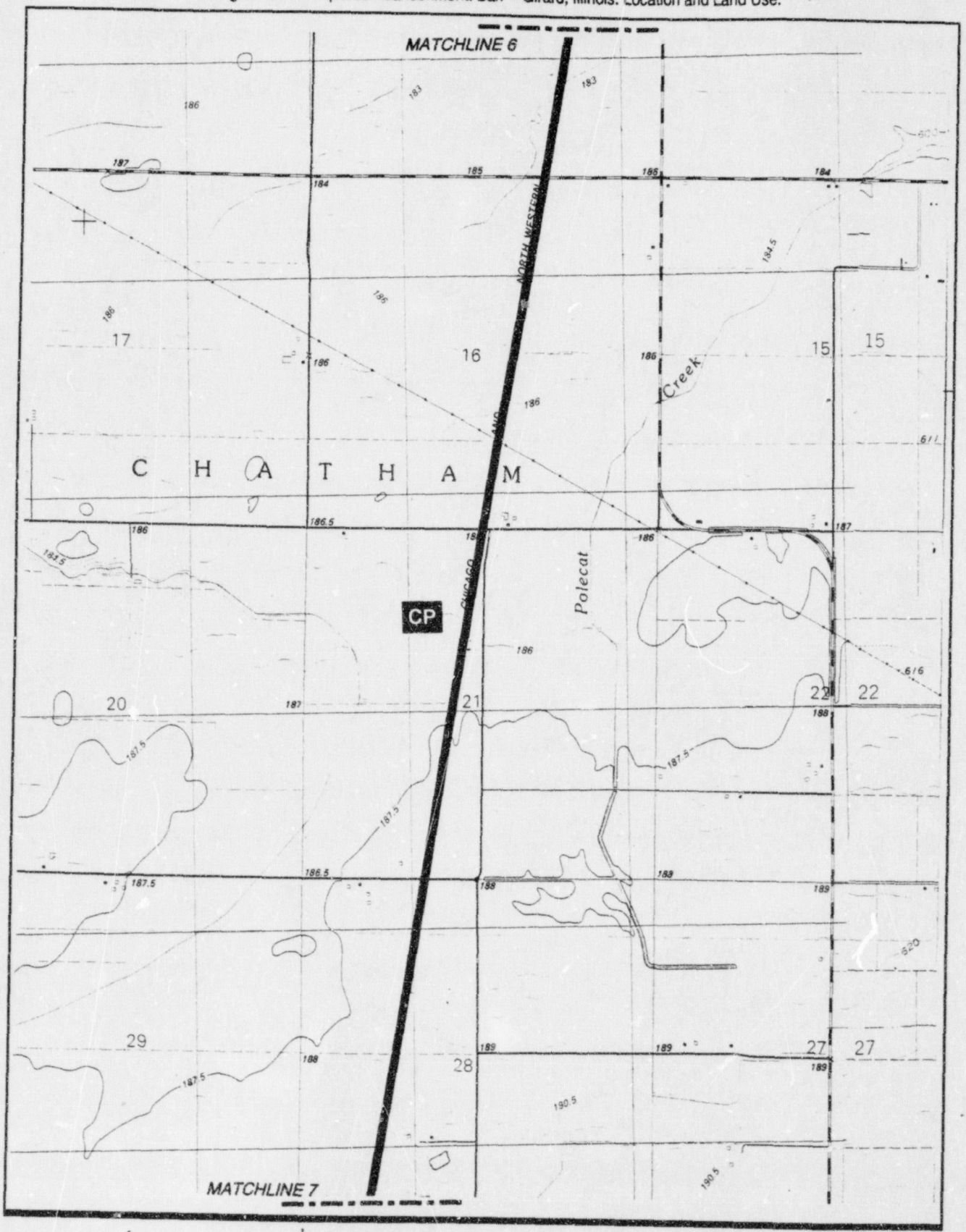
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangles: Loami, Illinois 1981; Chatham, Illinois 1961 (Photorevised 1971 and 1976)*

Figure 6.1-7 Proposed Abandonment: Barr – Girard, Illinois. Location and Land Use.



SCALE 1:24000

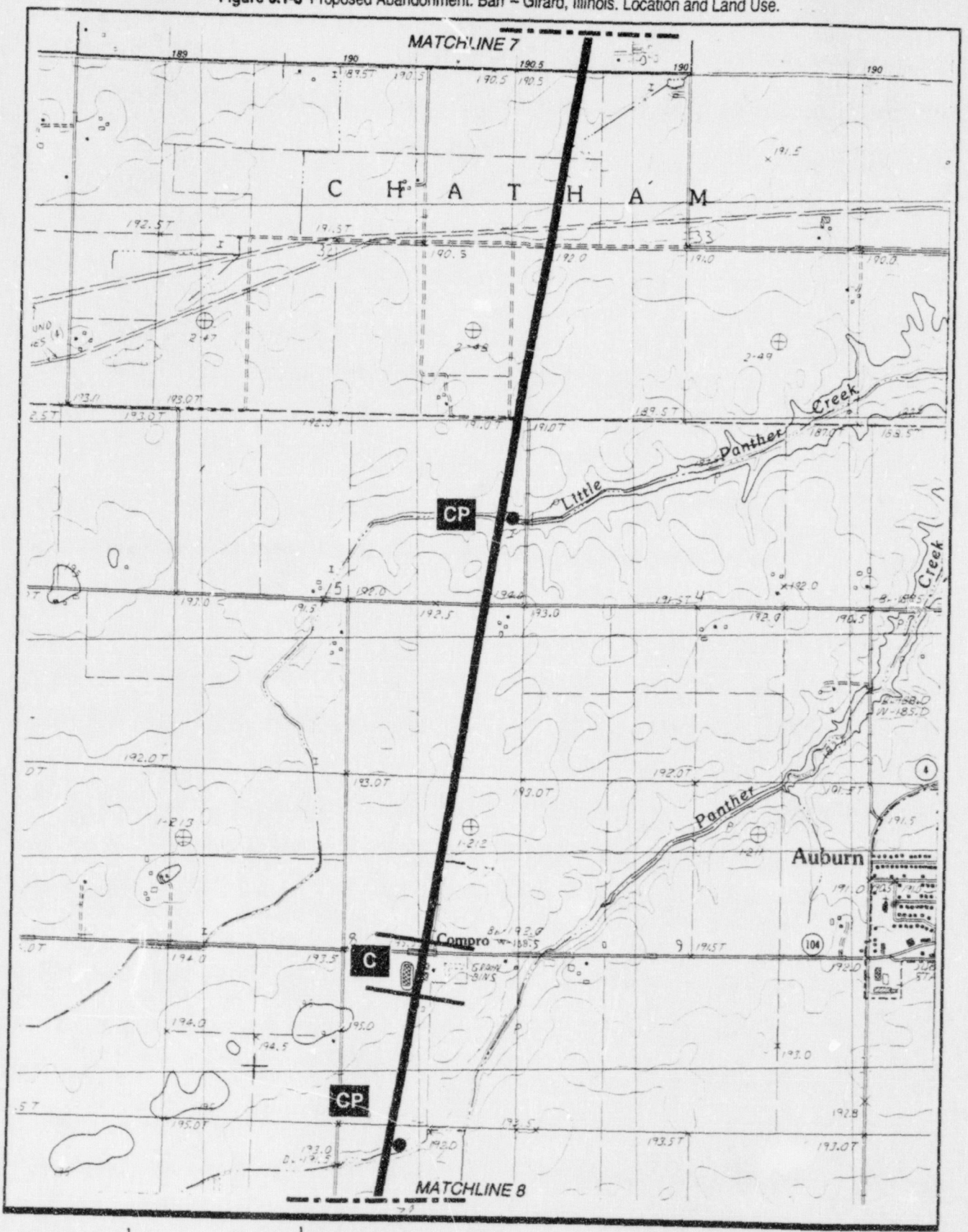
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangles: Loami, Illinois 1981; Chatham, Illinois 1961 (Photorevised 1971 and 1976)*

Figure 6.1-8 Proposed Abandonment: Barr ~ Girard, Illinois. Location and Land Use.



SCALE 1:24000

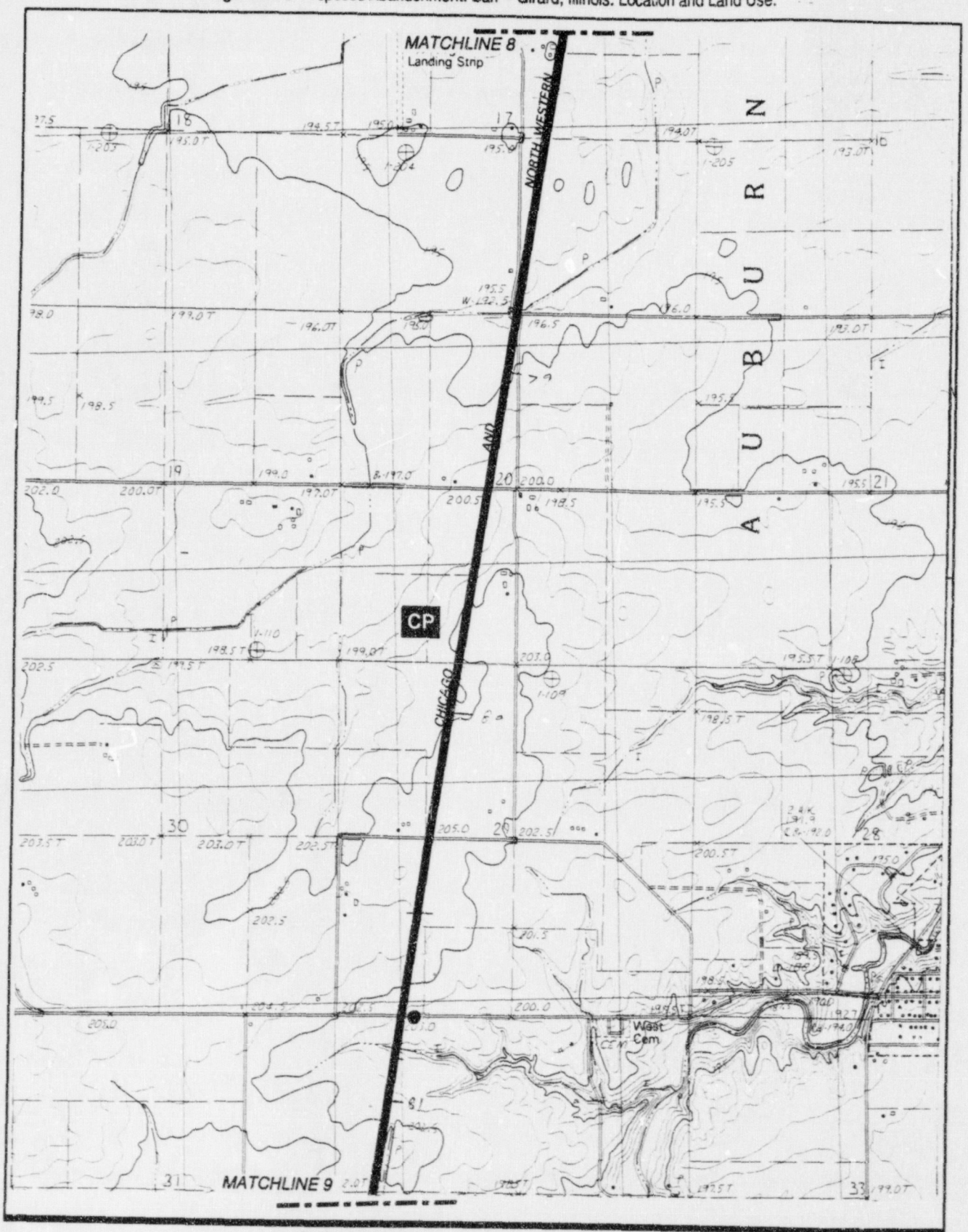
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

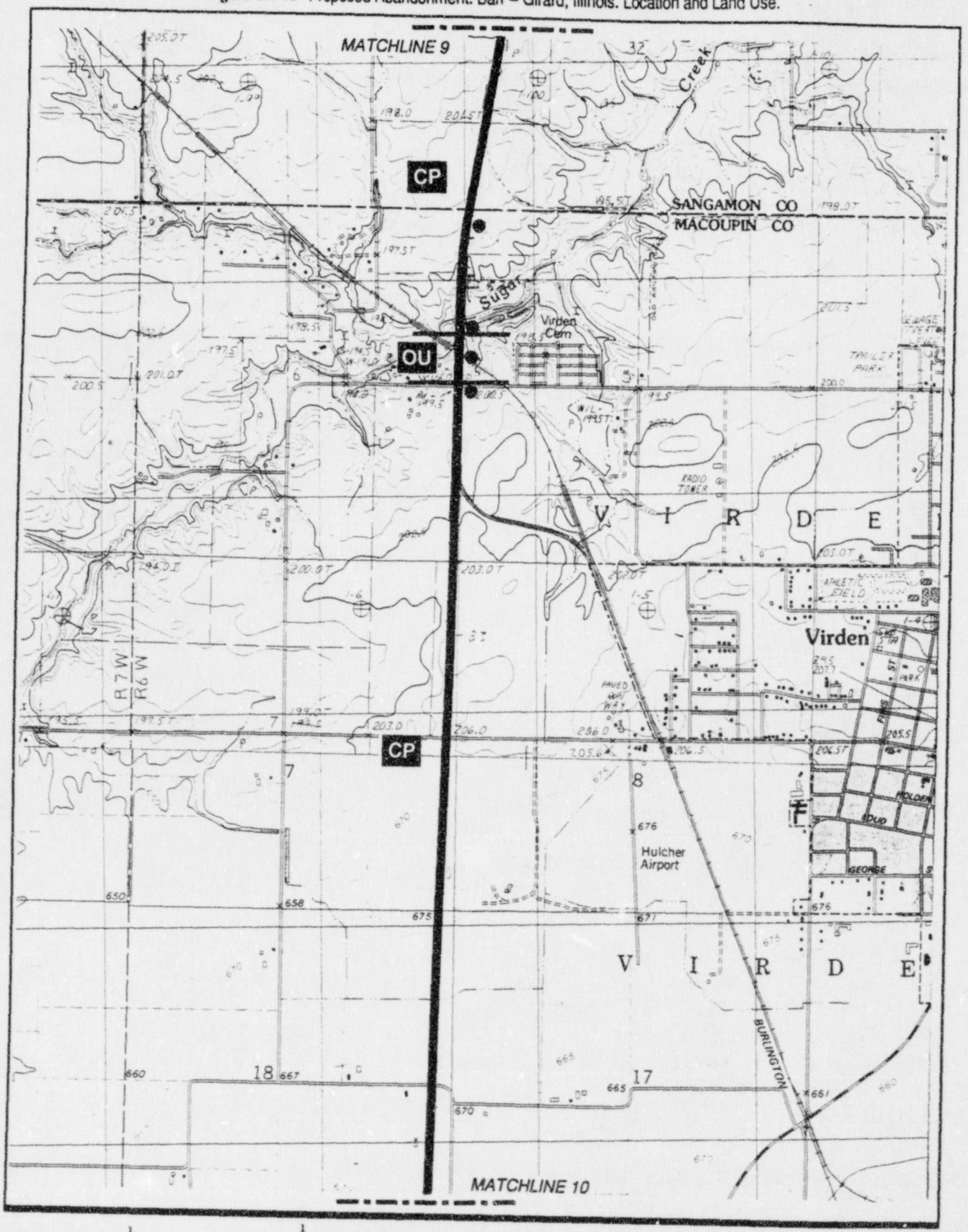
Base Map: *USGS 7.5' Topographic Quadrangles: Loami, Illinois 1981; Virden North, Illinois (Provisional Edition 1983)*

Figure 6.1-9 Proposed Abandonment: Barr – Girard, Illinois. Location and Land Use.



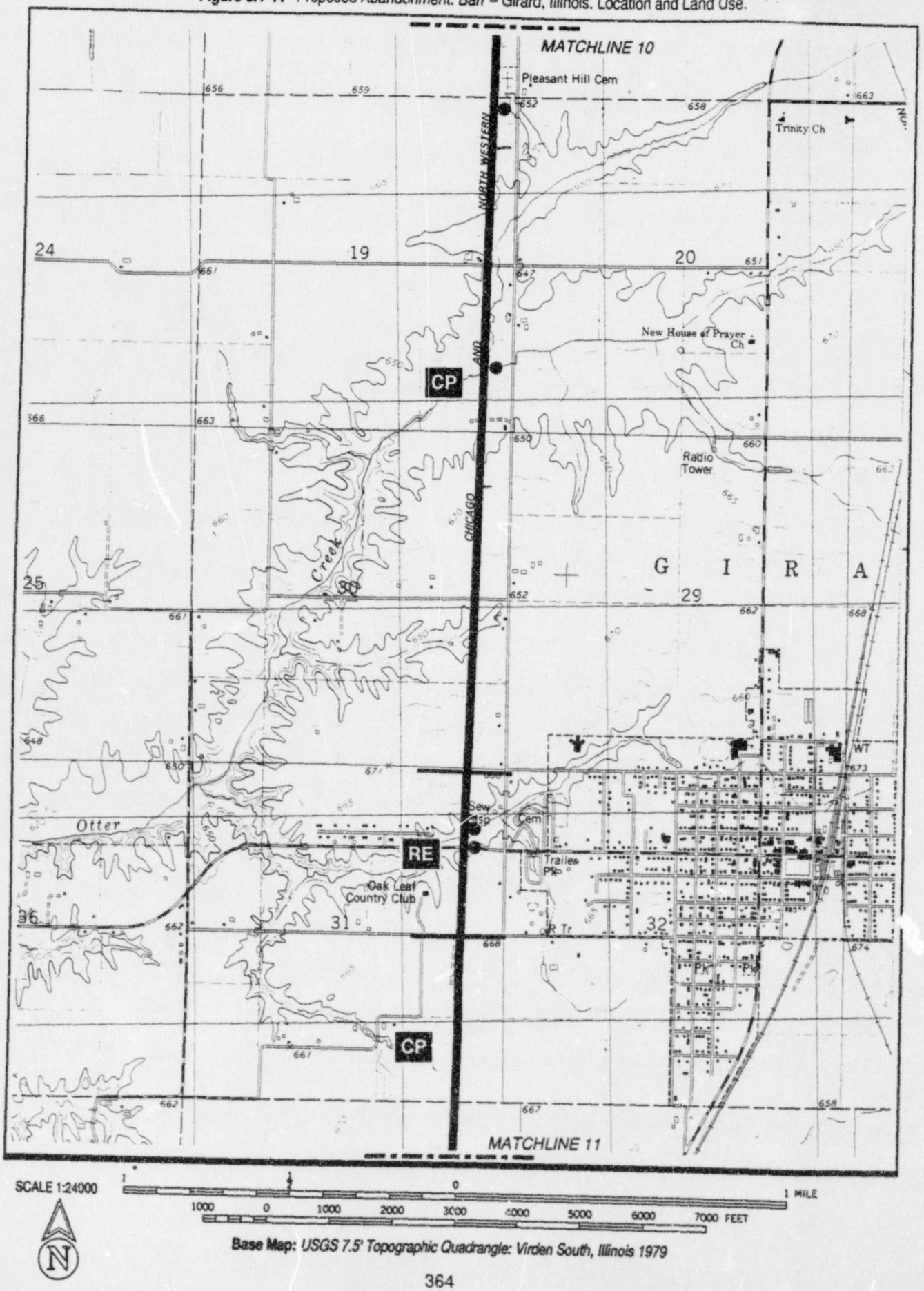
Base Map: *USGS 7.5' Topographic Quadrangle: Virden North, Illinois (Provisional Edition 1983)*

Figure 6.1-10 Proposed Abandonment: Barr – Girard, Illinois. Location and Land Use.



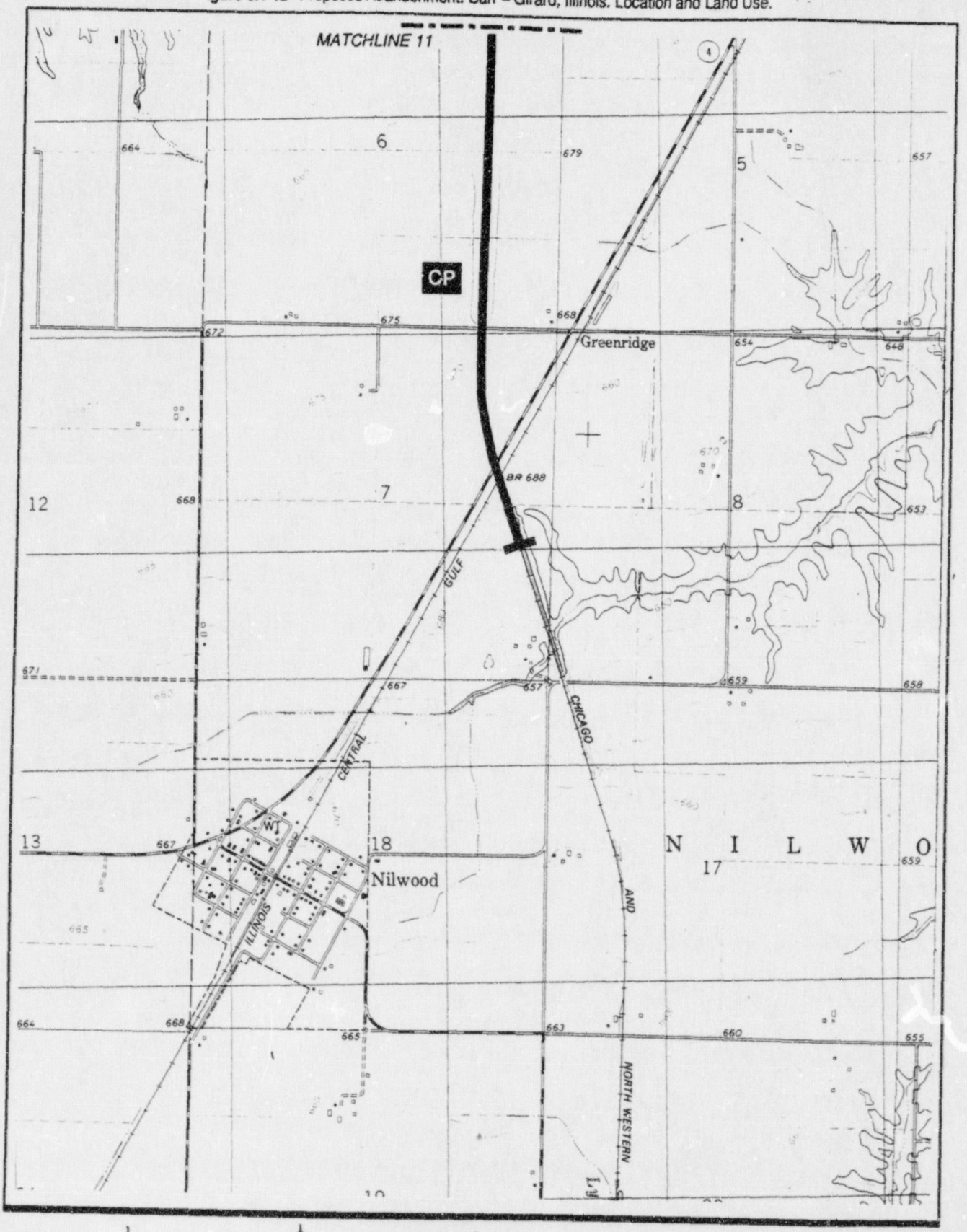
Base Map: *USGS 7.5' Topographic Quadrangles: Virden North, Illinois (Provisional Edition 1983); Virden South, Illinois 1979*

Figure 6.1-11 Proposed Abandonment: Barr – Girard, Illinois. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle: Virden South, Illinois 1979*

Figure 6.1-12 Proposed Abandonment: Barr – Girard, Illinois. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle: Virden South, Illinois 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 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
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** | **2 — INTERTIDAL**

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

*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

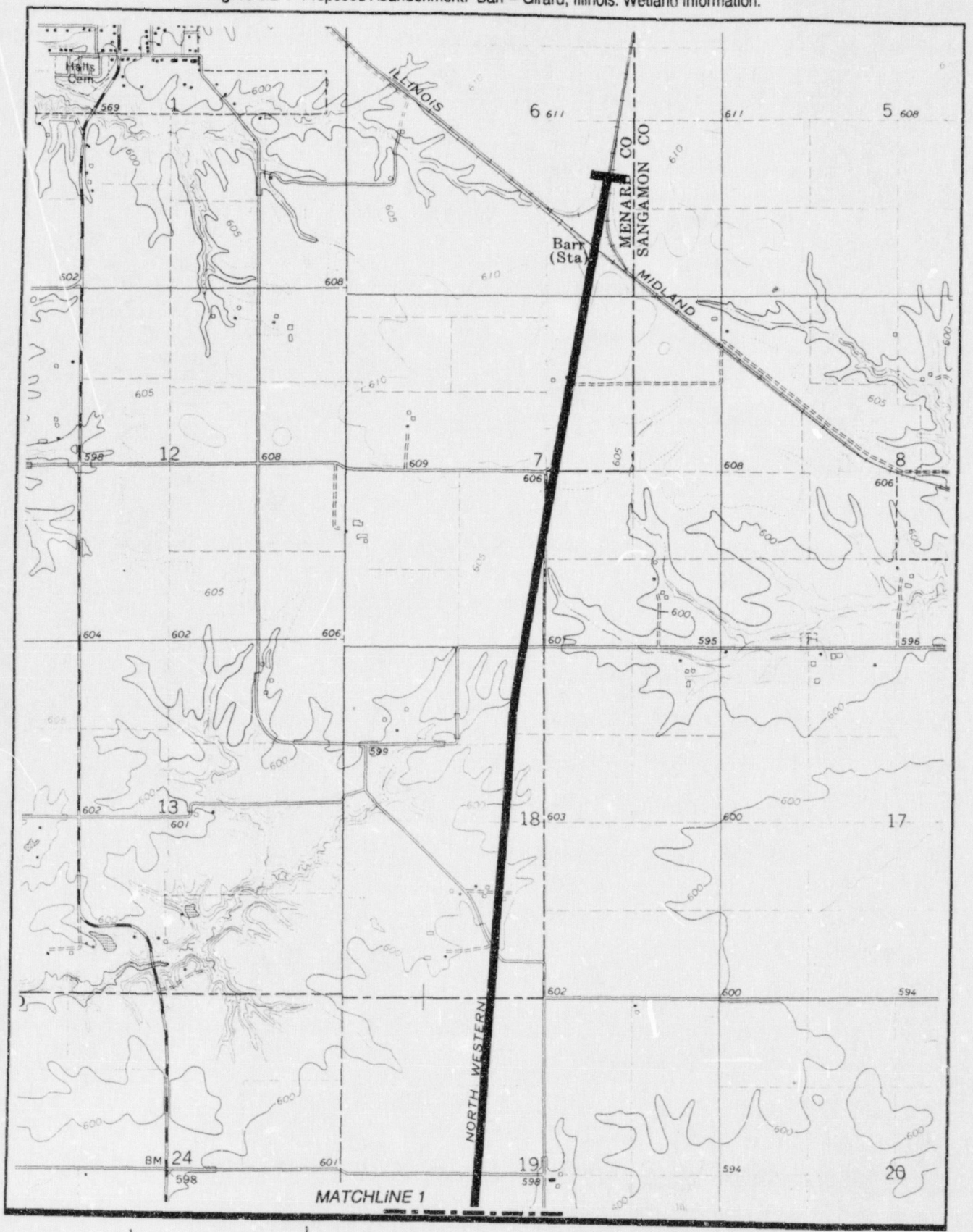
SYSTEM — **P — PALUSTRINE**

CLASS	RB — ROCK BOTTOM	UB — UNCONSOLIDATED BOTTOM	AB — AQUATIC BED	US — UNCONSOLIDATED SHORE	ML — MOSS LICHEN	EM — EMERGENT	SS — SCRUB-SHRUB	FO — FORESTED	OW — *OPEN WATER/ Unknown Bottom*
Subclass	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 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	1 Moss 2 Lichen	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*	

Instructions for using the legend:

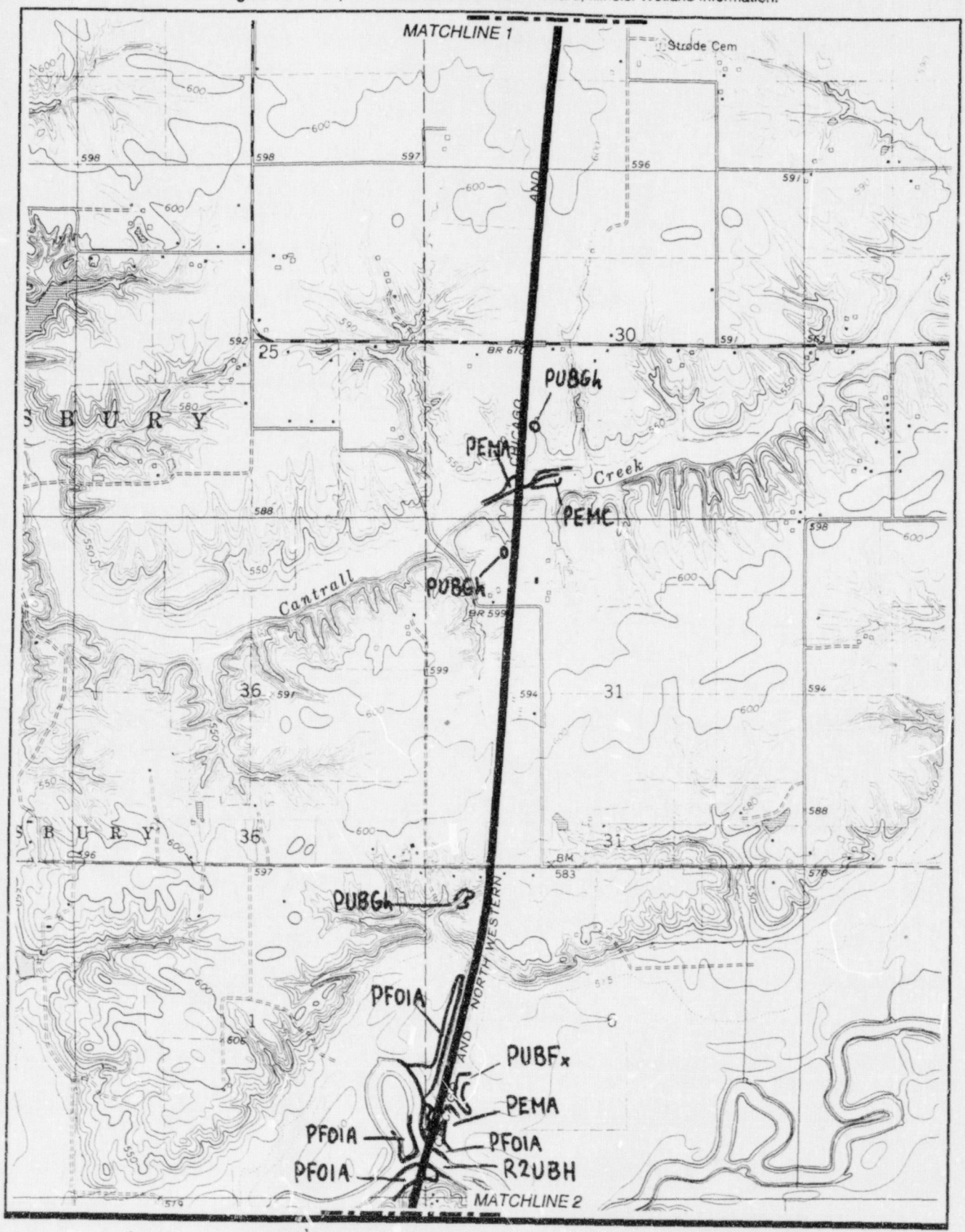
The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "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 6.2-1 Proposed Abandonment: Barr – Girard, Illinois. Wetland Information.



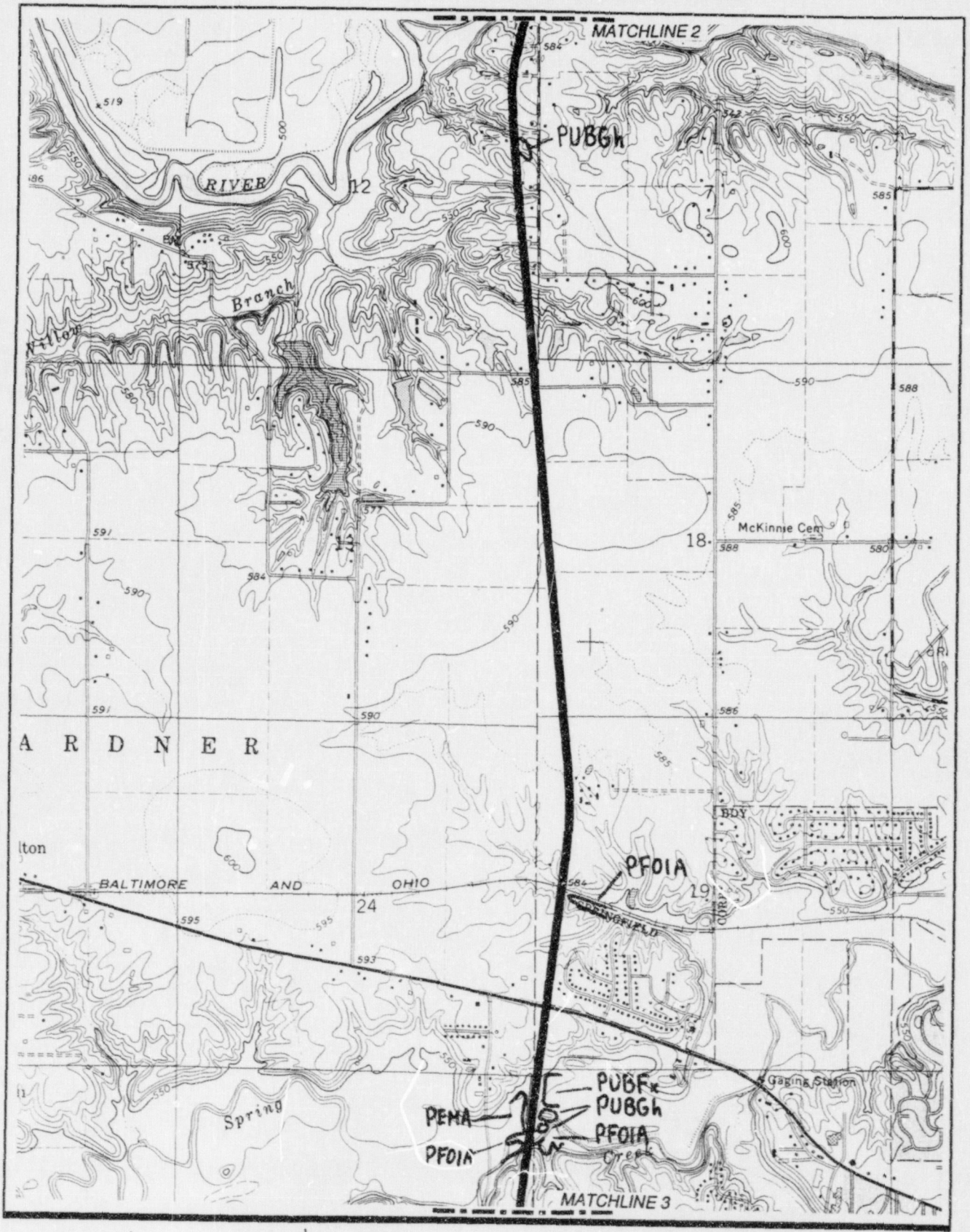
Base Map: *USGS 7.5' Topographic Quadrangle: Athens, Illinois 1966 (Photorevised 1971 and 1976)*

Figure 6.2-2 Proposed Abandonment: Barr – Girard, Illinois. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangles: Athens, Illinois 1966 (Photorevised 1971 and 1976); Springfield West, Illinois 1965 (Photorevised 1971 and 1976)*

Figure 6.2-3 Proposed Abandonment: Barr – Girard, Illinois. Wetland Information.



SCALE 1:24000

1 0 1 MILE

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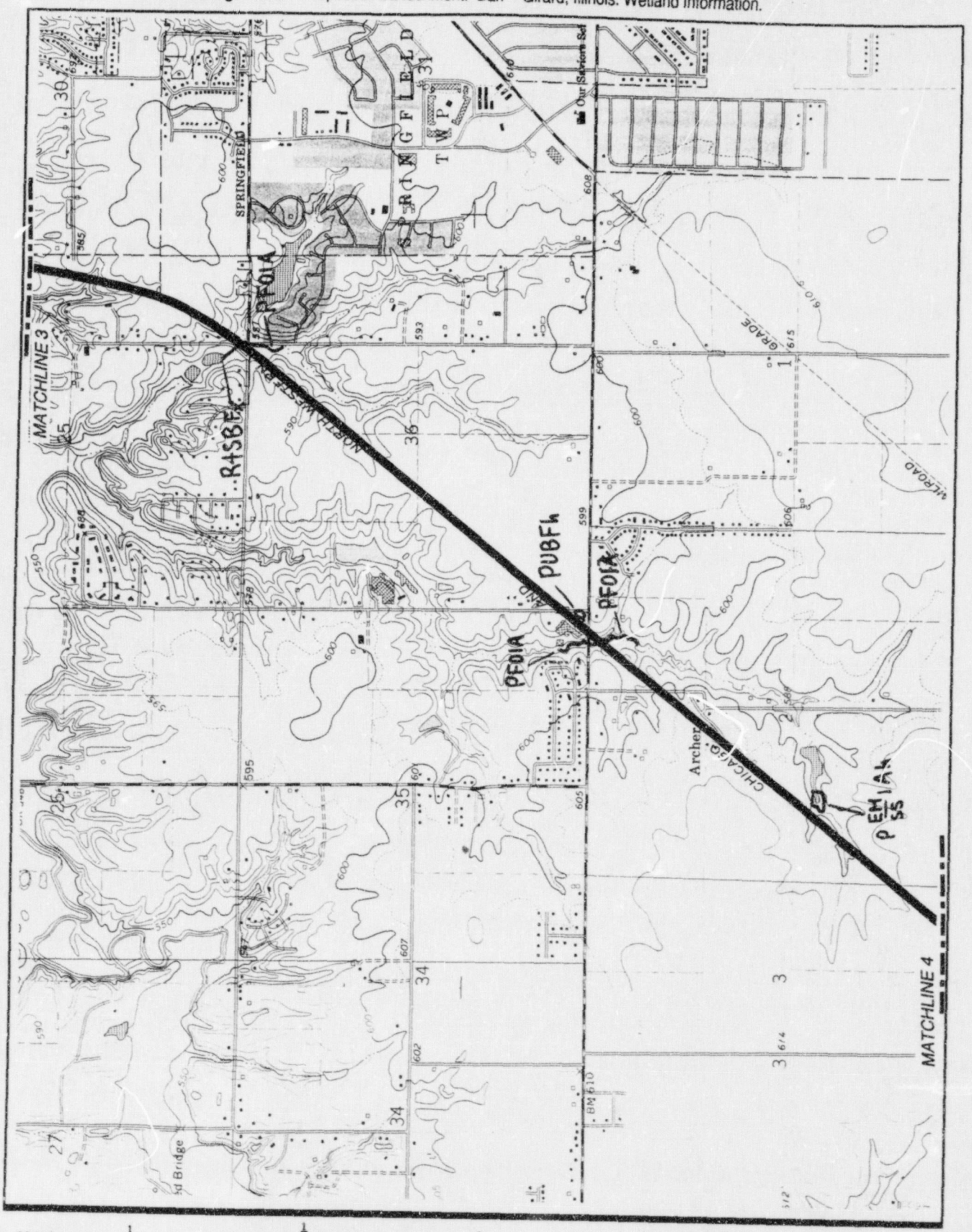
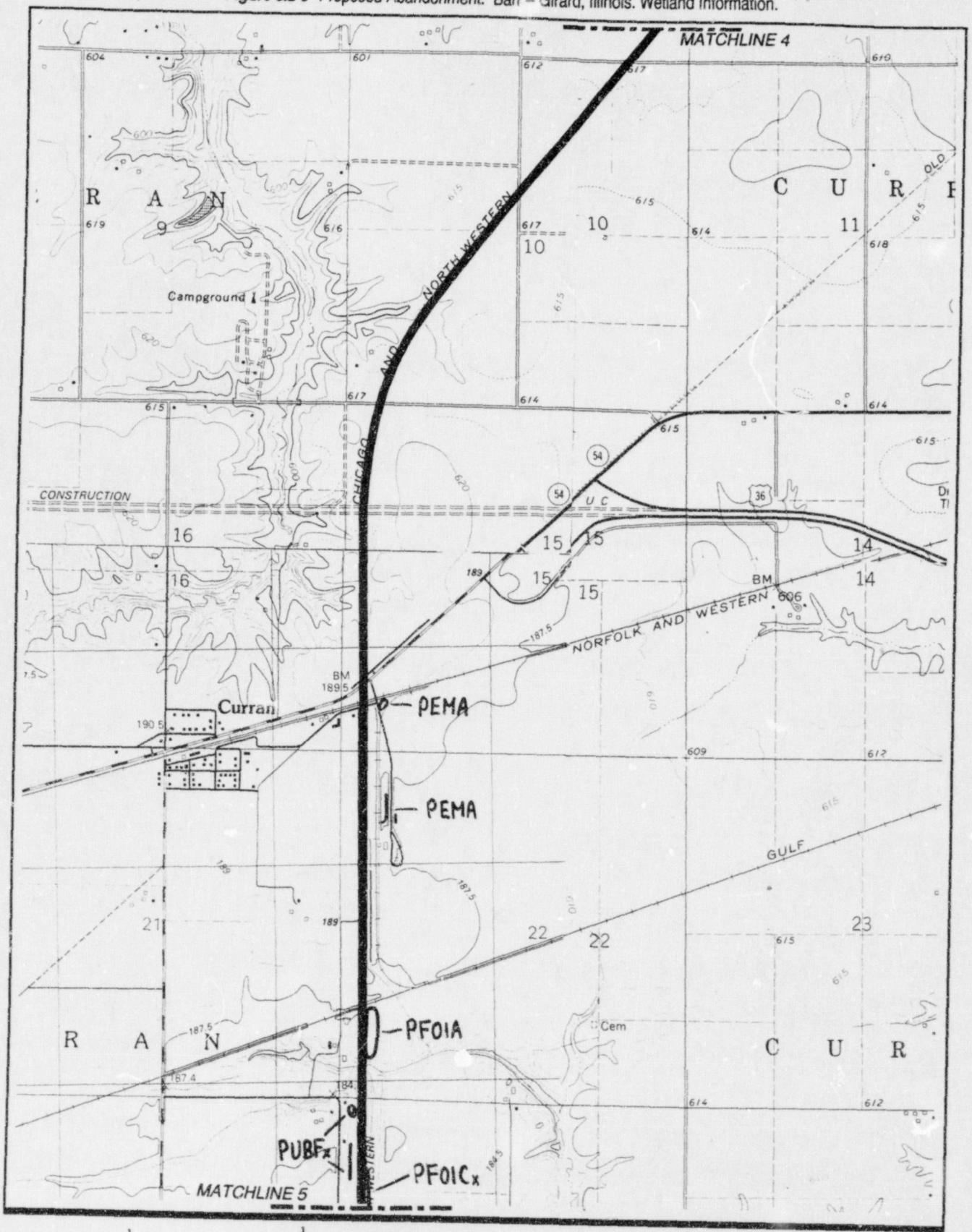
Base Map: *USGS 7.5' Topographic Quadrangle: Springfield West, Illinois 1965 (Photorevised 1971 and 1976)*

Figure 6.2-4 Proposed Abandonment: Barr – Girard, Illinois. Wetland Information.



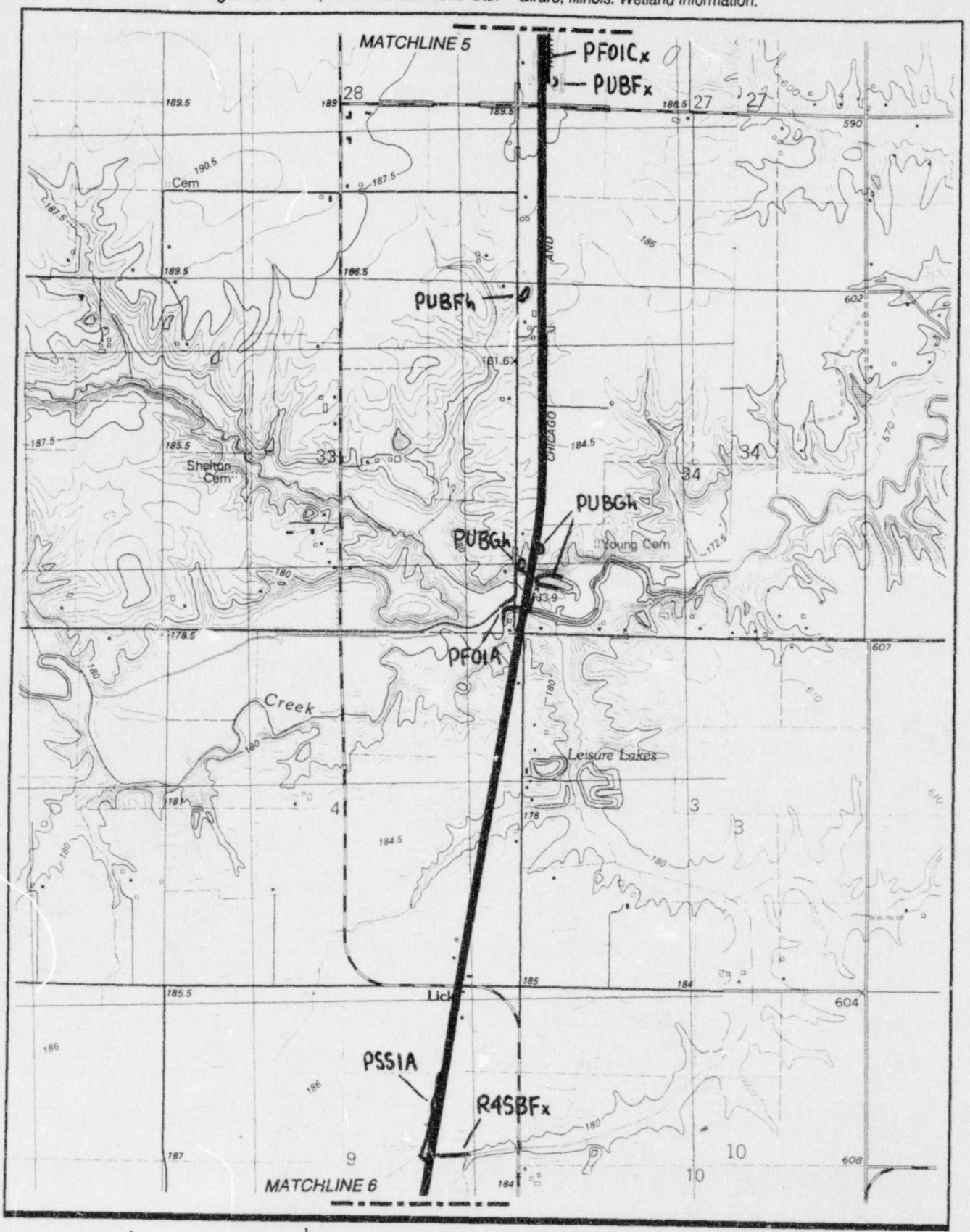
Base Map: *USGS 7.5' Topographic Quadrangles: Springfield West, Illinois 1965 (Photorevised 1971 and 1976); Farmingdale, Illinois 1971 (Photorevised 1976)*

Figure 6.2-5 Proposed Abandonment: Barr – Girard, Illinois. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangles: Farmingdale, Illinois 1971 (Photorevised 1976); Springfield West, Illinois 1965 (Photorevised 1971 and 1976); Loami, Illinois 1981; Chatham, Illinois 1961 (Photorevised 1971 and 1976)*

Figure 6.2-6 Proposed Abandonment: Barr – Girard, Illinois. Wetland Information.



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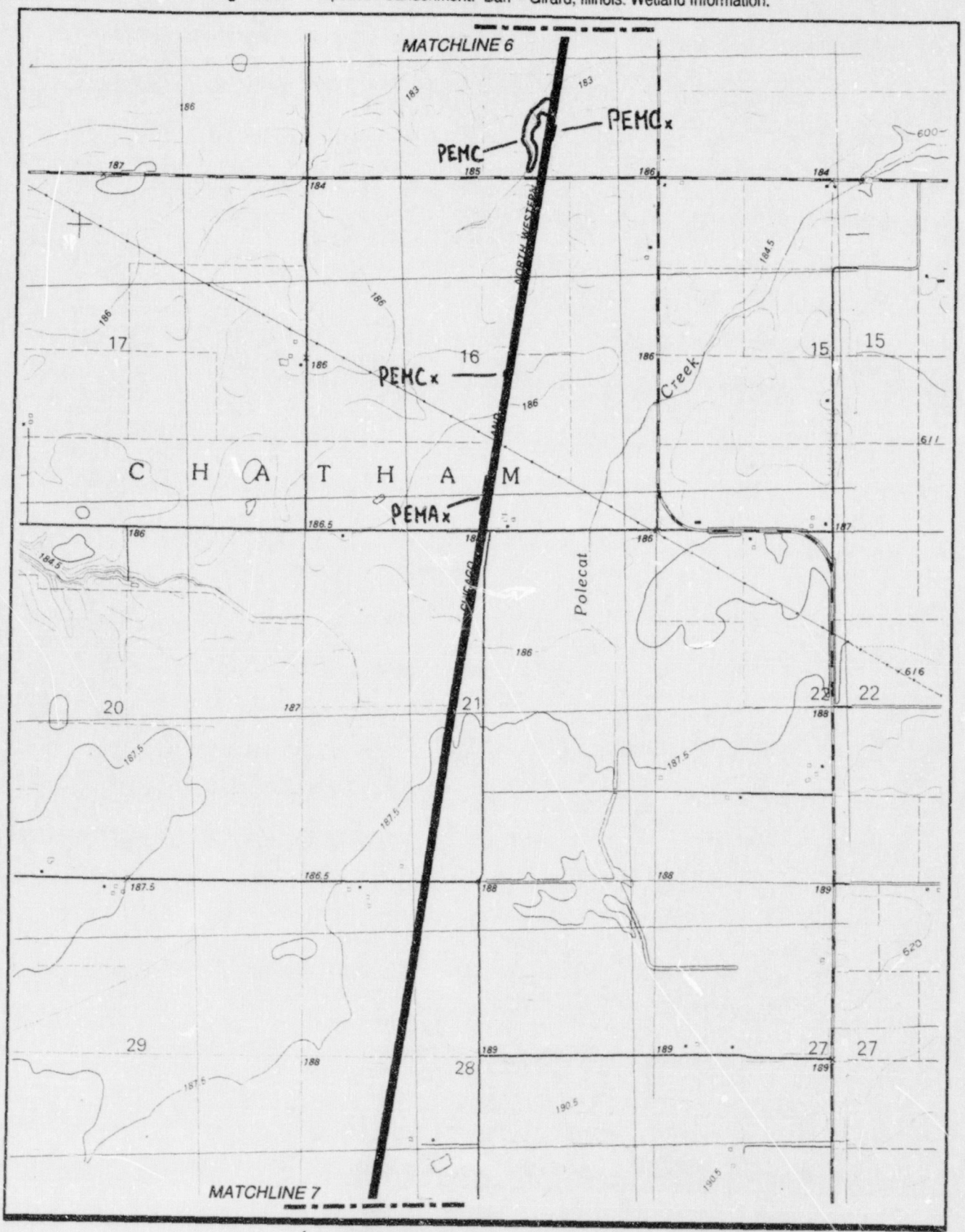
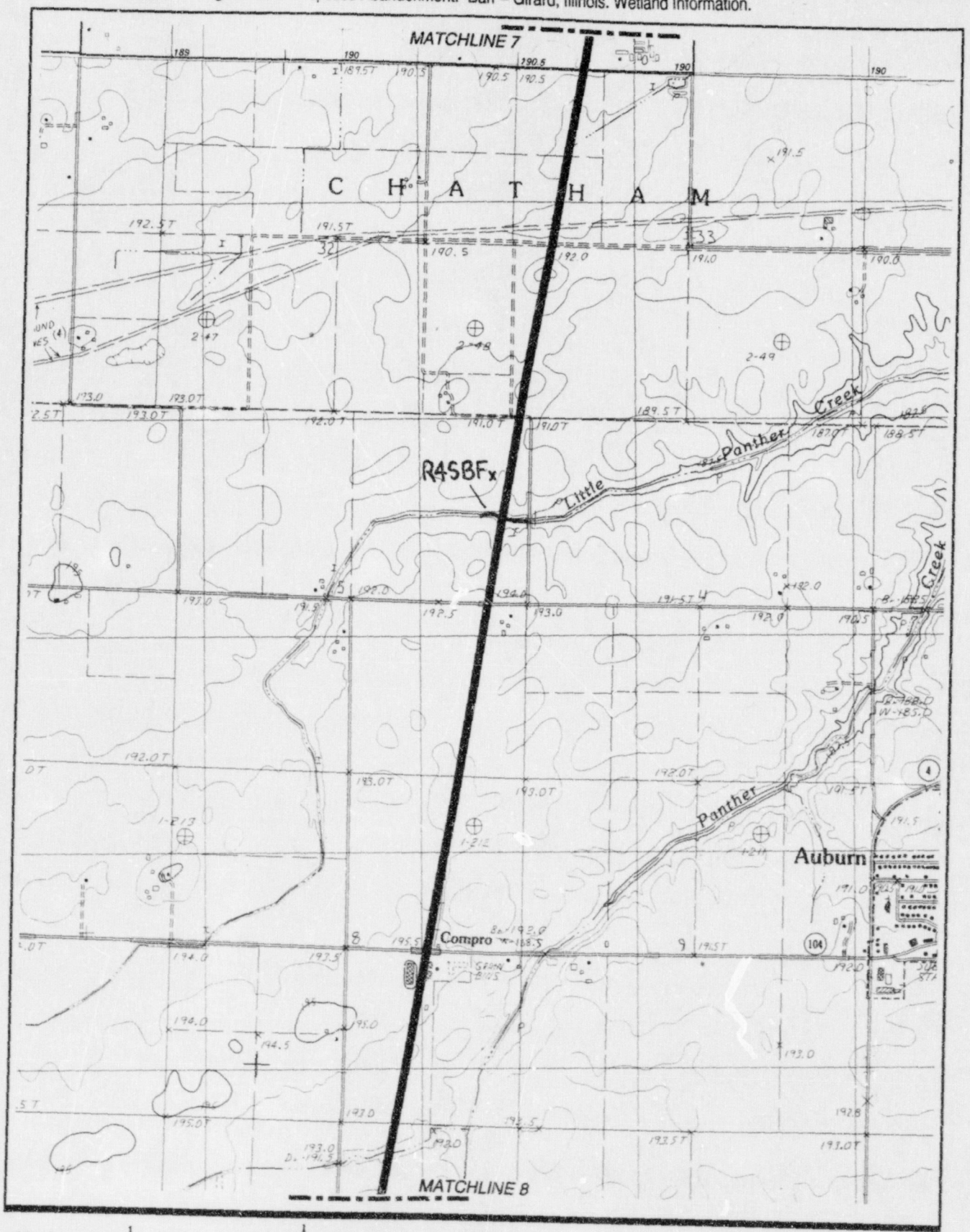
Base Map: *USGS 7.5' Topographic Quadrangles: Loami, Illinois 1981; Chatham, Illinois 1961 (Photorevised 1971 and 1976)*

Figure 6.2-7 Proposed Abandonment: Barr – Girard, Illinois. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangles: Loami, Illinois 1981; Chatham, Illinois 1961 (Photorevised 1971 and 1976)*

Figure 6.2-8 Proposed Abandonment: Barr – Girard, Illinois. Wetland Information.



SCALE 1:24000

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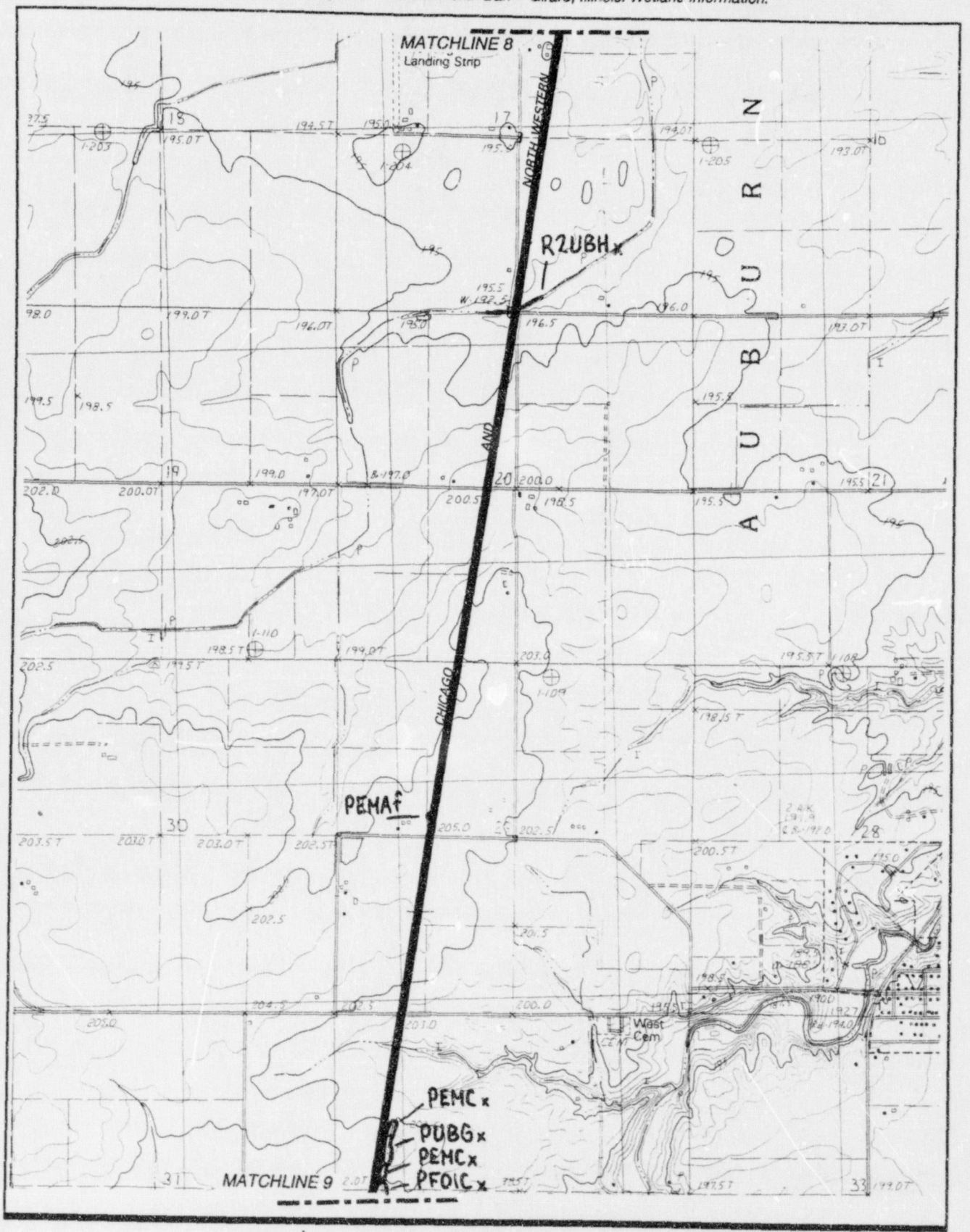
Base Map: *USGS 7.5' Topographic Quadrangles: Loami, Illinois 1981; Virden North, Illinois (Provisional Edition 1983)*

Figure 6.2-9 Proposed Abandonment: Barr – Girard, Illinois. Wetland Information.



SCALE 1:24000

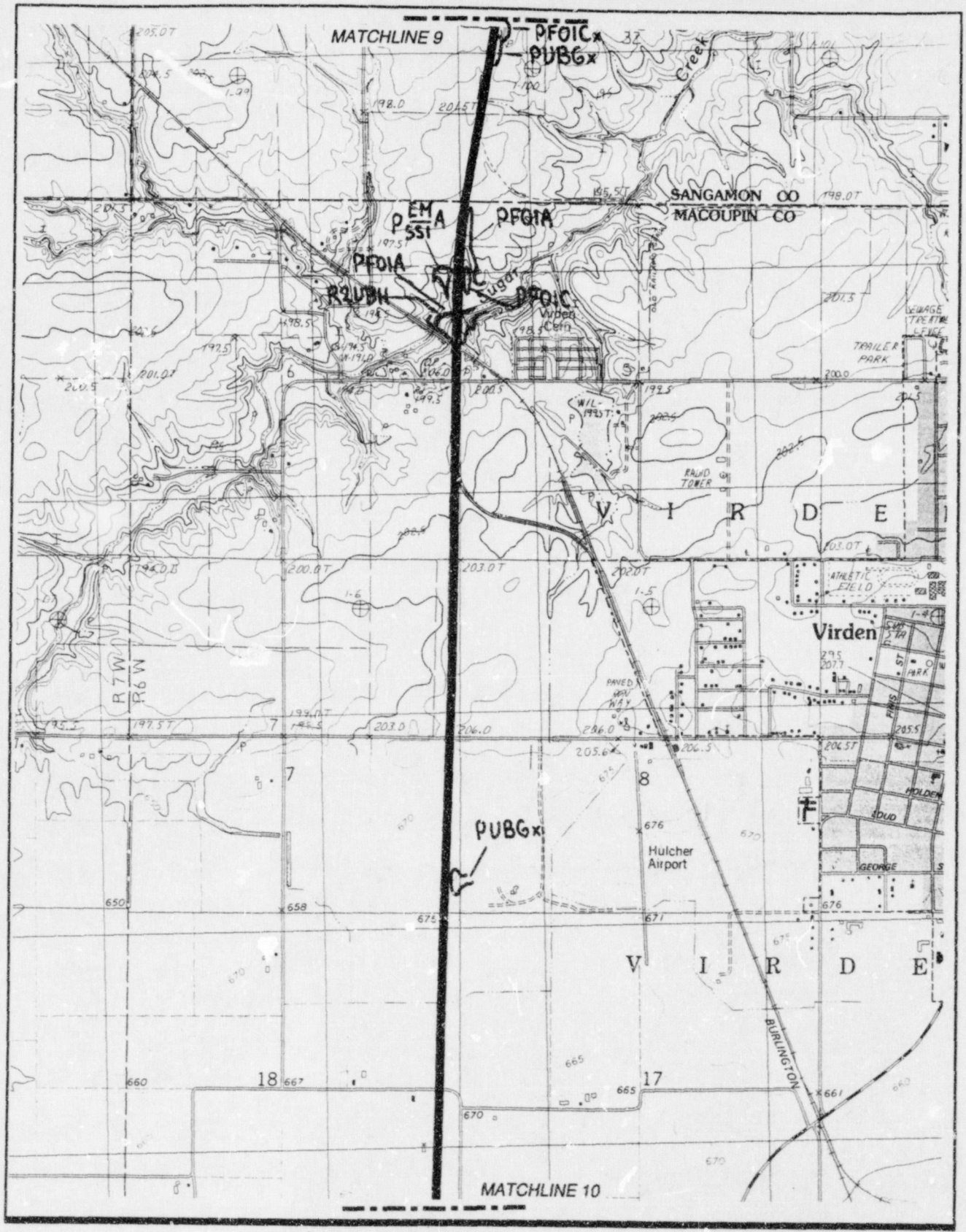
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangle: Virden North, Illinois (Provisional Edition 1983)*

Figure 6.2-10 Proposed Abandonment: Barr – Girard, Illinois. Wetland Information.



SCALE 1:24000

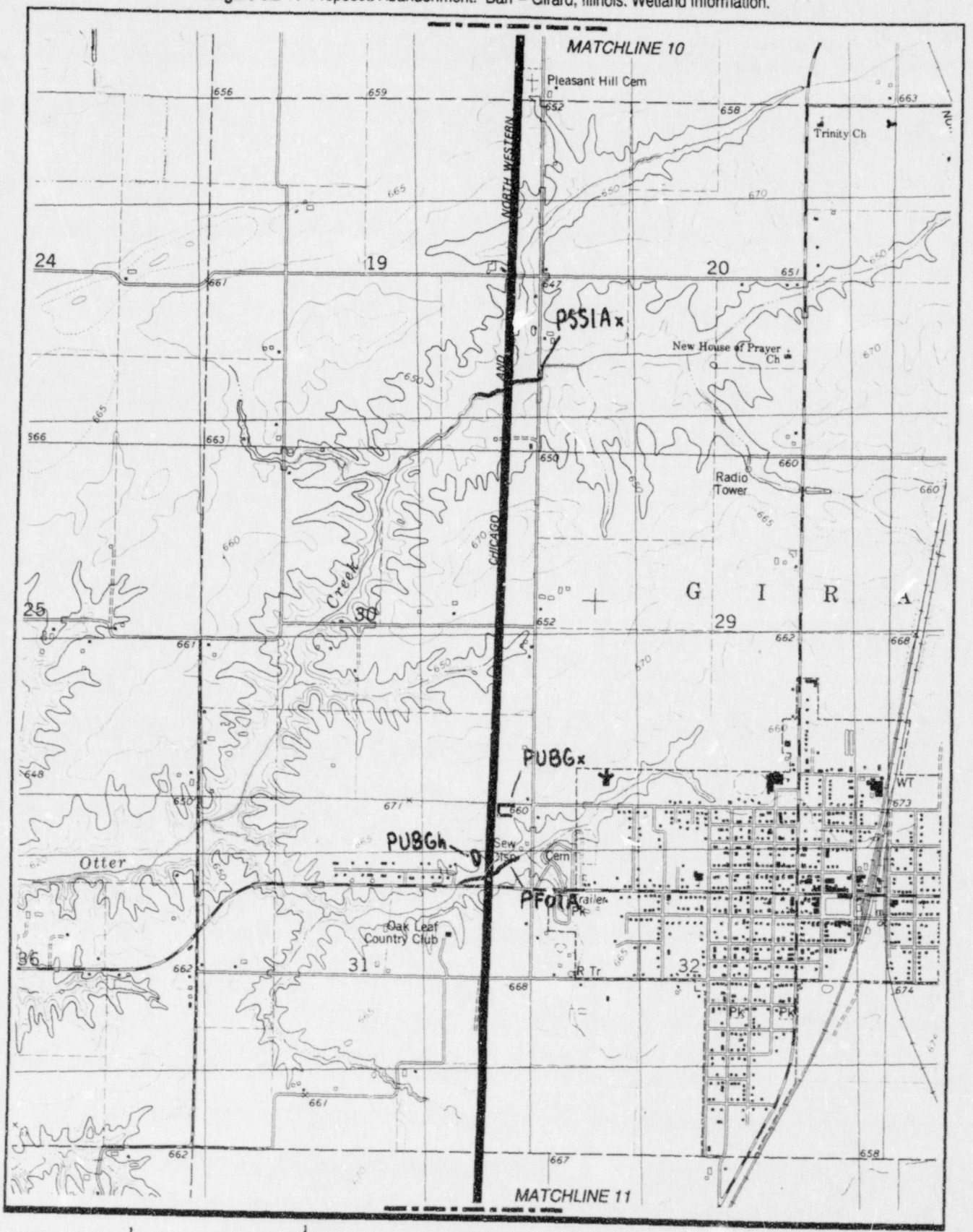
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangles: Virden North, Illinois (Provisional Edition 1983); Virden South, Illinois 1979*

Figure 6.2-11 Proposed Abandonment: Barr – Girard, Illinois. Wetland Information.



SCALE 1:24000

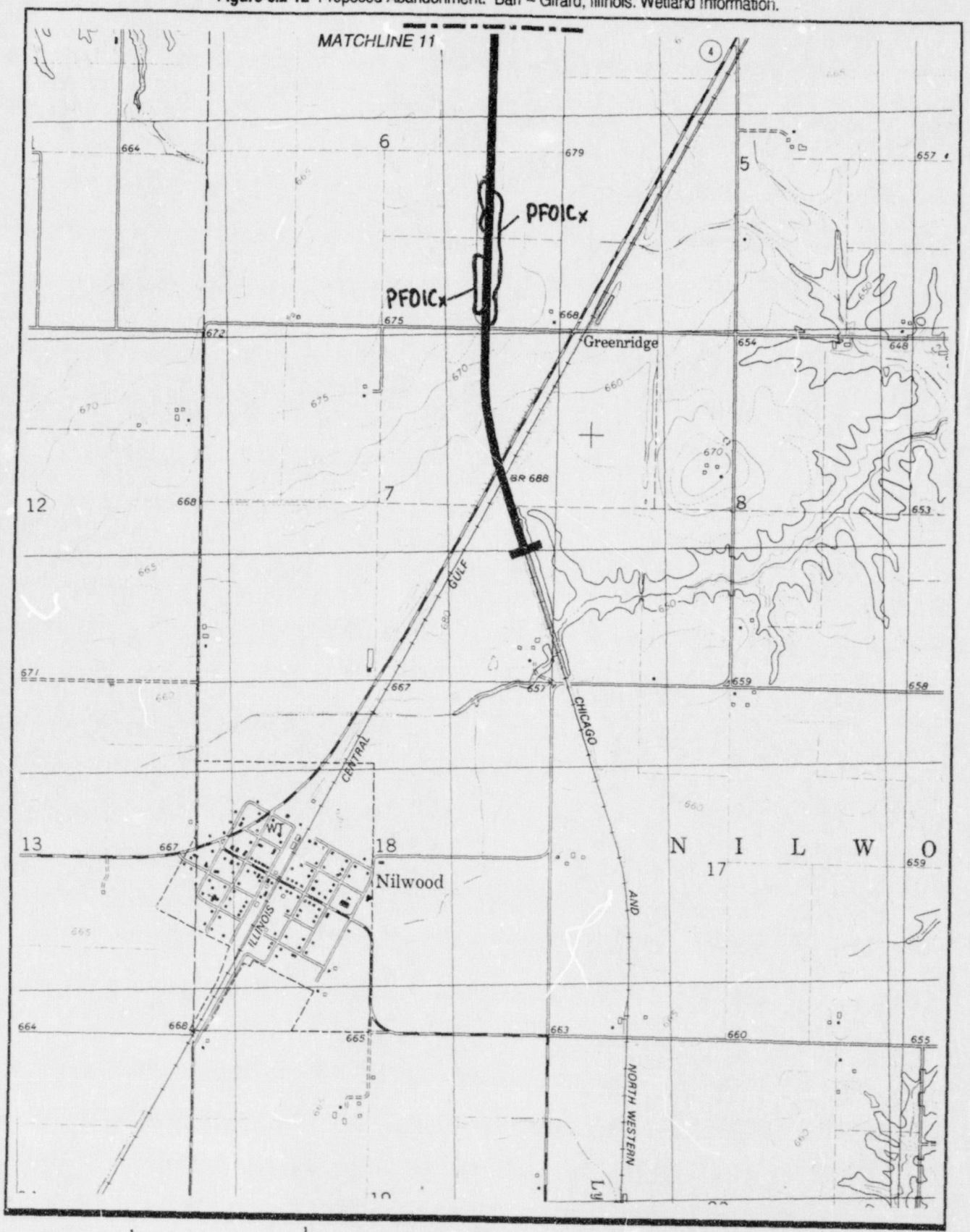
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangle: Virden South, Illinois 1979*

Figure 6.2-12 Proposed Abandonment: Barr – Girard, Illinois. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangle: Virden South, Illinois 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

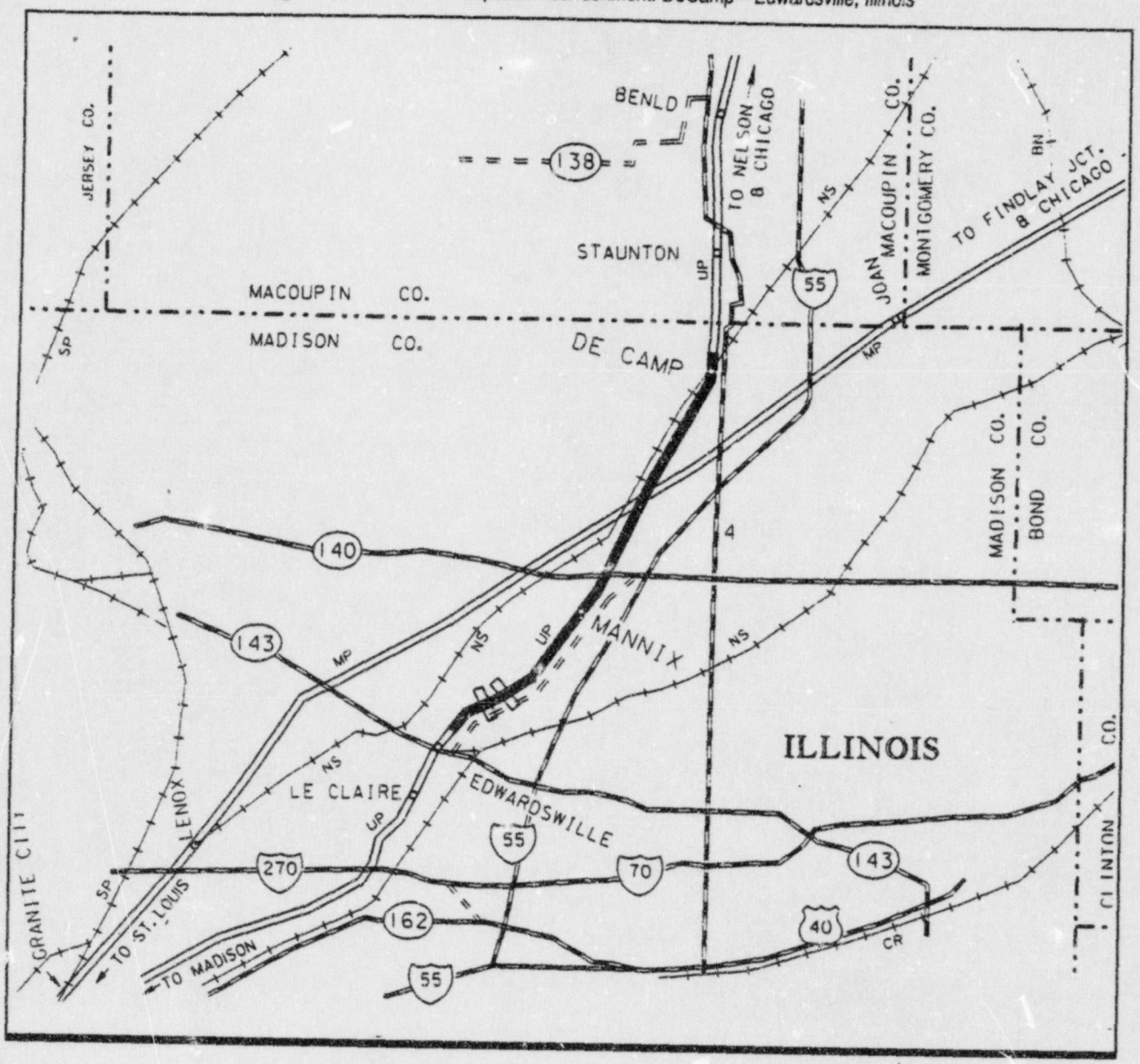
BARREN LAND

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 6B Overview of Proposed Abandonment: DeCamp – Edwardsville, Illinois



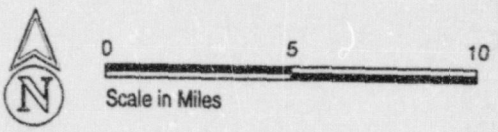
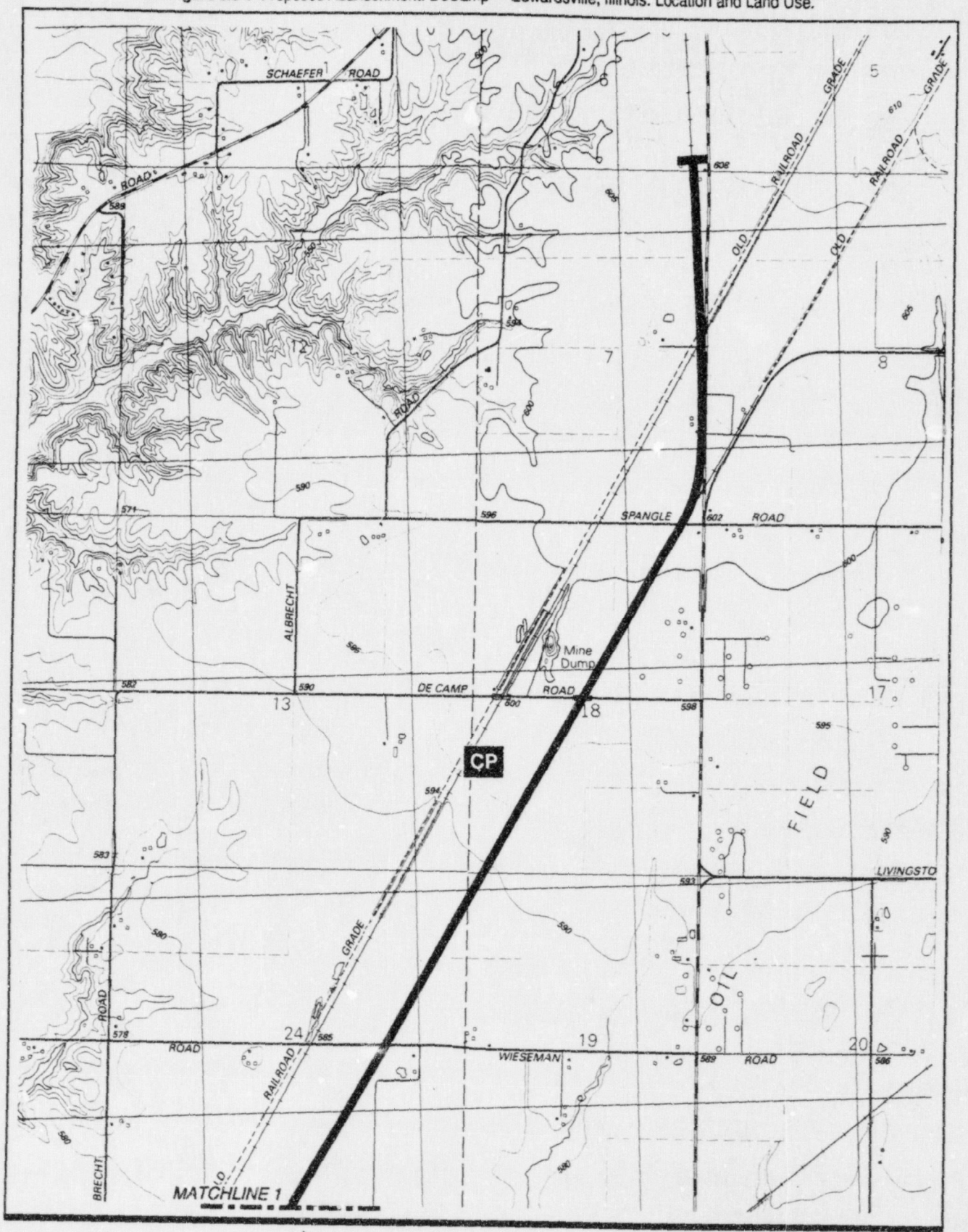
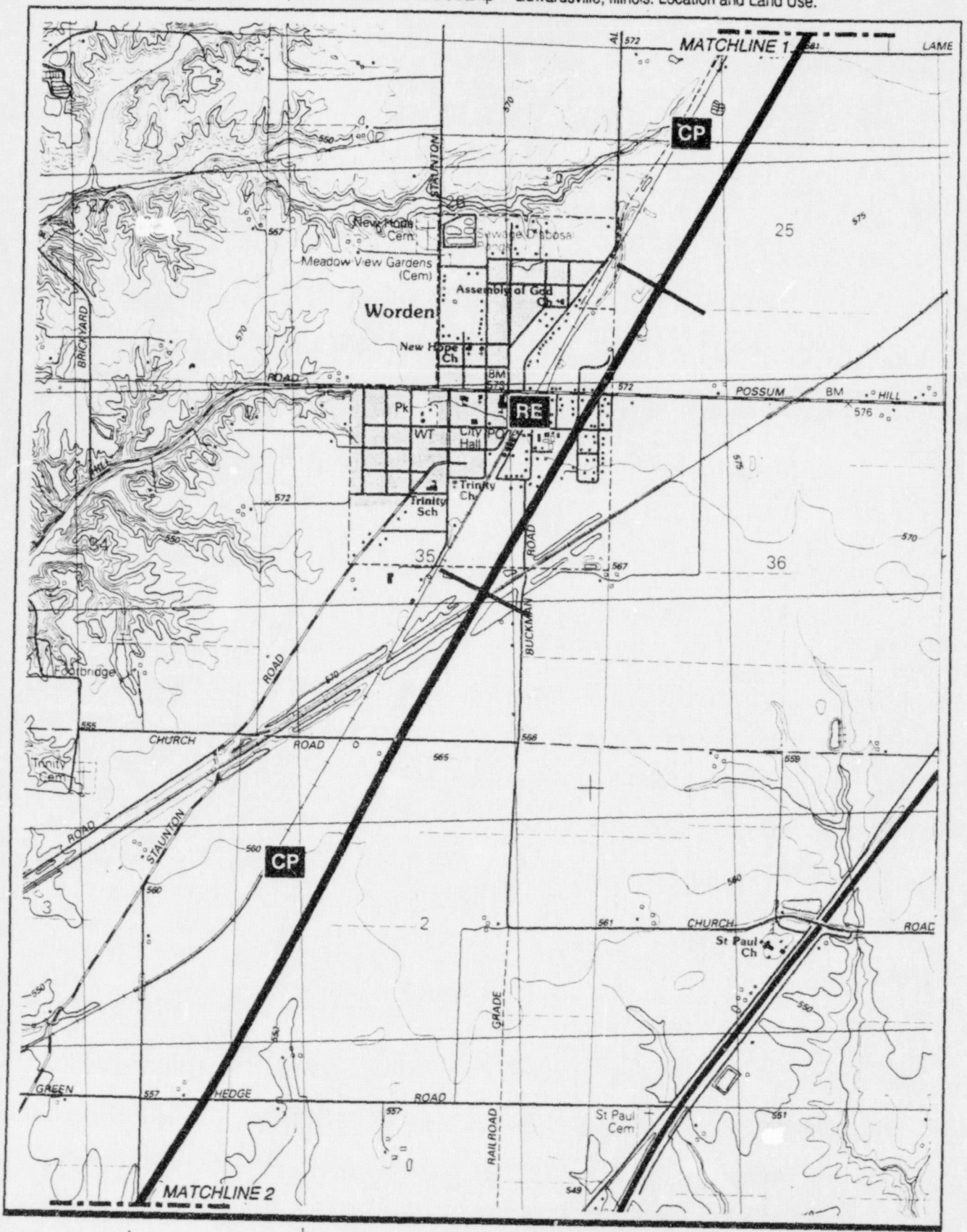


Figure 6.3-1 Proposed Abandonment: DeCamp – Edwardsville, Illinois. Location and Land Use.



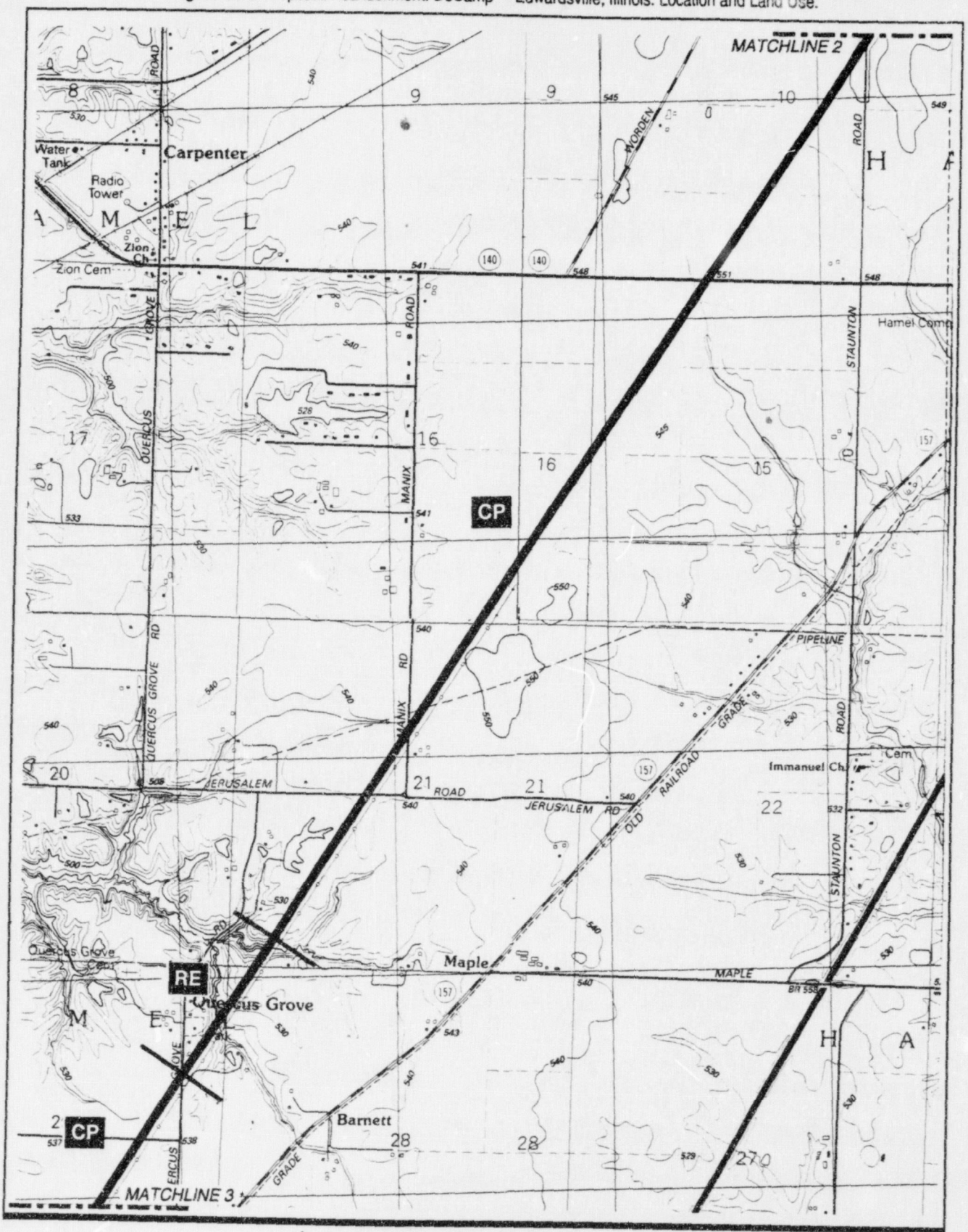
Base Map: *USGS 7.5' Topographic Quadrangle: Worden, Illinois 1991*

Figure 6.3-2 Proposed Abandonment: DeCamp -- Edwardsville, Illinois. Location and Land Use.



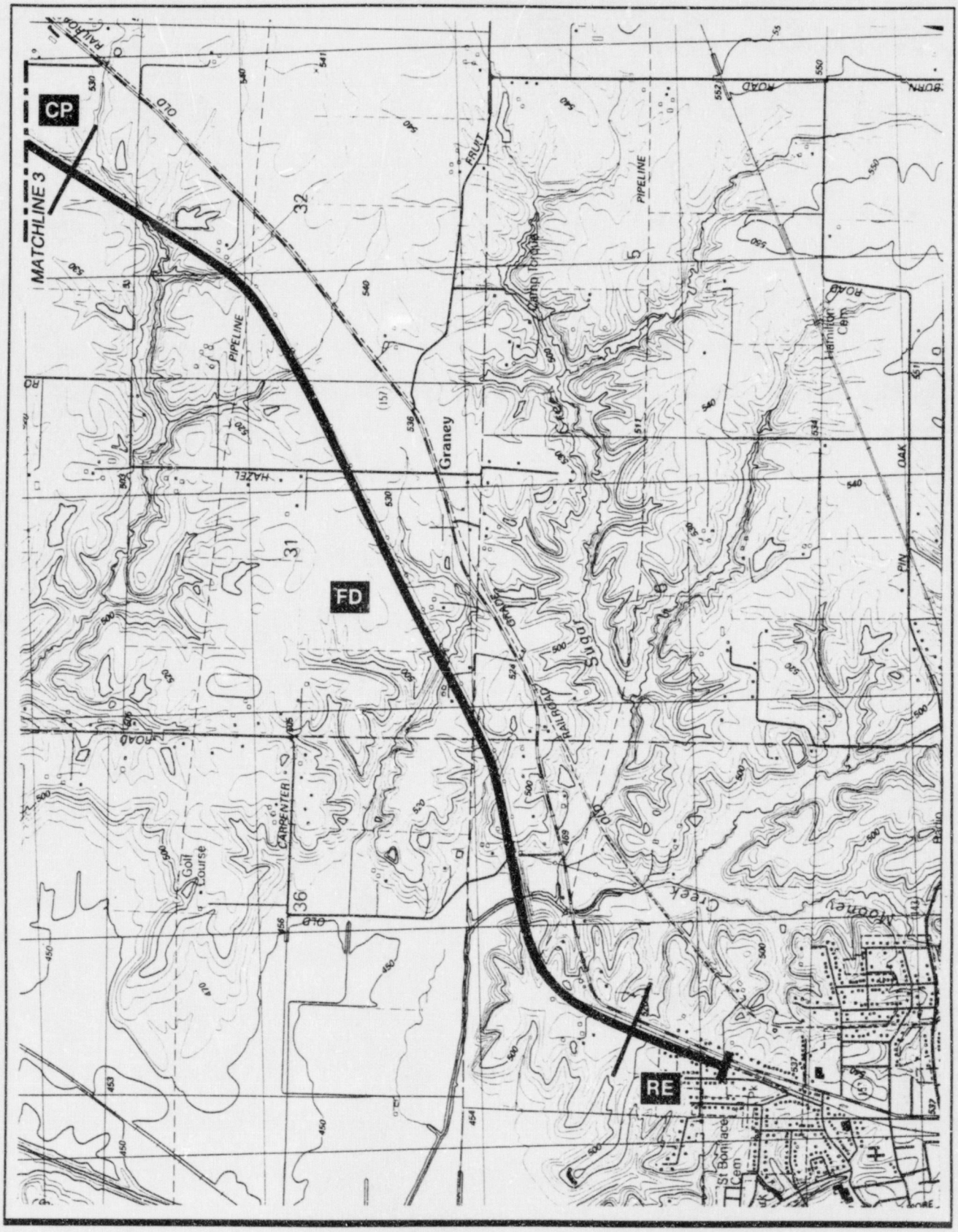
Base Map: *USGS 7.5' Topographic Quadrangle: Worden, Illinois 1991*

Figure 6.3-3 Proposed Abandonment: DeCamp – Edwardsville, Illinois. Location and Land Use.



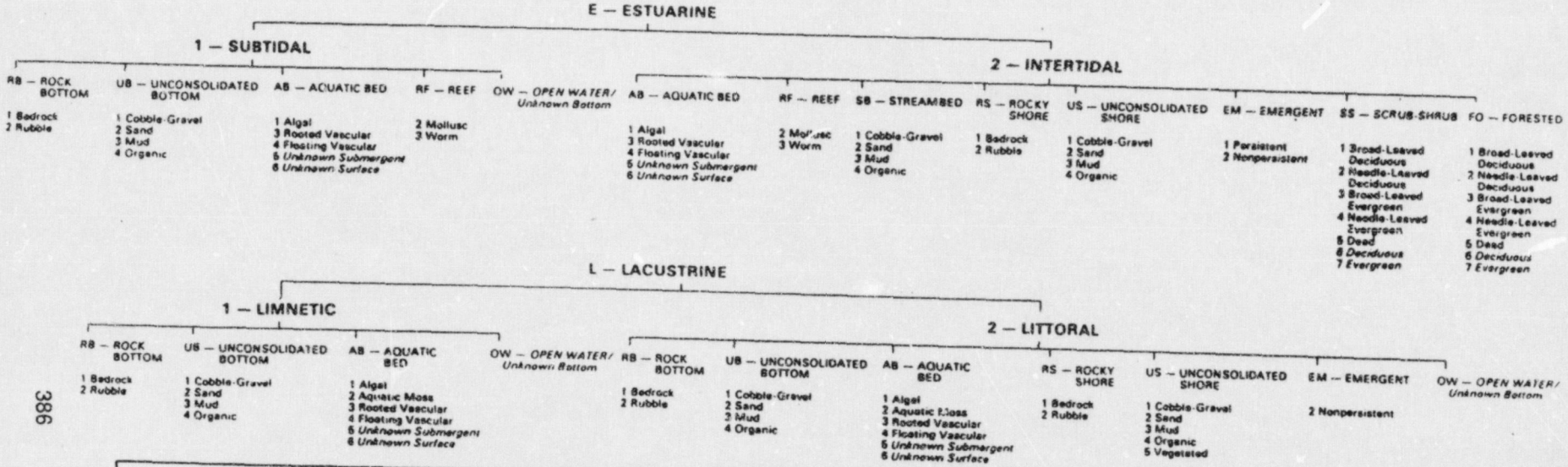
Base Map: *USGS 7.5' Topographic Quadrangles: Prairietown, Illinois 1990; Worden, Illinois 1991; Edwardsville, Illinois 1991; Marine, Illinois 1991*

Figure 6.3-4 Proposed Abandonment: DeCamp – Edwardsville, Illinois. Location and Land Use.



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

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 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

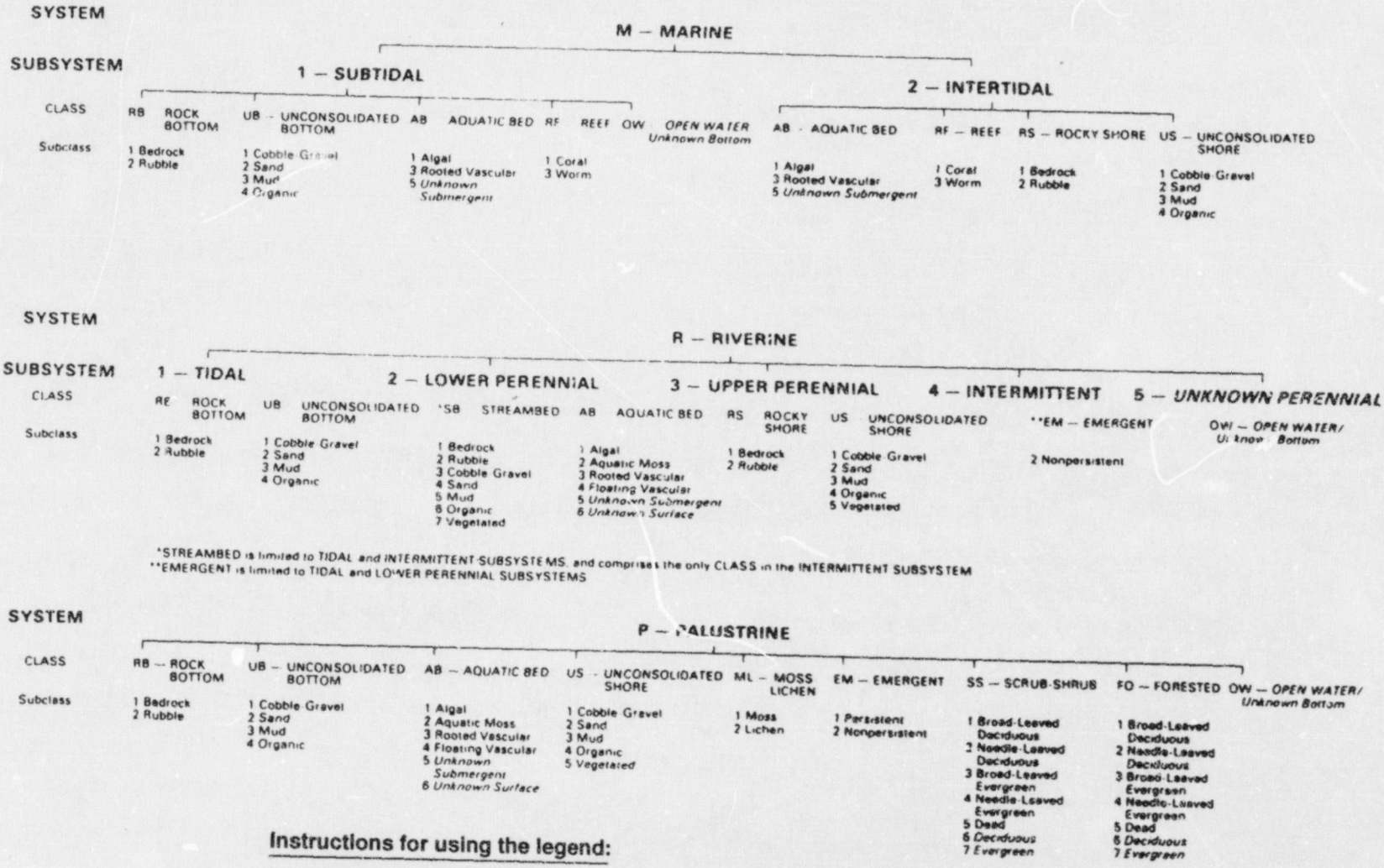
SPECIAL MODIFIERS

- 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."

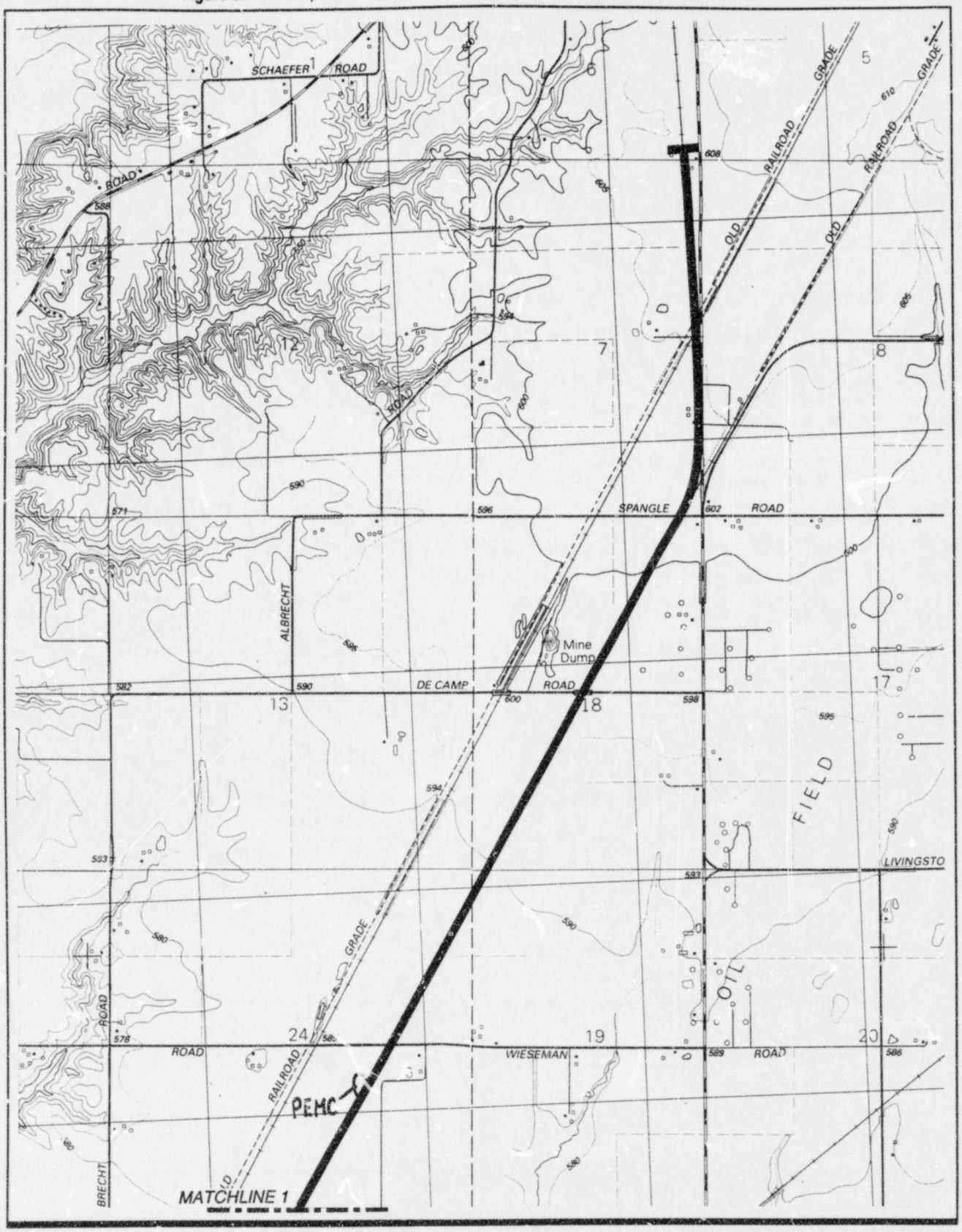
NWI LEGEND



Instructions for using the legend:

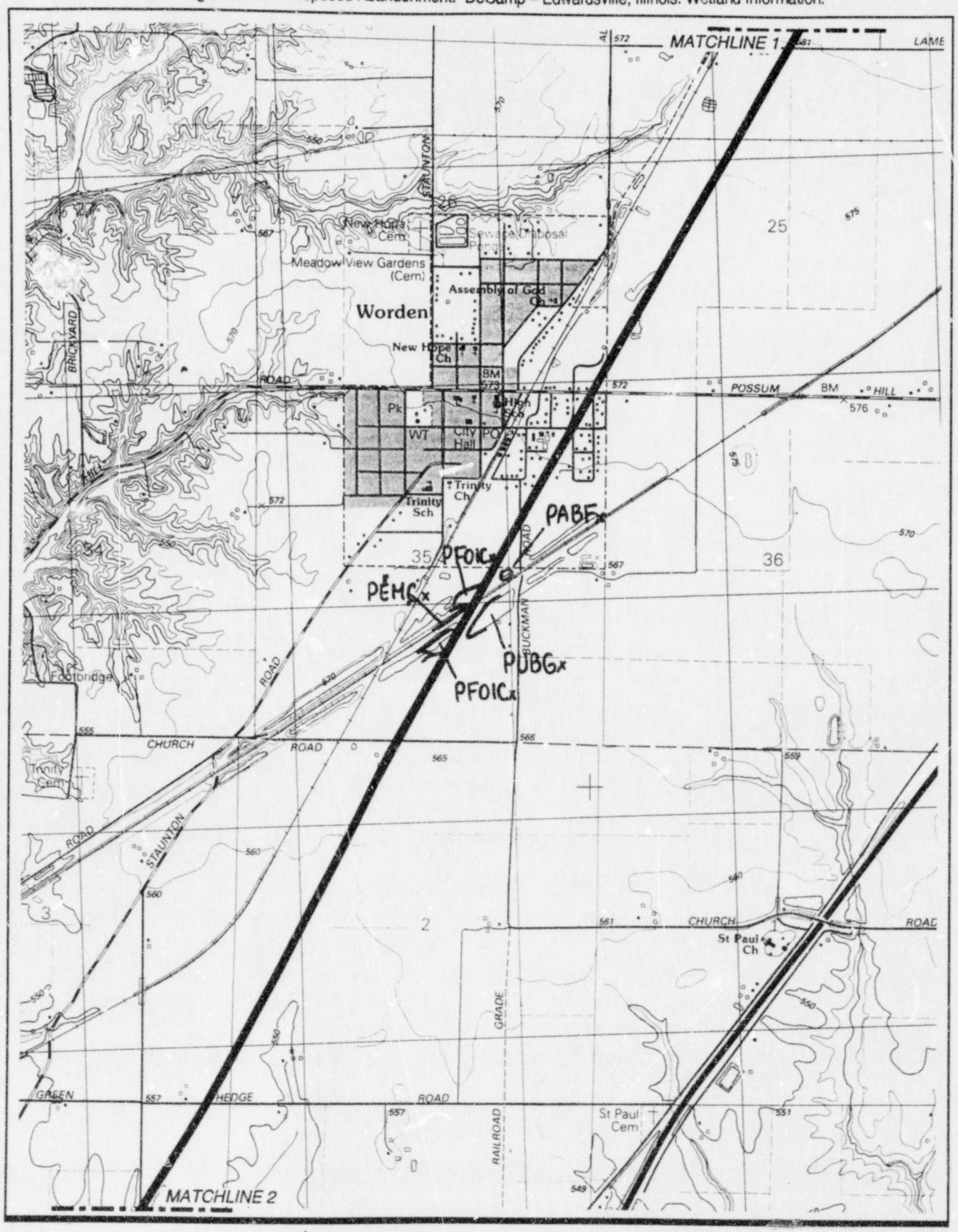
The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "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 6.4-1 Proposed Abandonment: DeCamp – Edwardsville, Illinois. Wetland Information.



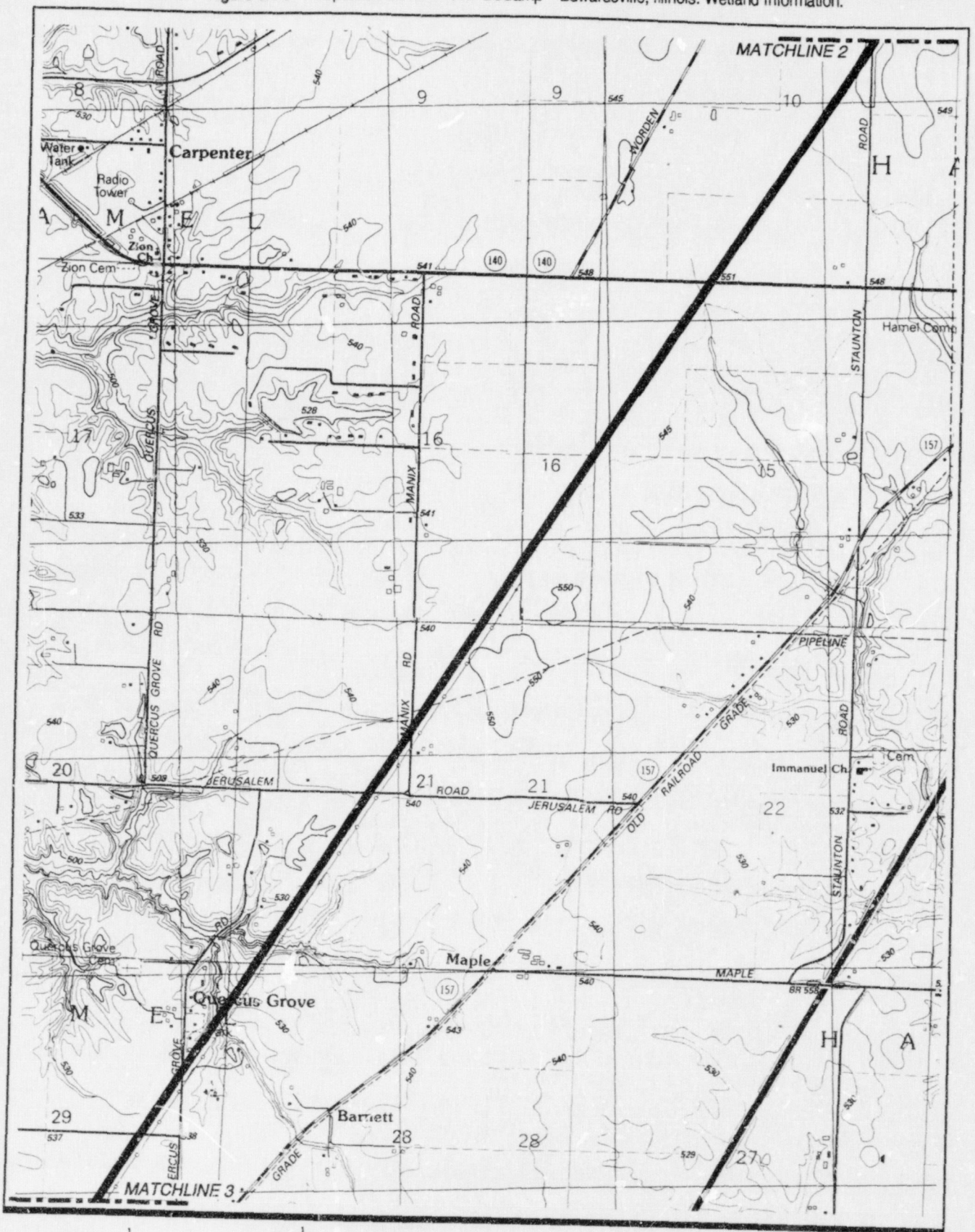
Base Map: *USGS 7.5' Topographic Quadrangle: Worden, Illinois 1991*

Figure 6.4-2 Proposed Abandonment: DeCamp – Edwardsville, Illinois. Wetland Information.



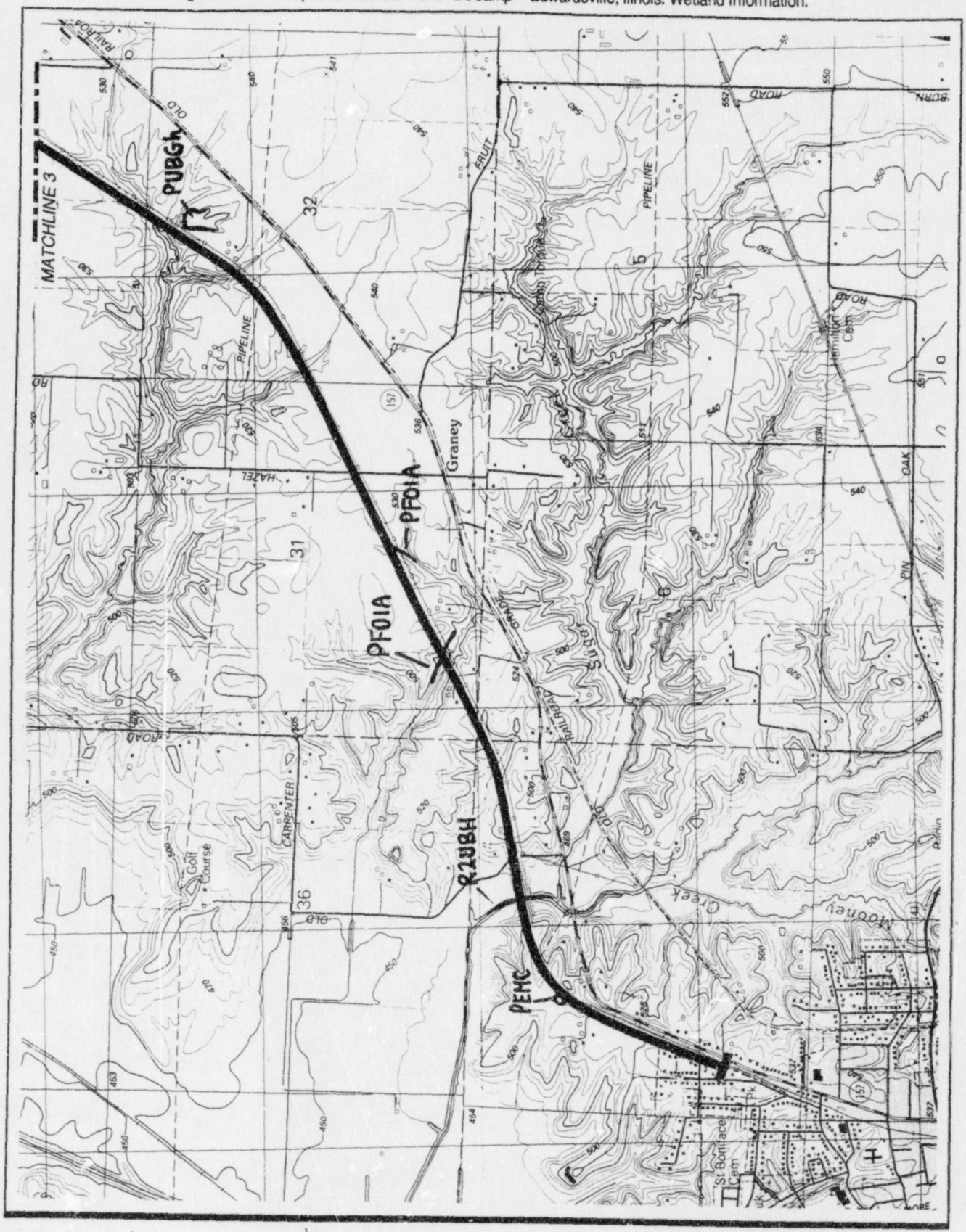
Base Map: *USGS 7.5' Topographic Quadrangle: Worden, Illinois 1991*

Figure 6.4-3 Proposed Abandonment: DeCamp – Edwardsville, Illinois. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangles: Prairietown, Illinois 1990; Worden, Illinois 1991; Edwardsville, Illinois 1991; Marine, Illinois 1991*

Figure 6.4-4 Proposed Abandonment: DeCamp – Edwardsville, Illinois. 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: Edwardsville, Illinois 1991*

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 6C Overview of Proposed Abandonment: Edwardsville – Madison, Illinois

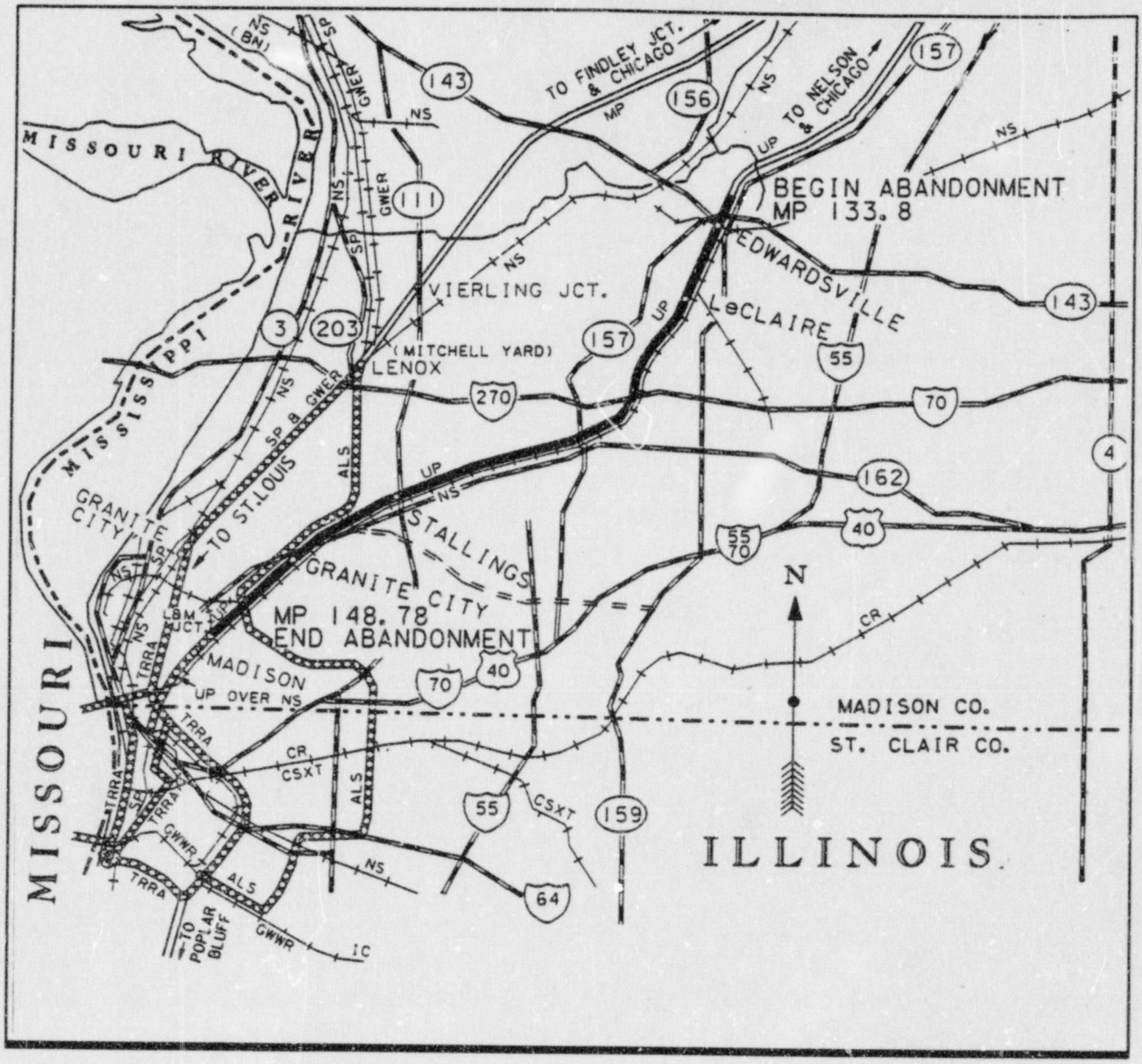
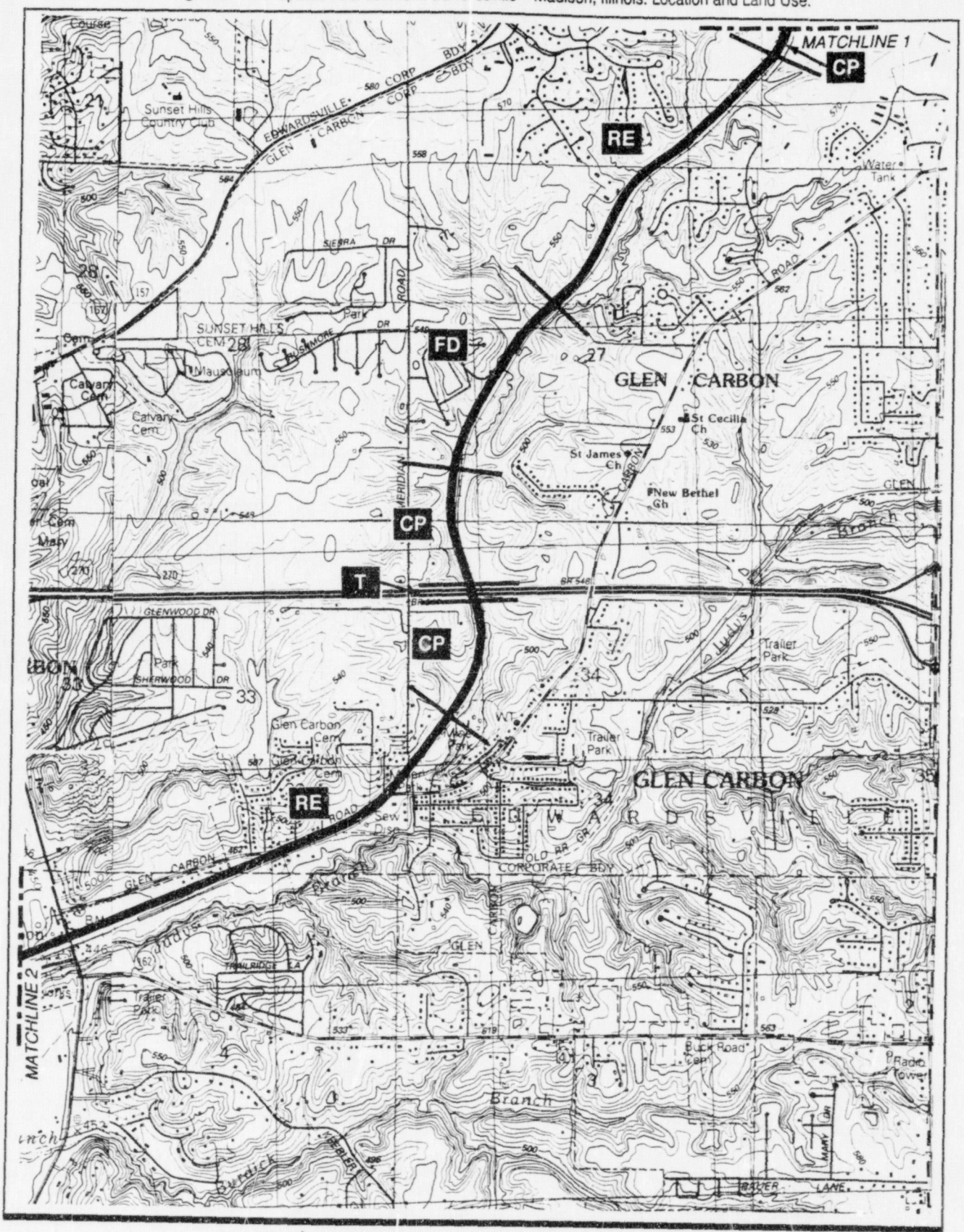


Figure 6.5-1 Proposed Abandonment: Edwardsville – Madison, Illinois. Location and Land Use.

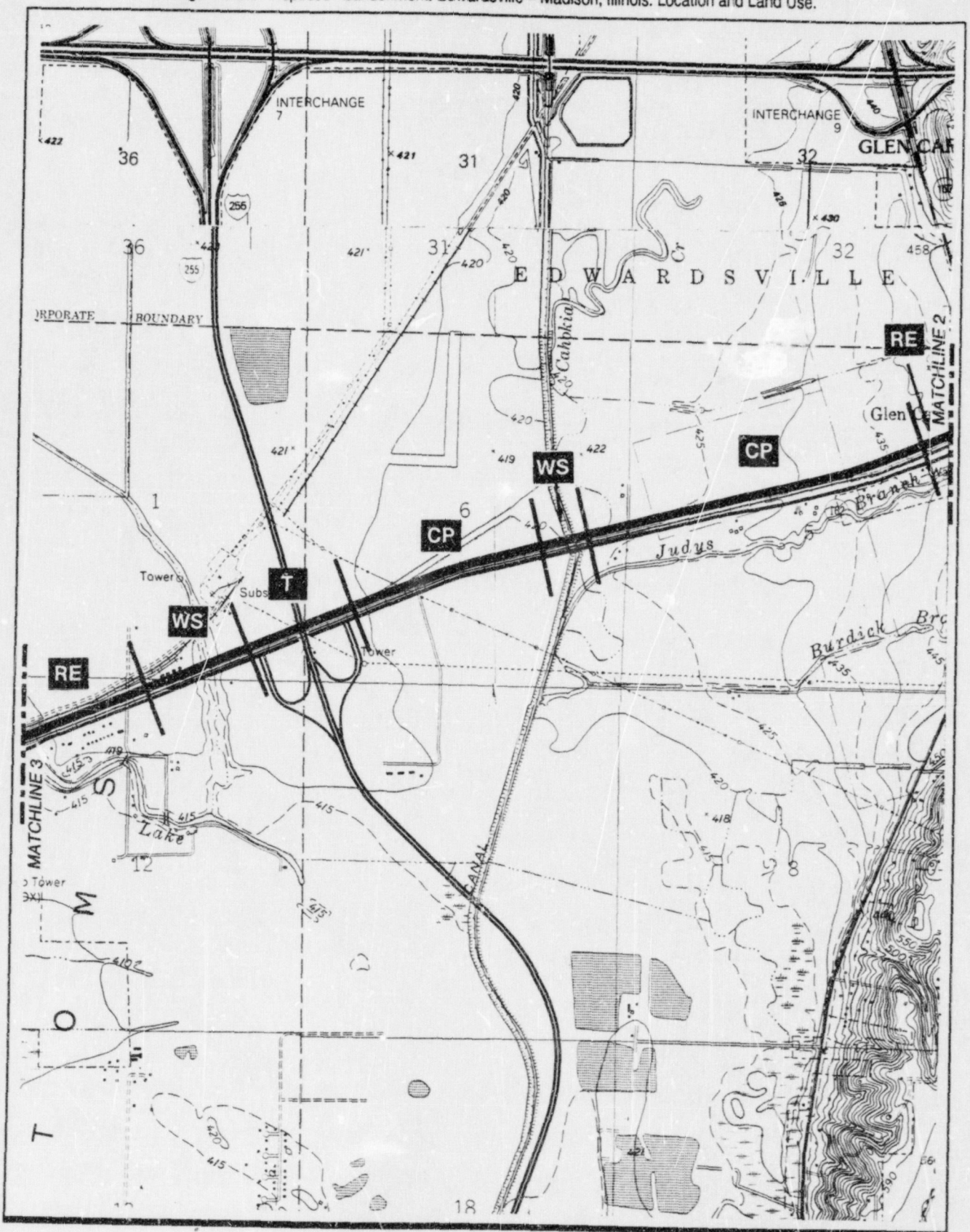
Base Map: *USGS 7.5' Topographic Quadrangles: Edwardsville, Illinois 1991*

Figure 6. 2 Proposed Abandonment: Edwa dsville – Madison, Illinois. Location and Land Use.



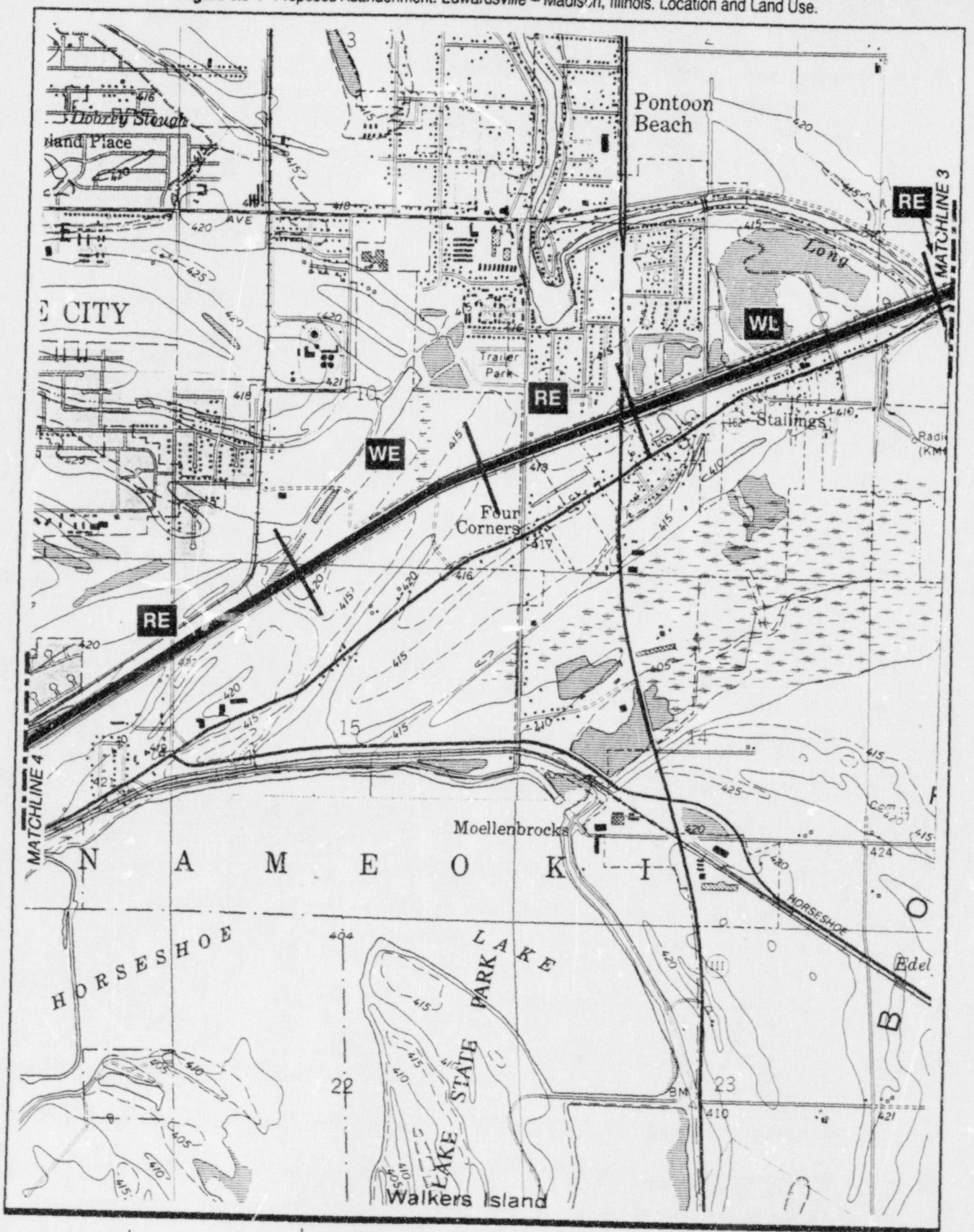
Base Map: *USGS 7.5' Topographic Quadrangles: Wood River, Illinois - Missouri 1994; Edwardsville, Illinois 1991; Monks Mound, Illinois 1954 (Revised 1993); Collinsville, Illinois 1991*

Figure 6.5-3 Proposed Abandonment: Edwardsville – Madison, Illinois. Location and Land Use.



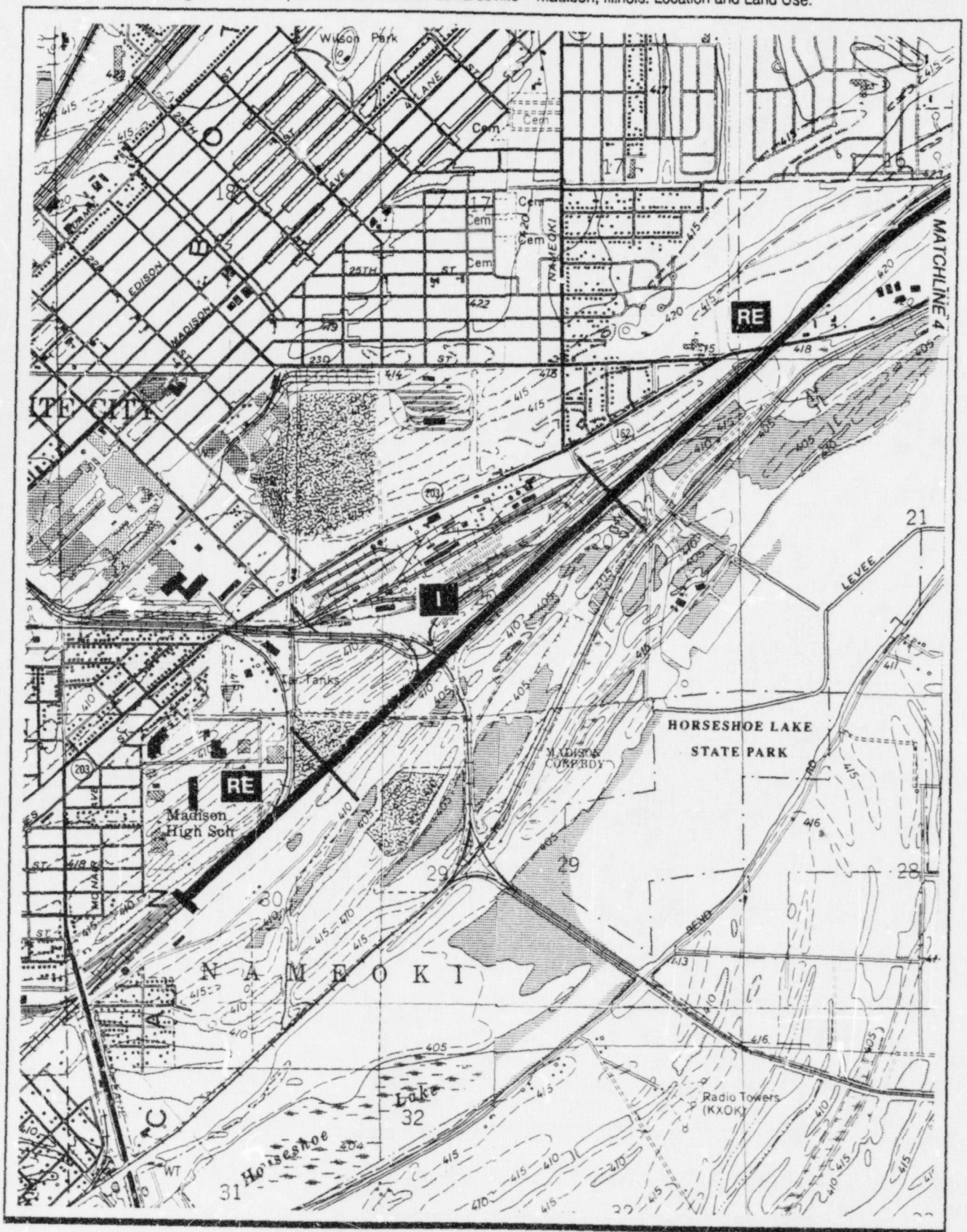
Base Map: *USGS 7.5' Topographic Quadrangles: Wood River, Illinois - Missouri 1994; Monks Mound, Illinois 1954 (Revised 1993)*

Figure 6.5-4 Proposed Abandonment: Edwardsville – Madison, Illinois. Location and Land Use.



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

Figure 6.5-5 Proposed Abandonment: Edwardsville – Madison, Illinois. Location and Land Use.



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

NWI LEGEND

SYSTEM — **M — MARINE**

SUBSYSTEM — **1 — SUBTIDAL**

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

SUBSYSTEM — **2 — INTERTIDAL**

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

*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	RB — ROCK BOTTOM	UB — UNCONSOLIDATED BOTTOM	AB — AQUATIC BED	US — UNCONSOLIDATED SHORE	ML — MOSS-LICHEN	EM — EMERGENT	SS — SCRUB-SHRUB	FO — FORESTED	OW — *OPEN WATER/ Unknown Bottom*
Subclass	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 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	1 Moss 2 Lichen	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*	

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."

STB FD 32760 11-30-95 A 1648V20 4/5

8.3.4 Historic and Cultural Resources

Barrow, Pauline, (Louisiana Historic Preservation Office), 1995. Telephone conversation with Denise Bradley, Dames & Moore. October 30.

High, George (Dames & Moore), 1995. Memo to Tom Olson (Dames & Moore) on field reconnaissance. October 3.

UP, 1995. Information on Iowa Jct. to (Lake Charles) Manchester, LA proposed abandonment.

8.3.5 Safety

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.

TABLE 8-1

LAND USE INFORMATION ALONG THE IOWA JCT. - MANCHESTER, LOUISIANA ABANDONMENT

EXISTING CONDITIONS					
		Structures Near Site		Occurrence Within	
Segment	Existing Land Uses	Within 500 Feet	Length in Urbanized Areas (Feet)	Prime Farmland	Coastal Zone
Manchester - Iowa Jct.	Cropland and pasture, residential, streams and canals	41	0	Yes	No

IMPACTS		
Segment	Compatible with Surrounding Land Uses	Loss of Prime Farmland
Manchester - Iowa Jct.	Yes - Not significant	No - Not significant

TABLE 8-2

WATER RESOURCES AND WETLANDS INFORMATION ALONG THE IOWA JCT. - MANCHESTER, LOUISIANA ABANDONMENT

Type of Water Resource[1]	Number Along the Segment	
	Intercepted by the Segment	Adjacent to the Segment
Canals, culverts, ditches	8	0

[1] Type:
Canals, culverts, ditches = human-made water conveyances

TABLE 8-3

BIOLOGICAL RESOURCES INFORMATION ALONG SEGMENTS ALONG THE IOWA-JCT. TO MANCHESTER, LOUISIANA ABANDONMENT

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**
Iowa to Manchester	• Ruderal • Agricultural • Coastal marsh	• Bald eagle* • Least tern*	None	None
POTENTIAL IMPACTS TO:				
Segment	**Vegetation Types/ Wildlife Habitats**	**Rare, Threatened and Endangered Species in the Region**	**Critical Habitat**	**Parks, Forests, Refuges, Sanctuaries**
Iowa to Manchester	Not significant	None	None	None

* Potential impacts may not exist for these sites/species as visual confirmation has not been completed.

TABLE 8-4

HAZARDOUS WASTE SITE ISSUES ALONG THE IOWA JCT. - MANCHESTER, LOUISIANA ABANDONMENT

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
---	---	None	---	---	---	---	---	---	---	1	1	---	1	1

[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

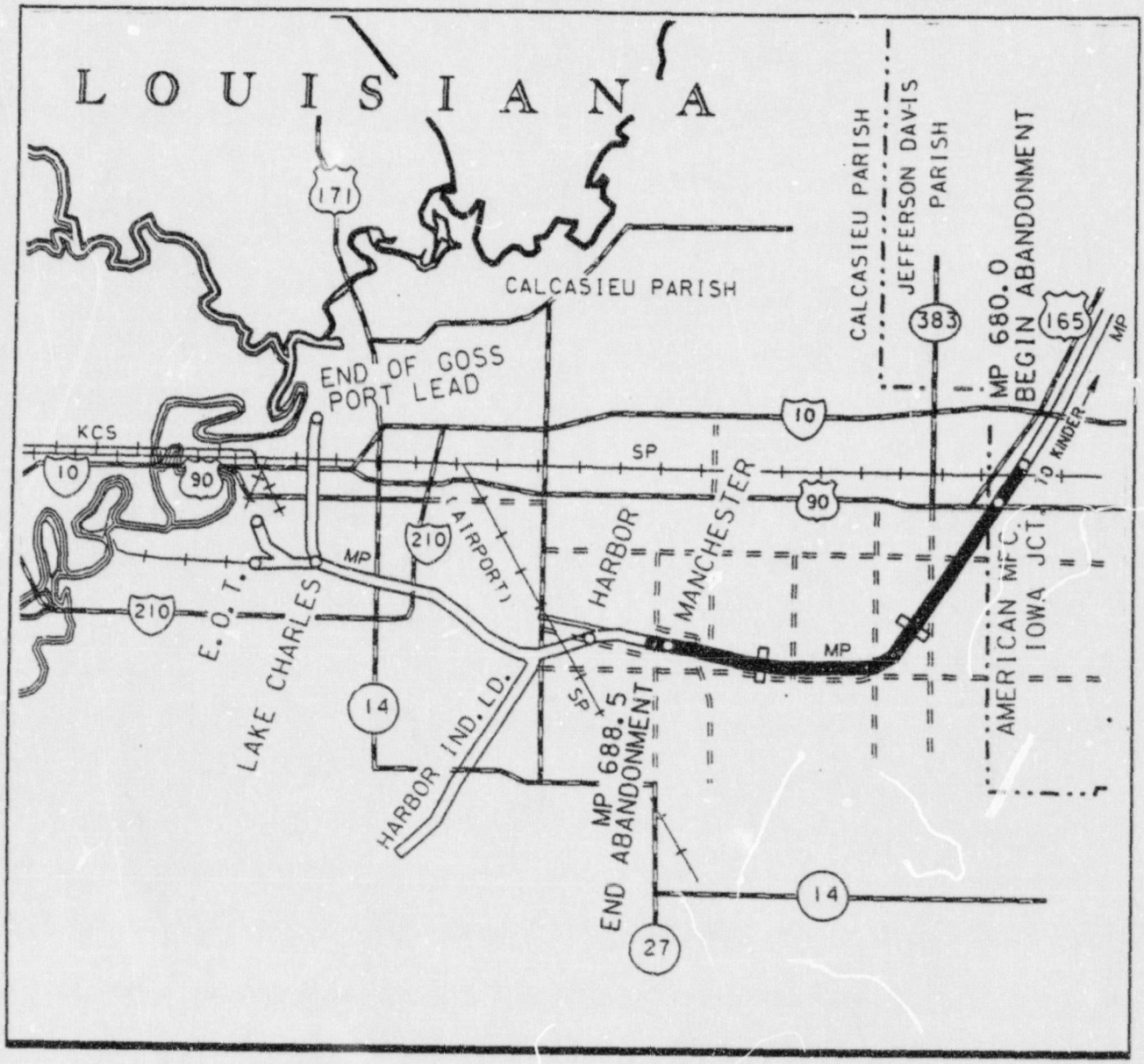
BARREN LAND

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 8A Overview of Proposed Abandonment: Iowa Junction – Manchester, Louisiana



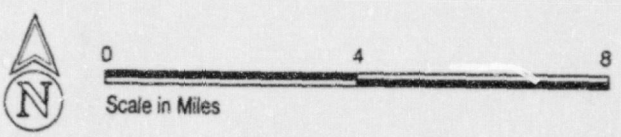
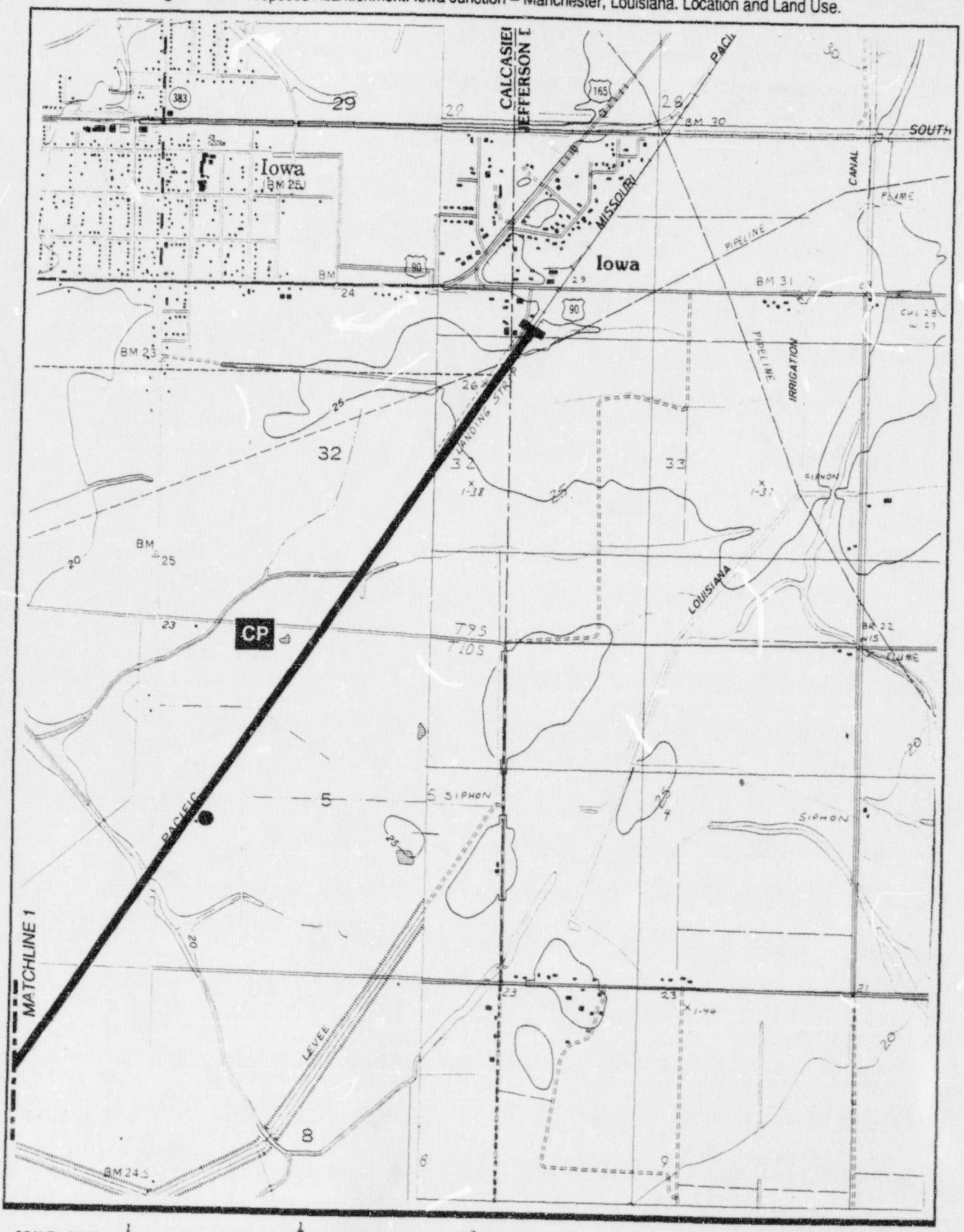
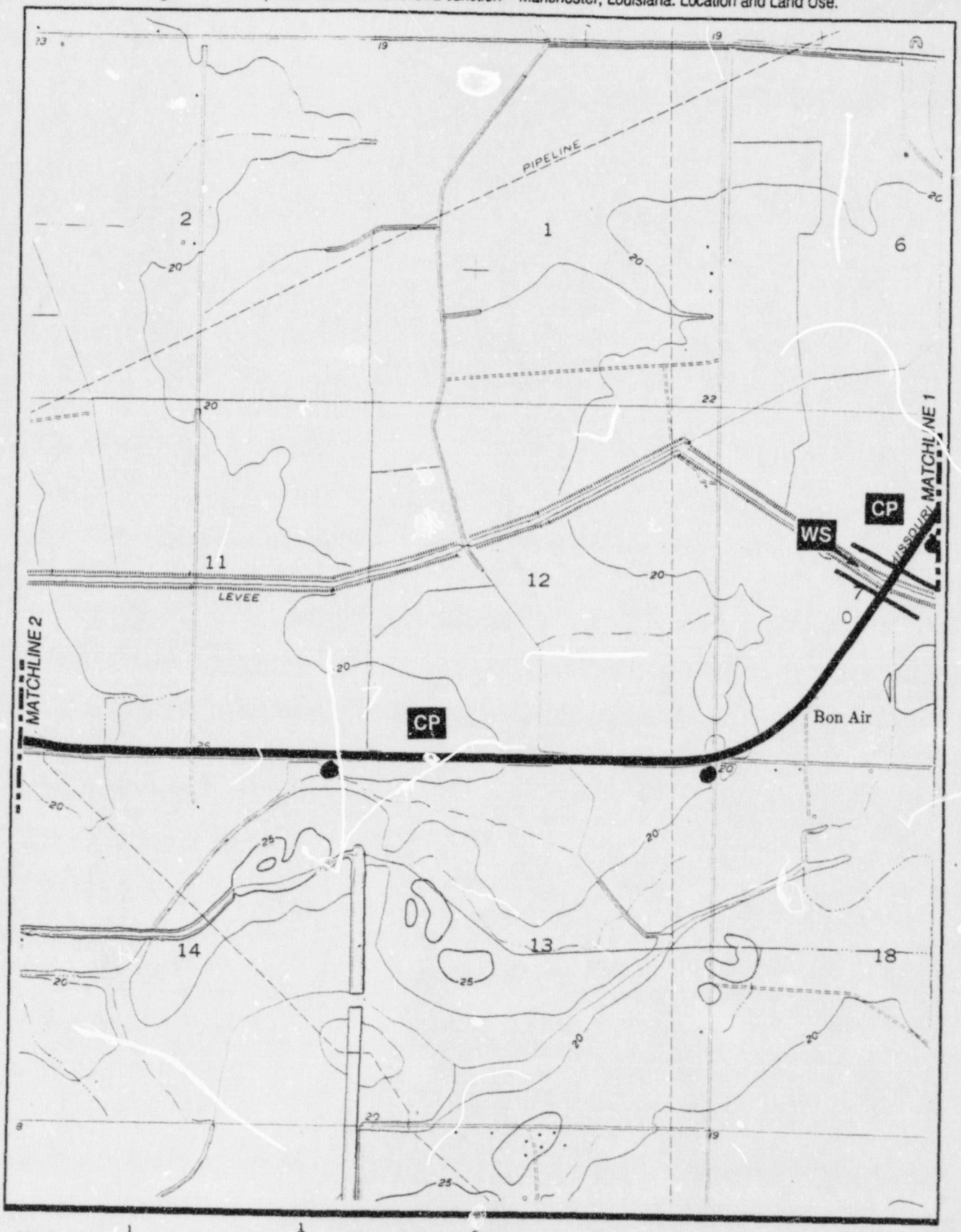


Figure 8.1-1 Proposed Abandonment: Iowa Junction – Manchester, Louisiana. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangles: Iowa, Louisiana 1955 (Photorevised 1971, Photoinspected 1975); Lacassine, Louisiana (Provisional Edition 1985)*

Figure 8.1-2 Proposed Abandonment: Iowa Junction – Manchester, Louisiana. Location and Land Use.



SCALE 1:24000

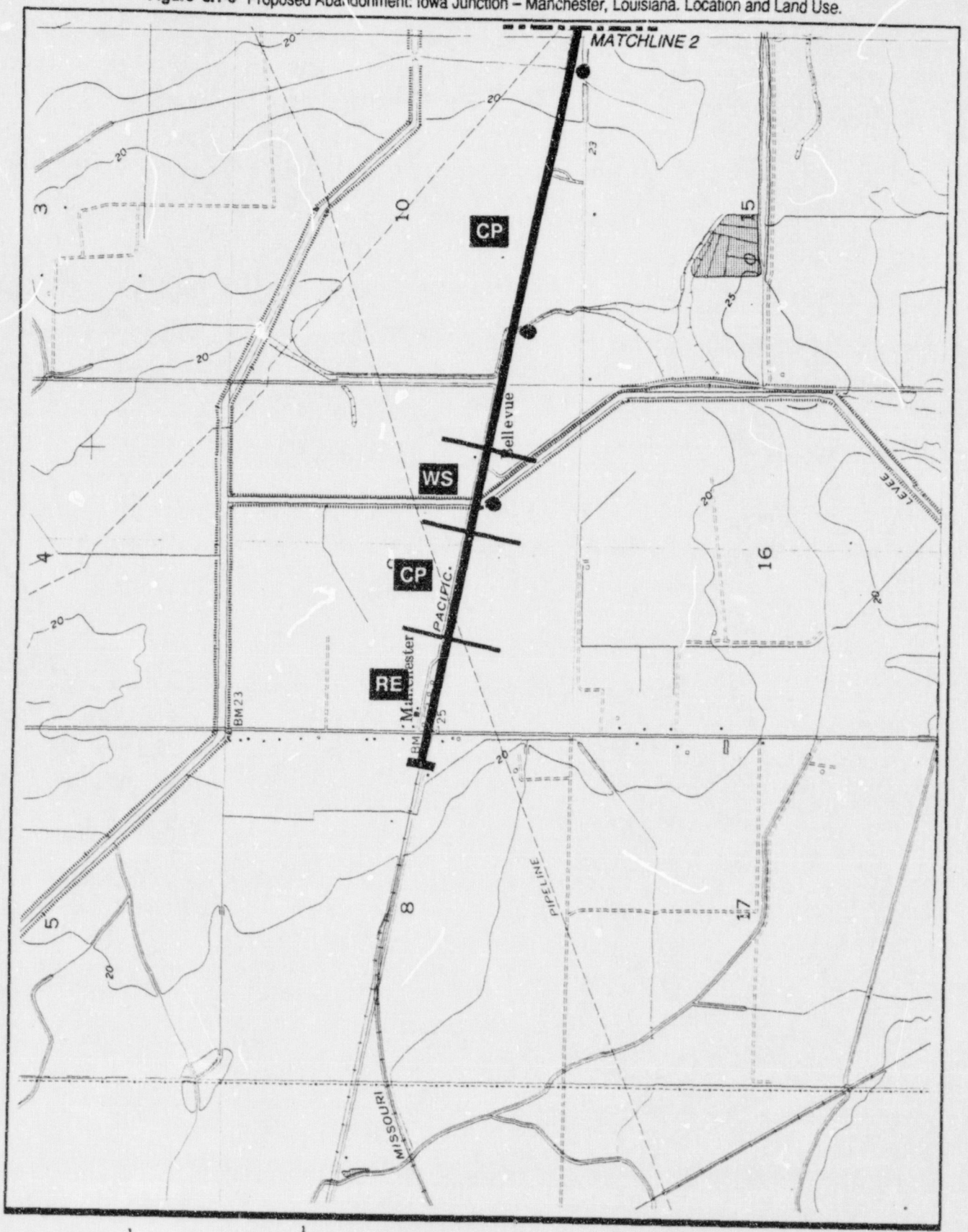
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: USGS 7.5' Topographic Quadrangle: Iowa, Louisiana 1955 (Photorevised 1971, Photoinspected 1975)

Figure 8.1-3 Proposed Abandonment: Iowa Junction – Manchester, Louisiana. Location and Land Use.



SCALE 1:24000

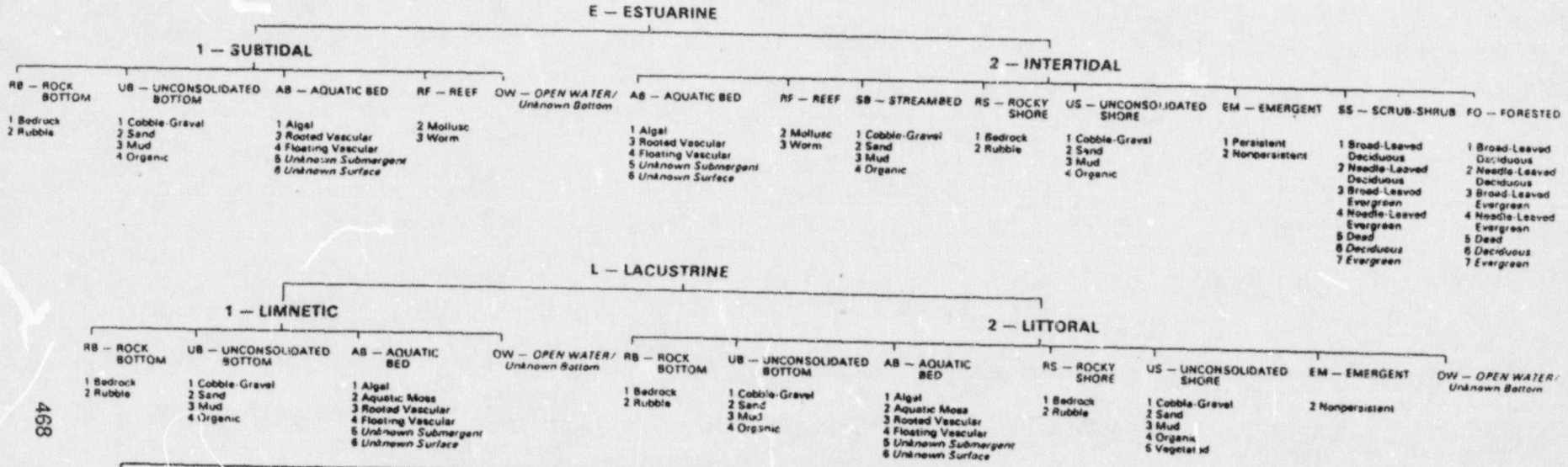
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangle: Iowa, Louisiana 1955 (Photorevised 1971, Photoinspected 1975)*

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 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
- *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 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
- i 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

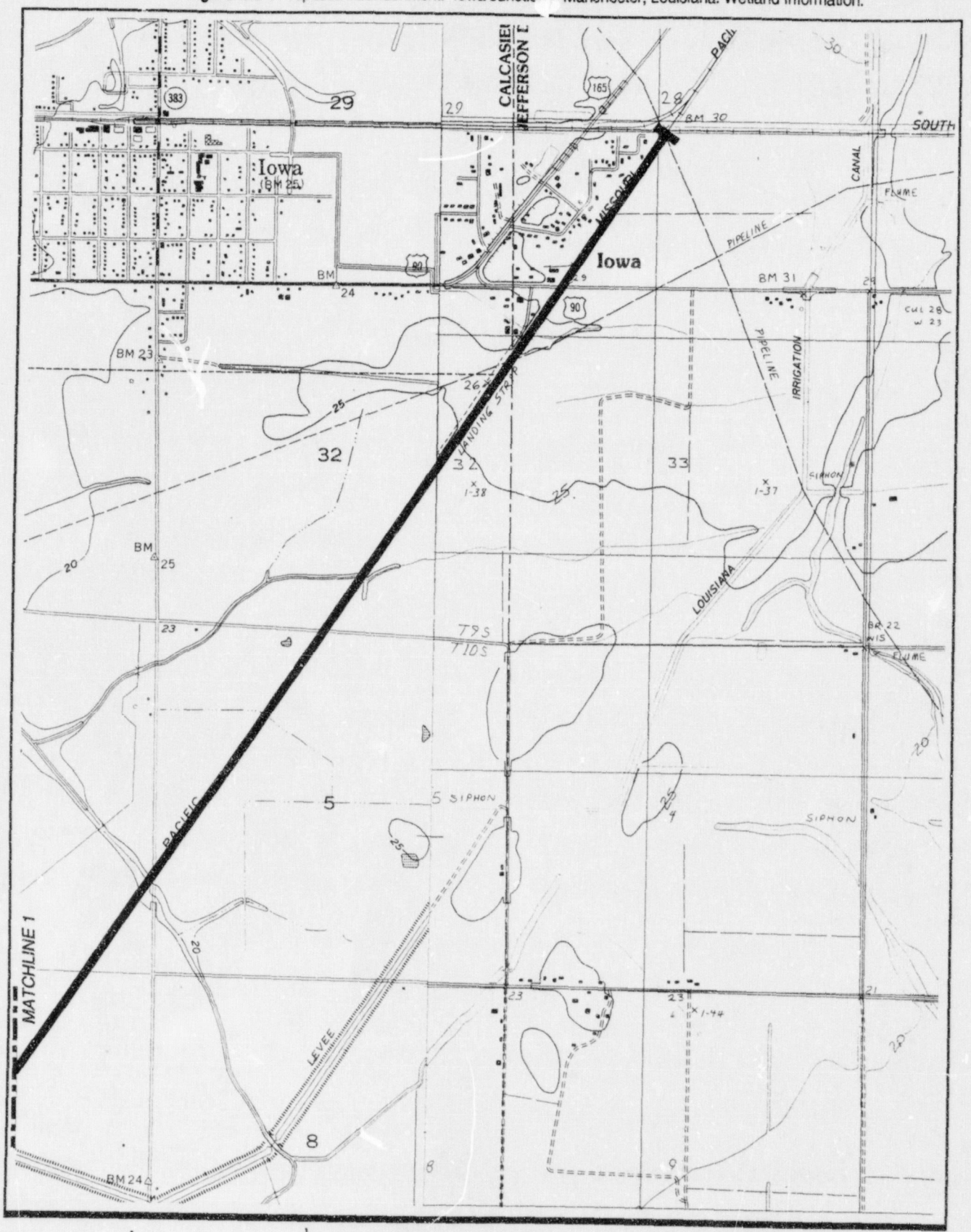
SYSTEM — **P — PALUSTRINE**

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 8.2-1 Proposed Abandonment: Iowa Junction – Manchester, Louisiana. Wetland Information.



SCALE 1:24000

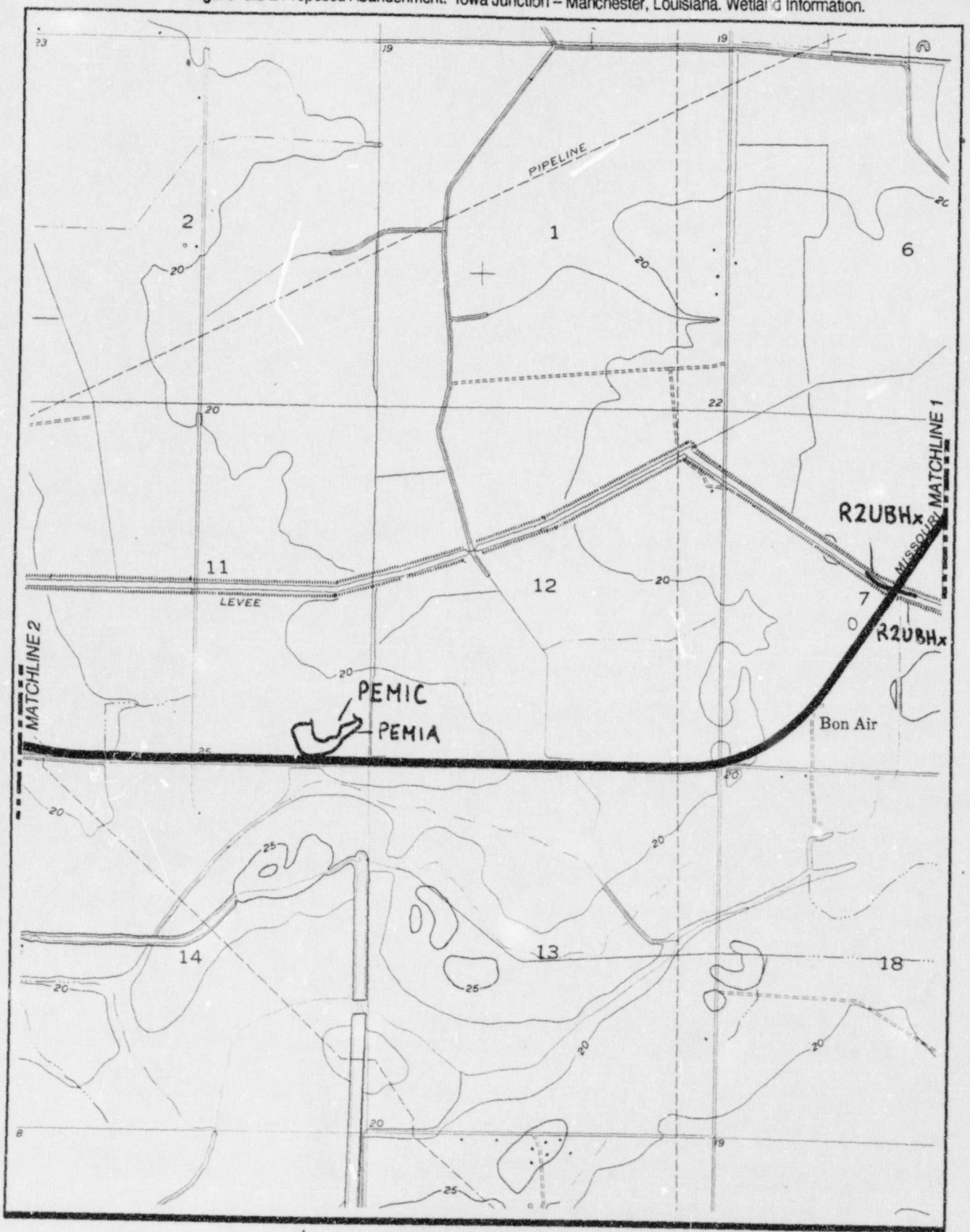
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangles: Iowa, Louisiana 1955 (Photorevised 1971, Photoinspected 1975); Lacassine, Louisiana (Provisional Edition 1985)*

Figure 8.2-2 Proposed Abandonment: Iowa Junction – Manchester, Louisiana. Wetland Information.



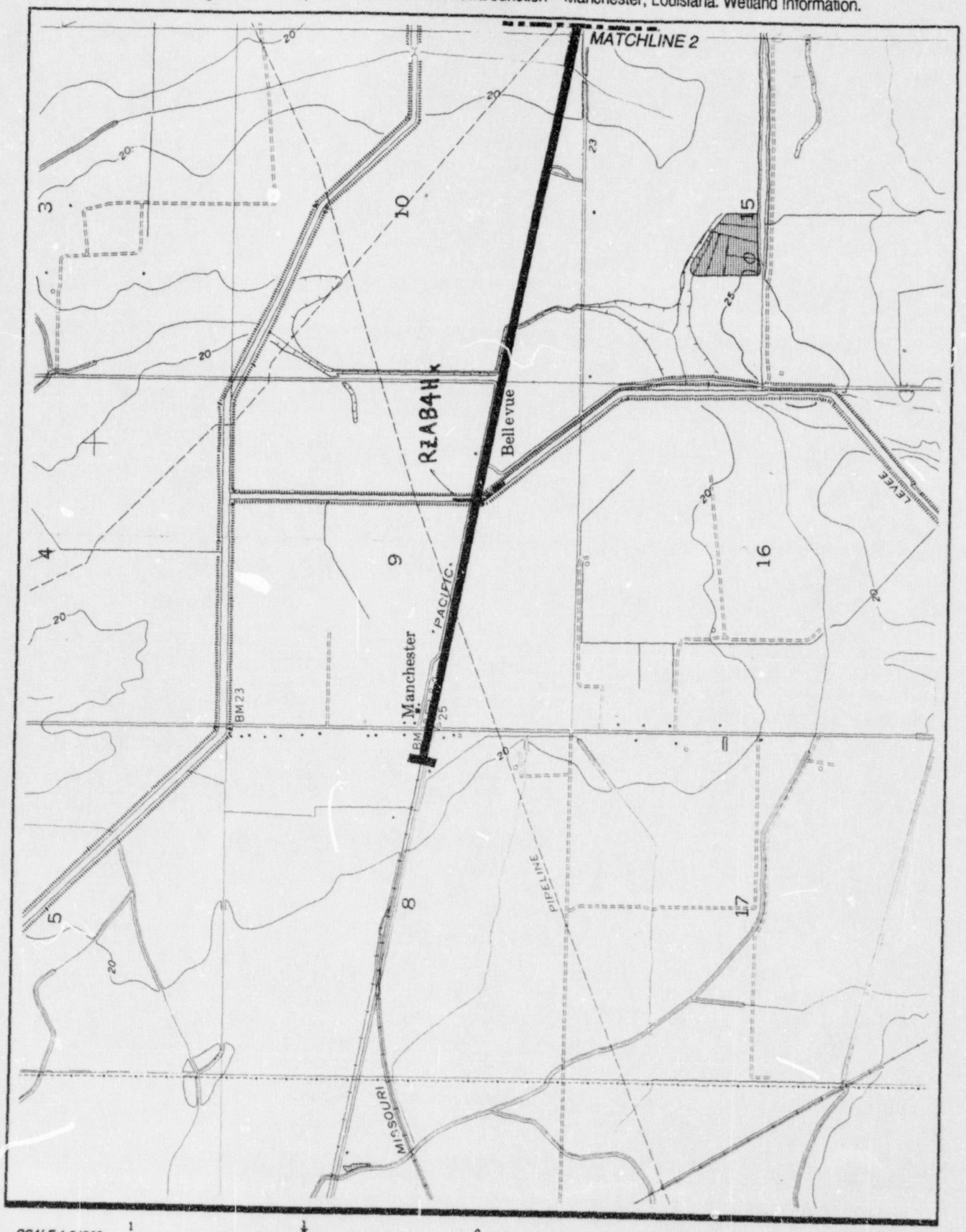
SCALE 1:24000

1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

Base Map: *USGS 7.5' Topographic Quadrangle: Iowa, Louisiana 1955 (Photorevised 1971, Photoinspected 1975)*

Figure 8.2-3 Proposed Abandonment: Iowa Junction – Manchester, Louisiana. 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: Iowa, Louisiana 1955 (Photorevised 1971, Photoinspected 1975)*

9.0 TEXAS

9.1 SEABROOK TO SAN LEON

The Seabrook to San Leon, Texas rail line proposed for abandonment is 10.5 miles long (Figures 9A and 9.1-1 to 9.1-4). Seabrook, Texas is located in Robertson County, approximately 20 miles southeast of Houston. San Leon, Texas is located in Galveston County, approximately 30 miles southeast of Houston. The proposed abandonment is along a portion of the SP Galveston line that has been out of service for several years.

9.1.1 Proposed Action and No-action Alternative

9.1.1.1 Proposed Action

The proposed action would involve the abandonment of 10.5 miles of rail line following procedures described in Section 2.0. This segment formerly served as access to the Texas/Galveston area. It has been out of service for several years. There is no local traffic. Service to the Texas City/Galveston area is available on a parallel UP route.

9.1.1.2 No-action Alternative

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

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

9.1.2.1 Land Use

Information for existing land use conditions is presented in Table 9-1 and on Figures 9.1-1 through 9.1-4. Potential land use impacts are listed in Table 9-1. No significant land use impacts are expected.

9.1.2.2 Water Resources and Wetlands

Existing water resources and wetlands information is summarized in Table 9-2. NWI data along the Seabrook-San Leon, Texas abandonment were collected, as available. Those data are shown on Figures 9.2-1 to 9.2-4. Significant impacts are not expected.

9.1.2.3 Biological Resources

Existing biological resources information and potential impacts are summarized in Table 9-3. Rare, threatened, and endangered species known to occur in the vicinity include American alligator and Texas prairie dawn. The actual occurrence of these species along the line has not been evaluated. Significant impacts to the alligator are unlikely. Overall, potentially significant impacts to biological resources due to this proposed abandonment are not expected.

The occurrence and potential for impacts to both species would be further assessed during a field visit. If disturbance associated with salvage operations is restricted to the existing ROW, the likelihood of significant impact to these species would be very low; in most areas along rail lines, the ROW is dominated by ruderal and introduced species.

9.1.2.4 Historic and Cultural Resources

The Galveston Line (Seabrook to San Leon) had its origin as the North Galveston, Houston and Kansas City Company ("NGH&KC") incorporated in 1882. The property passed through two receivers and on February, 1893 was purchased by the La Porte, Houston and Northern ("LN&N") which opened the line on May 12, 1896. In 1905, the property was purchased by the Galveston, Harrisburg and San Antonio ("GH&SA"), which was already under the control of SP.

There are two 1907 through plate girder swing bridges (at MP 31.99 and MP 38.77). The bridge at MP 31.99 connects to a wooden trestle bridge (1944); the bridge at

MP 38.77 has a wooden trestle bridge (both 1947) at either end (Forst, 1995). Based solely on age, the two 1907 bridges are potentially eligible for the NRHP; however, SP currently has no other evidence that these bridges meet NRHP criteria. The Texas SHPO was contacted, and has requested that the address, construction date, architect/builder, brief history, photographs of at least two elevations, and location map for all pre-1950 truss, steel, stone, or concrete bridges be provided (Texas State Historical Commission, 1995). There are four wooden bridges built between 1932 and 1940 that, based on this SHPO guidance, are not considered eligible for the NRHP. A record search for recorded NRHP eligible historic and cultural resources was initiated, but the results have not been received. Further consultation with the Texas 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 the line has been discovered.

9.1.2.5 Safety

Hazardous waste sites near the abandonment identified from the database search are included in Table 9-4.

9.1.2.5.1 Conditions of the Rail Segment

The SP rail line from San Leon to Seabrook, Texas is identified as having had a 2,500-gallon diesel fuel spill in Dickinson in 1990, which was remediated.

9.1.2.5.2 Conditions Adjacent to the Rail Segment

The database search indicated one RCRA-TSD, three LUST, and four ERNS sites within 500 feet of the rail segment; and two CERCLIS, two RCRA TSD, 27 ERNS, one SPL, three LUST, and one SWLF sites have been reported within the vicinity of the rail segment. Information provided by VISTA does not indicate that these sites have adversely affected the rail segment.

9.1.2.6 Transportation

The Seabrook-San Leon line has been out of service for the past two years; accordingly, there are no rail operations on the line. Service to the Texas City/Galveston area will be provided via the parallel UP route.

9.1.3 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. There would be no new adverse environmental impacts.

9.2 SUMAN TO BRYAN

The Suman to Bryan, Texas rail line proposed for abandonment is 16.2 miles long (Figures 9B and 9.3-1 to 9.3-4). Suman, Texas is located in Robertson County, approximately 80 miles northeast of Austin. Bryan, Texas is located in Brazos County, approximately 75 miles northwest of Houston. The proposed abandonment is along the SP Hearne Line, within the Hearne Subdivision. It serves as part of the SP route between Dallas/Fort Worth and Houston.

9.2.1 Proposed Action and No-action Alternative

9.2.1.1 Proposed Action

The proposed action would involve the abandonment of 16.2 miles of rail line following procedures described in Section 2.0. This segment currently serves as part of

the SP route between Dallas/Fort Worth and Houston. In 1994, local traffic was 26 cars of wood particle board. Overhead traffic would be moved over a parallel UP route.

9.2.1.2 No-action Alternative

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

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

9.2.2.1 Land Use

Information for existing land use conditions is presented in Table 9-1 and on Figures 9.3-1 through 9.3-4. Potential land use impacts are listed in Table 9-1. No significant land use impacts are expected.

9.2.2.2 Water Resources and Wetlands

Existing water resources and wetlands information is summarized in Table 9-2. NWI and FIRM data along the Suman-Bryan, Texas abandonment were collected, as available. Those data are shown on Figures 9.4-1 to 9.4-4. Significant impacts are not expected.

9.2.2.3 Biological Resources

Existing biological resources information and potential impacts are summarized in Table 9-3. Potentially significant impacts to biological resources due to this proposed abandonment are not expected.

9.2.2.4 Historic and Cultural Resources

The Hearne Line (Suman to Bryan) had its origins as part of the Galveston & Red River Valley Railway, originally chartered in 1847, to begin building a railroad between Houston, Texas and Denison, Texas. The railroad franchise and property were sold at foreclosure during the Civil War in 1861 to the Houston & Texas Central. The line

began operations from Houston to Bryan in August 1867 and steadily progressed to Dallas, Texas by 1872 and finally Denison, Texas in 1873.

There are three deck plate girder bridges (1899) (Forst, 1995). Based solely on age, these bridges are potentially eligible for the NRHP; however, SP currently has no evidence that any such bridges meet NRHP criteria. The Texas SHPO was contacted, and has requested that the address, construction date, architect/builder, brief history, photographs of at least two elevations, and location map for all pre-1950 truss, steel, stone, or concrete bridges be provided (Texas State Historical Commission, 1995). There are two wooden bridges (1940, 1942) that, based on this SHPO guidance, are not considered eligible for the NRHP. A record search for recorded NRHP eligible historic and cultural resources was initiated, but the results have not been received. Further consultation with the Texas 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 the line has been discovered.

9.2.2.5 Safety

Hazardous waste sites near the abandonment identified from the database search are included in Table 9-4.

9.2.2.5.1 Conditions of the Rail Segment

Information reviewed indicates that the rail ballast in some sections of the Suman to Bryan, Texas segment includes copper slag ballast.

9.2.2.5.2 Conditions Adjacent to the Rail Segment

The database search indicated five ERNS and five LUST sites have been reported within the vicinity of the rail segment. Information provided by VISTA does not indicate that these sites have adversely affected the subject rail segment.

9.2.2.6 Transportation

This line is currently served five days a week by the SP train between Dallas/Fort Worth and Houston. Local traffic on the Suman to Bryan line consisted of 53 cars of wood particle board during 1994. The diversion of this traffic to truck would result in an additional 212 trucks per year on local highways. Available alternatives for diverted traffic include US 90, which parallels the line near Suman and access to State Route 507 at Bryan. Transportation impacts of this diversion are expected to be minimal.

This line serves as part of the SP through route between Dallas/Ft. Worth and Houston. Through traffic would be rerouted over the parallel UP line after the merger, so there would be no adverse rail transportation impacts of the abandonment.

9.2.3 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.

9.3 TROUP TO WHITEHOUSE

The Troup to Whitehouse, Texas rail line proposed for abandonment is 7.5 miles long (Figures 9C and 9.5-1 to 9.5-3). Troup, Texas and Whitehouse, Texas are located in Smith County, approximately 100 miles southeast of Dallas. The proposed abandonment is along the UP Tyler Industrial Lead.

9.3.1 Proposed Action and No-action Alternative

9.3.1.1 Proposed Action

The proposed action would involve the abandonment of 7.5 miles of rail line following procedures described in Section 2.0. This segment currently serves as the UP route to the Tyler area. Following the merger, the route to the Tyler area would be over the nearby SP line. There is no local traffic.

9.3.1.2 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.

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

9.3.2.1 Land Use

Information for existing land use conditions is presented in Table 9-1 and on Figures 9.5-1 through 9.5-3. Potential land use impacts are listed in Table 3-1. No significant land use impacts are expected.

9.3.2.2 Water Resources and Wetlands

Existing water resources and wetlands information is summarized in Table 9-2. NWI data along the Troup-Whitehouse, Texas abandonment were collected, as available. Those data are shown on Figures 9.6-1 to 9.6-3. Significant impacts are not expected.

9.3.2.3 Biological Resources

Existing biological resources information and potential impacts are summarized in Table 9-3. Potentially significant impacts to biological resources due to this proposed abandonment are not expected.

9.3.2.4 Historic and Cultural Resources

This line was constructed in 1872 by the Houston and Great Northern Railroad, subsequently MPRR. There are seven wooden pre-1950 bridges (UP, 1995). Based on guidance from the Texas SHPO guidance, none of these bridges are considered eligible for the NRHP (Texas State Historical Commission, 1995). A record search for recorded NRHP eligible historic and cultural resources was initiated, but the results have not been received.

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.

9.3.2.5 Safety

Hazardous waste sites near the abandonment identified from the database search are included in Table 9-4.

9.3.2.5.1 Conditions of the Rail Segment

The UP Railroad Troup Yard, adjacent to the Troup to Whitehouse, Texas rail segment, was identified as a closed LUST site (Agency ID 101705).

9.3.2.5.2 Conditions Adjacent to the Rail Segment

The database search indicated four ERNS sites and seven LUST sites potentially located in the vicinity of the rail segment. Information provided by VISTA does not indicate that these sites have adversely affected the rail segment.

9.3.2.6 Transportation

This line is served by a turnaround local train between Troup and Tyler. No rail to truck diversions will result on the Troup to Whitehouse lince since it carries no local traffic. This line serves as the UP route to the Tyler area, which would be served via an alternate SP line after the merger.

9.3.3 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.

9.4 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 three segments proposed for abandonment in Texas. For abandonments in this state, the following agencies responded: State of Texas, Attorney's General's Office and the Texas Historical Commission.

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

- The State of Texas, Attorney General's Office stated that the information requested for the Environmental Report is not provided by their office. Contacts for regulatory agencies with jurisdiction over those matters were provided.

- The Texas Historical Commission, Austin office requested information relating to the location, date of construction, architect, history of building, photographs, location map, and any data relating to all pre-1950 trusses and bridges of steel, stone, or concrete.

9.5 REFERENCES

9.5.1 Land Use

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.

9.5.2 Water Resources and Wetlands

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

9.5.3 Biological Resources

Ray, Hal R., 1995. Letter to Julie Donsky, Dames & Moore, from Texas Office of Attorney General, Austin. October 3.

9.5.4 Historic and Cultural Resources

Forst, Richard E. (SP), 1995. Information on the Seabrook to San Leon, TX proposed abandonment; and the Suman to Bryan, TX proposed abandonment.

UP, 1995. Information on the Troup to Whitewater, TX proposed abandonment.

Wise, Jamie, 1995. Letter to Julie Donsky, Dames & Moore, from Texas Historical Commission, Texas Historical Preservation Office, Austin, October 19.

9.5.5 Safety

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.

TABLE 9-1

LAND USE INFORMATION ALONG SEGMENTS PROPOSED FOR ABANDONMENT IN TEXAS

EXISTING CONDITIONS					
		Structures Near Site		Occurrence Within	
Location	Existing Land Uses	Within 500 Feet	Length in Urbanized Areas (Feet)	Prime Farmland	Coastal Zone
Seabrook - San Leon	Cropland and pasture, bays and estuaries, transportation/ communication/utilities, residential, commercial and services	365	4,750	No	Yes
Suman - Bryan	Deciduous forest land, mixed rangeland, cropland pasture	37	0	No	No
Troup - Whitehouse	Mixed forest land, commercial, cropland and pasture, forested wetland or non forested wetland	0	0	No	No

IMPACTS		
Location	Compatible with Surrounding Land Uses	Loss of Prime Farmland
Seabrook - San Leon	Yes - Not significant	No - Not significant
Suman - Bryan	Yes - Not significant	No - Not significant
Troup - Whitehouse	Yes - Not significant	No - Not significant

TABLE 9-2

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

Segment	Type of Water Resource[1]	Number Along the Segment	
		Intercepted by the Segment	Adjacent to the Segment
Seabrook-San Leon	Blue-line streams	1	0
	Wetlands	0	1
	Tidal channels	2	1
	Canals, culverts, ditches	0	1
Suman-Bryan	Blue-line streams	13	4
	Waterbodies	0	7
Troup-Whitehouse	Blueline streams	6	10
	Waterbodies	0	3
	Wetlands	0	1

[1] Type:

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

Waterbodies = permanent and intermittent bodies of standing water including ponds, lakes, reservoirs, bayous, catchments, and beaver ponds

Wetlands = areas depicted with the USGS wetland symbol, primarily including marshes and wet meadows

Tidal channels = tidal channels including inlets, harbors, bays, and sloughs subject to tidal influences

Canals, culverts, ditches = human-made water conveyances

TABLE 9-3

BIOLOGICAL RESOURCES INFORMATION ALONG SEGMENTS PROPOSED FOR ABANDONMENT IN TEXAS

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
Seabrook-San Leon	• Ruderal • Coastal marsh • Grassland • Post oak savanna	• American alligator • Texas prairie dawn	None	None
Troup-Whitehouse	• Ruderal • Agricultural • Deciduous woodland • Pine forest	• Bald eagle	None	None
Suman-Bryan	• Ruderal • Agricultural • Blackland prairie • Post oak savanna	• Bald eagle • Whooping crane • Navasota ladies'-tresses	None	None

POTENTIAL IMPACTS TO:

Segment	Vegetation Types/ Wildlife Habitats	Rare, Threatened and Endangered Species in the Region	Critical Habitat	Parks, Forests, Refuges, Sanctuaries
Seabrook-San Leon	Not significant	• American alligator* • Texas prairie dawn*	None	None
Troup-Whitehouse	Not significant	None	None	None
Suman	Not significant	None	None	None

* Potential impacts may not exist for these species as occurrence has not been verified. It is assumed that salvage operations would be limited to the existing ROW. Therefore, impacts to rare, threatened, and endangered species, as well as to parks, forests, refuges, and sanctuaries would be negligible. Abandonment of the rail lines would result in beneficial effects to these resources.

TABLE 9-4

HAZARDOUS WASTE SITE ISSUES ALONG SEGMENTS PROPOSED FOR ABANDONMENT IN TEXAS

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
San Leon - Seabrook[2]	1	---	2500 gallon diesel fuel spill in Dickinson (1990).	---	---	1	4	---	3	---	2	2	27	2	3
Suman - Bryan	---	---	Rail ballast in some sections include copper slag.	---	---	---	---	---	---	---	---	---	5	---	5
Troup - Whitehouse	---	1	Closed LUST site at UP Railroad Troup Yard.	---	---	---	---	---	---	---	---	---	4	---	7

[1] - Issues identified through VISTA database search.

[2] - Final assessment pending additional VISTA information.

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 9A Overview of Proposed Abandonment: Seabrook -- San Leon, Texas

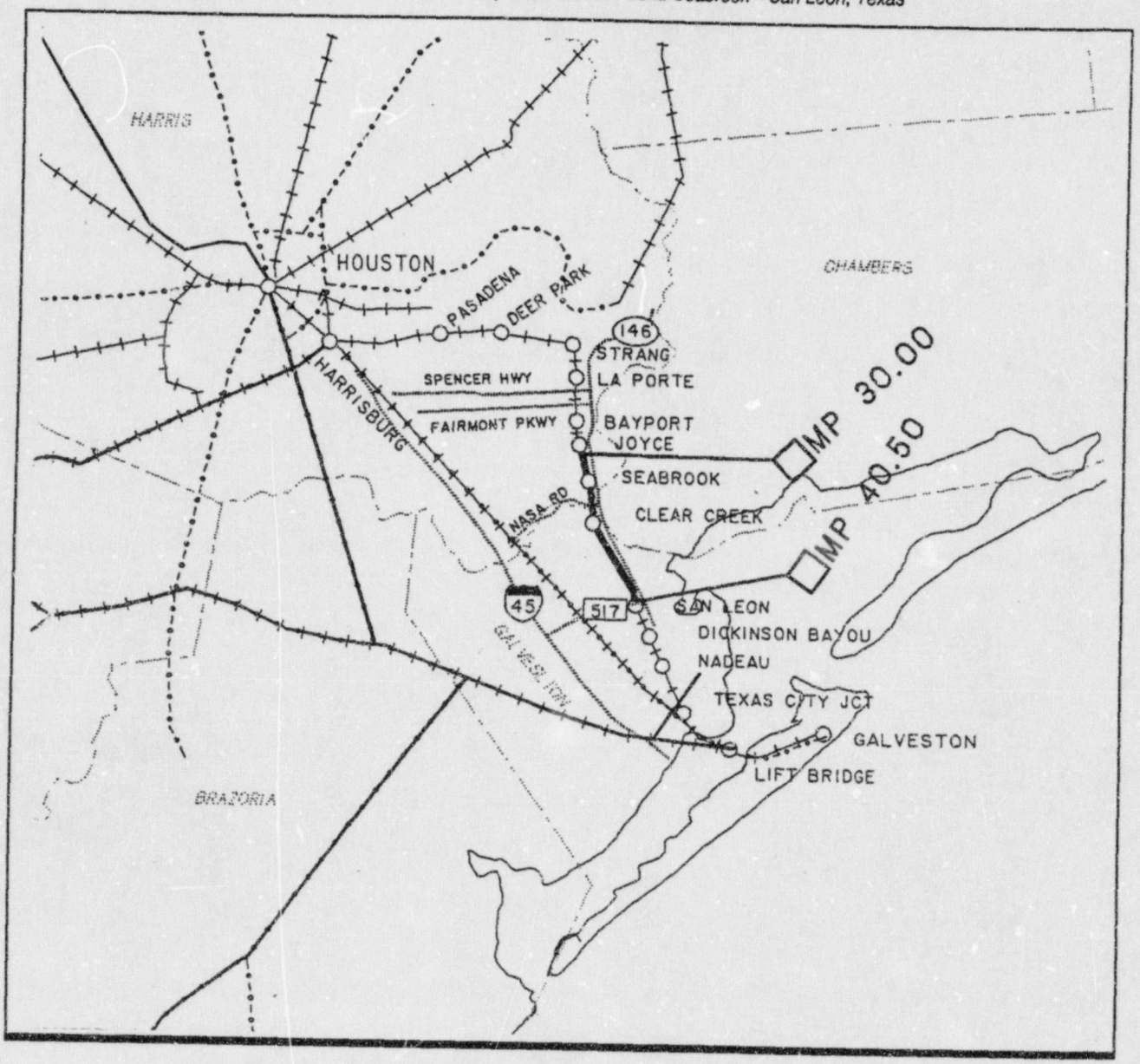
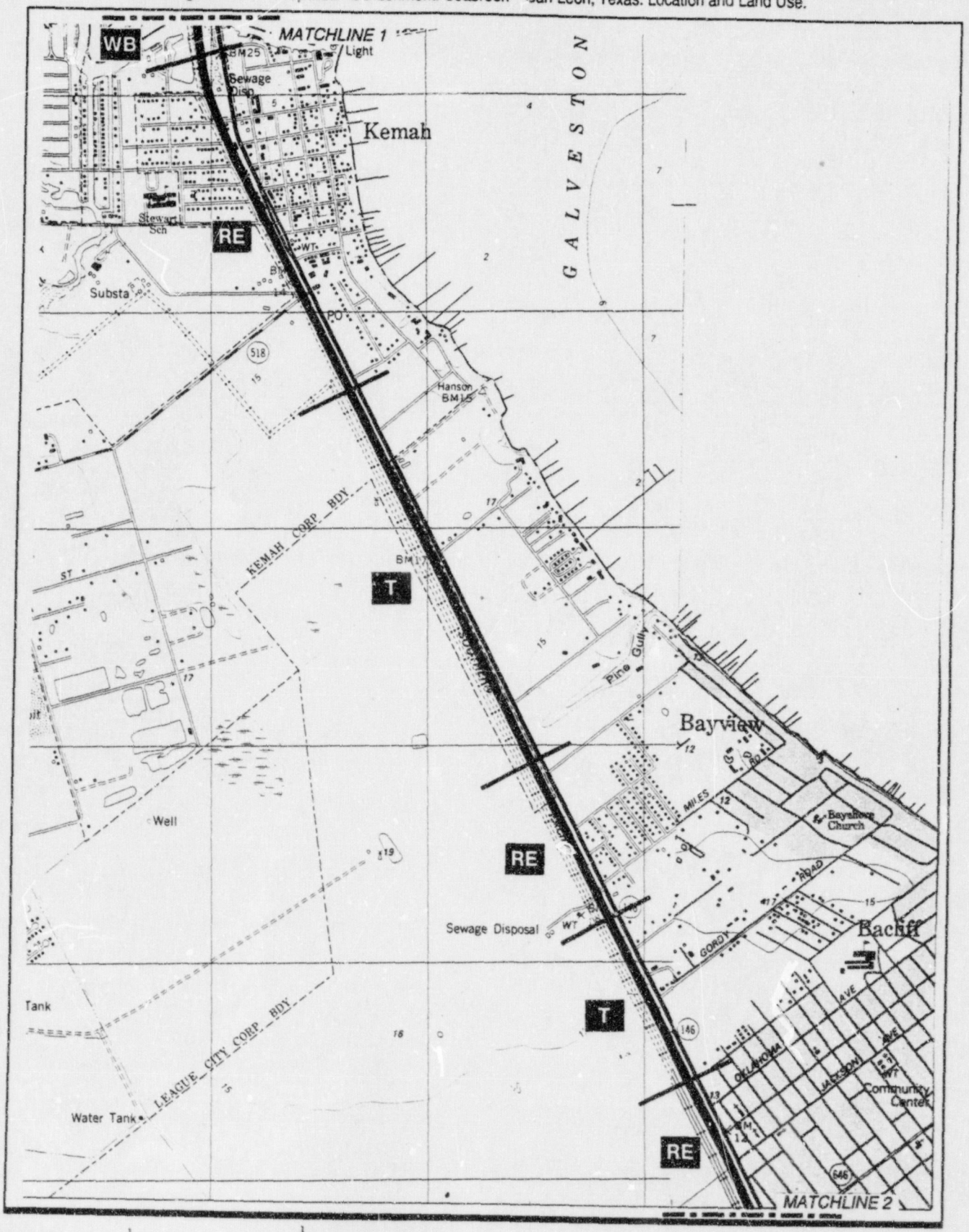


Figure 9.1-1 Proposed Abandonment: Seabrook – San Leon, Texas. Location and Land Use.

Base Map: *USGS 7.5' Topographic Quadrangle: League City, Texas 1982*

Figure 9.1-2 Proposed Abandonment: Seabrook – San Leon, Texas. Location and Land Use.



SCALE 1:24000

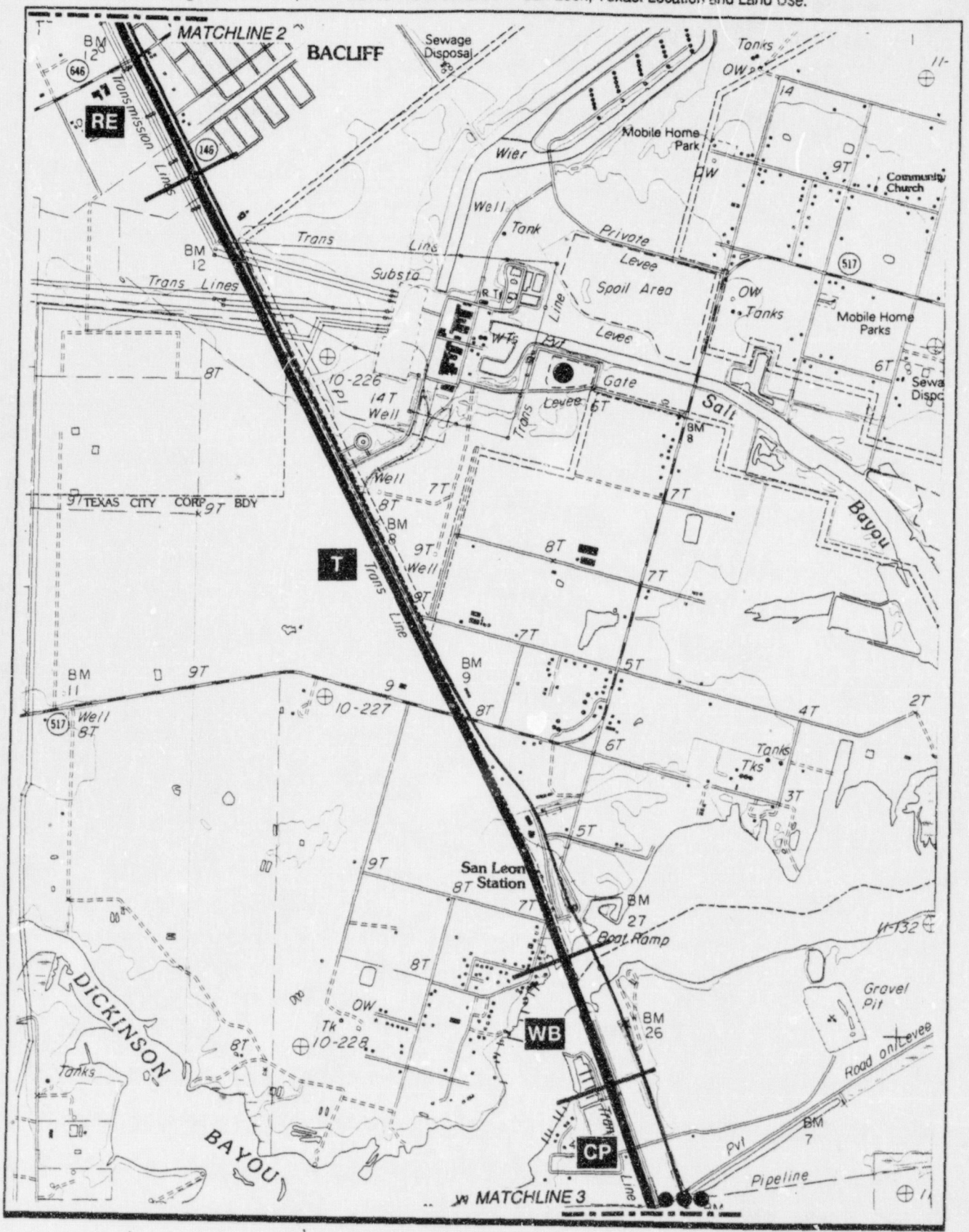
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

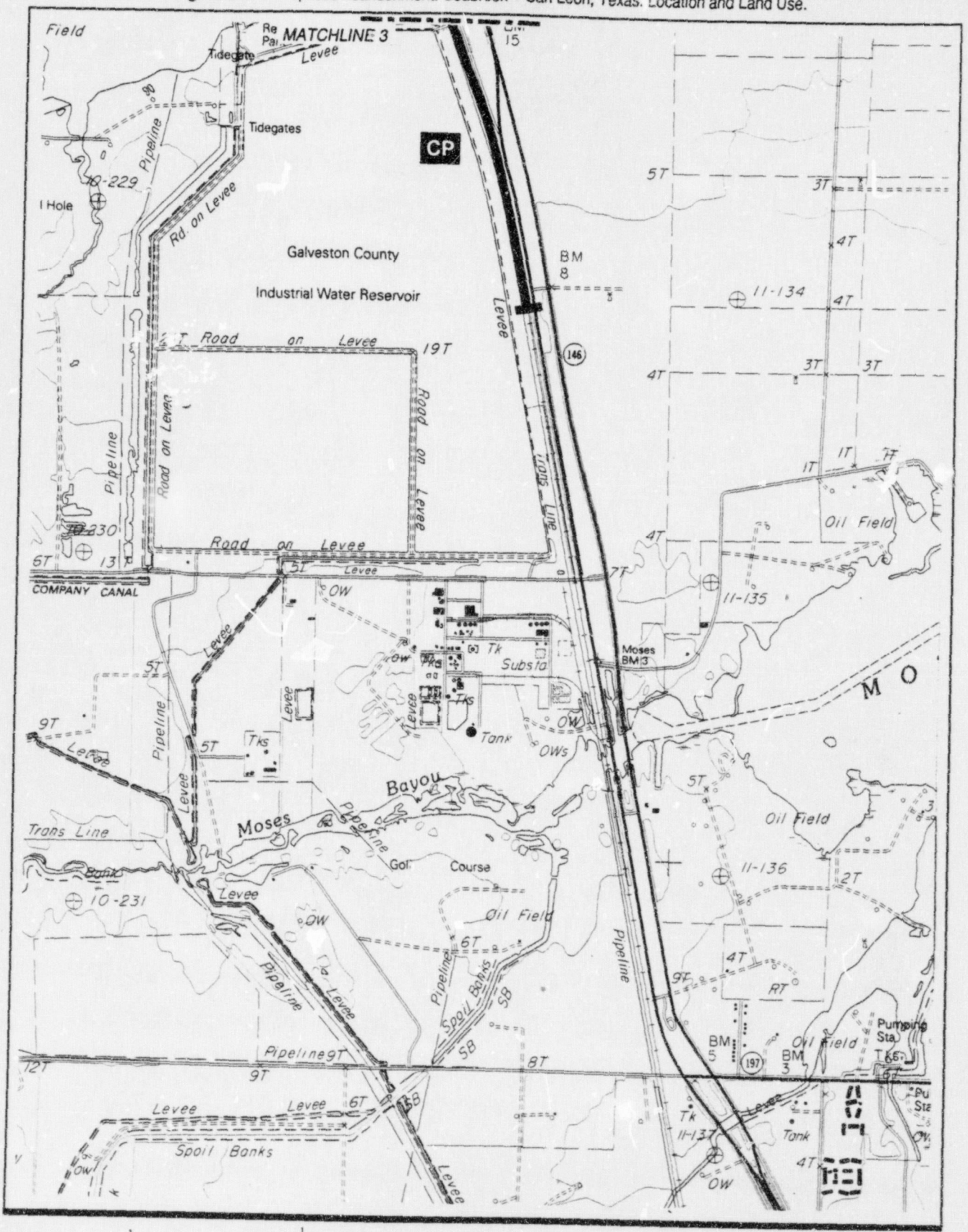
Base Map: *USGS 7.5' Topographic Quadrangles: League City, Texas 1982; Bacliff, Texas 1993*

Figure 9.1-3 Proposed Abandonment: Seabrook – San Leon, Texas. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle: Texas City, Texas (Provisional Edition 1994)*

Figure 9.1-4 Proposed Abandonment: Seabrook – San Leon, Texas. Location and Land Use.



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 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

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
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** | **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

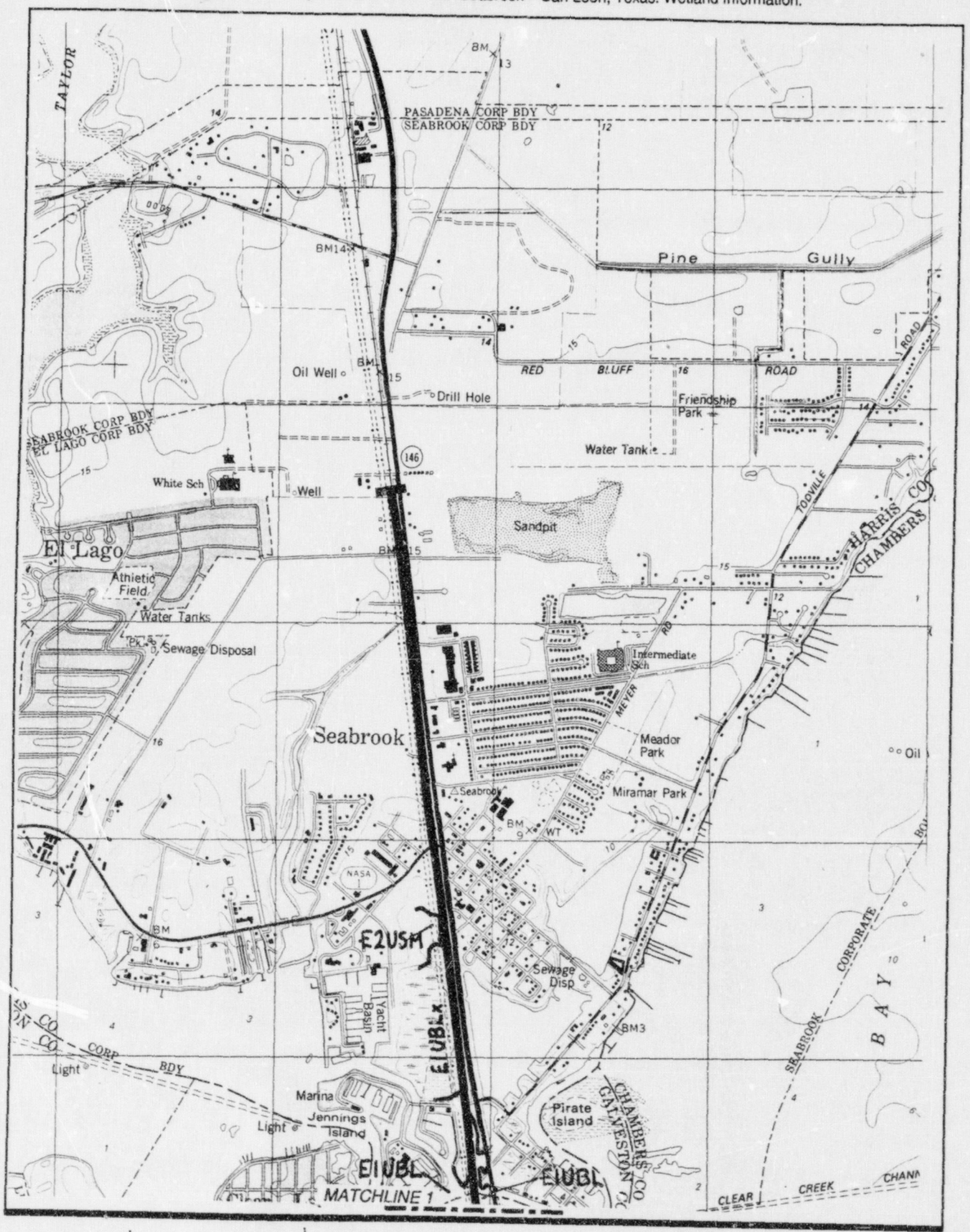
SYSTEM — **P — PALUSTRINE**

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 9.2-1 Proposed Abandonment: Seabrook – San Leon, Texas. Wetland Information.



SCALE 1:24000

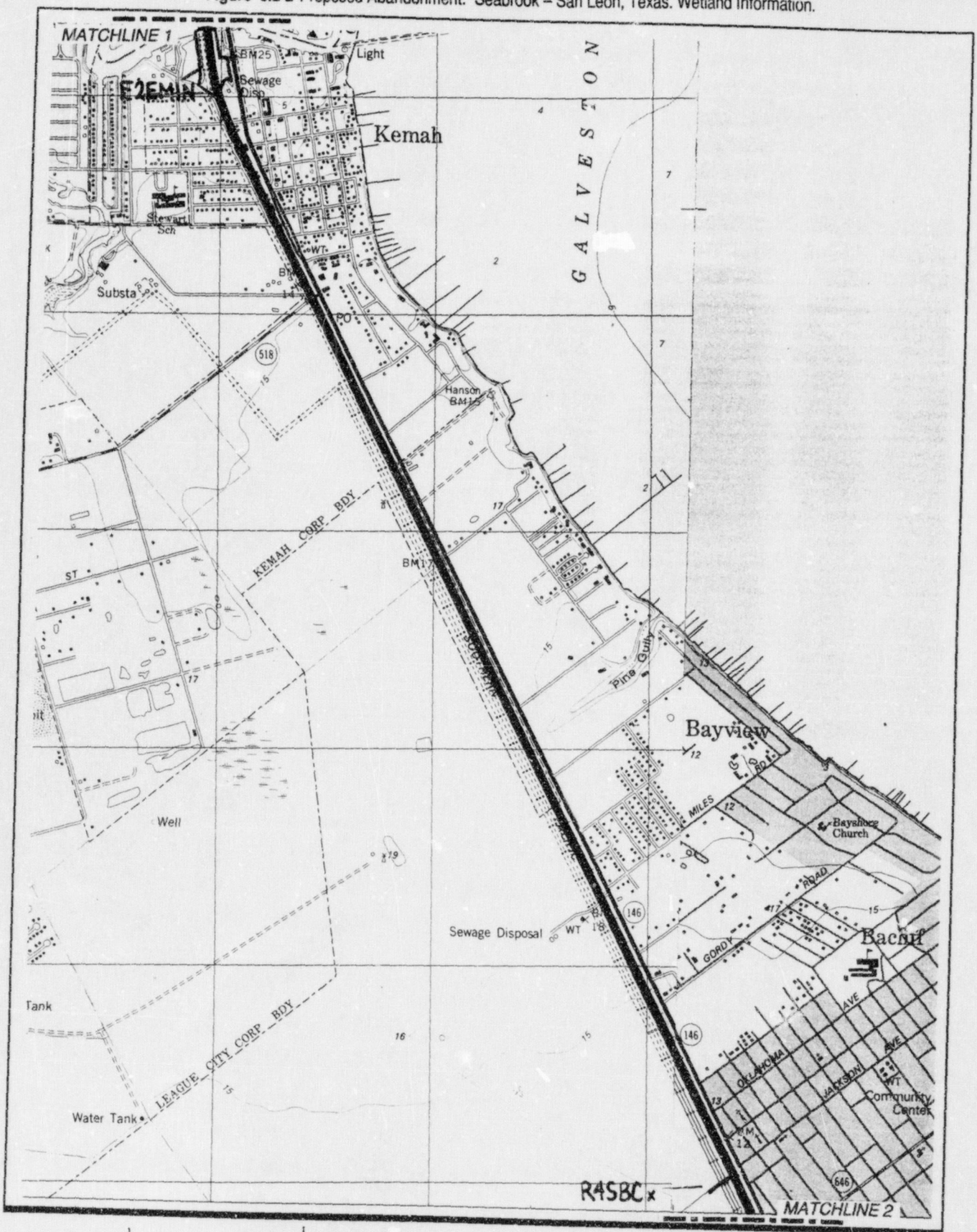
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangle: League City, Texas 1982*

Figure 9.2-2 Proposed Abandonment: Seabrook – San Leon, Texas. Wetland Information.



SCALE 1:24000

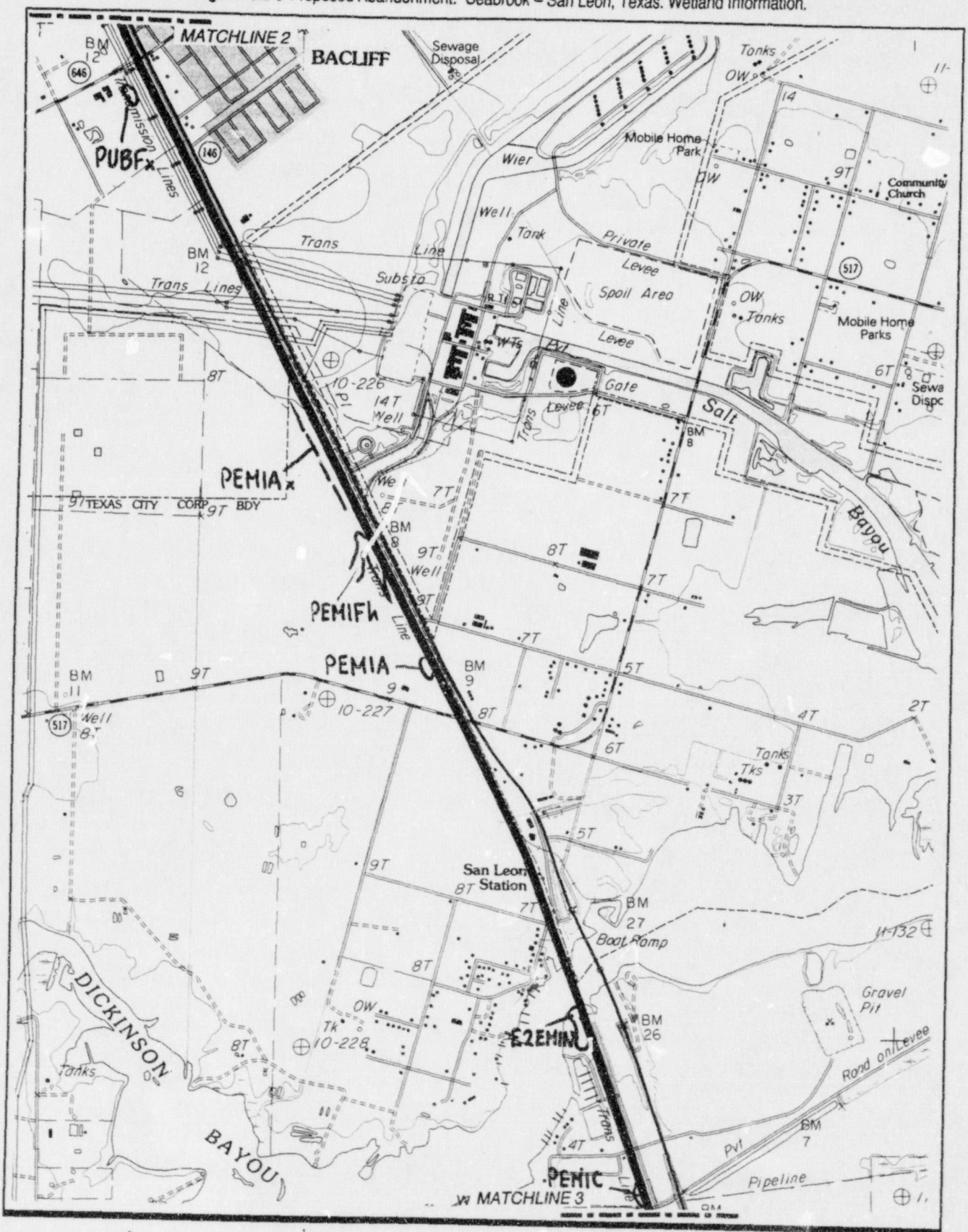
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangles: League City, Texas 1982; Bacliff, Texas 1993*

Figure 9.2-3 Proposed Abandonment: Seabrook – San Leon, Texas. Wetland Information.



SCALE 1:24000

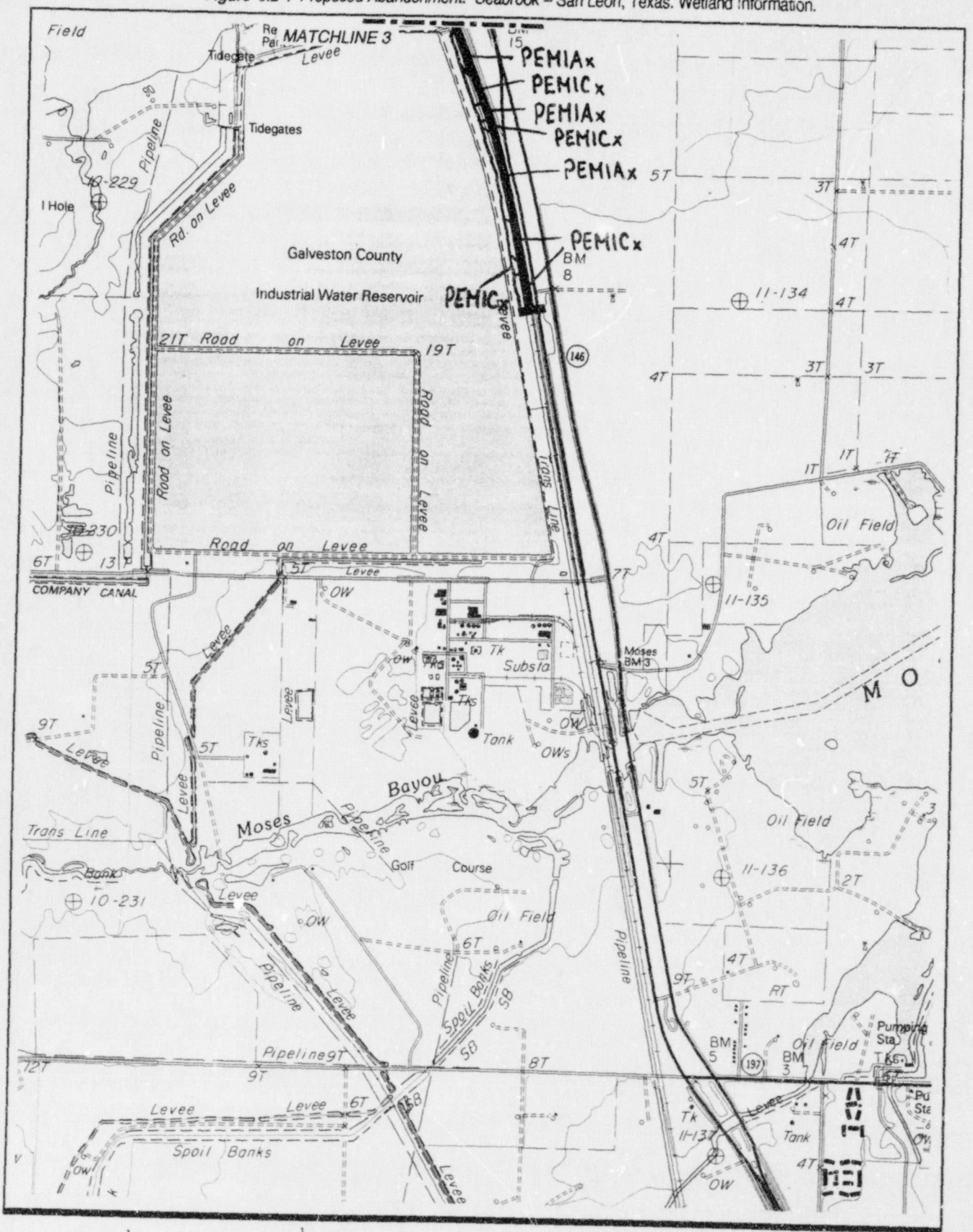
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangle: Texas City, Texas (Provisional Edition 1994)*

Figure 9.2-4 Proposed Abandonment: Seabrook – San Leon, Texas. 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: Texas City, Texas (Provisional Edition 1994)*

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 9B Overview of Proposed Abandonment: Suman – Bryan, Texas

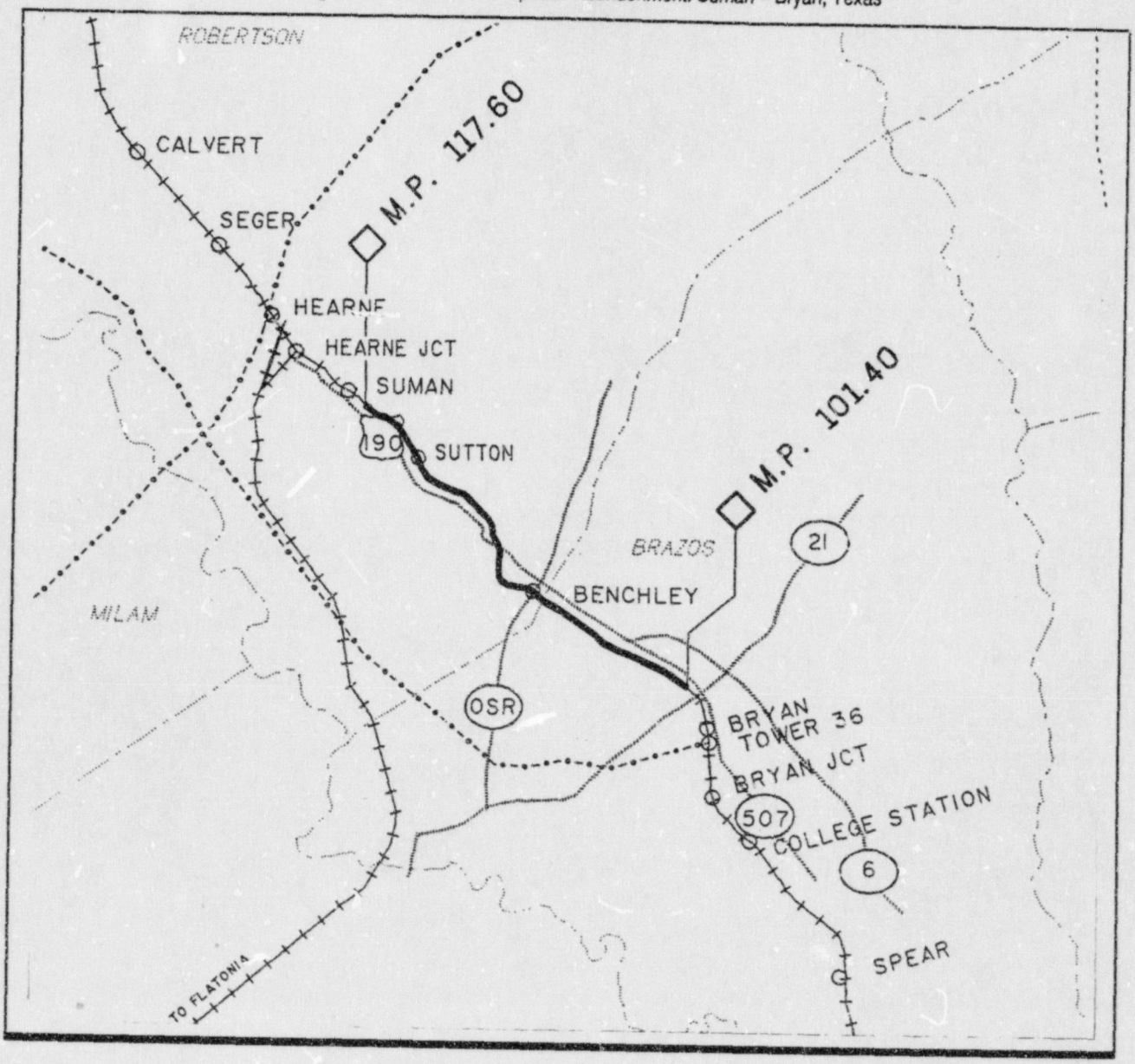
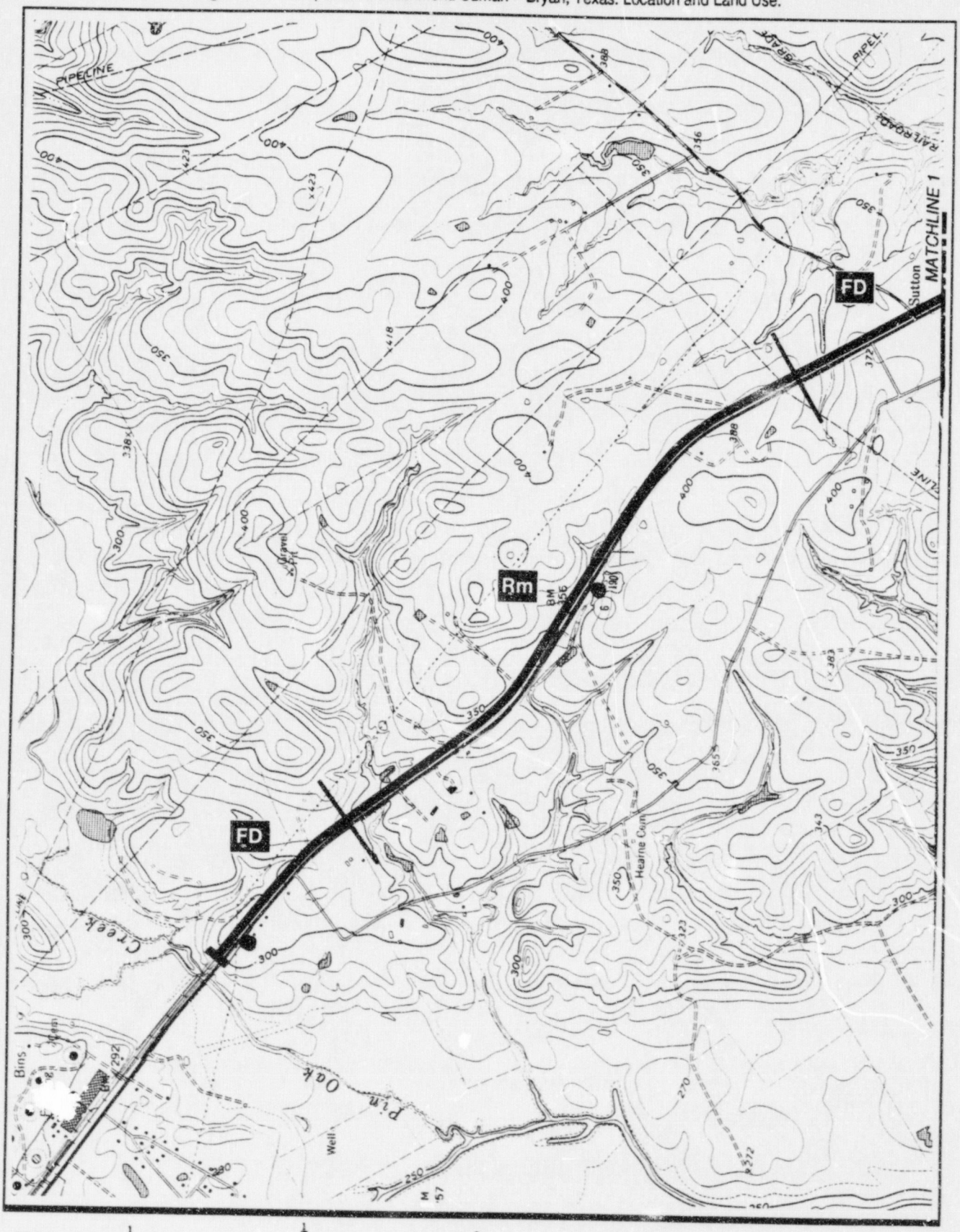
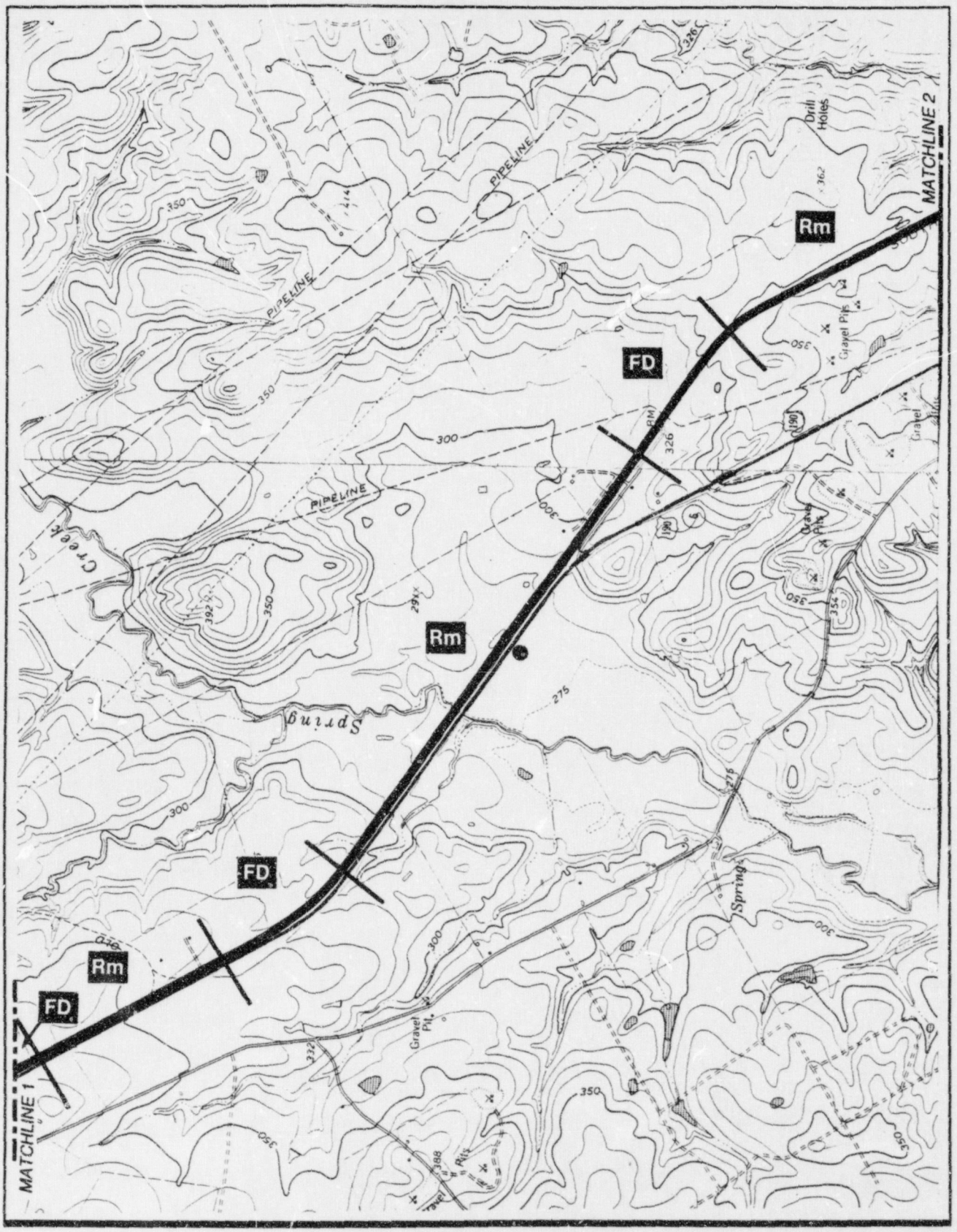


Figure 9.3-1 Proposed Abandonment: Suman – Bryan, Texas. Location and Land Use.



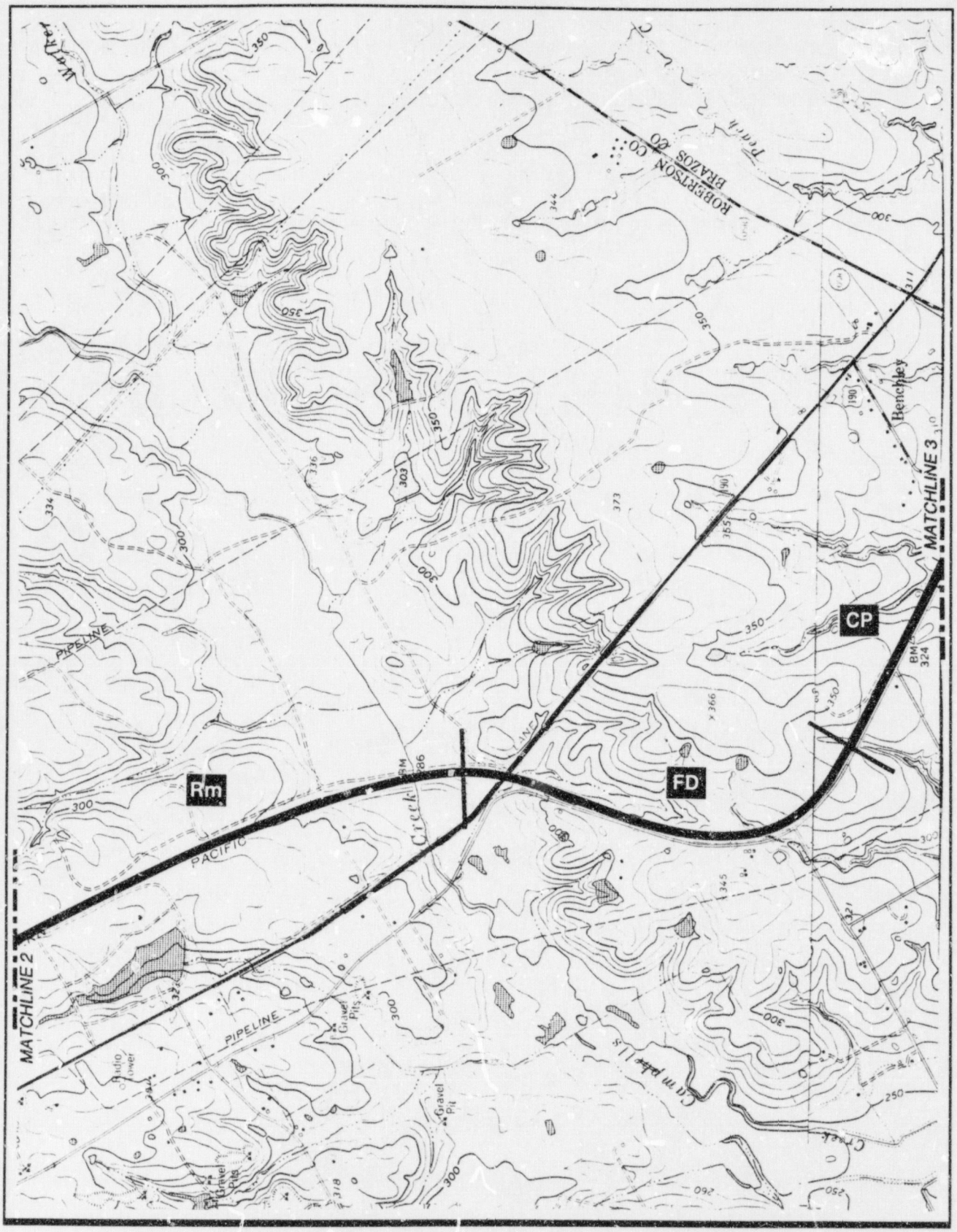
Base Map: *USGS 7.5' Topographic Quadrangle: Hearne South, Texas 1961 (Photorevised 1988)*

Figure 9.3-2 Proposed Abandonment: Suman – Bryan, Texas. Location and Land Use.



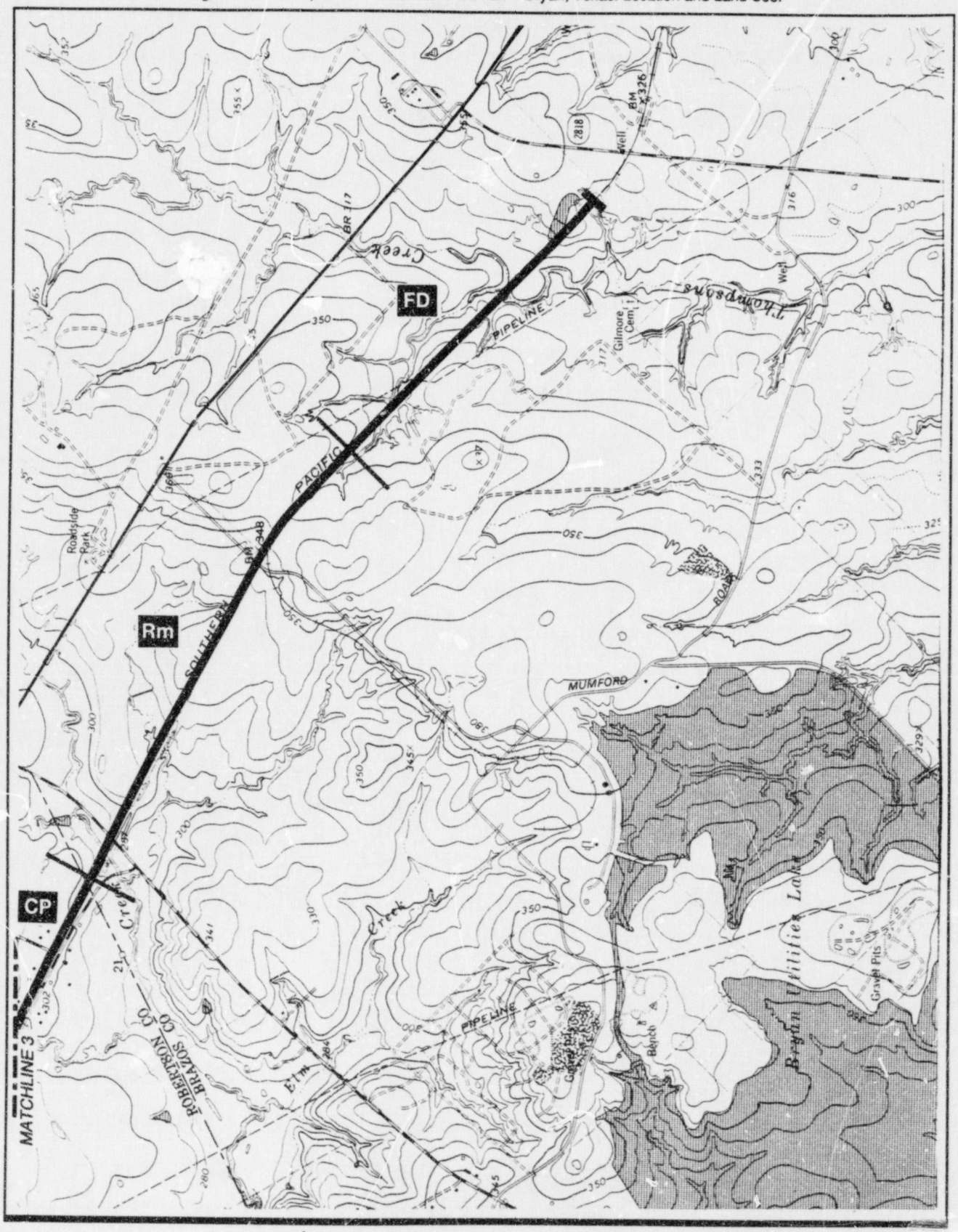
Base Map: *USGS 7.5' Topographic Quadrangles: Hearne South, Texas 1961 (Photorevised 1988); Dunn Creek, Texas 1963 (Photorevised 1980)*

Figure 9.3-3 Proposed Abandonment: Suman – Bryan, Texas. Location and Land Use.



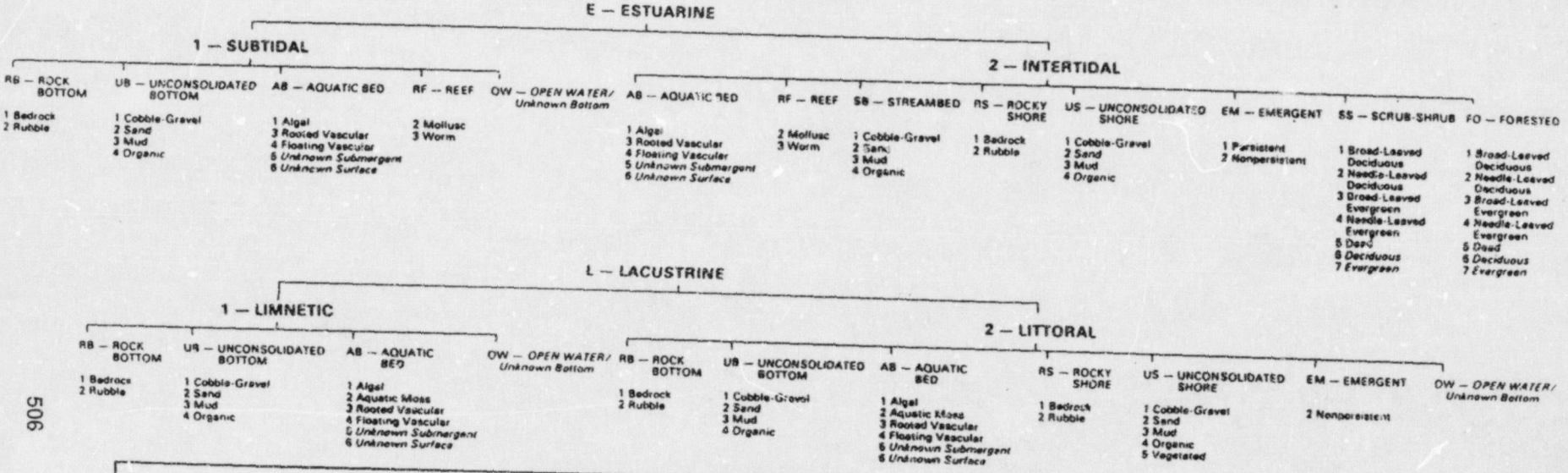
Base Map: *USGS 7.5' Topographic Quadrangles: Dunn Creek, Texas 1963 (Photorevised 1980); Bryan West, Texas 1962 (Photorevised 1980)*

Figure 9.3-4 Propcsed Abandonment: Suman – Bryan, Texas. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle: Bryan West, Texas 1962 (Photorevised 1980)*

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 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

- e 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

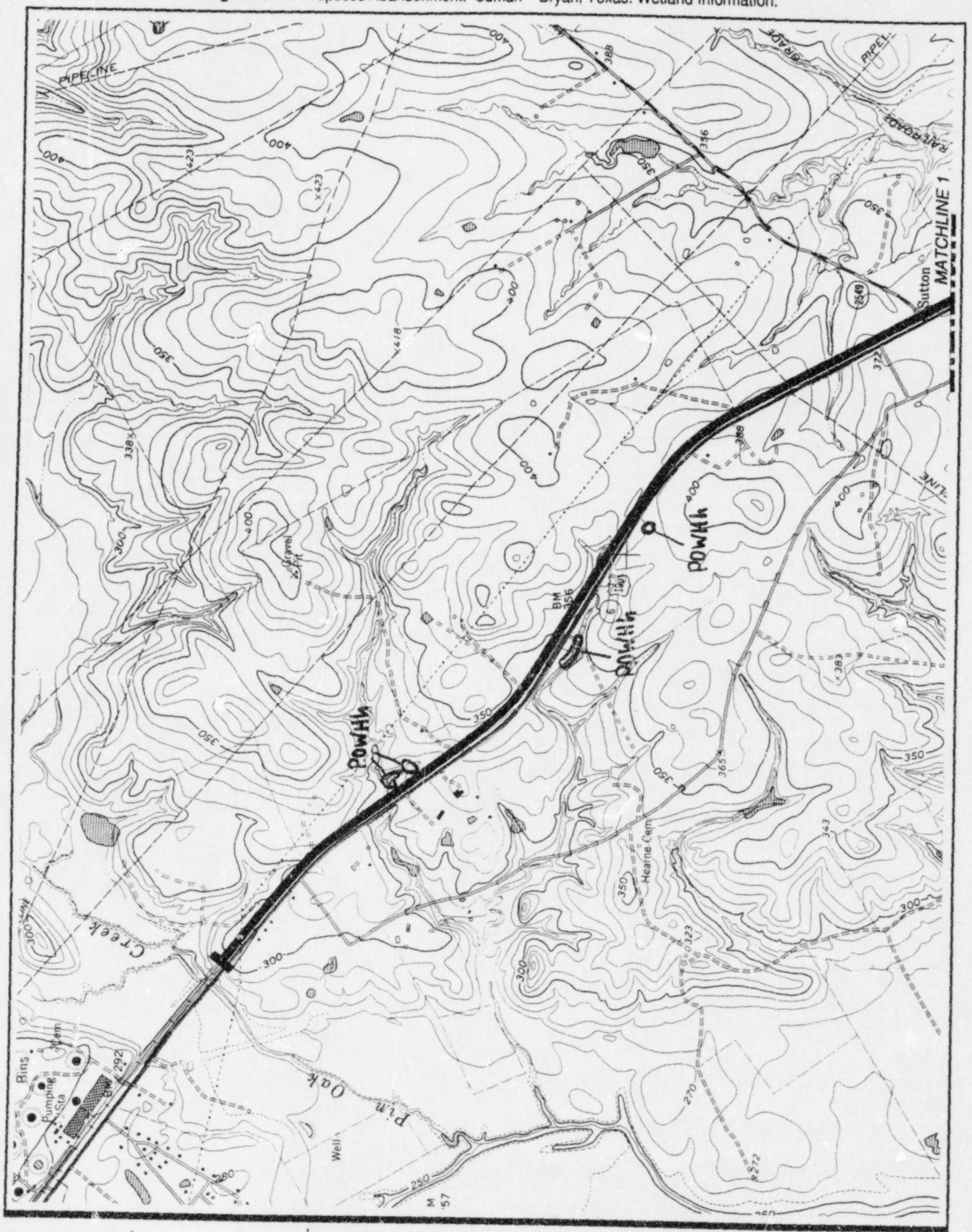
SYSTEM — P — PALUSTRINE

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:

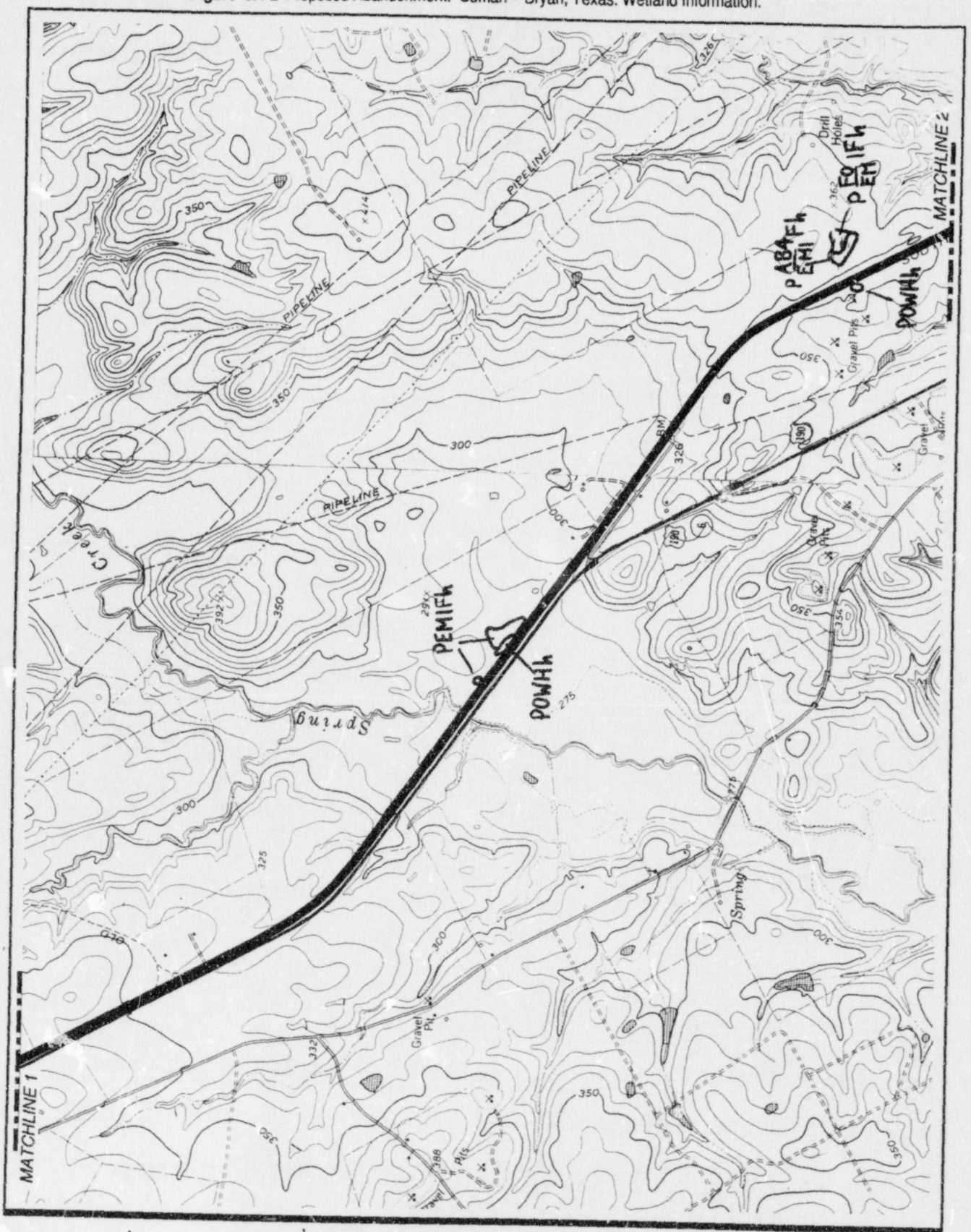
The NWI Inventory uses a hierarchy of alphabetical and numerical symbols to indicate wetland characteristics. The following example illustrates how the hierarchy works. For a hypothetical wetland type indicated as "L2AB3a" begin by finding the system type indicated by the first symbol; that is, "L" indicates "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 9.4-1 Proposed Abandonment: Suman – Bryan, Texas. Wetland Information.



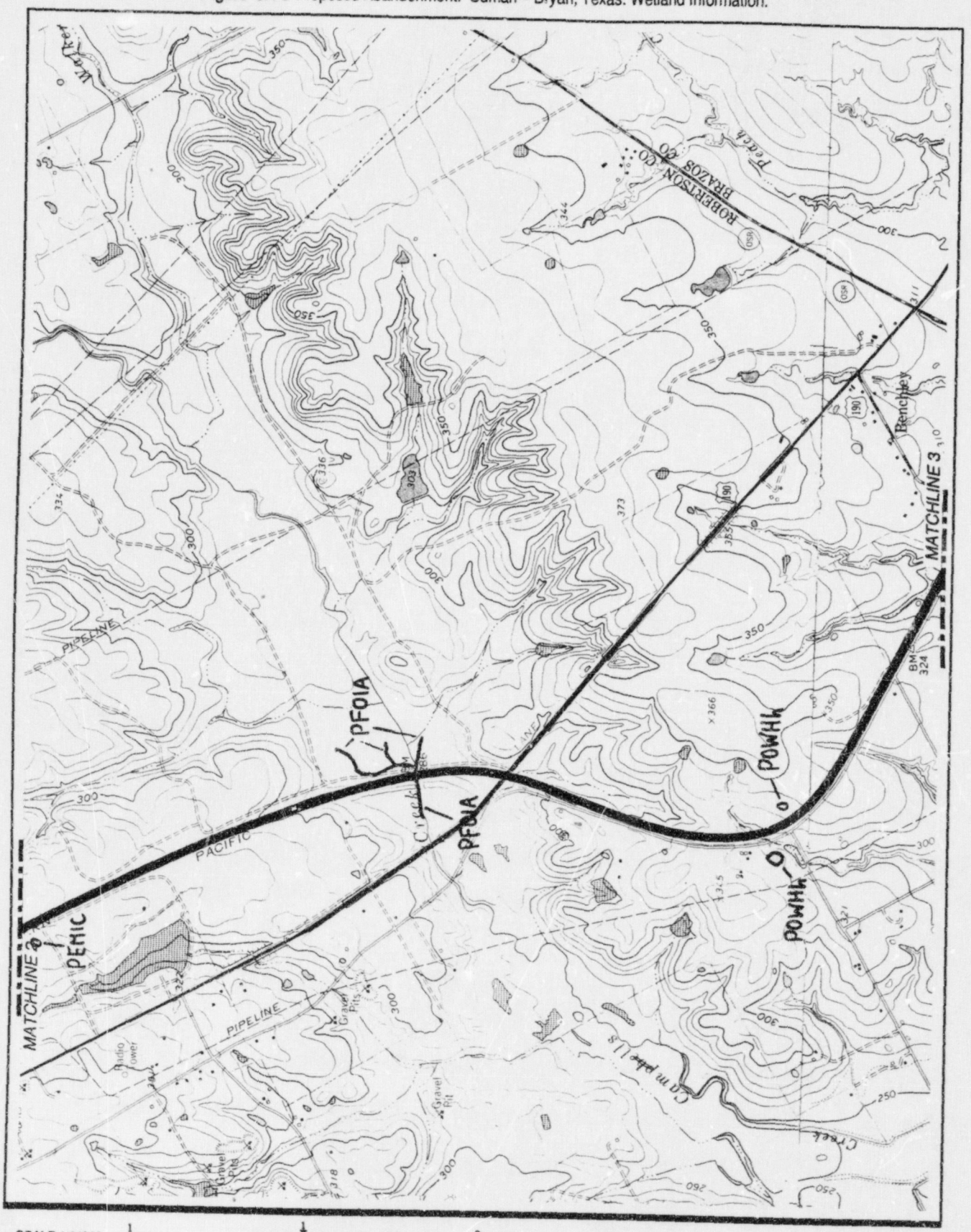
Base Map: *USGS 7.5' Topographic Quadrangle: Hearne South, Texas 1961 (Photorevised 1988)*

Figure 9.4-2 Proposed Abandonment: Suman – Bryan, Texas. Wetland Information.



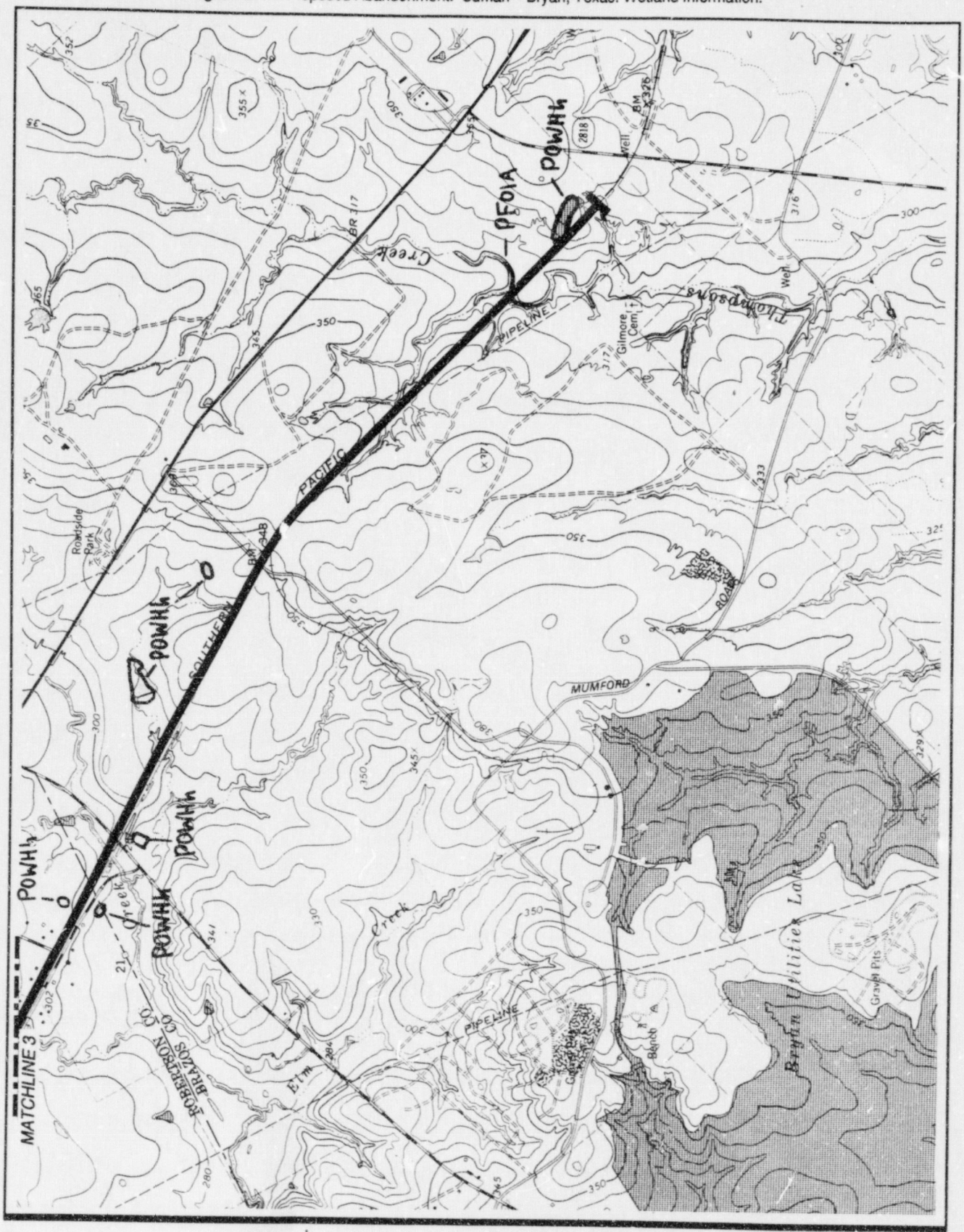
Base Map: *USGS 7.5' Topographic Quadrangles: Hearne South, Texas 1961 (Photorevised 1988); Dunn Creek, Texas 1963 (Photorevised 1980)*

Figure 9.4-3 Proposed Abandonment: Suman – Bryan, Texas. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangles: Dunn Creek, Texas 1963 (Photorevised 1980); Bryan West, Texas 1962 (Photorevised 1980)*

Figure 9.4-4 Proposed Abandonment: Suman – Bryan, Texas. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangle: Bryan West, Texas 1962 (Photorevised 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 9C Overview of Proposed Abandonment: Troup – Whitehouse, Texas

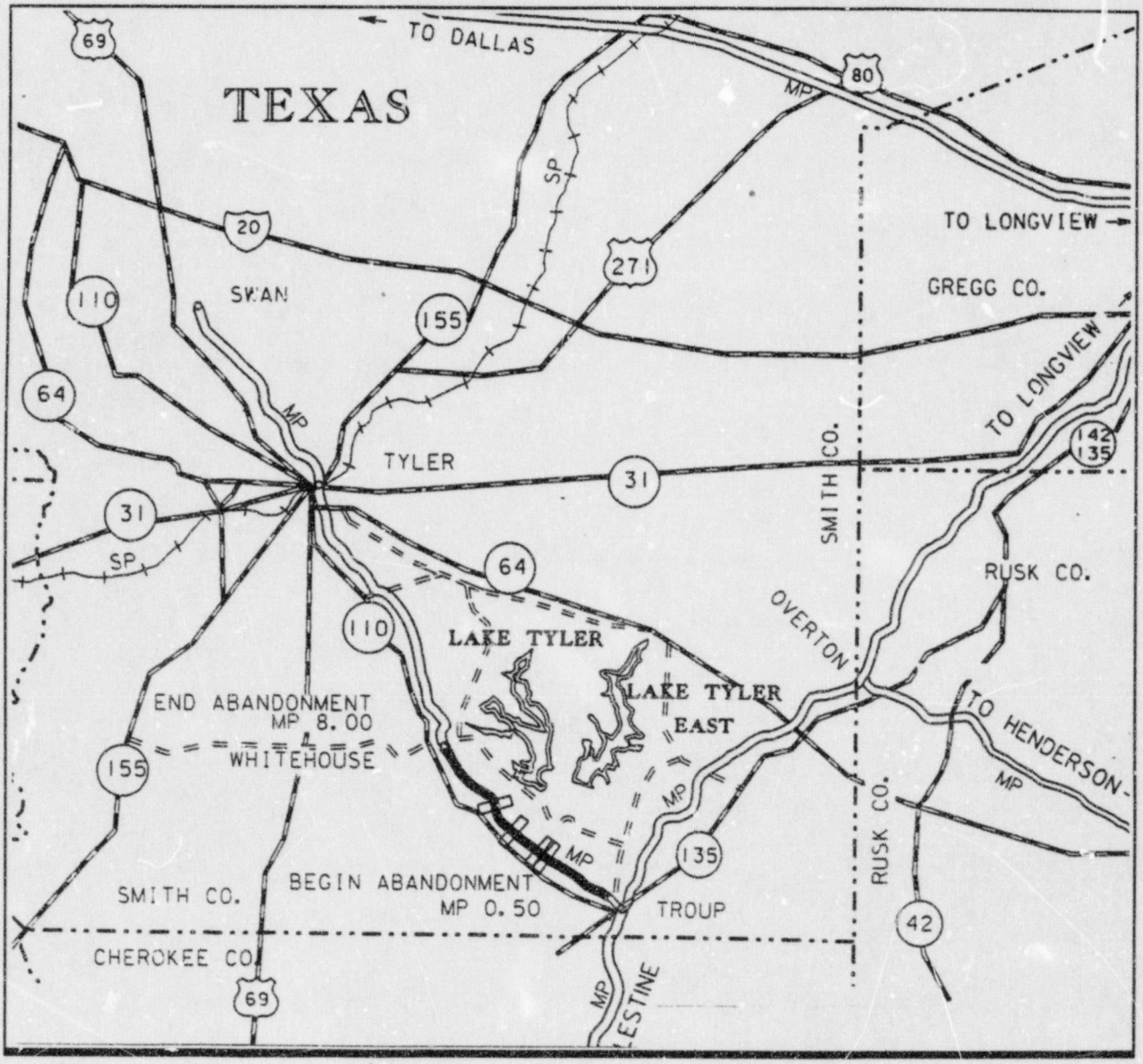
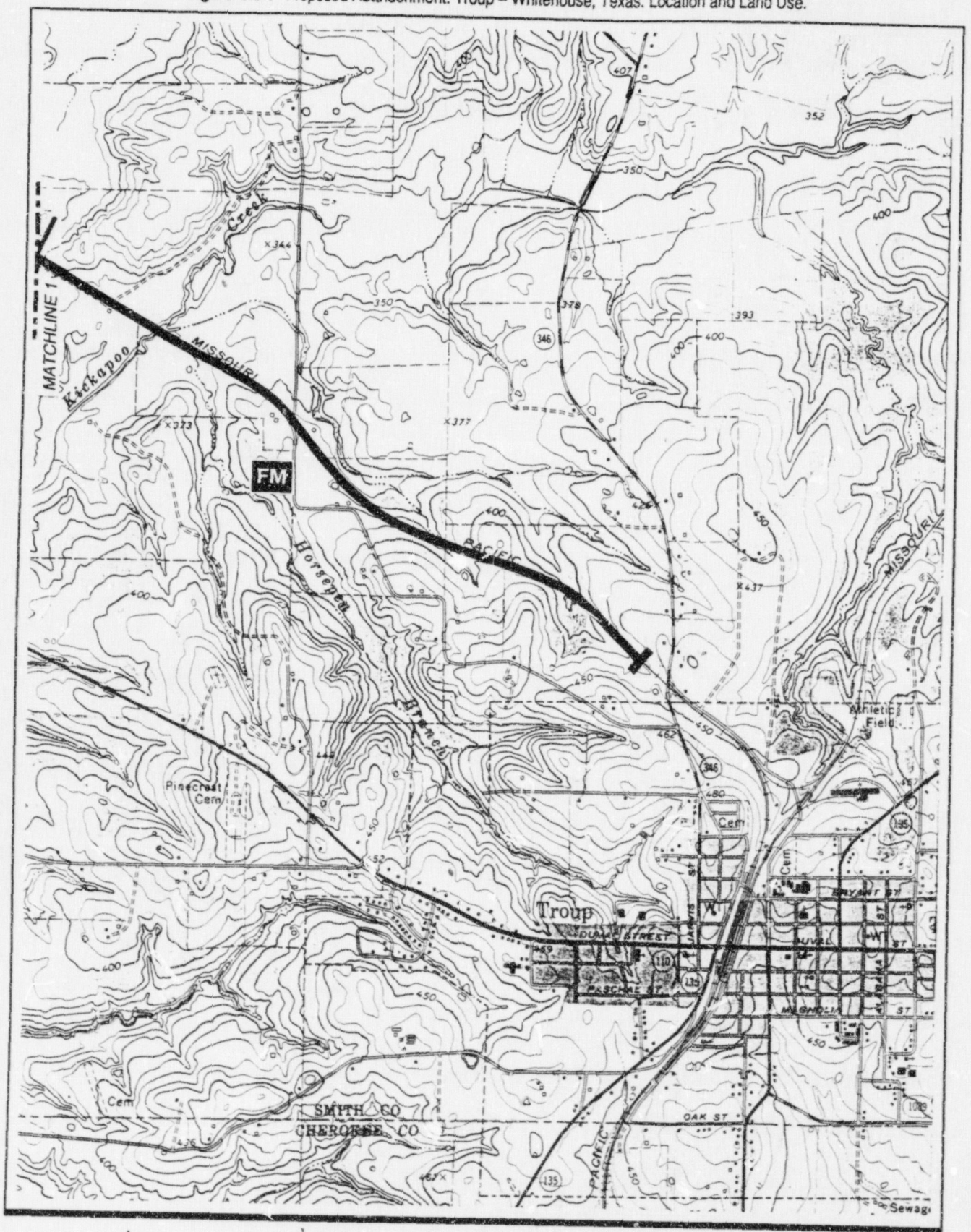


Figure 9.5-1 Proposed Abandonment: Troup – Whitehouse, Texas. Location and Land Use.



SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

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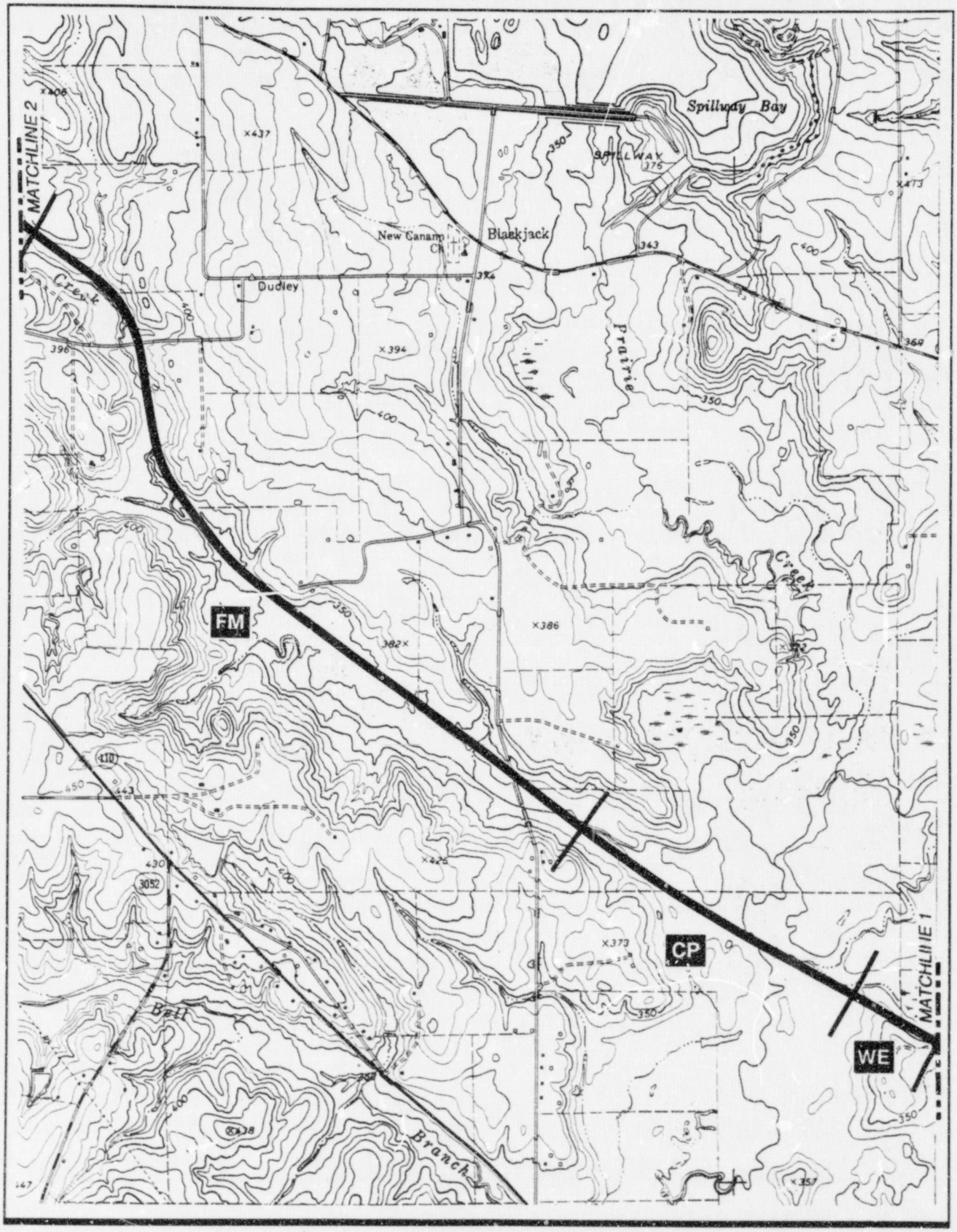
Base Map: *USGS 7.5' Topographic Quadrangles:* Troup West, Texas 1973; Troup East, Texas 1973

Figure 9.5-2 Proposed Abandonment: Troup – Whitehouse, Texas. Location and Land Use.



SCALE 1:24000

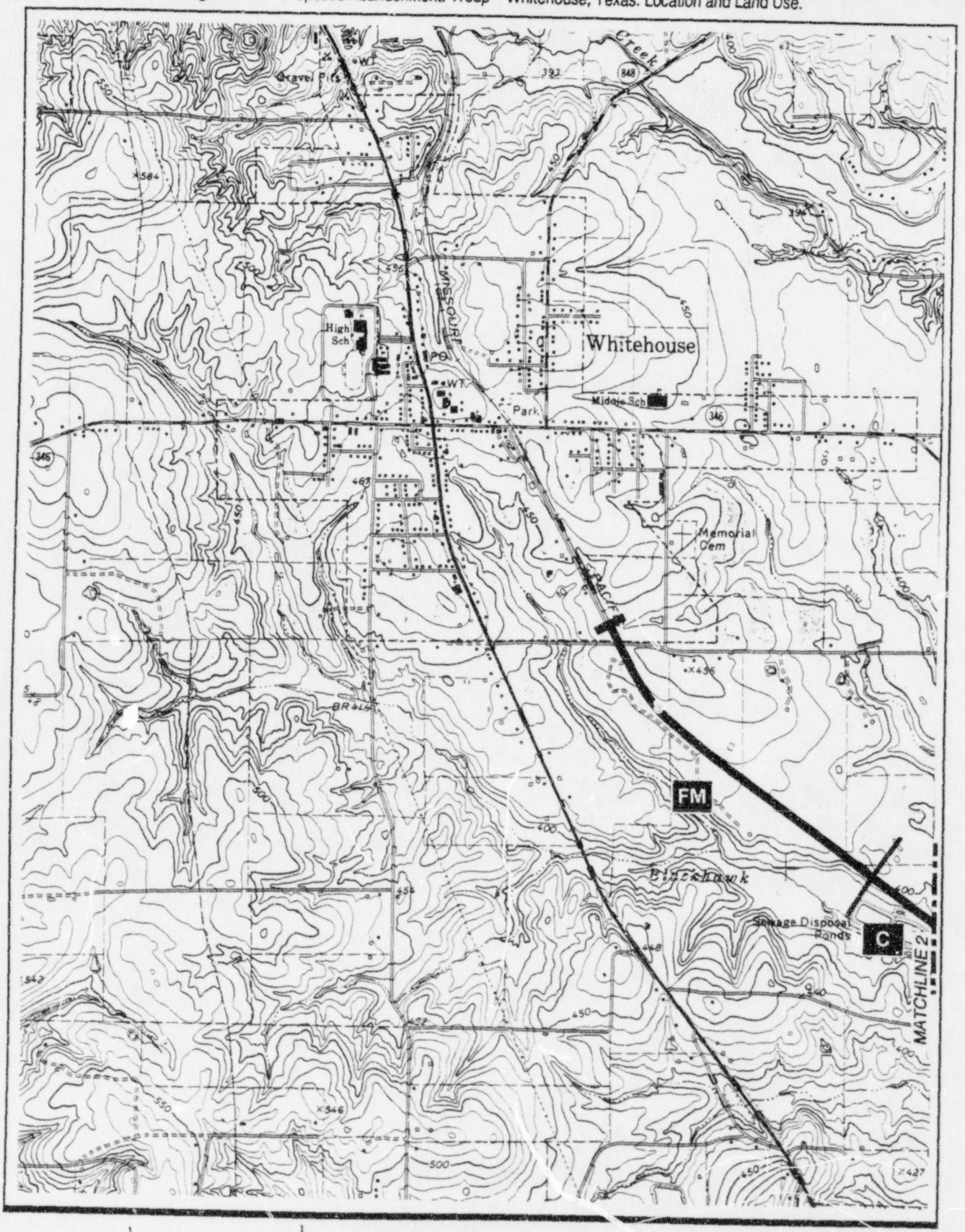
1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangle:* Troup West, Texas 1973

Figure 9.5-3 Proposed Abandonment: Troup – Whitehouse, Texas. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle:* Troup West, Texas 19[illegible]

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

SUBSYSTEM — **2 — INTERTIDAL**

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

*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	RB — ROCK BOTTOM	UB — UNCONSOLIDATED BOTTOM	AB — AQUATIC BED	US — UNCONSOLIDATED SHORE	ML — MOSS-LICHEN	EM — EMERGENT	SS — SCRUB-SHRUB	FO — FORESTED	OW — *OPEN WATER/ Unknown Bottom*
Subclass	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 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	1 Moss 2 Lichen	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*	

Instructions for using the legend:

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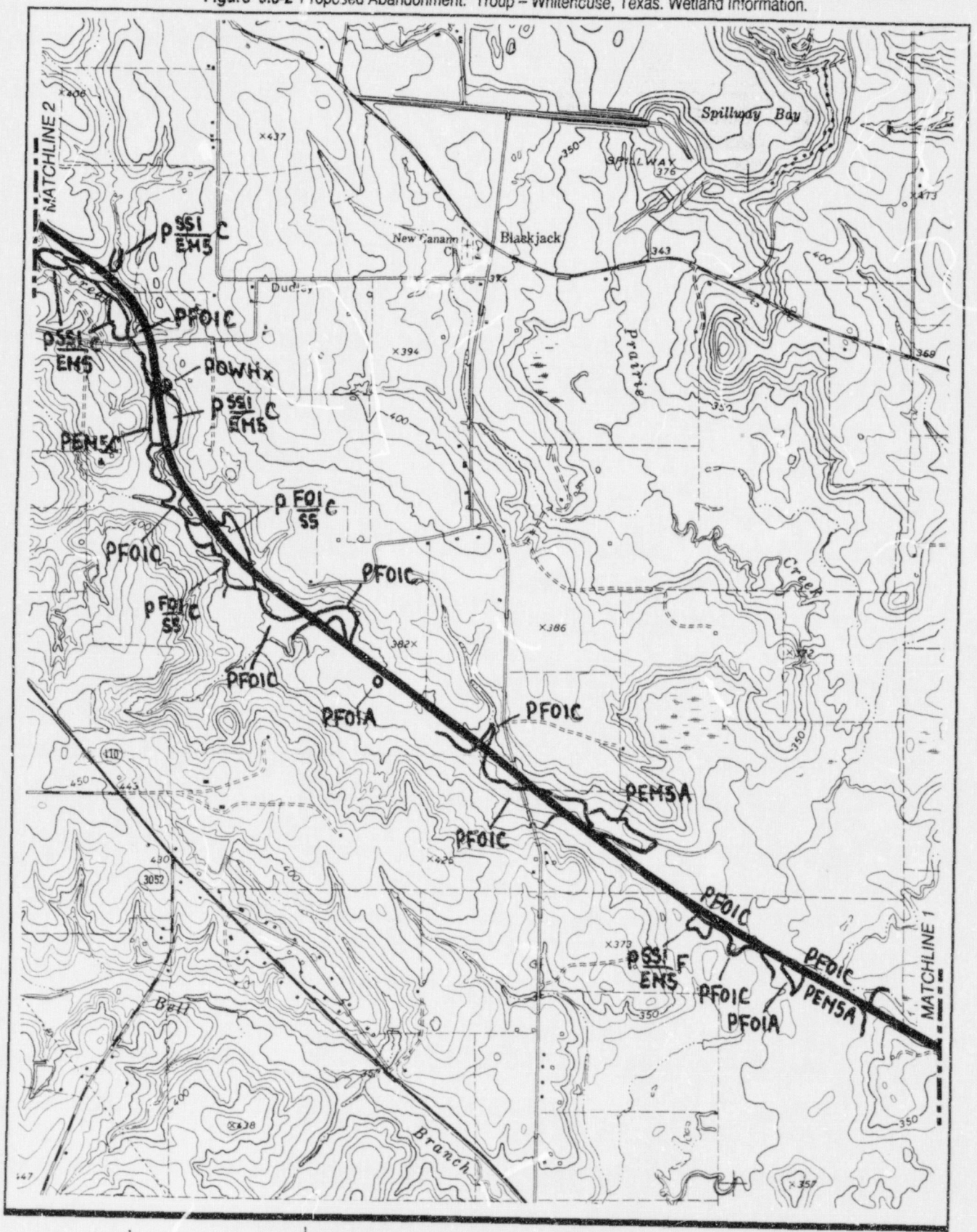
Figure 9.6-1 Proposed Abandonment: Troup – Whitehouse, Texas. Wetland Information.

Base Map: *USGS 7.5' Topographic Quadrangles:* Troup West, Texas 1973; Troup East, Texas 1973

Figure 9.6-2 Proposed Abandonment: Troup – Whitehouse, Texas. Wetland Information.



SCALE 1:24000

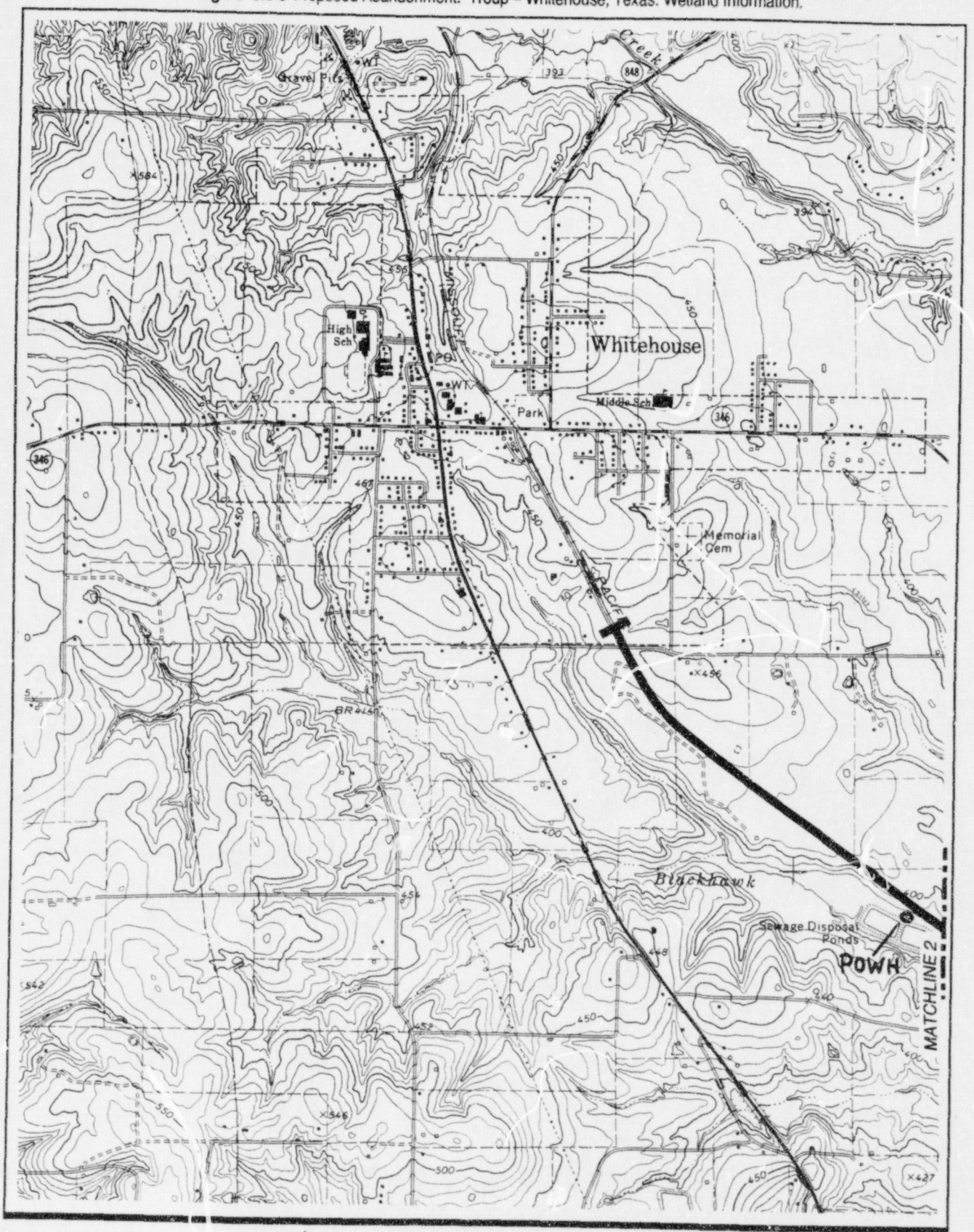
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangle:* Troup West, Texas 1973

Figure 9.6-3 Proposed Abandonment: Troup – Whitehouse, Texas. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangle:* Troup West, Texas 1973

10.0 UTAH

10.1 LITTLE MOUNTAIN JCT. TO LITTLE MOUNTAIN

The Little Mountain Jct. to Little Mountain, Utah rail line proposed for abandonment is 12.0 miles long (Figures 10A and 10.1-1 to 10.1-4). Little Mountain Jct., Utah is located in Box Elder County, approximately 20 miles north of Salt Lake City. Little Mountain is located in Weber County, approximately eight miles north of Salt Lake City. This line currently serves as the UP route to Little Mountain.

10.1.1 Proposed Action and No-action Alternative

10.1.1.1 Proposed Action

The proposed action would involve the abandonment of 12 miles of rail line following procedures described in Section 2.0. This segment currently serves as the UP route to Little Mountain. There is no local traffic. Following the merger, Little Mountain would be served via the SP main line.

10.1.1.2 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.

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

10.1.2.1 Land Use

Information for existing land use conditions is presented in Table 10-1 and on Figures 10.1-1 through 10.1-4. Potential land use impacts are listed in Table 10-1. No significant land use impacts are expected.

10.1.2.2 Water Resources and Wetlands

Existing water resources and wetlands information is summarized in Table 10-2. NWI data along the Little Mountain Jct.-Little Mountain, Utah abandonment were

collected, as available. Those data are shown on Figures 10.2-1 to 10.2-4. Significant impacts are not expected.

10.1.2.3 Biological Resources

Existing biological resources information and potential impacts are summarized in Table 10-3. Sensitive biological resources in the vicinity include wetlands habitats, as well as habitat and migration routes for wintering and migratory birds; however, we have not determined that they are actually located on this line. Potentially significant impacts to biological resources due to this proposed abandonment are not expected. General mitigation measures discussed in Section 11.0 could help maintain potential impacts to wetlands, and wintering and migratory birds at non-significant levels.

10.1.2.4 Historic and Cultural Resources

This line was constructed in 1971 by the Oregon Short Line Railroad. There are no bridges or structures 50 years old or older located along this segment (UP, 1995). 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.

10.1.2.5 Safety

Hazardous waste sites near the abandonment identified from the database search are included in Table 10-4.

10.1.2.5.1 Conditions of the Rail Segment

No hazardous waste sites were identified on the Little Mountain Branch, Utah rail segment based on the available information.

10.1.2.5.2 Conditions Adjacent to the Rail Segment

The database search identified one LUST site and 12 SWLF sites potentially within the vicinity of the rail segment. Information provided by VISTA does not indicate that these sites have adversely affected the rail segment.

10.1.2.6 Transportation

The Little Mountain Branch is currently served by a daily turnaround local train operating between Ogden and Little Mountain. No local traffic originates or terminates on this line. This line serves as the UP route to Little Mountain, which can be served via the SP main line after the merger. Therefore, there would be no adverse transportation effects of abandoning the Little Mountain Branch.

10.1.3 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 adverse environmental impacts.

10.2 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 Part 6 of this Environmental Report.

There is one segment proposed for abandonment in Utah. For the abandonment in this state, the following agency responded: Box Elder County Commissioners.

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

- The Box Elder County Commissioners, in response to the merger and the abandonment of the Little Mountain segment, stated that they were unaware of any protected species, that critical habitats within five miles would be upland birds, and that there is a state park in the area. They also stated that this segment crossed a county road and that this crossing should be removed per the county's approval.

10.3 REFERENCES

10.3.1 Land Use

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.

10.3.2 Water Resources and Wetlands

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

10.3.3 Biological Resources

England, Larry, 1995. Personal communication with Brian Leatherman, Dames & Moore, from United States Fish and Wildlife Service, Salt Lake City, Utah, October 5.

Perkins, Jane, 1995. Personal communication/correspondence with Brian Leatherman, Dames & Moore, from Utah Division of Wildlife. October 6.

Robinette, Kevin, 1995. Personal communication/correspondence with Brian Leatherman, Dames & Moore, from Utah Division of Wildlife. October 10.

10.3.4 Historic and Cultural Resources

UP, 1995. Information on Little Mountain Jct. to Little Mountain, UT proposed abandonment.

10.3.5 Safety

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.

TABLE 10-1

LAND USE INFORMATION ALONG THE LITTLE MOUNTAIN JCT. - LITTLE MOUNTAIN, UTAH ABANDONMENT

EXISTING CONDITIONS					
		Structures Near Site		Occurrence Within	
Segment	Existing Land Uses	Within 500 Feet	Length in Urbanized Areas (Feet)	Prime Farmland	Coastal Zone
Little Mountain Jct. - Little Mountain	Forested wetland and/or nonforested wetland, cropland and pasture, transportation/communications/utilities	21	0	No	No

IMPACTS		
Segment	Compatible with Surrounding Land Uses	Loss of Prime Farmland
Little Mountain Jct. - Little Mountain	Yes - Not significant	No - Not Significant

TABLE 10-2

WATER RESOURCES AND WETLANDS INFORMATION ALONG THE LITTLE MOUNTAIN JCT. - LITTLE MOUNTAIN, UTAH ABANDONMENT

Type of Water Resource[1]	Number Along the Segment	
	Intercepted by the Segment	Adjacent to the Segment
Blue-line streams	12	2
Waterbodies	1	2
Wetlands	4	3
Canals, culverts, ditches	8	0
Mudflats	1	1
Salt evaporators	0	1

[1] Type:

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

Waterbodies = permanent and intermittent bodies of standing water including ponds, lakes, reservoirs, bayous, catchments, and beaver ponds

Wetlands = areas depicted with the USGS wetland symbol, primarily including marshes and wet meadows

Salt evaporators = areas used for public facilities or commercial purposes

Canals, culverts, ditches = human-made water conveyances

TABLE 10-3

BIOLOGICAL RESOURCES INFORMATION ALONG SEGMENTS PROPOSED FOR ABANDONMENT IN UTAH

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**
Little Mountain to Little Mountain	• Marsh • Wetland • Riparian	None	None	Harold S. Crane State Waterfowl Management Area, Willard Bay State Wildlife Management Area
POTENTIAL IMPACTS TO:				
Segment	**Vegetation Types/ Wildlife Habitats**	**Rare, Threatened and Endangered Species in the Region**	**Critical Habitat**	**Parks, Forests, Refuges, Sanctuaries**
Little Mountain to Little Mountain	* Potentially significant impacts to wetlands (see also section 10.1.2.2 and mitigation in section 11.0).	None	None	Not significant

* It is assumed that salvage operations would be limited to the existing ROW. Therefore, impacts to native habitats would be negligible. Abandonment of the rail lines would result in beneficial effects to these resources.

TABLE 10-4

HAZARDOUS WASTE SITE ISSUES ALONG THE LITTLE MOUNTAIN JCT. - LITTLE MOUNTAIN, UTAH ABANDONMENT

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
---	---	None	---	---	---	---	---	---	---	---	---	---	12	1

[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 10A Overview of Proposed Abandonment: Little Mountain Junction – Little Mountain, Utah

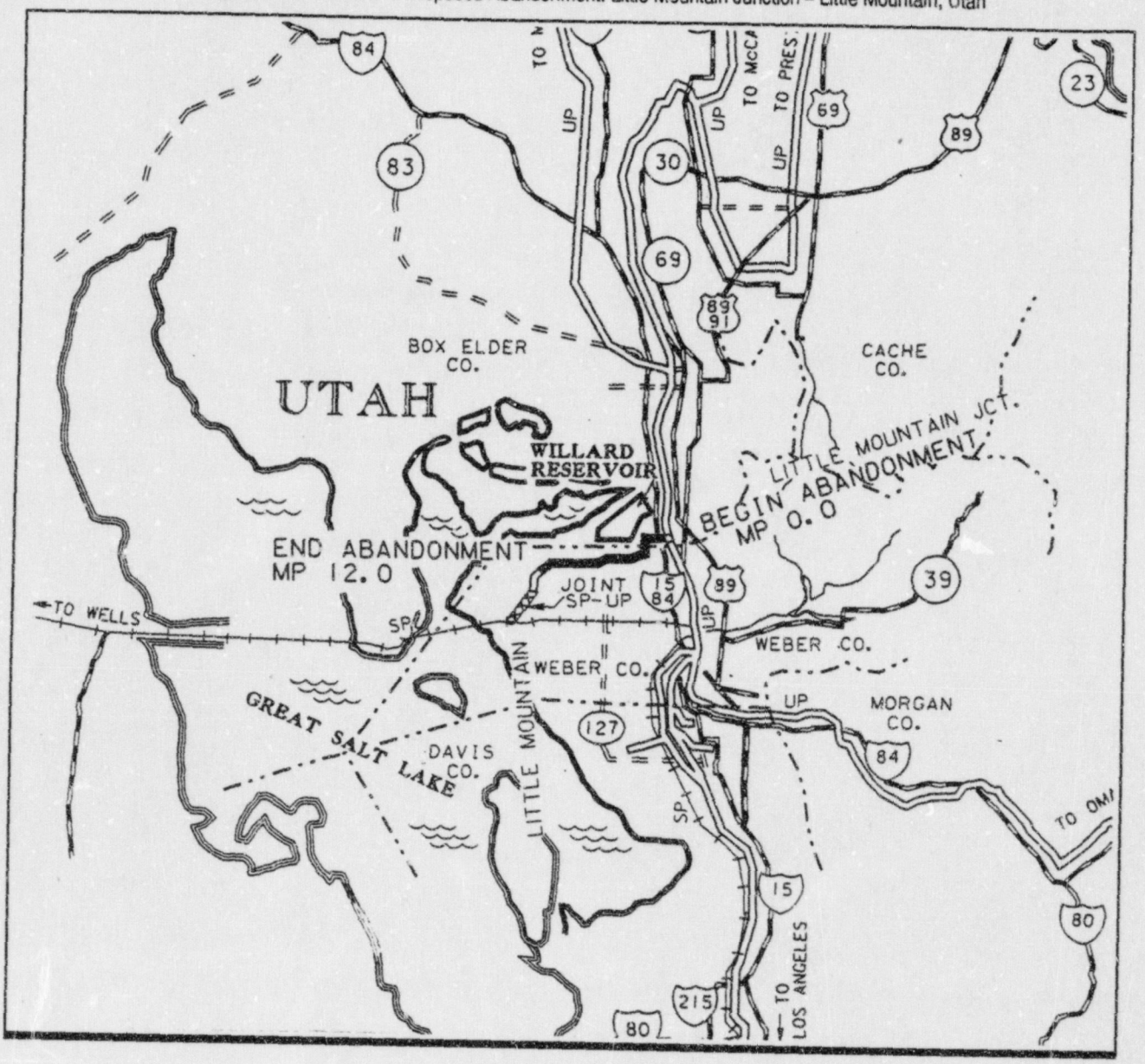
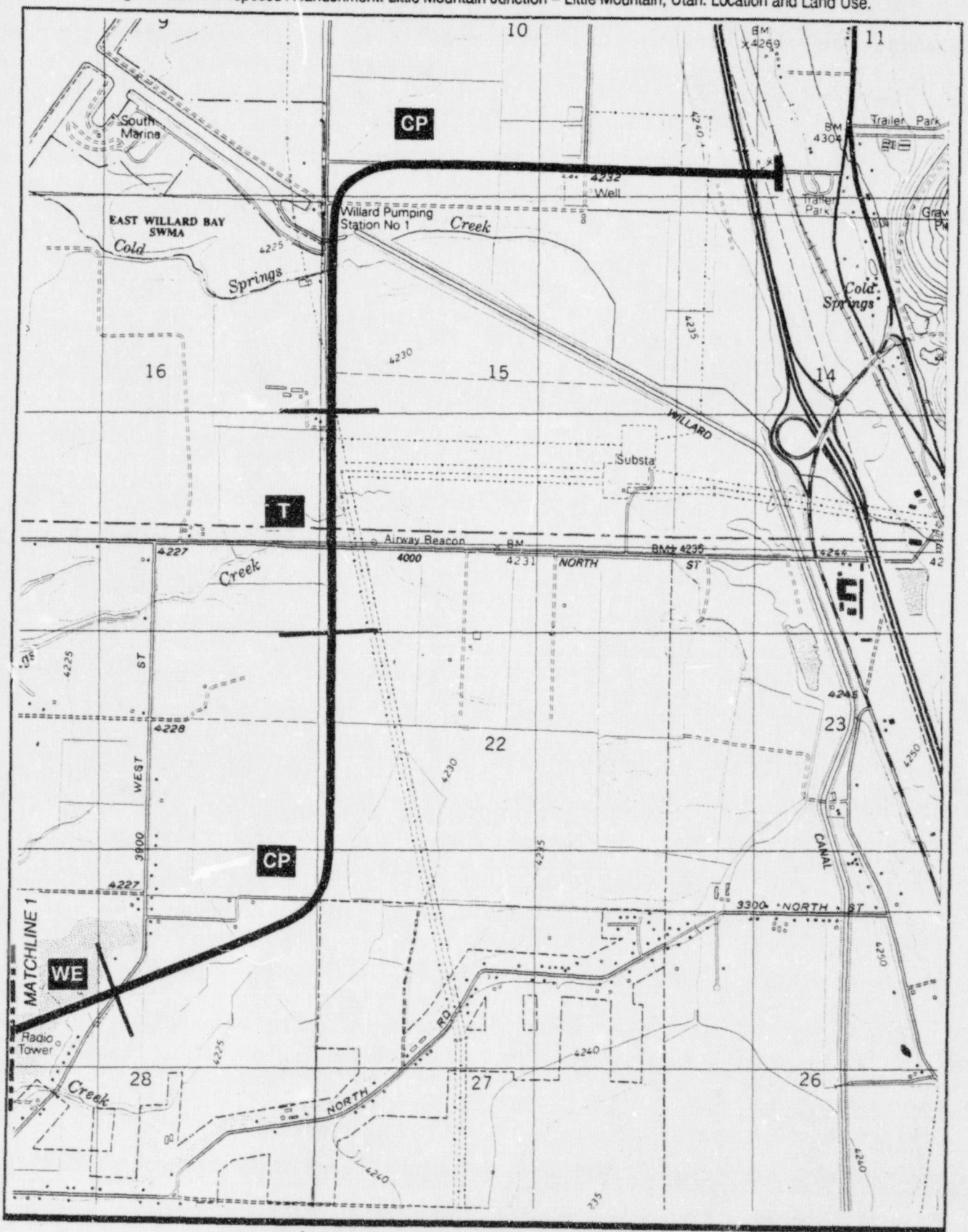


Figure 10.1-1 Proposed Abandonment: Little Mountain Junction – Little Mountain, Utah. Location and Land Use.



SCALE 1:24000

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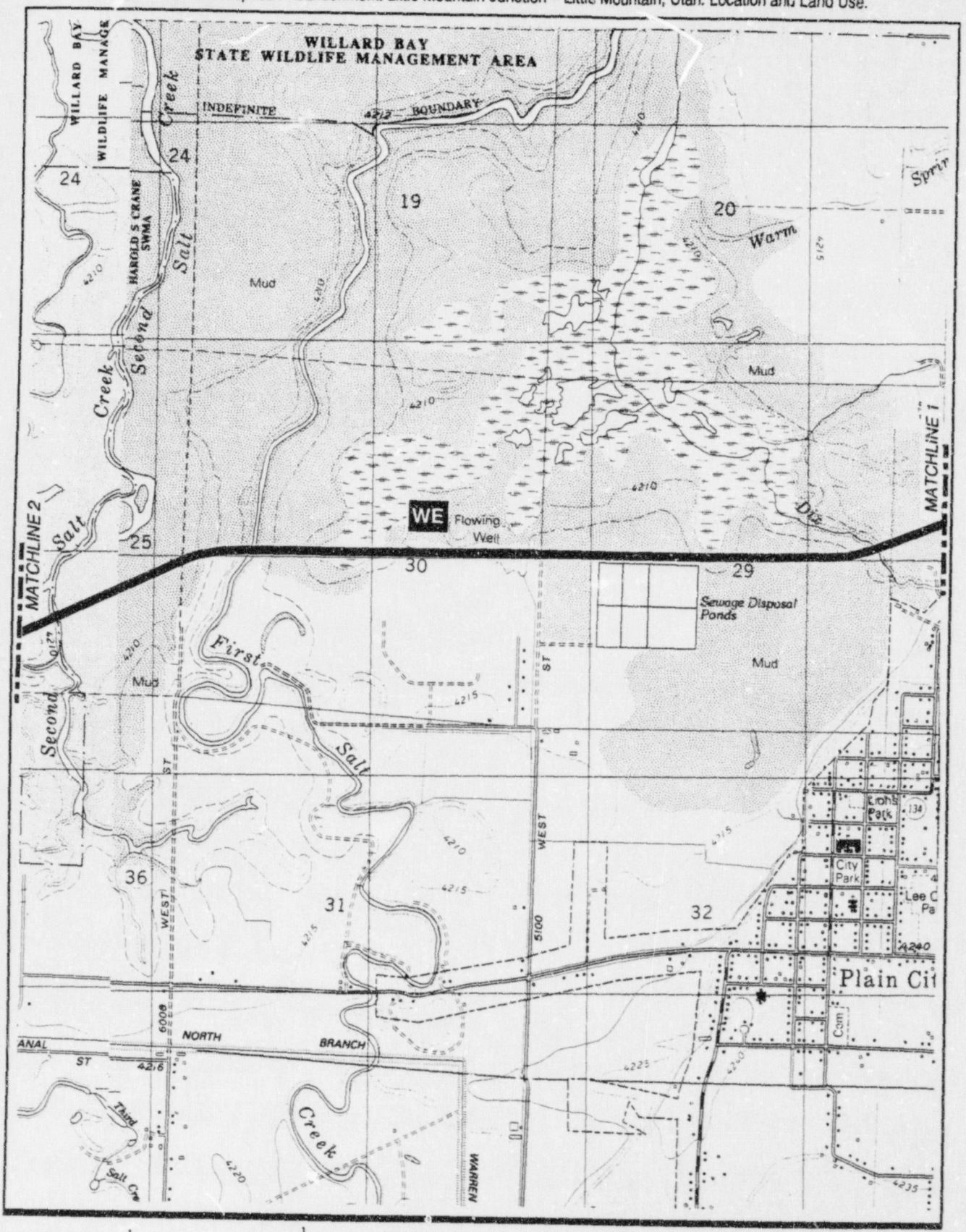
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

Base Map: *USGS 7.5' Topographic Quadrangle: Plain City, Utah 1992*

Figure 10.1-2 Proposed Abandonment: Little Mountain Junction – Little Mountain, Utah. Location and Land Use.



SCALE 1:24000

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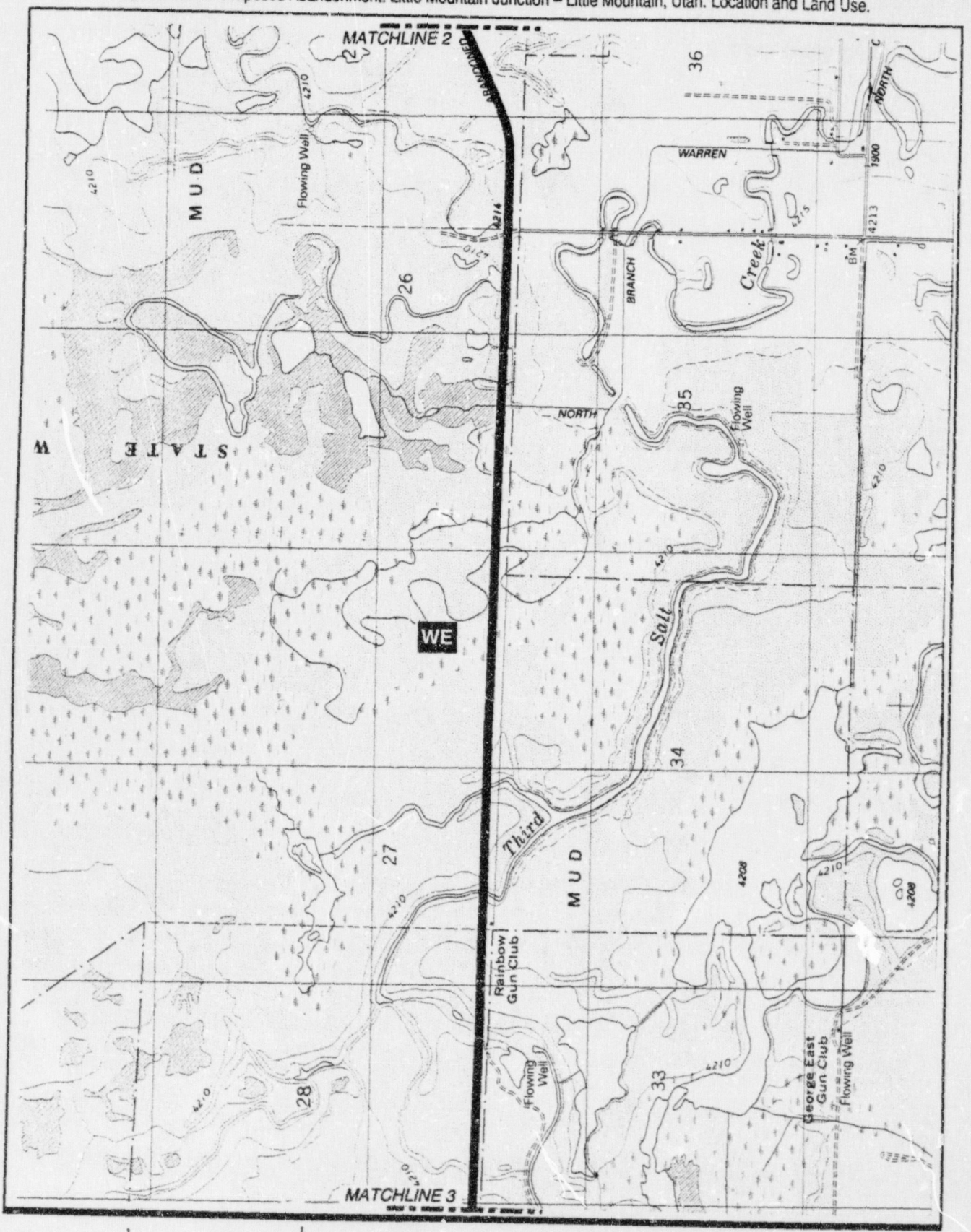
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

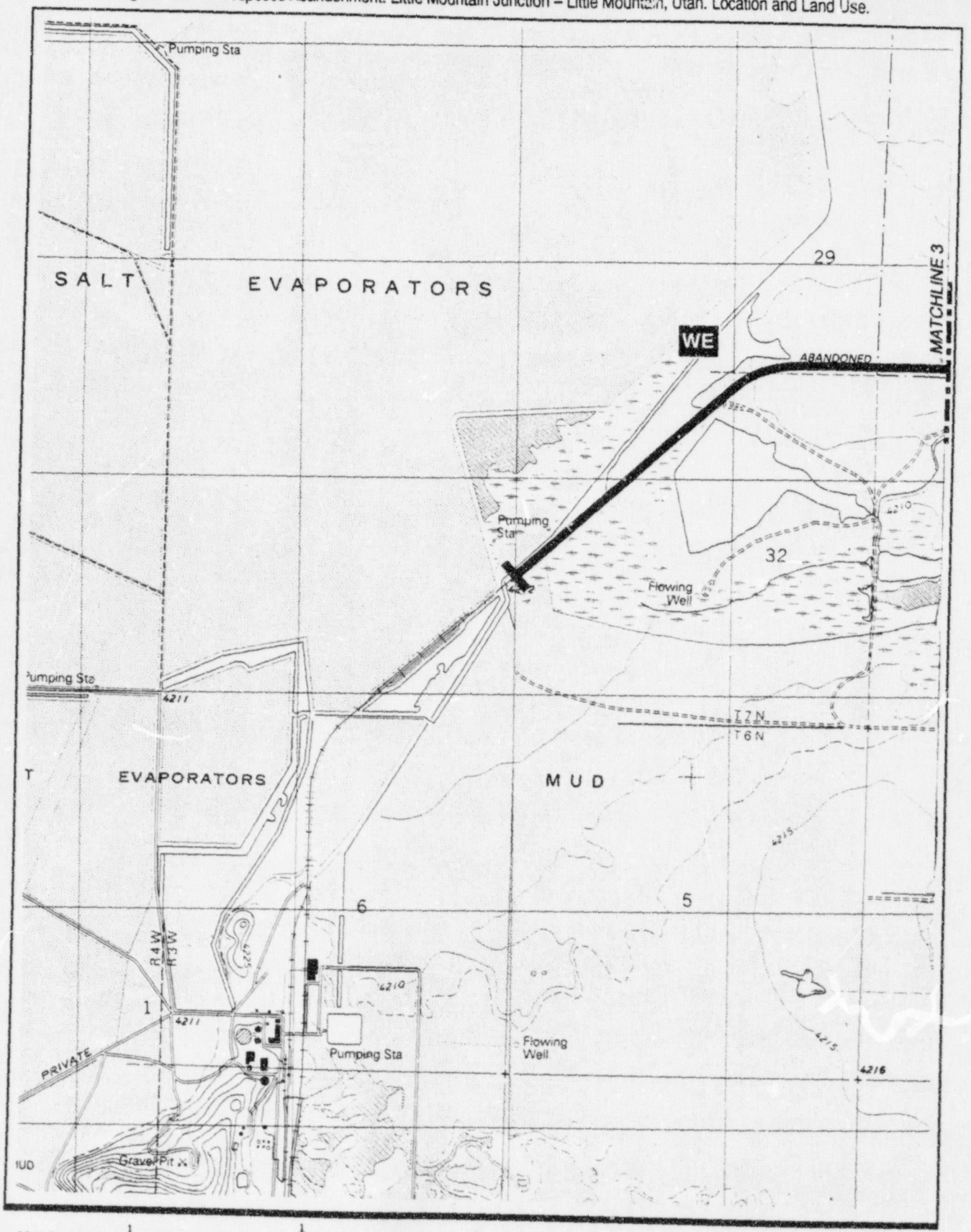
Base Map: *USGS 7.5' Topographic Quadrangles: Plain City SW, Utah 1991; Plain City, Utah 1992*

Figure 10.1-3 Proposed Abandonment: Little Mountain Junction – Little Mountain, Utah. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle: Plain City SW, Utah 1991*

Figure 10.1-4 Proposed Abandonment: Little Mountain Junction – Little Mountain, Utah. Location and Land Use.



Base Map: *USGS 7.5' Topographic Quadrangle: Plain City SW, Utah 1991*

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

Tidal

K	*Artificially Flooded*	*S	Temporary-Tidal
L	Subtidal	*R	Seasonal-Tidal
M	Irregularly Exposed	*T	Semipermanent-Tidal
N	Regularly Flooded	*V	Permanent-Tidal
P	Irregularly Flooded	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*	h *Diked/Impounded*
d *Partially Drained/Ditched*	r Artificial Substrate
f Farmed	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:

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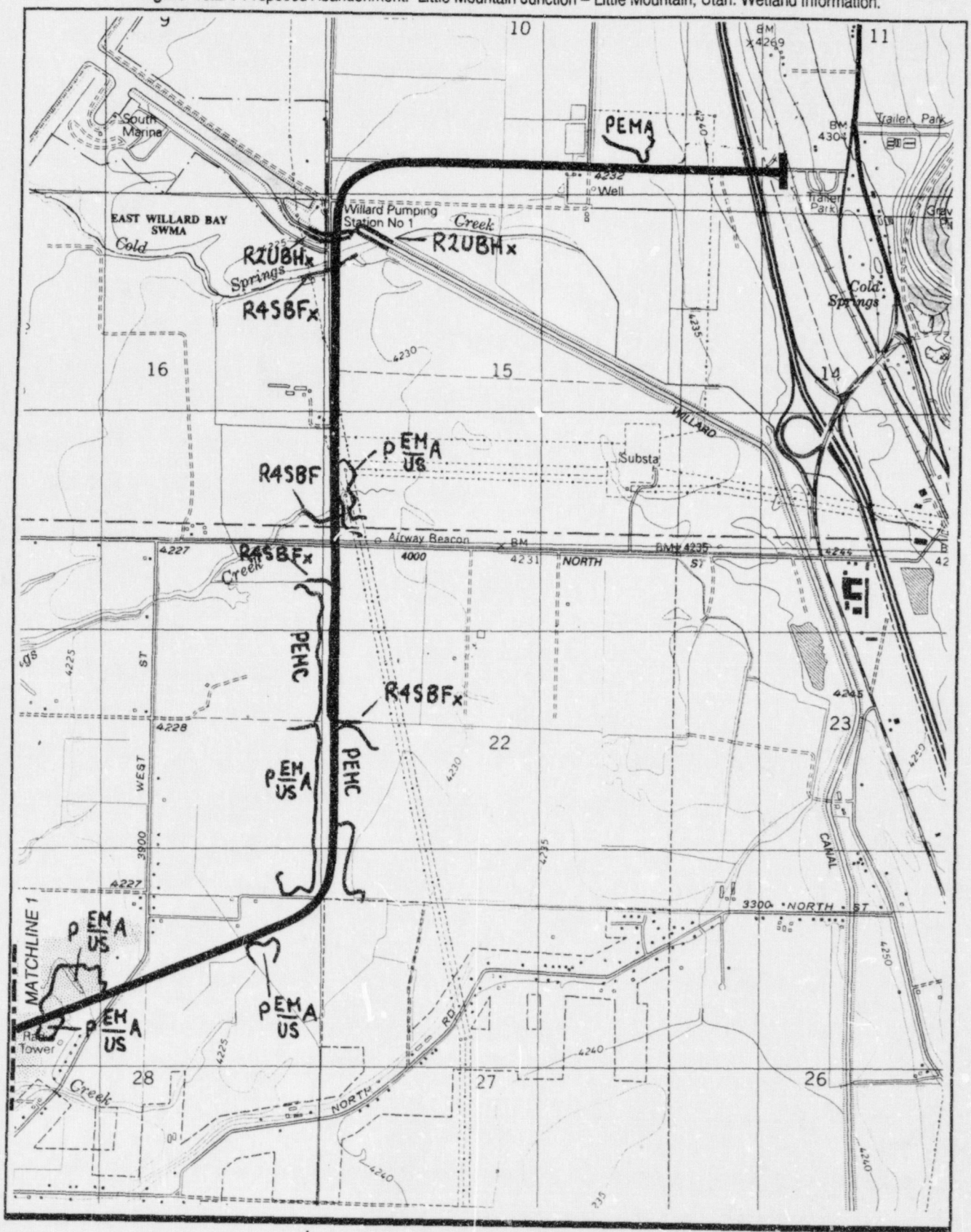
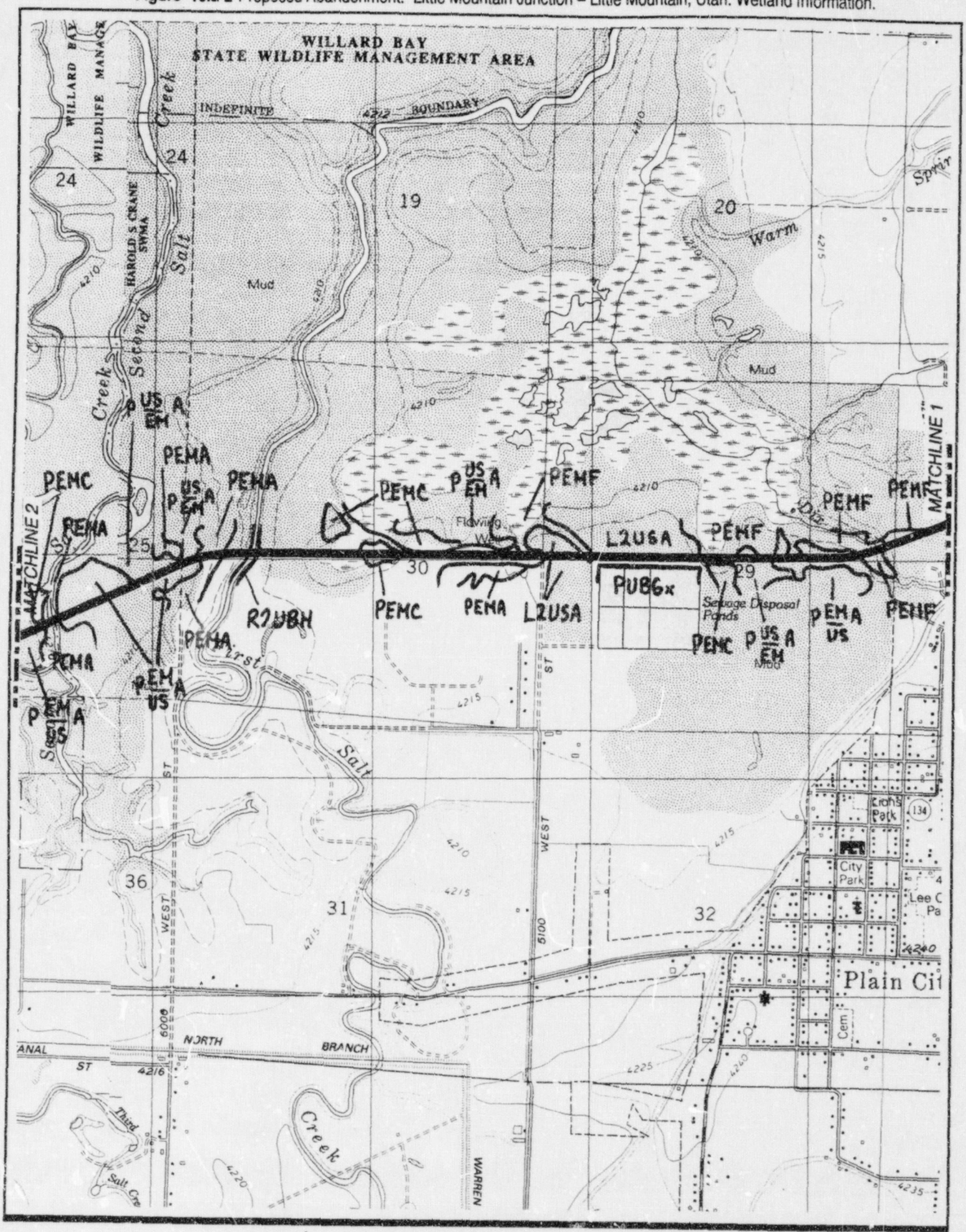
Figure 10.2-1 Proposed Abandonment: Little Mountain Junction – Little Mountain, Utah. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangle: Plain City, Utah 1992*

Figure 10.2-2 Proposed Abandonment: Little Mountain Junction – Little Mountain, Utah. Wetland Information.



SCALE 1:24000

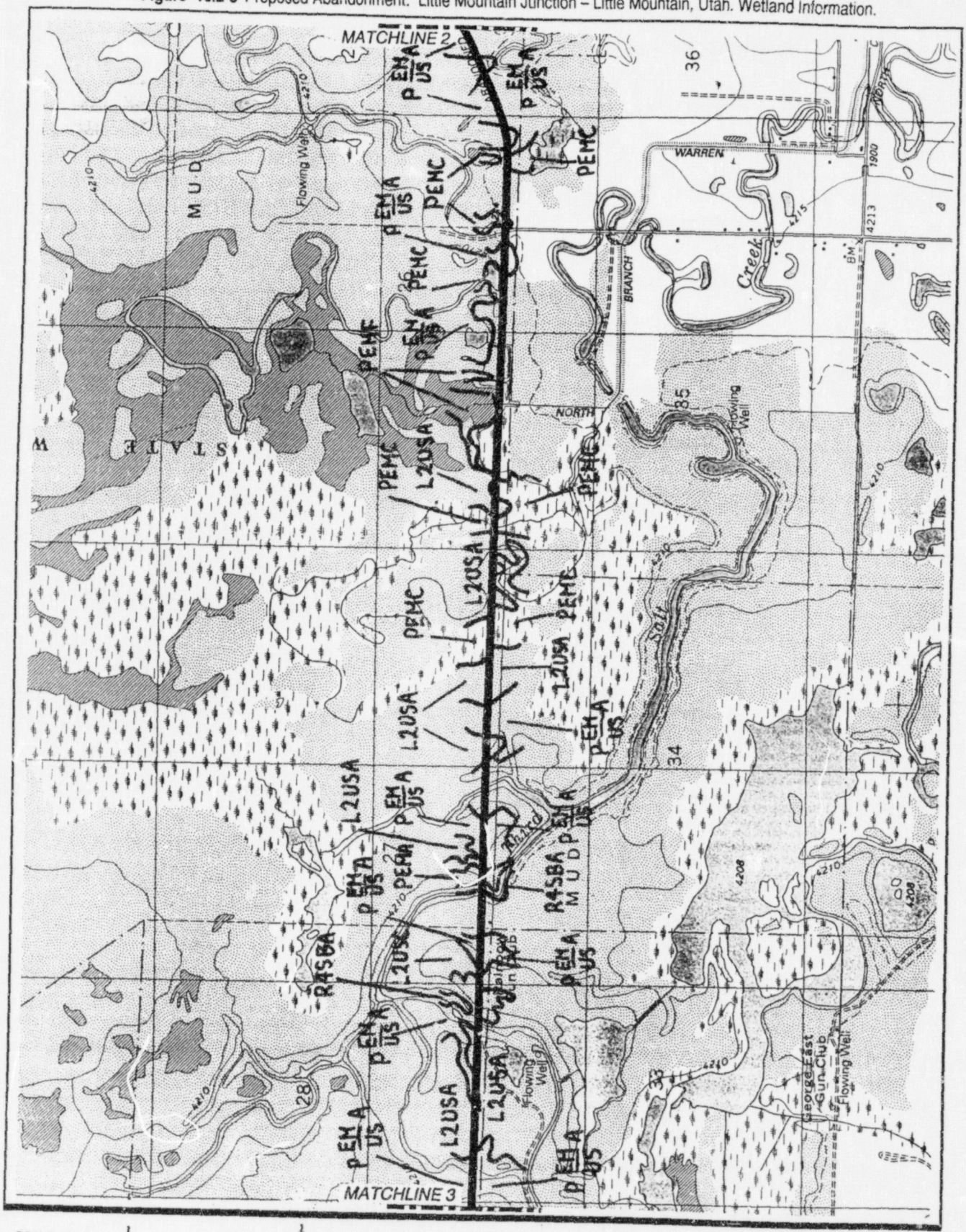
1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

N

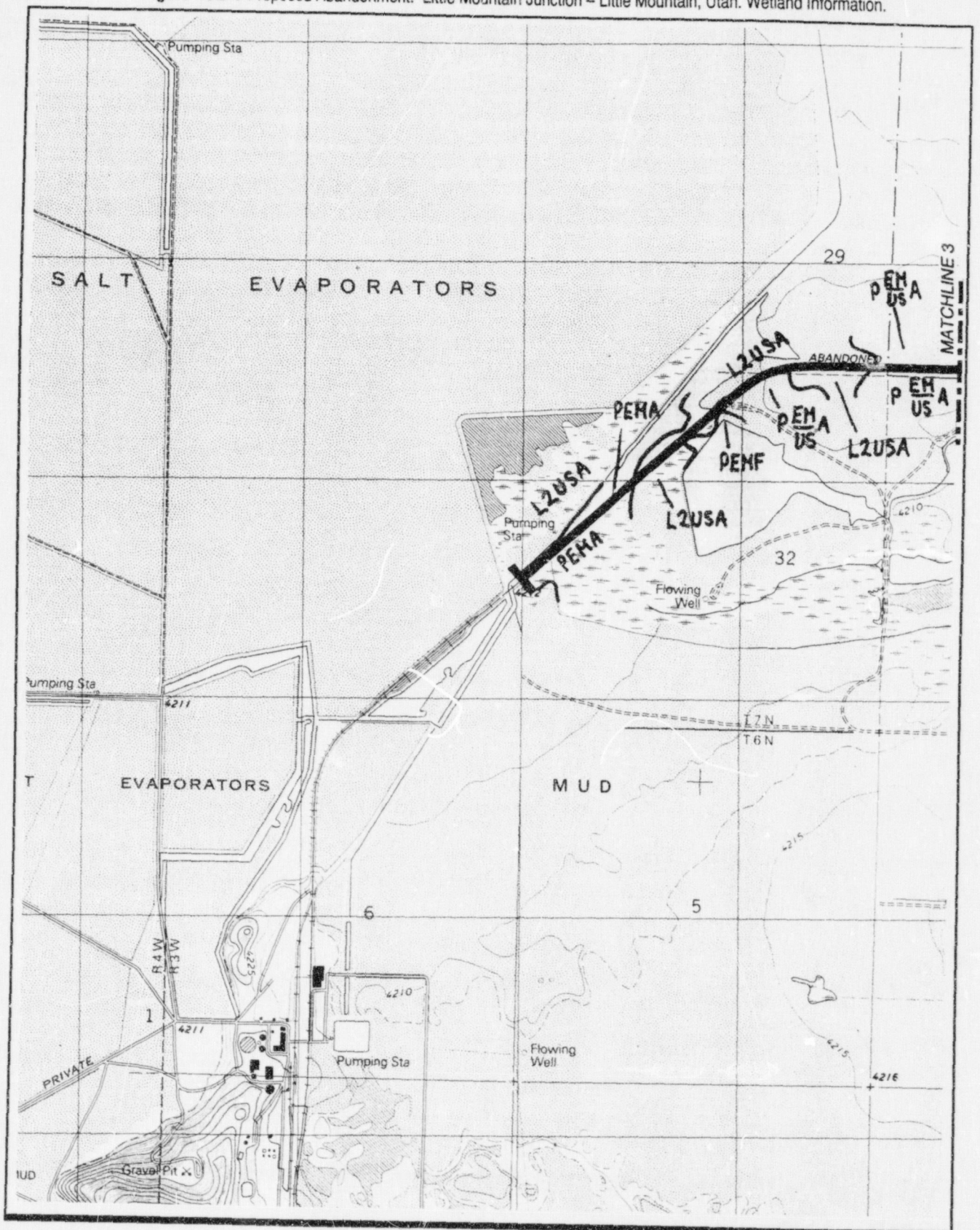
Base Map: *USGS 7.5' Topographic Quadrangles: Plain City SW, Utah 1991; Plain City, Utah 1992*

Figure 10.2-3 Proposed Abandonment: Little Mountain Junction – Little Mountain, Utah. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangle: Plain City SW, Utah 1991*

Figure 10.2-4 Proposed Abandonment: Little Mountain Junction – Little Mountain, Utah. Wetland Information.



Base Map: *USGS 7.5' Topographic Quadrangle: Plain City SW, Utah 1991*

11.0 PROPOSED MITIGATION MEASURES

Based on a review of: (1) the resources at and near the proposed abandonments; (2) standard practices and measures used on previous projects; and (3) agency suggestions and recommendations received in communications, the following mitigation measures would be implemented as appropriate before and during abandonment activities. Several resource areas, including land use, air quality, noise, and energy, were identified as unlikely to be significantly impacted by abandonment activities. No mitigation measures are suggested for those resource areas.

11.1 WATER RESOURCES AND WETLANDS

- In and near wetlands areas, mechanized equipment should be confined to the minimum area required to complete abandonment activities.
- In and near wetlands areas, mechanized equipment should be properly serviced to lessen the potential for leakage of petrochemicals (such as diesel and lubricants) either directly into a water resource or onto the ground surface where precipitation run-off would introduce the chemicals into the water resource.
- Reclaimed materials should not be stockpiled within water resources or wetlands areas.
- Additional BMPs should be implemented, if necessary, to minimize impacts to water resources and wetlands.
- Prior to the start of abandonment activities, the appropriate agencies should be contacted to determine the need for permits, including a National Pollution Discharge Elimination System (NPDES) stormwater permit and a COE Section 404 permit.

11.2 BIOLOGICAL RESOURCES

- BMPs should be implemented for the use of mechanized equipment and ground-disturbing activities, if necessary, to minimize impacts to vegetation types and wildlife habitats. The BMPs should be similar to those described for minimization of impacts to wetlands.
- To further assess the potential occurrence of any rare plants, if appropriate, vegetation types would be surveyed in areas of potential disturbance due to salvage operations during an appropriate time of year for species identification.
- If rare, threatened, or endangered species are discovered at or near the abandonments, the U.S. Fish and Wildlife and appropriate state agency should be contacted regarding the need to develop additional mitigation measures, or to enter into formal or informal endangered species consultation.

11.3 HISTORIC AND CULTURAL RESOURCES

- Furtner consultation with the SHPO may be necessary to determine what, if any, mitigation measures are appropriate for bridges or structures, if any, are determined eligible.
- If previously unsuspected archaeological remains are found during ground disturbance, the SHPO should be contacted.

11.4 SAFETY

- Prior to the start of abandonment activities in the vicinity of any known hazardous waste sites, appropriate agencies should be contacted to assess procedures necessary to address issues related to the sites.

11.5 TRANSPORTATION

- Appropriate signs and barricades should be used to control traffic disruptions during abandonment activities at and near road crossings.
- Roads disturbed during abandonment activities should be returned to their original condition.

12.0 SUMMARY OF BENEFICIAL EFFECTS

Completion of abandonment activities would result in beneficial effects associated with the cessation of railroad operations. Generally, there would be less human-caused disturbances, and in some cases, a gradual re-establishment of natural vegetation. Potential beneficial effects which would vary from line to line, may include the following:

- Reduction in human-caused disturbance to water and biological resources, including ground-surface disturbance, noise, nighttime lighting, and human presence. This would include beneficial effects to both common and sensitive resources.
- Natural re-establishment over time of native vegetation.
- Reduction in the likelihood of spills onto sensitive habitats and into streamcourses.
- Reduction in loss of wildlife due to animal-train collisions.
- Removal of 550 road crossings, resulting in beneficial safety effects in the form of potentially fewer accidents/incidents.
- Rerouting of train traffic onto shorter or more efficient rail lines, resulting in beneficial transportation effects.
- Adjacent land uses would experience reduced noise exposure.
- The cessation of rail traffic would result in a reduction of air emissions in the area. However, the traffic would be diverted to other rail lines or to trucks. Therefore, it is anticipated that the net beneficial effect on ambient air quality would be minimal.