

BLM LIBRARY



88000394

HISTORICAL COMPARISON PHOTOGRAPHY

Headwaters Resource Area
Butte District

Department of the Interior
Bureau of Land Management

December 1984

F
732
.L352
1984

BLM-MT-GI-85-004-4322

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

11771633

F
332
L352
1784

TABLE OF CONTENTS

Preface	v
Acknowledgement	vi

Photo No.	Location	Page No.
------------------	-----------------	-----------------

BROADWATER COUNTY

Broadwater County Map	1
H 526A Limestone Hills, west of Townsend, MT (Panorama) part 1 of 2	2
1 Limestone Hills, west of Townsend, MT (Panorama) part 1 of 2	3
H 526C Limestone Hills, west of Townsend, MT (Panorama) part 2 of 2	4
2 Limestone Hills, west of Townsend, MT (Panorama) part 2 of 2	5
H 525 Limestone Hills, west of Townsend, MT	6
3 Limestone Hills, west of Townsend, MT	7
H 395 Lombard, SE of Toston, MT	8
4 Lombard, SE of Toston, MT	9
H 396 Lombard, SE of Toston, MT	10
5 Lombard, SE of Toston, MT	11
H 131 Missouri River, SE of Toston, MT	12
6 Missouri River, SE of Toston, MT	13
H 393 Coal Mine, south of Toston, MT	14
7 Coal Mine, south of Toston, MT	15
H 674 Deep Creek, east of Townsend, MT (Panorama, part 1 of 3)	16
8 Deep Creek, east of Townsend, MT (Panorama, part 1 of 3)	17
H 675 Deep Creek, east of Townsend, MT (Panorama, part 2 of 3)	18
9 Deep Creek, east of Townsend, MT (Panorama, part 2 of 3)	19
H 676 Deep Creek, east of Townsend, MT (Panorama, part 3 of 3)	20
10 Deep Creek, east of Townsend, MT (Panorama, part 3 of 3)	21
H 679 Deep Creek, east of Townsend, MT	22
11 Deep Creek, east of Townsend, MT	23
H 685 Missouri River, SE of Toston, MT	24
12 Missouri River, SE of Toston, MT	25
H 532 Whites Gulch, SE of Canyon Ferry Dam	26
13 Whites Gulch, SE of Canyon Ferry Dam	27
H 677 Hill, east of Townsend, MT	28
14 Hill, east of Townsend, MT	29
H 678 Valley of Deep Creek, east of Townsend, MT	30
15 Valley of Deep Creek, east of Townsend, MT	31
H 1054 Diamond City, MT in Confederate Gulch	32
16 Diamond City, MT in Confederate Gulch	33
H 1085 Whites Gulch, SE of Canyon Ferry Dam	34
17 Whites Gulch, SE of Canyon Ferry Dam	35
H 1082 Avalanche Creek, SE of Canyon Ferry Dam	36
18 Avalanche Creek, SE of Canyon Ferry Dam	37
H 1399 Benchlands, east of Toston, MT	38
19 Benchlands, east of Toston, MT	39
H 1 Indian Creek, west of Townsend, MT	40
20 Indian Creek, west of Townsend, MT	41
H 2 Hassel, MT — Indian Creek, west of Townsend, MT	42
21 Hassel, MT — Indian Creek, west of Townsend, MT	43

BUREAU OF LAND MANAGEMENT LIBRARY
Denver, Colorado



88000394

Bureau of Land Management
Library
Bldg 50, Denver Federal Center
Denver, CO 80225

CASCADE COUNTY

Cascade County Map	45
H 47A Square Butte, SE of Ft. Shaw, MT (Panorama, part 1 of 2)	46
22A Square Butte, SE of Ft. Shaw, MT (Panorama, part 1 of 2)	47
H 47 Square Butte, SE of Ft. Shaw, MT (Panorama, part 2 of 2)	48
22 Square Butte, SE of Ft. Shaw, MT (Panorama, part 2 of 2)	49
H 34 Belt Creek north of Riceville, MT	50
23 Belt Creek north of Riceville, MT	51
H 35 Belt Creek north of Riceville, MT (Panorama, part 1 of 2)	52
24 Belt Creek north of Riceville, MT (Panorama, part 1 of 2)	53
H 35A Belt Creek north of Riceville, MT (Panorama, part 2 of 2)	54
25 Belt Creek north of Riceville, MT (Panorama, part 2 of 2)	55
H 138 Smith River, SE of Cascade, MT	56
26 Smith River, SE of Cascade, MT	57
H 158 Smith River Valley, SE of Cascade, MT	58
27 Smith River Valley, SE of Cascade, MT	59
H 190 Butte South of Blackhorse Lake, north of Great Falls, MT	60
28 Butte South of Blackhorse Lake, north of Great Falls, MT	61

JEFFERSON COUNTY

Jefferson County Map	63
H 1396 Bull Mtn., south of Boulder, MT	64
29 Bull Mtn., south of Boulder, MT	65
H 466 Sage Brush Flats near Devils Fence SW of Radarsburg, MT	66
30 Sage Brush Flats near Devils Fence SW of Radarsburg, MT	67
H 465 Sage Brush Flats near Devils Fence SW of Radarsburg, MT	68
31 Sage Brush Flats near Devils Fence SW of Radarsburg, MT	69
H 2187 Boulder River Valley, west of Boulder, MT	70
32 Boulder River Valley, west of Boulder, MT	71
H 74 Boulder River Valley, west of Boulder, MT	72
33 Boulder River Valley, west of Boulder, MT	73
H 1754 Mine in Holmes Gulch, south of Helena, MT	74
34 Mine in Holmes Gulch, south of Helena, MT	75
H 1755 Head of Holmes Gulch, south of Helena, MT	76
35 Head of Holmes Gulch, south of Helena, MT	77
H 1400 Bull Mtn. Valley-Whitetail Creek, south of Boulder, MT	78
36 Bull Mtn. Valley-Whitetail Creek, south of Boulder, MT	79
H 1397 Sunlight Mine, east of Whitehall, MT	80
37 Sunlight Mine, east of Whitehall, MT	81
38 Sunlight Mine, east of Whitehall, MT	82
3 Sunlight Mine, east of Whitehall, MT	83
H 1390 Sunlight Mine, east of Whitehall, MT	84
39 Sunlight Mine, east of Whitehall, MT	85
40 Sunlight Mine, east of Whitehall, MT	86
H 464 Devils Fence area, west of Radarsburg, MT (Panorama, part 1 of 3)	88
43 Devils Fence area, west of Radarsburg, MT (Panorama, part 1 of 3)	89
H 463 Devils Fence area, west of Radarsburg, MT (Panorama, part 2 of 3)	90
42 Devils Fence area, west of Radarsburg, MT (Panorama, part 2 of 3)	91
H 462 Devils Fence area, west of Radarsburg, MT (Panorama, part 3 of 3)	92
41 Devils Fence area, west of Radarsburg, MT (Panorama, part 3 of 3)	93

LEWIS AND CLARK COUNTY

Lewis and Clark County Map	95
H 644 Soup Creek, north of Canyon Ferry Dam	96
44 Soup Creek, north of Canyon Ferry Dam	97
H 95 Drainage of Silver Creek, east of Marysville, MT	98
45 Drainage of Silver Creek, east of Marysville, MT	99
H 92 Mine at Marysville, MT	100
46 Mine at Marysville, MT	101
H 97 Hills above Marysville, MT	102
47 Hills above Marysville, MT	103
H 1364 Hilger Valley, Sleeping Giant, north of Helena, MT (Panorama, part 1 of 3)	104
50 Hilger Valley, Sleeping Giant, north of Helena, MT (Panorama, part 1 of 3)	105
H 1363 Hilger Valley, Sleeping Giant, north of Helena, MT (Panorama, part 2 of 3)	106
49 Hilger Valley, Sleeping Giant, north of Helena, MT (Panorama, part 2 of 3)	107
H 1361 Hilger Valley, Sleeping Giant, north of Helena, MT (Panorama, part 3 of 3)	108
48 Hilger Valley, Sleeping Giant, north of Helena, MT (Panorama, part 3 of 3)	109
H 1092 Hilger Valley, north of Helena, MT	110
51 Hilger Valley, north of Helena, MT	111
H 669 Haystack Butte, SW of August, MT	112
52 Haystack Butte, SW of August, MT	113
H 33 Haystack Butte, SW of August, MT	114
53 Haystack Butte, SW of August, MT	115
H 653 Valley of Wolf Creek, NW of Wolf Creek, MT	116
54 Valley of Wolf Creek, NW of Wolf Creek, MT	117
H 649 Missouri River, mouth of Beaver Creek, NE of Helena, MT	118
55 Missouri River, mouth of Beaver Creek, NE of Helena, MT	119
H 536.1 Beaver Creek, NW of Canyon Ferry Dam (Panorama, part 1 of 2)	120
56 Beaver Creek, NW of Canyon Ferry Dam (Panorama, part 1 of 2)	121
H 536.5 Beaver Creek, NW of Canyon Ferry Dam (Panorama, part 2 of 2)	122
57 Beaver Creek, NW of Canyon Ferry Dam (Panorama, part 2 of 2)	123
H 698 Canyon Ferry Lake, north end (Panorama, part 1 of 2)	124
58 Canyon Ferry Lake, north end (Panorama, part 1 of 2)	125
H 699 Canyon Ferry Lake, north end (Panorama, part 2 of 2)	126
59 Canyon Ferry Lake, north end (Panorama, part 2 of 2)	127
H 667 North Fork Dearborn River, NW of Wolf Creek	128
60 North Fork Dearborn River, NW of Wolf Creek	129
H 1062 Sun River Gorge, SW of Choteau, MT	130
75 Sun River Gorge, SW of Choteau, MT	131

MEAGHER COUNTY

Meagher County Map	133
H 469 Democrat Gulch, SW of former Ft. Logan Military Res.	134
61 Democrat Gulch, SW of former Ft. Logan Military Res.	135
H 282 Gordon Butte, SW of Martinsdale, MT (Panorama, part 2 of 2)	136
63 Gordon Butte, SW of Martinsdale, MT (Panorama, part 2 of 2)	137
H 281 Gordon Butte, SW of Martinsdale, MT (Panorama, part 1 of 2)	138
62 Gordon Butte, SW of Martinsdale, MT (Panorama, part 1 of 2)	139
H 291 Musselshell Valley, Lennep, MT (Panorama, part 2 of 2)	140
65 Musselshell Valley, Lennep, MT (Panorama, part 2 of 2)	141
H 290 Musselshell Valley, Lennep, MT (Panorama, part 1 of 2)	142
64 Musselshell Valley, Lennep, MT (Panorama, part 1 of 2)	143

PARK COUNTY

Park County Map	145
H 2052 Yankee Jim Canyon, NW of Gardiner, MT	146
66 Yankee Jim Canyon, NW of Gardiner, MT	147
H 539C Yankee Jim Canyon, NW of Gardiner, MT	148
H 539B Down Yankee Jim Canyon, NW of Gardiner, MT	150
67 Down Yankee Jim Canyon, NW of Gardiner, MT	151
H 2053 Chico Peak from north of Emigrant, MT	152
68 Chico Peak from north of Emigrant, MT	153
H 143 Livingston Canyon and Wineglass Mtn., south of Livingston, MT	154
69 Livingston Canyon and Wineglass Mtn., south of Livingston, MT	155

PONDERA COUNTY

Pondera County Map	157
H 68 Two Medicine River between south of Cutbank, MT	158
70 Two Medicine River between south of Cutbank, MT	159
H 69 Blackfeet Reservation at Two Medicine River, south of Cutbank, MT	160
71 Blackfeet Reservation at Two Medicine River, south of Cutbank, MT	161
H 70 Blackfeet Reservation at Two Medicine River, south of Cutbank, MT	162
72 Blackfeet Reservation at Two Medicine River, south of Cutbank, MT	163
H 73 Blackfeet Reservation at Two Medicine River, south of Cutbank, MT	164
73 Blackfeet Reservation at Two Medicine River, south of Cutbank, MT	165

TETON COUNTY

Teton County Map	167
H 933 Priest Butte, South of Choteau, MT	168
74 Priest Butte, South of Choteau, MT	169
Guide to Plant Names Grass and Grasslike	170
Guide to Plant Names Forbs	170
Guide to Plant Names Shrubs	180
Guide to Plant Names Trees	180
Bibliography	180

PREFACE

The comparison photography taken from the Missouri Breaks Grazing Environmental Statement provided documentation of vegetation changes over time. That project was so successful that BLM undertook a similar venture for the Mountain-Foothills Grazing Management Environmental Impact Statement in the Dillon Resource Area. Now the same thing has been done in the Headwaters Resource Area of the Butte District.

The original photography, which was taken as early as 1884 and as late as 1940, showed a great deal of what the country was like almost 100 years ago.

This comparison photography is most interesting, and not only from a scientific standpoint. A graphic message is presented here of man's historical use of the land and its resources. One hundred years from now—if we are good stewards—the land will still be sustaining us with its many products, and the scenic beauties of the Big Sky Country will be undiminished.

It is BLM's hope that these photographs will add more to the understanding of long-term environmental changes and perhaps inspire others to pursue this kind of photographic documentation.



Marvin LeNoue
Acting State Director

ACKNOWLEDGEMENTS

This document was prepared under the direction of Dean Stepanek, Montana State Director, Bureau of Land Management.

The concept of a historical photograph comparison to supplement the Mountain Foothills Grazing Management Environmental Impact Statement originated with Duane Whitmer, Range Conservationist at the Bureau of Land Management.

Among those who made this work possible were the many Montana ranchers and farmers who graciously gave permission for access across private lands. Their assistance in photographic site location also is gratefully acknowledged.

Special thanks go to:

Royal Smith of Townsend, Montana, who loaned us photographs and supplied us with some history of the area;

Don Jenkins with Golden Sunlight Mines of Whitehall, Montana, who gave us access to their property and loaned us photographs;

the summer employees and volunteers with the Butte District Office of BLM who assisted with the photography — Floyd (Buddy) Schumaker, Karen Ostenburg, Jeff Burris, Judy Wickwire, and Cindy Levy; and

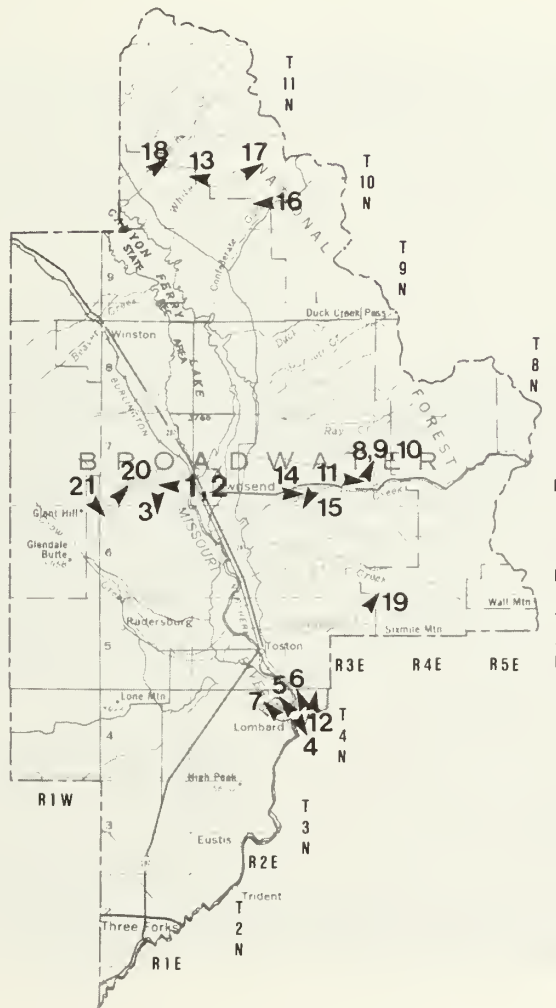
Mike Gilkerson, Range Technician, of the Lewistown District of the Bureau of Land Management, for training and consultation.

The U.S. Geological Photographic Library Staff contributed immensely in compiling the historic survey photographs. Assistance in creation of this photograph comparison was generously given by BLM employees: the clerical, graphics and editorial staffs of Butte District Office, Range staff of Great Falls Resource Area Office and MSO Printing and Graphics Section.

Greg Smith, Range Technician for the Headwaters Resource Area, Butte, Montana, was given this unique assignment. Mr. Smith kept a diary in which he noted directions to, and a brief description of, each site. His field notes are included with each photograph.

To these contributors, and the many enthusiastic supporters who saw this project to its completion, a most gracious thank you.

BROADWATER COUNTY

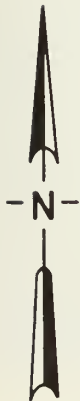


BROADWATER COUNTY

Photo Point Page Number

1	3
2	5
3	7
4	9
5	11
6	13
7	15
8	17
9	19
10	21
11	23
12	25
13	27
14	29
15	31
16	33
17	35
18	37
19	39
20	41
21	43

▲ Photo Point



1984

Photo: #H526A

Date: 1898

Panorama Index



Part 1 of 2



Walcott C.D.

View of Paleozoic Rocks at mouth of Indian Creek west of Townsend, MT

Photo: #1

Date: July, 1980

Broadwater County

T7N, R1E, Section 26, SW SE

Facing SW

Public Land



Smith G., Schumaker B.

This photo shows little change except roads, powerline and juniper increase in hills.
Vegetation: Broom snake weed, blue grama, needle and threadgrass, squirrel tail, fringed sagewort, pussytoes

Photo: #H526C

Date: 1898

Panorama Index



Part 2 of 2



Walcott C.D.

Part of panorama with pictures on preceding page.

Photo: #2

Date: July, 1980

Broadwater County

T7N, R1E, Section 26, SW SE

Public Land

Facing West



Smith G., Schumaker B.

This photo is part of panorama with pictures on preceding page.

Photo: #H525

Date: 1898



Walcott C.D.

Hogback formed by upturned basal Cambrian sandstone Indian Creek, four miles west of Townsend, MT

Photo: #3

Date: July, 1980

Broadwater County

T7N, R1E, Section 34, NW SE

Public Land

Facing South



Smith G., Schumaker B.

The photo shows increased limber pine and juniper growth and a new road on right.
Vegetation: Broom snakeweed, blue grama, yucca, bluebunch wheatgrass, black sagebrush, fringed sagewort.

Photo: #H395

Date: 1913



Lupton C.T.

Missouri River looking south from the Northern Pacific Railway Station at Lombard, MT.

Photo: #4

Date: July, 1980

Broadwater County

T4N, R3E, Section 7, South

Private

Facing SW SE



Smith G., Schumaker B.

New powerline and shacks have been added. Grasses have increased.

Vegetation: Basin wildrye and standard crested wheatgrass

Photo: #H396

Date: 1913



Lupton C.T.

Northern Pacific Station at Lombard, MT showing Chicago, Milwaukee and St. Paul Railroad bridge over the Missouri and Northern Pacific tracks.

Photo: #5

Date: July, 1980

Broadwater County

T4N, R3E, Section 7, South

Private

Facing SW SE



Smith G., Schumaker B.

Some public land may be visible beyond bridge at left. New powerline and shack have been added and station and loading ramp have been removed.

Vegetation: Grasses have moved in. Basin wildrye and standard crested wheatgrass.

Photo: #H131

Date: 1916



Conditt D.D.

View northeast down Missouri River. Big bend near Lombard, MT. Bluffs of Quadrant Quartzite. Northern Pacific Railroad on right side of river.

Photo: #6

Date: July, 1980

Broadwater County

T4N, R3E, Section 7, SE NW

Private

Facing North



Smith G., Schumaker B.

Taken from high ridge, Ridge visible on left is BLM. Picture taken about 10 feet below original spot. New road to left of river, island at bend has increased and new irrigation canal added along left side of river.

Photo: #H393

Date: 1913



Lupton C.T.

The K.O. Hegg Coal Mine and coke ovens about one mile north and slightly west of Lombard, MT.

Photo: #7

Date: July, 1980

Broadwater County

T4N, R2E, Section 12, SW SE

Private

Facing NW



Smith G., Shumaker B.

Hills in background are public land. The buildings are gone and the vegetation has increased. Wrong location was recorded in 1913; actually one mile west of Lombard along river.

Vegetation: Big sagebrush, rubber rabbit brush, bluebunch wheatgrass, needleandthread grass, prickly pear cactus, blue grama, prairie june grass, Kentucky bluegrass

Photo: #H674

Date: July 11, 1921

Panorama Index



Part 1 of 3



Pardee J.T.

High bench east side of Townsend Basin, north of Deep Creek. Belt Mountains in background east of Townsend, MT.

Photo: #8

Date: July, 1980

Broadwater County

T7N, R3E, Section 24, SE SE

Private

Facing East



Smith G., Schumaker B.

Fence was moved 15 feet west and trees have increased.

Vegetation: Limber pine, Douglas-fir, juniper, cheat grass, needleandthread grass, crested wheatgrass, bluebunch wheatgrass, broom snakeweed, alfalfa, fringed sagewort, horsebrush, locoweed, western wheatgrass, daisy

Photo: #H675

Date: July 11, 1921

Panorama Index



Part 2 of 3



Pardee J.T.

High bench east side of Townsend Basin, north of Deep Creek. Belt Mountains in background east of Townsend, MT.

Photo: #9

Broadwater County

Date: July, 1980

T7N, R3E, Section 24, SE SE

Private

Facing NE



Smith G., Schumaker B.

Fence moved, powerline added and trees increased.

Vegetation: Limber pine, Douglas-fir, juniper, cheat grass, needleandthread grass, crested wheatgrass, bluebunch wheatgrass, broom snakeweed, alfalfa, fringed sagewort, horsebrush, locoweed, western wheatgrass, daisy

Photo: #H676

Panorama Index

Date: July 11, 1921



Part 3 of 3



Pardee J.T.

High bench east side of Townsend Basin, north of Deep Creek. Belt Mountains in background east of Townsend, MT.

Photo: #10

Date: July, 1980

Broadwater County

T7N, R3E, Section 24, SE SE

Private

Facing North



Smith G., Schumaker B.

A new road and powerline have been added and trees have increased.

Vegetation: Limber pine, Douglas-fir, juniper, cheat grass, needle and thread grass, crested wheatgrass, bluebunch wheatgrass, broom snakeweed, alfalfa, fringed sagewort, horsebrush, locoweed, western wheatgrass, daisy.

Photo: #H679

Date: July 14, 1921



Pardee J.T.

No. 1 Bench North of Deep Creek, east of Townsend, MT. Belt Mountains in background, looking northeast.

Photo: #11

Date: July, 1980

Broadwater County

T7N, R3E, Section 23, SE

Private

Facing NE



Smith G., Schumaker B.

Grass and trees have increased and the old road in background is now in a cultivated field.
Vegetation: Douglas-fir, limber pine, bluebunch wheatgrass, needle and thread grass, broom snakeweed, fringed sagewort, Japanese brome, western wheatgrass, salsify, horsebrush. Alfalfa in field.

Photo: #H685

Date: July 27, 1921



Pardee J.T.

Pool formed by Big Spring on right bank of Missouri River, five miles upstream from Toston, MT.

Photo: #12

Date: July, 1980

Broadwater County

T4N, R3E, Section 7, NW NE

Private

Facing North



Smith G., Schumaker B.

This shows a northern Pacific right-of-way with a new bridge and increased grasses.
Vegetation: Common reed grass

Photo: #H532

Date: 1898



Walcott C.D.

Looking down White's Gulch in cut through Cambrian and Precambrian - about 14 miles east south east of Canyon Ferry in Big Belt Mountains.

Photo: #13
Date: July, 1980

Broadwater County
T10N, R2E, Section 19, SE NE
Private
Facing West



Smith G., Schumaker B.

The photo was taken right up against public lands' boundary. All vegetation is greatly increased.

Vegetation: Big sagebrush, bluebunch wheatgrass, broom snakeweed, juniper, Douglas-fir, prairie june grass, daisy, rubber rabbit brush, locoweed.

Photo: #H677

Date: July 3, 1921



Pardee J.T.

Conglomerate in Tertiary lake beds, east of Townsend, MT. Slope north of Deep Creek.

Photo: #14

Date: July, 1980

Broadwater County

T7N, R3E, Section 31, NW NW

Private

Facing East



Smith G., Schumaker B.

This photo was taken adjacent to public land. Vegetation has increased.

Vegetation: Juniper, limber pine, bluebunch wheatgrass, yucca, Indian ricegrass

Photo: #H678

Date: July 13, 1921



Pardee J.T.

No. 1 Bench Valley at Deep Creek, east of Townsend, MT.

Photo: #15

Date: July, 1980

Broadwater County

T7N, R3E, Section 31, NE NE

Private

Facing SW



Smith G., Schumaker B.

A new highway can be seen below in the valley. On top of bench, cultivation has increased although a small portion has gone back to native range. Grass in foreground has increased.

Vegetation: Juniper, limber pine, needleandthread grass, fringed sagewort, broom snakeweed, Indian ricegrass, locoweed.

Photo: #H1054

Date: August 21, 1928



Pardee J.T.

Upper Terrace (bar) at Diamond City, MT down Confederate Gulch.

Photo: #16
Date: July, 1980

Broadwater County
T10N, R2E, Section 25, NW NW
Public Land
Facing West



Smith G., Schumaker B.

Trees obscured original spot but this was taken nearby.

Vegetation: Douglas-fir, big sagebrush, bluebunch wheatgrass, locoweed, Kentucky bluegrass, common clover, strawberry, western yarrow, phlox

Photo: #H1085

Date: September 7, 1928



Pardee J.T.

Old placer mine in White Gulch on low terrace.

Photo: #17

Date: July, 1980

Broadwater County

T10N, R2E, Section 15, NW

Public Land

Facing East



Smith G., Schumaker B.

This may be on a mining claim. Could not find original spot due to increased trees. Taken on top of a high dirt wall.

Vegetation: Douglas-fir

Photo: #H1082

Date: September 6, 1938



Pardee, J.T.

Gorge of Avalanche Creek, walls of upturned Madison limestone.

Photo: #18

Date: July, 1980

Broadwater County

T10N, R1E, Section 14, NE NW

Private

Facing East



Smith G., Schumaker B.

Background hills are public land. Trees have increased, grass has decreased and buildings are gone.

Vegetation: Needleandthread grass, broom snakeweed, fringed sagewort, phlox, locoweed, threadleaf sedge

Photo: #H1399

Date: July 22, 1937



Pardee J.T.

Benchlands at east border of Townsend Valley, north of Six Mile Creek.

Photo: #19

Date: July, 1980

Broadwater County

T5N, R3E, Section 1, SE

Private

Facing NW



Smith G., Schumaker B.

Vegetation has increased and a water tank has been added in the background. Vegetation: Horsemint, big sagebrush, bluebunch wheatgrass, western yarrow, cheat grass.

Photo: #H1

Date: Early 1900s



Unknown photographer

Donated by Royal Smith of Townsend, MT. Slough was built by Smith's father.

Photo: #20

Date: July, 1981

Broadwater County

T7N, R1E, Section 32, SW

Public Land

Facing NW



Smith G., Ostenburg K.

Trees and grasses have increased. Slough is nearly gone.

Vegetation: Limber pine, juniper, mountain mahogany, bluebunch wheatgrass, needle-and-thread grass.

Photo: #H2

Date: Early 1900's



Unknown photographer

Donated by Royal Smith of Townsend, MT. Town of Hassel, MT, up Indian Creek.

Photo: #21

Date: July, 1981

Broadwater County

T7N, R1W, Section 36, SW

Public Land

Facing SE

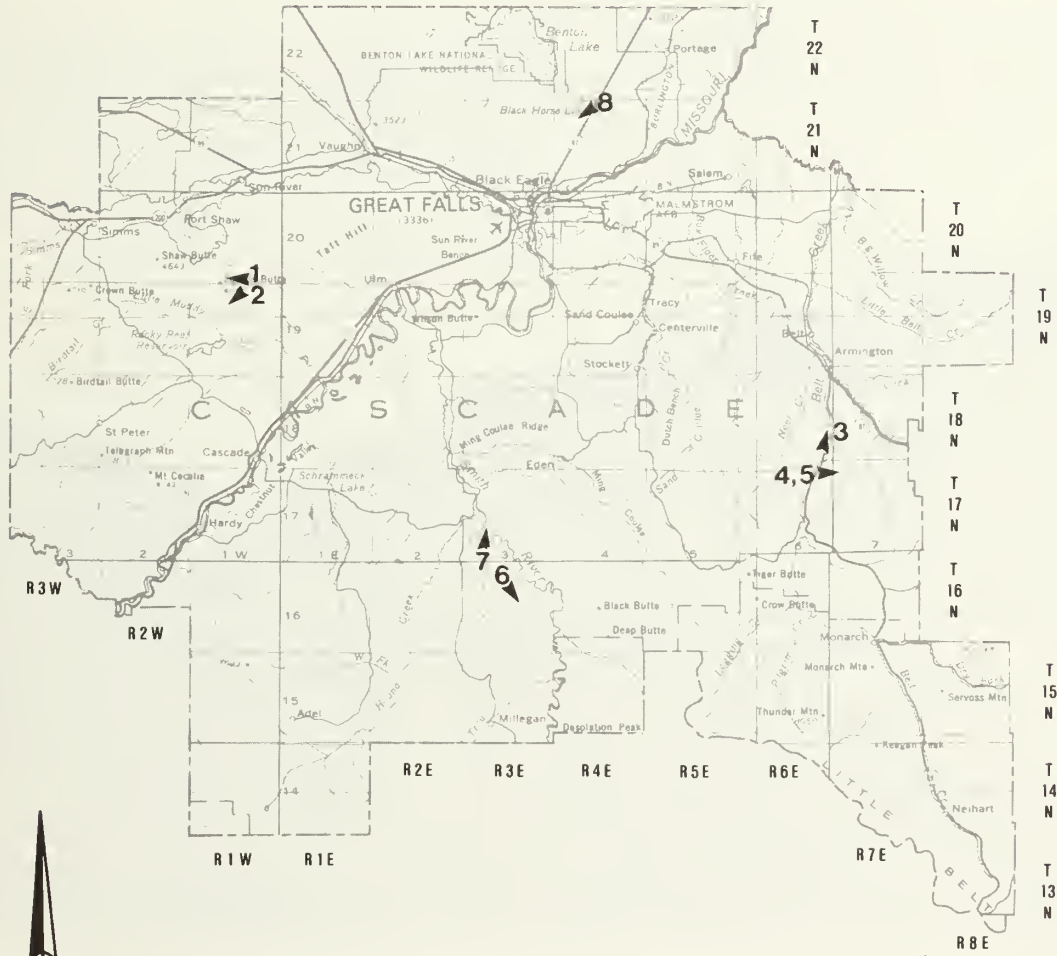


Smith G., Ostenburg K.

There is a thin strip of private land along the creek and the rest is public land. It was hard to find the exact spot due to a poor photo and extensive mining. The creek was heavily dredged. Trees on the hills have increased.

Vegetation: Douglas-fir, limber pine, juniper, quaking aspen (creek)

CASCADE COUNTY



▲ Photo Point

CASCADE COUNTY

Photo Point Page Number

1	47
2	49
3	51
4	53
5	55
6	57
7	59
8	61



1984



Photo: #H47A

Date: No Date

Panorama Index



Part 1 of 2



Fisher C.A.

Square Butte from NE near Fort Shaw.

Photo: #22A

Date: August, 1982

Cascade County

T19N, R1W, Section 3, NW

Private

Facing SW



Smith G.

Grass is unchanged and sage and trees are increased.

Vegetation: Bluebunch wheatgrass, needleandthread grass, prairie june grass, fringed sagewort, daisy.

Photo: #H47

Date: No Date

Panorama Index



Part 2 of 2



Fisher C.A.

Square Butte from NE near Fort Shaw.

Photo: #22

Date: August, 1982

Cascade County

T19N, R1W, Section 3, NW

Private

Facing West



Smith G.

This photo is a panorama with #63. Local rancher believes original picture was taken prior to 1900 when fences were built. Heavy grazing was by sheep and horses. Grass has come back extremely well. Top of butte is grazed by cows and also used by deer, prairie falcon, Golden Eagles, merlins, grouse and huns.

Vegetation: Bluebunch wheatgrass, needleandthread grass, prairie june grass, fringed sagewort, daisy.

Photo: #H34

Date: No Date



Fisher C.A.

Views down Belt Creek showing ancient valley five miles south of Armington, Montana.

Photo: #23

Date: 1983

Cascade County

T18N, R6E, Section 25, SE

Private

Facing North



Minkoff A.

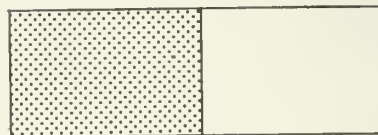
Grass type may have changed. This picture was taken farther back than the original. The trees are decreased in the mid-ground and increased in foreground. Buildings are gone from the foothills to the far right and a new home has been added in mid-ground to the right. A highway has been added.

Vegetation: Western wheatgrass, bluebunch wheatgrass, Sandbergs bluegrass, green needlegrass, slender brome, prairie junegrass, fringed sagewort, yellow yarrow, golden pea, pussytoes, shrubby cinquefoil, broom snakeweed, skunkbrush, cottonwoods, willow, Douglas fir, quaking aspen.

Photo: #H35

Date: No Date

Panorama Index



Part 1 of 2



Fisher, C.A.

View of Belt Creek valley showing old and new valleys, three miles north of Riceville, Montana. Shows shale exposures of quadrant.

Photo: #24

Date: 1983

Cascade County

T17N, R6E, Section 1 SW

Private

Facing East



Minkoff A.

The fences have been changed. Pine has increased on far bank. Cottonwood trees have decreased. Road has been added in mid-ground.

Vegetation: Western wheatgrass, green needlegrass, bluebunch wheatgrass, bluegrama, Sandbergs bluegrass, prairie junegrass, yellow yarrow, pussytoes, buckwheat, Canadian thistle, shrubby cinquefoil, skunkbrush, broom snakeweed, gumweed, cottonwoods, ponderosa pine, Douglas fir, willow.

Photo: #H35A

Date: No Date

Panorama Index



Part 2 of 2



Fisher C.A.

View of Belt Creek valley showing old and new valleys, three miles north of Riceville, Montana. Shows shale exposures of quadrant.

Photo: #25
Date: 1983

Cascade County
T17N, R6E, Section 1, SW
Private
Facing East



Minkoff A.

In foreground, both grasses and shrubs have increased. Cottonwoods have decreased, and Pine has increased in mid-ground. This picture was taken higher up the hill from original spot.

Vegetation: Western wheatgrass, green needlegrass, bluebunch wheatgrass, bluegrama, Sandbergs bluegrass, prairie junegrass, western yarrow, pussytoes, buckwheat, Canadian thistle, shrubby cinquefoil, skunkbrush, broom snakeweed, gumweed, cottonwoods, ponderosa pine, Douglas fir, willow

Photo: #H138

Date: No Date



Barnett V.H.

Smith River on Deep Creek valley and cliffs of Madison limestone from NE 1/4 Section 10, T16N, R3E.

Photo: #26
Date: 1983

Cascade County
T16N, R3E, Section 10 NE
Private
Facing SE



Minkoff A.

Grasses have increased in the foreground. Trees, mainly Pine, have greatly increased throughout.

Photo: #H158

Date: No Date



Barnett V.H.

Ellis sandstone ledge in SE 1/4, Section 29, T17N, R3E, north side of Smith River.

Photo: #27

Date: 1983

Cascade County

T17N, R3E, Section 29 SE

Private

Facing North



Minkoff A.

Grasses have greatly increased throughout. Shrubs and rocks were removed for a new road.

Vegetation: Western wheatgrass, Kentucky bluegrass, crested wheatgrass, intermediate wheatgrass, western yarrow, fringed sagewort, Canadian thistle, skunkbrush, broom snakeweed, gumweed

Photo: #190

Date: July 17, 1932



Pierce W.G.

A wave-cut bench which encircles a butte that rises 200 feet above the bed of the Quaternary Lake in the Great Falls region. The butte is probably in the NE 1/4 Section 8, T21N, R4E, about five miles northeast of Great Falls. The top of the butte rises almost to the elevation of the summit plain beyond the bordering valley. The elevation of the wave-cut bench is between 3,575 and 3,600 feet. It is within the area covered by U.S.G.S. Bulletin 356, "Geology of the Great Falls Coal Field." Two other buttes nearby have similar benches.

Photo: #28
Date: 1983

Cascade County
T21N, R4E, Section 4, NE
Private
Facing SW

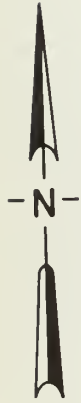


Minkoff A.

Grasses have greatly increased. There is a new fence in mid-ground and a road plus a few new trees.

Vegetation: Western wheatgrass, inland saltgrass, Indian ricegrass, foxtail barley, downy brome, western yarrow, broom snakeweed, gumweed

JEFFERSON COUNTY



JEFFERSON COUNTY

Photo Point	Page Number
1	65
2	67
3	69
4	71
5	72
6	75
7	77
8	79
9	81
10	85
11	89
12	91
13	93

▲Photo Point



1984

Photo: #H1396

Date: July 17, 1937



Pardee J.T.

West side of Bull Mountain.

Photo: #29

Date: November, 1980

Jefferson County

T5N, R4W, Section 28, NE NW

Public Land

Facing SE



Smith G., Schumaker B.

Taken a little farther away to the NW than the original. Grasses and shrubs are unchanged. Aspen in center has increased.

Vegetation: Big sagebrush, rubber rabbit, brush bluebunch wheatgrass, lupines.

Photo: #H466

Date: No Date



Stone R.W.

View northwest from hill, 600 feet west of southwest corner, Section 35, T5N, R2W. Showing wooded ridge of Flathead quartzite and higher limestone ridge in background.

Photo: #30

Date: November, 1980

Jefferson County

T5N, R2W, Section 35, SW SW

Private

Facing North



Smith G., Schumaker B.

The background is public land. Vegetation is about the same. Although the juniper has increased. The water hole in midground is now dry.

Vegetation: Big sagebrush, juniper, bluebunch wheatgrass, needleandthread grass, prairie june grass.

Photo: #H465

Date: No date



Stone R. W.

General view north along east line of T5N, R2W from hill in Section 36, sagebrush flat on belt shales and wooded ridge of Flathead quartzite.

Photo: #31

Date: November, 1980

Jefferson County

T5N, R2W, Section 36 SW NE

Public Land

Facing North



Smith G., Schumaker B.

Some public land is in the distant background. Timber has increased on the hill. Grasses and shrubs are unchanged.

Vegetation: Needleandthread grass, big sagebrush, bluebunch wheatgrass, locoweed, pussy toes

Photo: #H2187

Date: July 13, 1931



Alden W.C.

Boulder River Valley west of Bernice showing sloping grassy benches above lower bluffs. Looking east to Pole Mountain, background.

Photo: #32

Date: November, 1980

Jefferson County

T6N, R7W, Section 24, NE SE

Public Land

Facing East



Grasses are unchanged; trees on midground benches have increased and the powerline is gone. Just below Pole Mountain in the background, a hill has been logged.

Vegetation: Bluebunch wheatgrass, rubber rabbit brush, green rabbit brush, Idaho fescue, fringed sagewort, lupines, daisy

Photo: #H74

Date: No Date



Knopf A.

Boulder River Valley west of Lowland Creek.

Photo: #33

Date: November, 1980

Jefferson County

T6N, R7W Section 21, NW NW

Public Land

Facing SE



Smith G., Schumaker B.

Grasses and trees have both increased.

Vegetation: Bluebunch wheatgrass, Idaho fescue, green rabbit brush, Douglas-fir, lupines.

Photo: #H1754

Date: August 16, 1928



Schrader F.C.

Hamilton silver-lead prospect in quartz monzonite, near Old Jacket Mine four miles south of Helena in head of Holmes Gulch. Includes large brown dump prospect in gulch in right. View from Yellow Jacket Hill, looking north across Holmes Gulch.

Photo: #34

Date: August, 1982

Jefferson County

T9N, R3W, Section 17, NW NW

Public Land & Private

Facing NE



Smith G., Wickmire J., Burris J.

Taken from rock outcrop, approximately northwest of original spot due to increased trees.
Vegetation: Douglas-fir, quaking aspen, wild rose, Missouri golden rod, cudweed
sagewort, buckwheat.

Photo: #H1755

Date: August 16, 1928



Schrader F.C.

Yellow Jacket Gold and Silver mine and mill four miles south of Helena on Holmes Gulch in Quartz Monzonite. Important openings are to right of mill in gulch hidden by timber. View taken from opposite slope looking south 10 degrees west.

Photo: #35

Date: April, 1983

Jefferson County

T9N, R3W, Section 8, SE SW

Private

Facing SW



Smith G.

The hills are public land. This was taken from a slightly different spot due to trees. Bushes in the foreground are gone and the trees have greatly increased which obscure stone foundation of building in old picture. Lack of trees in old picture was due to a fire according to a local resident.

Vegetation: Bluebunch wheatgrass, Sandbergs bluegrass, prairie june grass, broom snakeweed.

Photo: #H1400

Date: July 17, 1937



Pardee J.T.

West side of Bull Mountain, valley of Whitetail Creek, looking south.

Photo: #36

Date: November, 1980

Jefferson County

T4N, R4W, Section 4, SE NW

Border of Public lands

Facing SE



Smith G.

The hills are mostly public land. Trees have increased throughout.

Vegetation: Bluebunch wheatgrass, big sagebrush, rubber rabbit brush, prairie june grass, broom snakeweed, fringed sagewort

Photo: #H1397

Date: July 17, 1937



Pardee J.T.

Oversteepened lower slope, mountain north of Sunlight Mine.

Photo: #37

Date: November, 1980

Jefferson County

T2N, R3W, Section 30

Private

Facing NE



Smith G, Schumaker B.

Hill shown is public land. Little change except new mining roads and some trees and bushes.

Vegetation: Bluebunch wheatgrass, prairie june grass, blue grama, needle and thread grass, pussytoes, broom snakeweed, fringed sagewort.

Photo: #38

Date: April, 1983

Jefferson County

T2N, R3W, Section 30

Private

Facing NE



Smith G.

This photo was taken south of original spot because of buildings. Parking lot of Sunlight Mine is foreground.

Photo: #3

Date: 1910



Unknown photographer

This was borrowed from Don Jenkins of Golden Sunlight Mines of Whitehall, MT. Hills at far right are the same as those shown in the three pictures following this one. Additional photo for historical perspective.

Photo: #H1390

Date: July 16, 1937



Pardee J.T.

Mountain slope rising from benchland south of Sunlight Mine.

Photo: #39

Date: November, 1980

Jefferson County

T2N, R3W, Section 30

Private

Facing SW



Smith G.,

Schumaker B.

Vegetation is nearly the same with some juniper increase. The area below is being cleared off for mine. New roads have been added.

Vegetation: Bluebunch wheatgrass, needle and thread grass, prairie june grass, rubber rabbit brush, broom snakeweed, fringed sagewort.

Photo: #40

Date: April, 1983

Jefferson County

T2N, R3W, Section 30

Private

Facing SW



Smith G.

Taken from parking lot of Sunlight Mine north of original spot.

Photo: #H464

Date: No Date

Panorama Index



Part 1 of 3



Stone R.W.

T5N, R2W toward ridge in Section 14 Panorama with #462 and #463

Photo: #43

Date: July, 1983

Jefferson County

T5N, R2W, Section 4, SE SW

Private Land

Facing SE



Smith G., Levy C.

Hills in background are both public and private lands. This was taken slightly higher than the original. Trees have increased throughout and grasses have increased in the foreground.

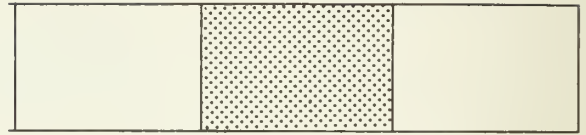
New powerline and maintenance road have been added in the background. A new trail and spring were added in the midground.

Vegetation: Bluebunch wheatgrass, Idaho fescue, prairie June grass, black sagebrush, big sagebrush, Douglas-fir, limber pine, juniper.

Photo: #H463

Date: No Date

Panorama Index



Part 2 of 3



Stone R.W.

T5N, R2W shows Limestone Hill in Section 27.

Photo: #42

Date: July, 1983

Jefferson County

T5N, R2W, Section 4, SE SW

Private Land

Facing South



Smith G., Levy C.

Hills in background and some of plains are public lands. This was taken slightly south of original spot. Trees have increased throughout and grasses have increased in foreground. New powerline has been added in background.

Vegetation: Bluebunch wheatgrass, Idaho fescue, prairie june grass, black sagebrush, big sagebrush, Douglas-fir, limber pine, juniper.

Photo: #H462

Date: No Date

Panorama Index



Part 3 of 3



Stone R.W.

T5N, R2W shows view from Section 4 toward wooded Butte in Section 17.

Photo: #41

Date: July, 1983

Jefferson County

T5N, R2W, Section 4, SE SW

Private

Facing SW



Smith G., Levy C.

Hills in background are public land. This was taken slightly south of original spot due to tree increase. Trees have increased throughout and grasses in foreground have increased.

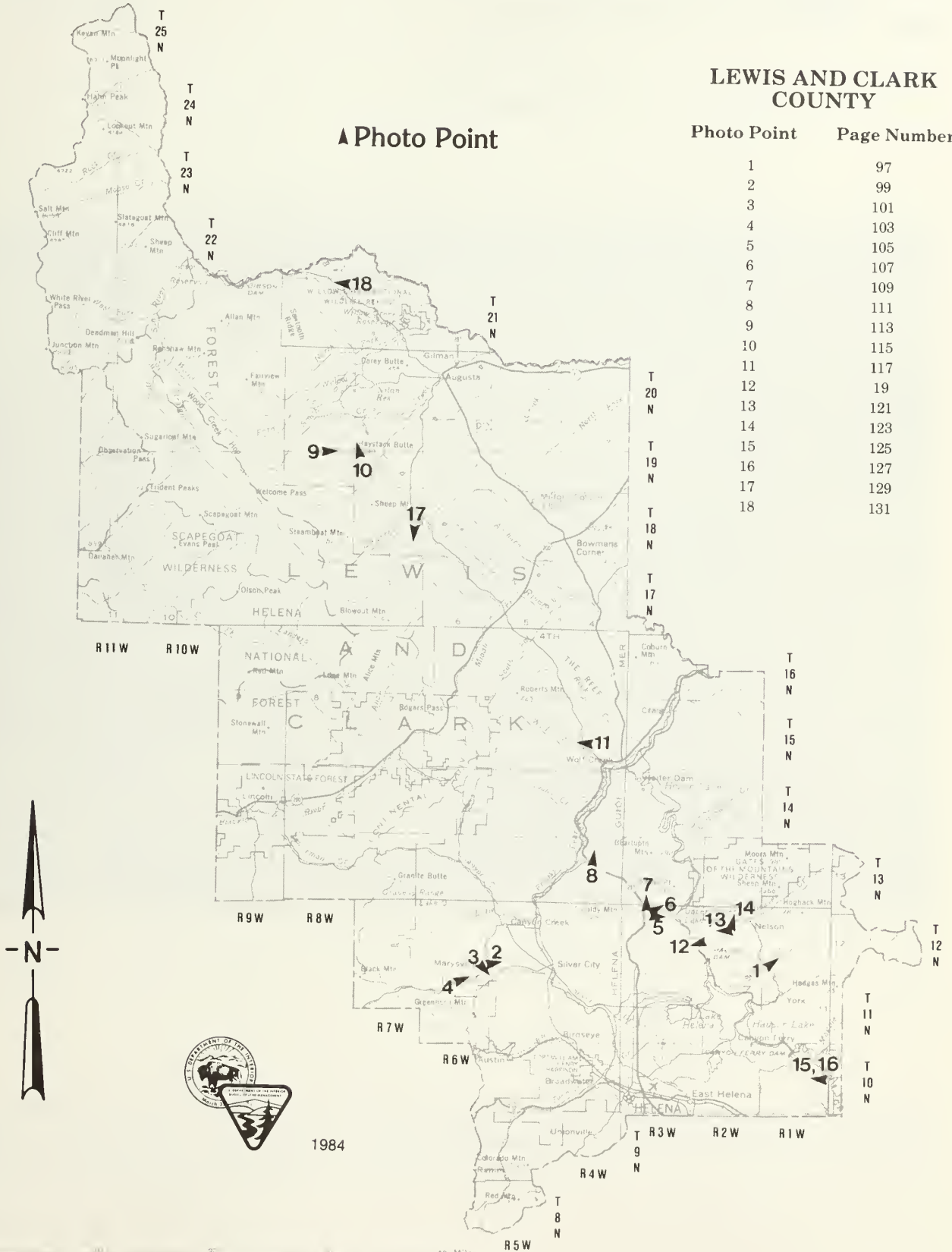
Vegetation: Bluebunch wheatgrass, Idaho fescue, prairie june grass, black sagebrush, big sagebrush, Douglas-fir, limber pine, juniper.

LEWIS AND CLARK COUNTY

LEWIS AND CLARK COUNTY

Photo Point	Page Number
1	97
2	99
3	101
4	103
5	105
6	107
7	109
8	111
9	113
10	115
11	117
12	19
13	121
14	123
15	125
16	127
17	129
18	131

▲ Photo Point



1984

Photo: #H644

Date: 1900



Walcott C.A.

Bedded carboniferous limestone on Soup Creek 1/4 mile above Radford's Ranch, six miles from Missouri River, Big Belt Mountains.

Photo: #44

Date: July, 1980

Lewis and Clark County

T12N, R1W, Section 31, NE NE

Private

Facing NE



Smith G., Schumaker B.

The background is public land. All vegetation greatly increased.

Vegetation: Douglas-fir, chokecherry, green needlegrass, basin wild rye, western wheatgrass, fringed sagewort, wild onion, salsify, pussytoes.

Photo: #H95

Date: 1901



Chapman R.H.

Looking down Sawmill Gulch.

Photo: #45

Date: November, 1980

Lewis and Clark County

T12N, R6W, Section 36, NW SE

Public & Private

Facing East



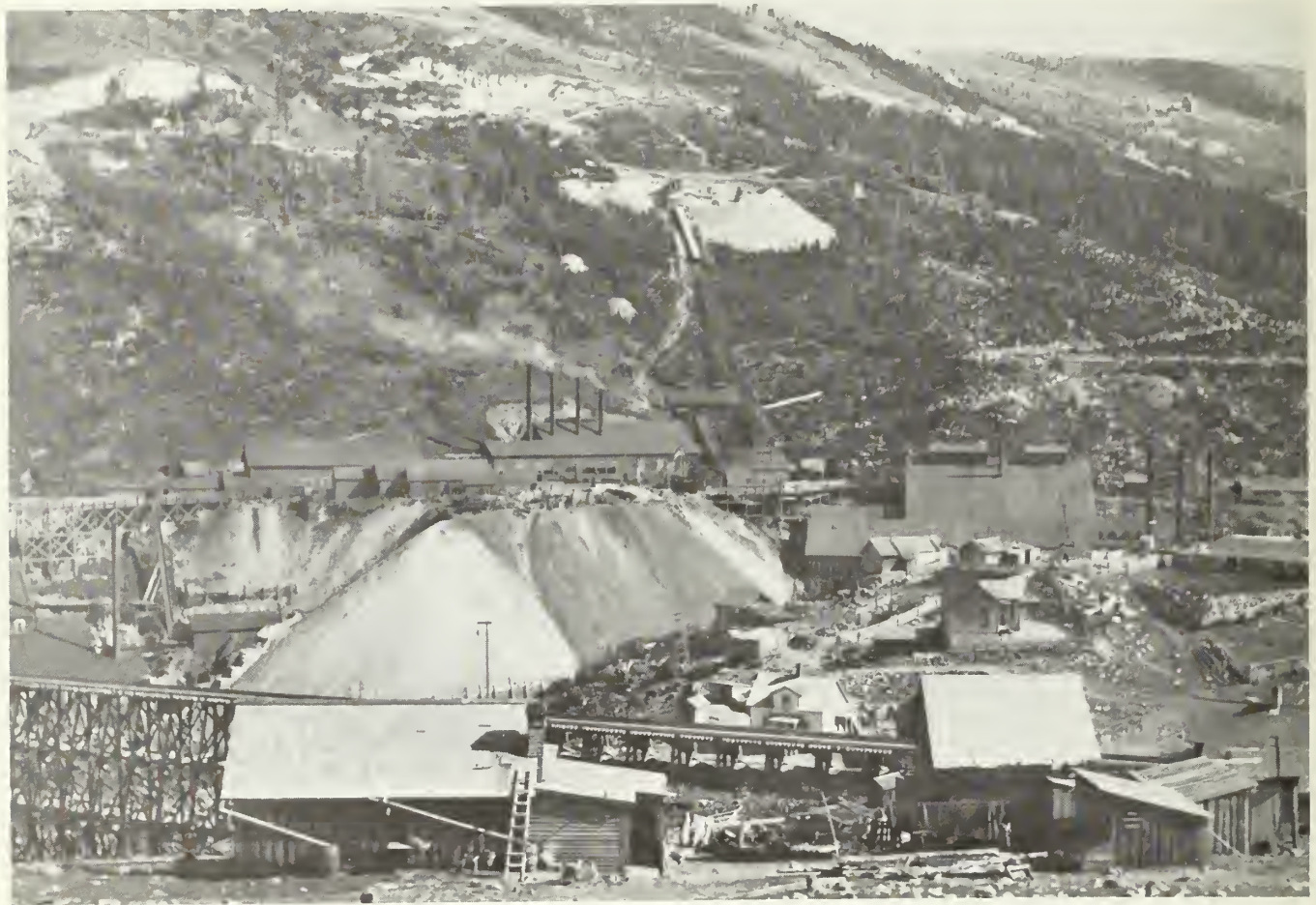
Smith G., Schumaker B.

This photo looks down Silver Creek rather than Sawmill which is beyond the ridge. The ridge is private land. Some of the benches in the background are public lands.

Vegetation: Bluebunch wheatgrass, western wheatgrass, Kentucky bluegrass, wild onion, daisy and buckwheat.

Photo: #H92

Date: 1901



Chapman R.H.

Plant of Montana Mining Company. Caved workings above and to left.

Photo: #46

Date: September, 1982

Lewis and Clark County

T12N, R6W, Section 36, Mid Sec.

Public & Private

Facing SE



Smith G., Christianson D.

Taken just east of Marysville. Buildings were wiped out by fire. Hills are completely reforested. This was taken slightly higher on hill.

Vegetation: Bluebunch wheatgrass, bluegrass (species unknown), Oregon grape, pussytoes, buckwheat, fringed sagewort.

Photo: #H97

Date: 1901



Chapman R.H.

Looking east from east slope of Mt. Belmont. Marysville in foreground.

Photo: #47

Date: August, 1982

Lewis and Clark County

T12N, R6W, Section 3, SW

Public and Private

Facing NE



Smith G., Burris J., Wickwire J.

This was taken a couple of hundred yards southwest of original spot due to trees which were greatly increased throughout. Grasses in foreground have increased.

Vegetation: Bluebunch wheatgrass, rough fescue, white point locoweed, western yarrow, daisy - trees are Douglas-fir and lodgepole pine.

Photo: #H1364

Date: August, 1936

Panorama Index



Part 1 of 3



Pardee J.T.

Panorama: Hilger Valley and Belt Mountains.

Photo: #50

Date: August, 1982

Lewis and Clark County

T12N, R3W, Section 5, NE NE

Private

Facing North



Smith G., Burris J., Wickmire J.

Some of background mountains are public land. Foreground is owned by Sieben Livestock and managed jointly with Montana Fish and Game. Interstate 15 is in midground. Trees have increased some and grasses have greatly increased.

Vegetation: Bluebunch wheatgrass, rubber rabbit brush, big sagebrush, horsebrush, ponderosa pine.

Photo: #H1363

Date: August, 1936

Panorama Index



Part 2 of 3



Pardee J.T.

Panorama: Hilger Valley and Belt Mountains, "Bear Tooth" in background.

Photo: #49

Date: August, 1982

Lewis and Clark County

T12N, R3W, Section 5, NE NE

Private

Facing NE



Smith G., Burris J., Wickmire J.

Only three pictures from original four picture panorama were used.

Some of background mountains are public land. Foreground is owned by Sieben Livestock and managed jointly with Montana Fish and Game. Interstate 15 is in midground. Trees have increased some and grasses have greatly increased.

Vegetation: Bluebunch wheatgrass, rubber rabbit brush, big sagebrush, horsebrush, ponderosa pine.

Photo: #H1361

Panorama Index

Date: August, 1936



Part 3 of 3



Pardee J.T.

Panorama: Hilger Valley and Belt Mountains

Photo: #48

Date: August, 1982

Lewis and Clark County

T12N, R3W, Section 5, NE NE

Private

Facing East



Smith G., Burris J., Wickmire J.

Only three pictures from original four picture panorama were used. Some of background mountains are public land. Foreground is owned by Sieben Livestock and managed jointly with Montana Fish and Game. Interstate 15 is in midground. Trees have increased some and grasses have greatly increased.

Vegetation: Bluebunch wheatgrass, rubber rabbit brush, big sagebrush, horsebrush, ponderosa pine.

Photo: #H1092

Date: September 16, 1928



Pardee J.T.

Hilger Valley looking west from top of bench above boat landing at Hilgers.

Photo: #51

Date: August, 1982

Lewis and Clark County

T13N, R4W, Section 16, SE NE

Public Land

Facing North



Wickmire J., Burris J.

Most of the foreground up to the hills is private. Hills are public and private both. Taken on Interstate 15 just before Sieben exit. Levings Gulch on left has lost trees. Trees in midground have increased.

Vegetation: Bluebunch wheatgrass, blue grama, prickly pear cactus, ponderosa pine.

Photo: #H669

Date: 1900



Walcott C.D.

Haystack Butte from North

Photo: #52

Date: August, 1982

Lewis and Clark County

T19N, R8W, Section 15 SW SW

Private

Facing East



Smith G., Burris J.

This photo shows hayfields that were formerly grazing land. Douglas-fir is gone from creek and quaking aspen has increased. On Butte, trees have increased. Fences have all been changed.

Vegetation: Bluebunch wheatgrass, Missouri goldenrod, dotted gayfeather, arrowleaf balsamroot, salsify.

Photo: #H33

Date: No Date



Fisher C.A.

Haystack Mountain from the southeast, near Augusta.

Photo: #53

Date: 1983

Lewis and Clark County

T19N, R7W, Section 19 NE

State Land

Facing NE



Minkoff A.

Trees have decreased in the mid-ground.

Vegetation: Western wheatgrass, Sandbergs bluegrass, Kentucky bluegrass, prairie junegrass, salsify, cottonwoods, quaking aspen, willow

Photo: #H653

Date: 1900



Walcott C.D.

Bedded ardesitic breccias, about two miles above Wolf Creek on road to Stearns Post Office.

Photo: #54

Date: June, 1981

Lewis and Clark County

T15N, R4W, Section 28

Private Land

Looking West



Smith G., Ostenburg K.

This photo shows that the grasses and trees have increased, the old road is gone, the creek crossing has been moved and the fences changed.

Vegetation: Bluebunch wheatgrass, blue grama, prickly pear cactus, fringed sagewort.

Photo: #H649

Date: 1900



Walcott C.D.

Looking down Missouri River from mouth of Beaver Creek, northern portion of Big Belt Mountains.

Photo: #55

Date: September, 1982

Lewis and Clark County

T12N, R2W, Section 19, NW NE

Public Land

Facing West



Smith G.

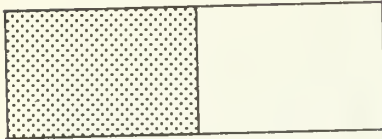
Trees on hills have increased.

Vegetation: Smooth brome, fringed sagewort, needleandthread grass

Photo: #H536.1

Date: 1898

Panorama Index



Part 1 of 2



Walcott C.D.

Panorama: view of north side of Beaver Creek, Big Belt Mountains, showing succession from Cambrian to Carboniferous.

Photo: #56

Date: April, 1983

Lewis and Clark County

T12N, R2W, Section 15, NW NE

Public Land

Facing West



Smith G.

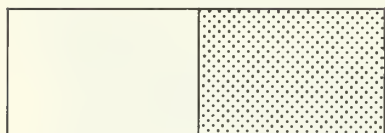
This photo shows part of a panorama. Only two of the three original pictures were taken. Taken a short distance down the road to the west because trees obscured view. Road is improved. Trees increased throughout and brush was cleared in valley for cultivation.

Vegetation: Bluebunch wheatgrass, needle and thread grass, rubber rabbit brush, hoodsphlox.

Photo: #H536.5

Date: 1898

Panorama Index



Part 2 of 2



Walcott C.D.

Panorama: view of north side of Beaver Creek, Big Belt Mountains, showing succession from Cambrian to Carboniferous.

Photo: #57

Date: April, 1983

Lewis and Clark County

T12 N, R2W, Section 15, NW NE

Public Land

Facing North



Smith G.

This photo is part of a panorama. Only two of the three original pictures were taken. Trees have increased throughout. This was taken a short distance down the road to the south because trees obscured view. In the valley, brush has been cleared for cultivation.

Vegetation: Bluebunch wheatgrass, needle and thread grass, rubber rabbit brush, hoodsphlox.

Photo: #H698

Date: August, 1921

Panorama Index



Part 1 of 2



Pardee J.T.

Lake Sewell, an artificial storage reservoir on Missouri River. Built in 1898, owned by Montana Power Company. Spokane Hills in background near Canyon Ferry, looking west.

Photo: #58

Date: July, 1980

Lewis and Clark County

T10N, R1W, Section 24, NW NE

Public Land

Facing West



Smith G., Schumaker B.

Taken from Hellgate picnic area. Lake Sewell later became Canyon Ferry and was enlarged. Many private cabins can be seen on distant shore. The hills are public land.

Photo: #H699

Date: August, 1921

Panorama Index



Part 2 of 2



Pardee J.T.

Lake Sewell, an artificial storage reservoir on Missouri River. Built in 1898, owned by Montana Power Company. Spokane Hills in background near Canyon Ferry, looking west.

Photo: #59

Date: July, 1980

Lewis and Clark County

T10N, R1W, Section 24, NW NE

Public Land

Facing West



Smith G., Schumaker B.

This was taken from Hellgate picnic area. Lake Sewell later became Canyon Ferry and was enlarged. Many private cabins can be seen on distant shore. The hills are public land.

Photo: #H667

Date: 1900



Walcott C.D.

Terraces on south side of canyon of North Fork of Dearborn River at Walter's Ranch.

Photo: #60

Date: August, 1982

Lewis and Clark County

T18N, R7W, Section 24, NW SW

Private Land

Facing South



Smith G.

Table Mountain in background is public land. Taken near old Walker Ranch (only chimney left), which now is a hay field. Prior to 1900, a fire had wiped out trees on Table Mountain and now is completely reforested.

Vegetation: Foreground hay field.

Photo: #H1062

Date: September 21, 1920



Alden W.C.

Sun River gorge cut in wall of upturned limestone as seen from a point nine miles southeast. Top of the valley represents bottom of an old valley, probably correlated with highest gravel-capped bench in T22N, R6W. Glacial lakes in foreground.

Photo: #75

Date: 1983

Lewis and Clark County

T21N, R8W, Section 1, SW

State Land

Facing West

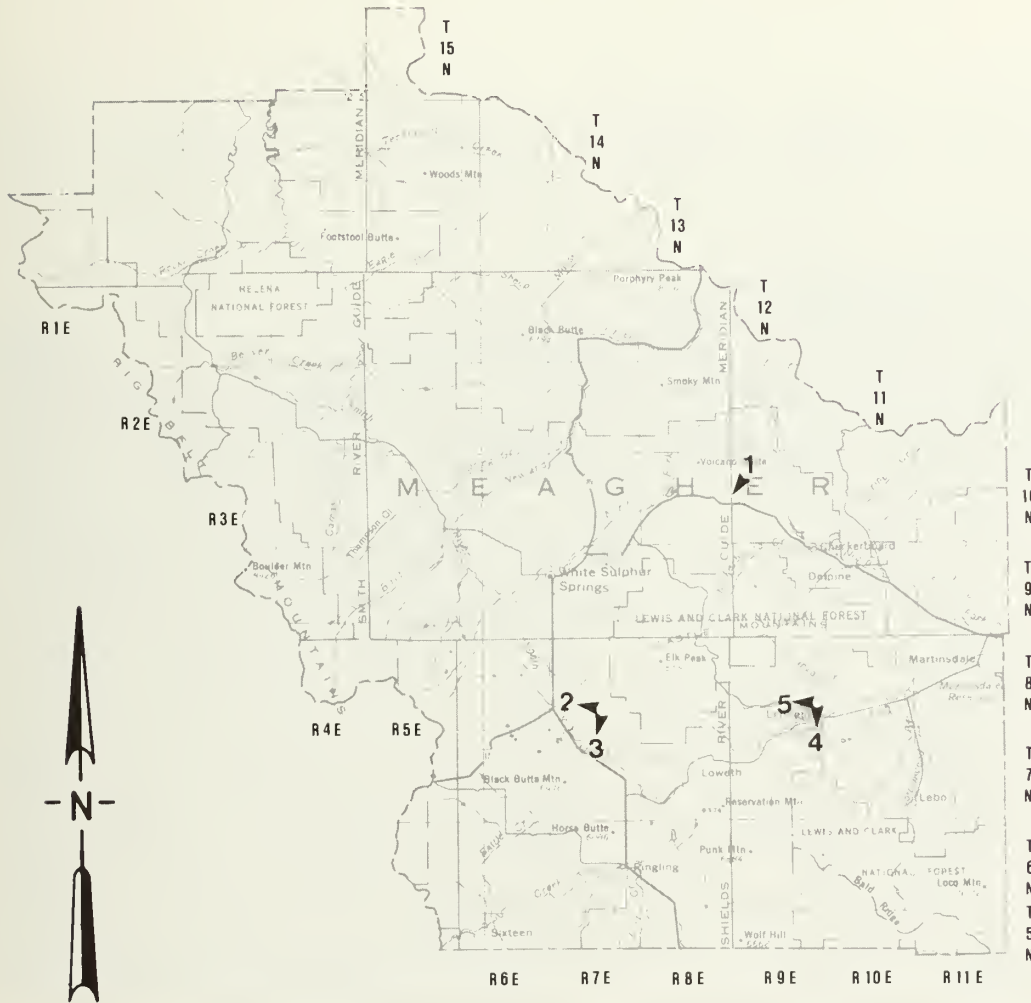


Minkoff A.

Buildings at right are removed. Vegetation is about the same. Water may have decreased some.

Vegetation: Bluegrama, prairie junegrass, western wheatgrass, bluebunch wheatgrass, Japanese brome, western yarrow, pussytoes, fringed sagewort, gumweed, buckwheat, broom snakeweed, shrubby cinquefoil, skunkbrush

MEAGHER COUNTY



MEAGHER COUNTY

Photo Point	Page Number
1	135
2	137
3	139
4	141
5	143

▲Photo Point



1984



Photo: #H469

Date: No Date



Stone R. W.

View across N 1/2 Sec. 7, T10N, R4E, from NE corner

Photo: #61

Date: March, 1983

Meagher County

T10N, R9E, Sec. 7, NE

Private

Facing SW



Smith G., Risberg E.

Foreground improved to grasses. Trees were logged off along left slope of draw and several logging roads are visible. Trees have increased on right slope of draw. Elk and horse sign is present.

Vegetation: Bluebunch wheatgrass, needle and thread grass, Sandbergs bluegrass.

Photo: #H282

Date: 1906

Panorama Index



Part 1 of 2



Stone, R.W.

Theralite sill, east side of Gordon Butte near Martinsdale, MT.

Photo: #63

Date: March, 1983

Meagher County

T8N, R11E, Section 27, SW SW

Private

Facing South



Smith G., Risberg E.

Grass is unchanged and sage and trees are increased.

Vegetation: Bluebunch wheatgrass, needle and thread grass, rubber rabbit brush, big sagebrush, fringed sagewort, Douglas-fir.

Photo: #H281

Date: 1906

Panorama Index



Part 2 of 2



Stone R. W.

Theralite sill, east side of Gordon Butte near Martinsdale, MT.

Photo: #62

Date: March, 1983

Meagher County

T8N, R11E, Section 27, SW SW

Private

Facing West



Smith G, Risberg E.

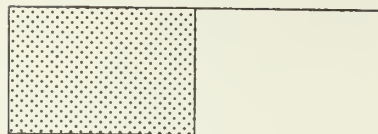
Grass is unchanged and sage and trees are increased.

Vegetation: Bluebunch wheatgrass, needle and thread grass, rubber rabbit brush, big sagebrush, fringed sagewort, Douglas-fir.

Photo: #H291

Date: 1906

Panorama Index



Part 1 of 2



Stone R. W.

Musselshell Valley and upturned igneous sills, Lennep, MT, at Grande Ranch.

Photo: #65

Date: March, 1983

Meagher County

T8N, R9E, Section 25, NE SW

Private

Facing SW



Smith G, Risberg E.

Vegetation: Bluebunch wheatgrass, needle and thread grass, prairie june grass, fringed sagewort

Photo: #H290

Date: 1906

Panorama Index



Part 2 of 2



Stone, R.W.

Musselshell Valley and upturned igneous sills, Lennep, MT, at Grande Ranch.

Photo: #64

Date: March, 1983

Meagher County

T8N, R9E, Section 25, NE SW

Private

Facing South

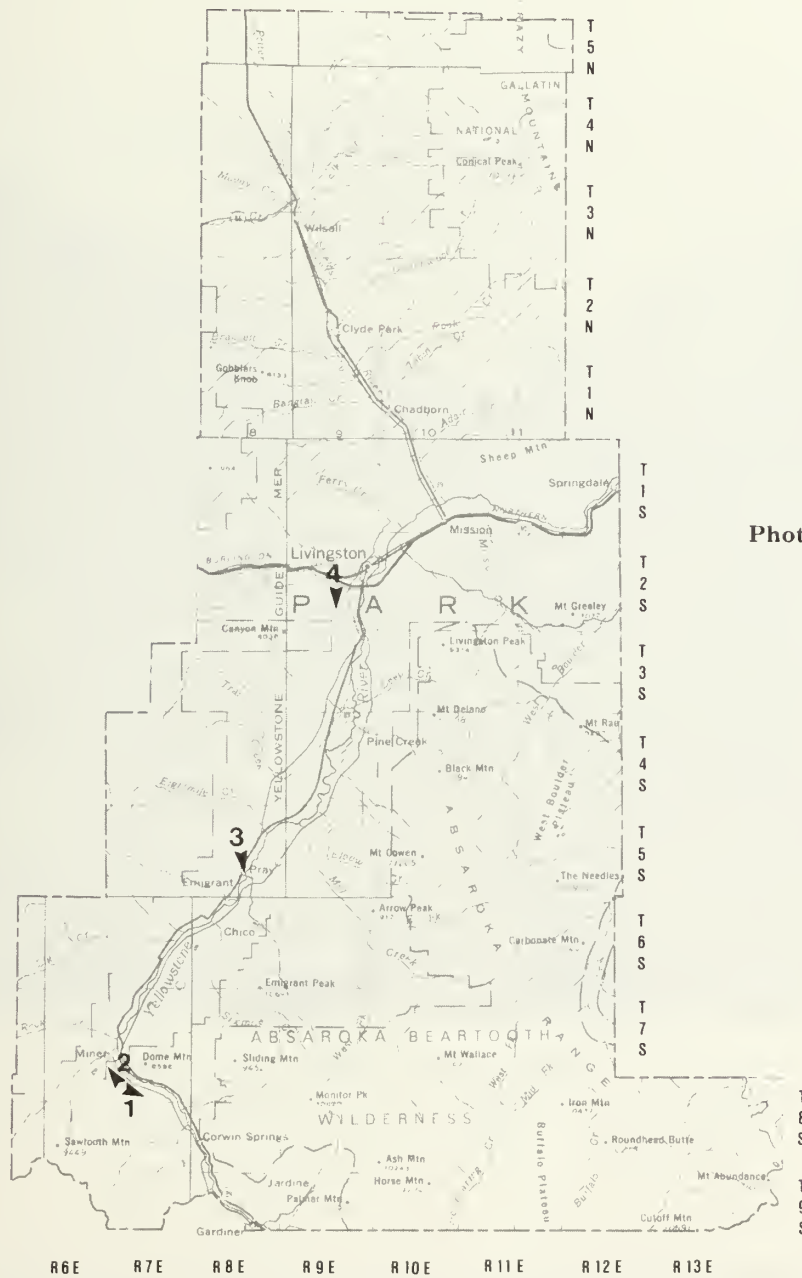
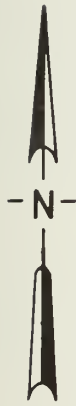


Smith G., Risberg, E.

There are new buildings in town and some old ones remain, Foreground vegetation is unchanged. Hills in background are public land. Trees have increased in background.

Vegetation: Bluebunch wheatgrass, needle and thread grass, prairie june grass, fringed sagewort.

PARK COUNTY



▲Photo Point

PARK COUNTY

Photo Point	Page Number
1	147
2	149
3	151
4	153



1984



Photo: #H2052

Date: 1921



Lee, W.T.

Yellowstone Valley and Yankee Jim Canyon about 200 miles north of Gardiner, MT.
Looking upstream.

Photo: #66

Date: October, 1982

Park County

T8S, R7E, Section 4, NW NW

Public Land

Facing SE



Smith G.

This photo was taken also in 1921 by W. T. Lee #2052 which showed slight vegetation change from 1898. Since 1921, a lot has changed. A new highway was added along left side of river. Trees have increased throughout. Old tracks are now a road.

Vegetation: Douglas-fir, bluebunch wheatgrass, big sagebrush, rubber rabbit brush.

Photo: #H539C

Date: 1898



Walcott C.D.

View looking SE down Yankee Jim Canyon, Yellowstone River 1 1/2 miles north of Yankee Jim, MT. Addition photo for historical perspective.

Photo: #H539B

Date: 1898



Walcott C.D.

View looking north down Yankee Jim Canyon, Yellowstone River, 1 1/2 miles north of Yankee Jim, MT.

Photo: #67

Date: October, 1982

Park County

T8 S, R7E, Section 4, NW NW

Public Land

Facing NW



Smith G.

This was taken slightly north of original spot due to heavy brush. All vegetation has increased. Old railroad track was replaced by a road. A new highway was added along right side of river.

Vegetation: Douglas-fir, bluebunch wheatgrass, rubber rabbit brush, big sagebrush.

Photo: #H2053

Date: 1921



Lee W.T.

Mountains east of Yellowstone River north of Gardiner.

Photo: #68

Date: October, 1982

Park County

T5S, R8E, Section 22, NE SW

Public Land

Facing Southeast



Smith G.

This area is one and one-half miles north of Emigrant, MT, on Old Highway. Fore and midground trees have decreased. Canal was added in foreground. Midground is private, and mountains are public land above Chico, MT. Trees have increased.

Vegetation: Needle and thread grass, blue grama, cheat grass, Sandbergs bluegrass, prairie june grass.

Photo: #H143

Date: No Date



Barnett V.H.

Irrigable flat and mouth of Livingston Canyon, Livingston, MT.

Photo: #69

Date: June, 1983

Park County

T2S, R9E, Section 27, SE NE

Public Land

Facing South



Smith G.

Homesites are replacing farm land. Mountains are both public and private land. Mountain to right is known as Wine Glass Mountain. Trees are much increased on mountains.

Vegetation: Bluebunch wheatgrass, needleandthread grass, prairie june grass, fringed sagewort, Sandbergs bluegrass, blue grama

PONDERA COUNTY

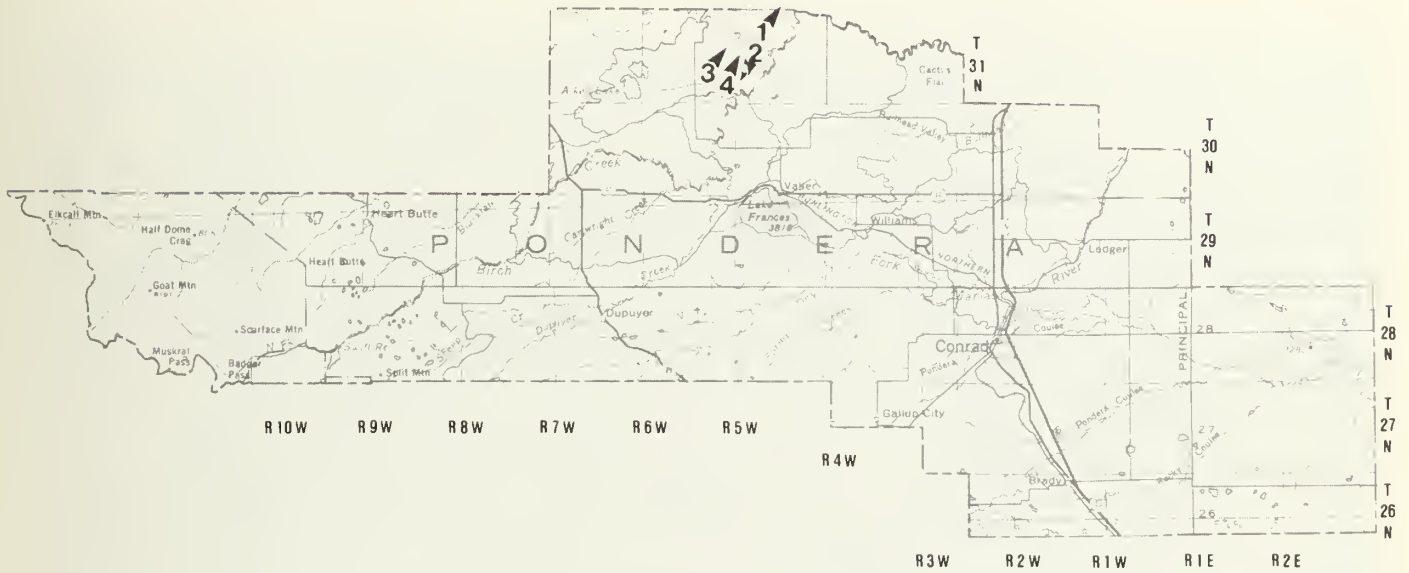
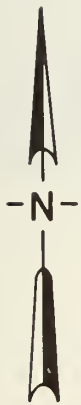


Photo Point



PONDERA COUNTY

Photo Point	Page Number
1	159
2	161
3	163
4	165



1984



Photo: #H68

Date: 1910



Stebinger E.

View looking NE down the Two Medicine River to its junction with Cutbank Creek, showing to lower end of the box canyon cut in the Eagle sandstone.

Note the prominent buttresses cut along the left wall of the canyon. Slopes to the right and in the middle distance are cut in the drift of the Continental ice sheet. Section 2, T31N, R5W.

Photo: #70

Date: No Date

Pondera County

T31N, R5W, Section 2, NW 1/4

Private

Facing NE



Minkoff A.

Grasses have decreased in the foreground. River channel has decreased in size and an island has appeared. Grasses have increased on cliff at right.

Vegetation: Western wheatgrass, green needlegrass, prairie junegrass, bluegrama, western yarrow, buckwheat, skunkbrush, fringed sagewort, broom snakeweed

Photo: #H69

Date: 1910



Stebinger C.

View looking southwest in Section 15, T31N, R5W, showing the box canyon cut by the Two Medicine River in Eagle sandstone.

Photo: #71

Date: 1983

Pondera County

T31N, R5W, Section 15, NW 1/4

Indian Reservation

Facing SW



Minkoff A.

No changes are visible.

Vegetation: Prairie junegrass, western wheatgrass, Sandbergs bluegrass, bluegrama, western yarrow, green needlegrass, skunkbrush, fringed sagewort.

Photo: #H70

Date: 1910



Stebinger E.

View looking SW in Section 17, T31N, R5W. Another view of the box canyon cut by the Two Medicine River in Eagle sandstone.

Photo: #72

Date: 1983

Pondera County

T31N, R5W, Section 17, NW

Indian Reservation

Facing NE



Minkoff A.

Grasses in foreground have decreased somewhat.

Vegetation: Western wheatgrass, bluebunch wheatgrass, green needlegrass, Sandbergs bluegrass, bluegrama, prairie junegrass, yellow yarrow, broom snakeweed, pussytoes, skunkbrush

Photo: #H73

Date: 1910



Stebinger E.

On Birch Creek looking NE in Section 21, T31N, R5W, showing the box canyon cut in Eagle sandstone.

Photo: #73
Date: 1983

Pondera County
T31N, R5W, Section 21, NW
Indian Reservation
Facing NE

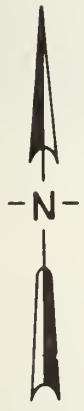
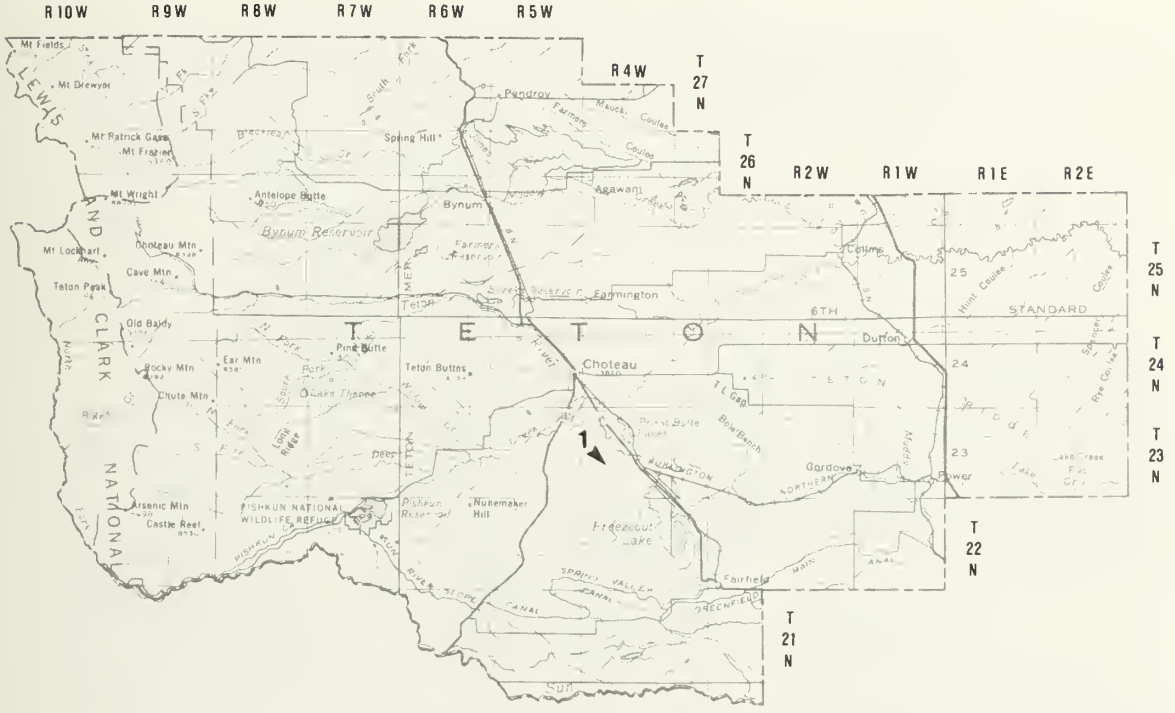


Minkoff A.

In the foreground grasses have decreased.

Vegetation: Prairie junegrass, western wheatgrass, Sandbergs bluegrass, bluegrama, yellow yarrow, pussytoes, skunkbrush, fringed sagewort

TETON COUNTY



▲ Photo Point

TETON COUNTY

Photo Point	Page Number
1	169



1984



Photo: #H933

Date: 1925



Collier A.J.

Sweetgrass Arch. Priest Butte about three miles south of Choteau. This butte is capped with Eagle sandstone.

Photo: #74
Date: 1983

Teton County
T23N, R4W, Section 18, NE
Private
Facing SE



Minkoff A.

Old homestead was replaced with newer buildings and trees have been added possibly as a shelter belt. Fence has been removed. The land was formerly used for grazing and now is a cultivated field.

Vegetation: Prairie junegrass, western wheatgrass, bluebunch wheatgrass, Sandbergs bluegrass, green needlegrass, bluegrama, pussytoes, fringed sagewort, shrubby cinquefoil, broom snakeweed

GUIDE TO PLANT NAMES GRASS AND GRASSLIKE

Common	Scientific
Basin wildrye	<i>Elymus cinereus</i>
Bluebunch wheatgrass	<i>Agropyron spicatum</i>
Blue grama	<i>Bouteloua gracilis</i>
Bottlebrush squirreltail	<i>Sitanion hystrix</i>
Cheatgrass	<i>Bromus tectorum</i>
Clover	<i>Trifolium spp.</i>
Common reedgrass	<i>Phragmites communis</i>
Crested wheatgrass	<i>Agropyron cristatum</i>
Foxtail barley	<i>Hordeum jubatum</i>
Green needlegrass	<i>Stipa viridula</i>
Idaho fescue	<i>Festuca idahoensis</i>
Indian ricegrass	<i>Oryzopsis hymenoides</i>
Inland saltgrass	<i>Distichlis stricta</i>
Intermediate wheatgrass	<i>Agropyron intermedium</i>
Japanese brome	<i>Bromus japonicus</i>
Kentucky bluegrass	<i>Poa pratensis</i>
Needleandthread grass	<i>Stipa comata</i>
Needleleaf sedge	<i>Carex eleocharis</i>
Prairie junegrass	<i>Koeleria cristata</i>
Rough fescue	<i>Festuca scabrella</i>
Sandbergs bluegrass	<i>Poa sandbergii</i>
Smooth brome	<i>Bromus inermis</i>
Standard crested wheatgrass	<i>Agropyron desetorum</i>
Western wheatgrass	<i>Agropyron smithii</i>

GUIDE TO PLANT NAMES FORBS

Common	Scientific
Alfalfa	<i>Medicago sativa</i>
Arrowleaf balsamroot	<i>Balsamorhiza sagittata</i>
Buckwheat	<i>Eriogonum spp.</i>
Canada thistle	<i>Cercium arvense</i>
Chokecherry	<i>Prunus virginiana</i>
Daisy	<i>Erigeron spp.</i>
Gumweed	<i>Grindelia spp.</i>
Dotted gayfeather	<i>Liatris punctata</i>
Horsemint	<i>Monarda fistulosa</i>
Hymenoxys	<i>Hymenoxys spp.</i>
Locoweed	<i>Astragalus spp.</i>
Lupine	<i>Lupinus spp.</i>
Missouri goldenrod	<i>Solidago missouriensis</i>
Phlox	<i>Phlox spp.</i>
Pussytoes	<i>Antennaria spp.</i>
Salsify	<i>Tragapogon dubious</i>
Western yarrow	<i>Achillea millifolium</i>
White point loco	<i>Oxytropis sericea</i>
Wild onion	<i>Allium spp.</i>
Wild strawberry	<i>Fragaria americana</i>
Yellow sweetclover	<i>Melilotus officinalis</i>

GUIDE TO PLANT NAMES TREES

Common	Scientific
Cottonwood	<i>Populus spp.</i>
Douglas fir	<i>Pseudotsuga menziesii</i>
Limber pine	<i>Pinus flexilis</i>
Lodgepole pine	<i>Pinus contorta latifolia</i>
Mountain mahogany	<i>Cercocarpus ledifolius</i>
Ponderosa pine	<i>Pinus ponderosa</i>
Quaking aspen	<i>Populus tremuloides</i>

GUIDE TO PLANT NAMES SHRUBS

Common	Scientific
Big sagebrush	<i>Artemisia tridentata</i>
Black sagebrush	<i>Artemisia arbuscula</i> Nova
Broom snake Weed	<i>Xanthocephalum sarothrae</i>
Cudweed sagewort	<i>Artemisia iudouiciana</i>
Fringed sagewort	<i>Artemisia frigida</i>
Green rabbit brush	<i>Chrysothamnus viscidiflorus</i>
Horsebrush	<i>Tetradymia canescens</i>
Juniper	<i>Juniperus spp.</i>
Oregongrape	<i>Berberis repens</i>
Prickly pear cactus	<i>Opuntia polykanatha</i>
Rubber rabbit brush	<i>Chrysothamnus nauseosus</i>
Shrubby cinquefoil	<i>Potentilla fruiticosa</i>
Skunkbush	<i>Rhus tuilobata</i>
Wild rose	<i>Rosa spp.</i>
Willow	<i>Salix spp.</i>
Yucca	<i>Yucca glauca</i>

Bibliography

- Booth, W.E. and Wright, J.C. 1959. *Flora of Montana, Part II*. Bozeman, MT: Montana State University
- Hitchcock, C.; Cronquist, A.; Ownbey, M.; and Thompson, J.W. 1969. *Vascular Plants of the Pacific Northwest*. Seattle: University of Washington Press.
- Johnson, J.R. and Nicholas, J.T. December 1970. *Plants of South Dakota Grasslands, A Photographic Study*. Bulletin 566. Brookings: South Dakota State University.
- Reiner, Ralph E. 1969. *Introducing the Flowering Beauty of Glacier National Park and the Majestic High Rockies*. Glacier Park, Inc.
- U.S. Department of Agriculture. Forest Service. 1977. *General Technician Report INT-38-Intermountain Range Plant Names and Symbols*. A. Plummer, S. Monsen, R. Stevens, Ogden, Utah.
- U.S. Department of Agriculture. Soil Conservation Service. April 1976. *Standard Plant Names of Montana - Plant Sciences Staff*. Bozeman, MT.

Bureau of Land Management
Library
Bldg. 50, Denver Federal Center
Denver, CO 80225

100 374

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
LIBRARIAN'S CARD

son Photography.

	OFFICE	DATE RETURNED

Form 1279-3 (May 1982) (formerly DSC 1279-3a)

