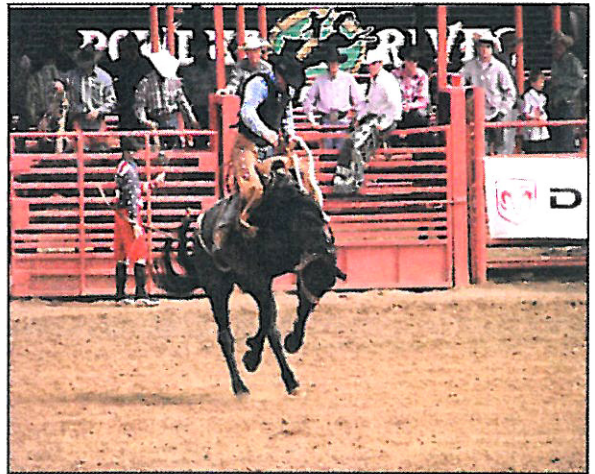
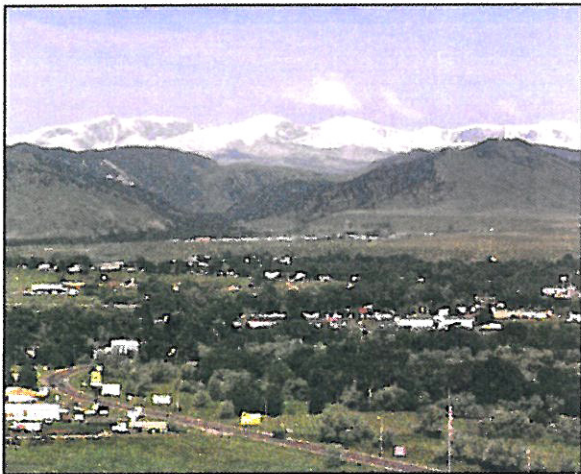
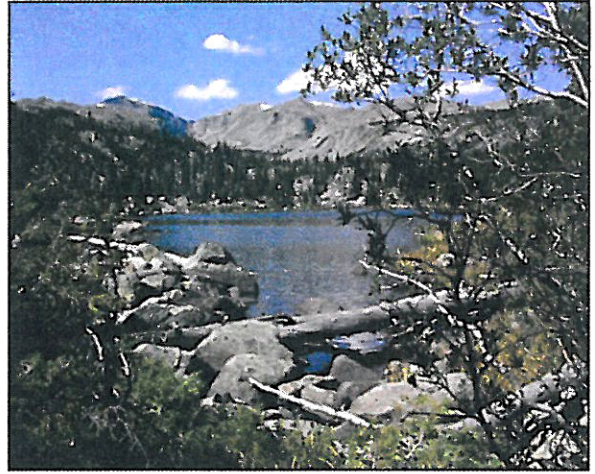


JOHNSON COUNTY, WYOMING  
**COMPREHENSIVE LAND USE PLAN**  
FINAL



MARCH 2005

# **JOHNSON COUNTY COMPREHENSIVE LAND USE PLAN FINAL**



**MARCH 2005**

**JOHNSON COUNTY  
COMPREHENSIVE  
LAND USE PLAN  
FINAL**



**MARCH 2005**

# Johnson County COMPREHENSIVE LAND USE PLAN

## FINAL

Prepared for  
**Johnson County**  
76 N. Main Street  
Buffalo, Wyoming 82834  
(307) 684-1907

### Johnson County Commissioners

Marilyn Connolly  
Gerald Fink  
Don Hall  
Jim Mader  
Tracy Rhodes  
Robert Thompson

### Johnson County Planning and Zoning Commission

Harvey Crowe  
Wayne Graves  
Kelly Lawrence  
Michael McKinley  
Paul Millhouse  
Robert Ruby  
Kim Schwirian  
Margaret Smith  
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**March 2005**

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FINAL



APRIL 2005

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April 2005

**RESOLUTION NO. 296  
OF THE BOARD OF JOHNSON COUNTY COMMISSIONERS  
TO ADOPT THE JOHNSON COUNTY COMPREHENSIVE LAND USE PLAN**

**WHEREAS**, the County of Johnson is a duly organized, established, and existing county existing within the State of Wyoming, and is a body corporate and politic; and

**WHEREAS**, the Board of County Commissioners of Johnson County is the duly elected, qualified, and acting governing board of the County of Johnson, delegated by law to exercise the powers of the County as a body corporate and politic; and

**WHEREAS**, W.S. 18-5-202(a) provides that each Board of County Commissioners may, by resolution, create and establish a Planning and Zoning Commission and has by resolution previously created and established such Planning and Zoning Commission; and

**WHEREAS**, W.S. 18-5-202(b) provides that the duly appointed Planning and Zoning Commission may prepare and amend a comprehensive plan including zoning for promoting the public health, safety, morals and general welfare of the unincorporated areas of the county, and certify the plan to the board of county commissioners; and

**WHEREAS**, the Board of County Commissioners has authorized the preparation of a Comprehensive Land Use Plan for the purpose of promoting the public health, safety, morals and general welfare of the county; and

**WHEREAS**, the Johnson County Planning and Zoning Commission has prepared a Johnson County Comprehensive Land Use Plan; and

**WHEREAS**, the members of the Johnson County Planning and Zoning Commission has unanimously voted to certify its recommendation to the Board of County Commissioners of Johnson County to adopt the Johnson County Comprehensive Land Use Plan, and

**WHEREAS**, all public notifications and public hearings on the Johnson County Comprehensive Land Use Plan as required by W.S. 18-5-202(b) have been properly held and public comments were considered.

**NOW THEREFORE IT BE RESOLVED**, that the County of Johnson, by and through its Board of County Commissioners, does hereby adopt the Johnson County Comprehensive Land Use Plan dated March 2005.

**APPROVED AND ADOPTED** this 19th day of April, 2005.

ATTEST:



Linda Barnhart, County Clerk

BOARD OF COUNTY COMMISSIONERS  
JOHNSON COUNTY, WYOMING



Gerald Fink, Chairman



James Mader, Vice-Chair



Robert Thompson, Commissioner



## Johnson County Planning & Zoning Commission

76 North Main Street, Buffalo, Wyoming 82834

Phone: (307) 684-1907 · Fax: (307) 684-5146 · e-mail: jcplanner@vcn.com

---

April 12, 2005

Board of Johnson County Commissioners  
76 N. Main Street, Room 204  
Buffalo, WY 82834

Commissioners:

It is the opinion of the Johnson County Planning and Zoning Commission that all requirements of W.S. 18-5-202(b) for adoption of the Johnson County Comprehensive Land Use Plan have been met. Public hearings required under this section have been properly advertised and held, and comments received from the public at those hearings as well as comments received from various state and federal agencies have been fully reviewed and duly considered.

Therefore, as required in W.S. 18-5-202(c), the Johnson County Planning and Zoning Commission hereby certifies its recommendation that the Board of Johnson County Commissioners formally adopt by resolution the Final Report of the Johnson County Comprehensive Land Use Plan dated March 2005 after its final public hearings that are scheduled for April 12, 2005 and April 13, 2005.

Sincerely,

  
Harvey Crowe  
Chairman



**JOHNSON COUNTY  
COMPREHENSIVE LAND USE PLAN  
FINAL – MARCH 2005**

<b>TABLE OF CONTENTS</b>		
<i>Chapter</i>	<i>Title</i>	<i>Page</i>
<b>ONE</b>	<b>EXECUTIVE SUMMARY</b>	<b>1-1</b>
1.1	GENERAL	1-1
1.2	SIGNIFICANT FACTORS INFLUENCING LAND USE (CHAPTER THREE)	1-1
1.3	ENVIRONMENT AND NATURAL RESOURCES (CHAPTER FOUR)	1-2
1.4	AGRICULTURAL LAND USES (CHAPTER FIVE)	1-2
1.5	RESIDENTIAL LAND USES (CHAPTER SIX)	1-2
1.5.1	City of Buffalo	1-2
1.5.2	Town of Kaycee	1-3
1.5.3	Unincorporated Area	1-4
1.6	COMMERCIAL LAND USES (CHAPTER SEVEN)	1-4
1.6.1	City of Buffalo	1-4
1.6.2	Town of Kaycee	1-5
1.6.3	Unincorporated Area of Johnson County	1-6
1.7	INDUSTRIAL LAND USES (CHAPTER EIGHT)	1-6
1.7.1	Demand for Industrial Lands	1-6
1.7.2	Potential Areas for Industrial Expansion	1-6
1.8	PUBLIC FACILITIES (CHAPTER NINE)	1-7
1.9	COMMUNITY FACILITIES (CHAPTER TEN)	1-8
1.9.1	Future Demand for Community Facilities	1-8
1.9.2	Potential Areas for Future Community Facility Expansion	1-8
1.10	RECREATION AND CONSERVATION (CHAPTER ELEVEN)	1-8
1.10.1	Demand for Recreation and Conservation	1-8
1.10.2	Potential Areas for Future Recreation and Conservation	1-8
1.11	TRANSPORTATION (CHAPTER TWELVE)	1-9
1.11.1	Transportation Needs	1-9
1.11.2	Recommended Transportation Objectives and Policies	1-10
1.12	RECOMMENDED VISION FOR FUTURE LAND USES (CHAPTER THIRTEEN)	1-11
1.13	FUTURE LAND AND RESOURCE MANAGEMENT (CHAPTER FOURTEEN)	1-12
<b>TWO</b>	<b>INTRODUCTION</b>	<b>2-1</b>
2.1	MISSION STATEMENT	2-1
2.2	GOALS OF THE JOHNSON COUNTY COMPREHENSIVE LAND USE PLAN	2-1
2.3	PLANNING OBJECTIVE	2-1
2.4	RELATIONSHIP TO OTHER RELEVANT PLANS	2-2
2.5	AUTHORITY	2-3
2.6	SCOPE	2-3
2.7	ORGANIZATION OF THE PLAN	2-3
2.8	METHODOLOGY AND PLAN PROCESS	2-5
2.8.1	Use of a Consultant for Preparation of the Land Use Plan	2-5
2.8.2	Community Participation and Plan Approval Process	2-5
2.8.3	Development and Application of a Geographical Information System	2-6
2.8.4	Evaluation of Demographic and Economic Trends	2-7
2.8.5	Evaluation of Land Use Trends and Issues	2-7
2.8.6	Preparation of Land Use Demand Forecasts	2-7
2.8.7	Development of a Recommended Land Use Pattern	2-8
2.9	CONSULTATION	2-8
2.10	FUTURE PLAN REVISIONS	2-11

<b>TABLE OF CONTENTS</b>		
<b>Chapter</b>	<b>Title</b>	<b>Page</b>
<b>THREE</b>	<b>SIGNIFICANT FACTORS INFLUENCING FUTURE LAND USE</b>	<b>3-1</b>
3.1	HISTORY, CUSTOM AND CULTURE	3-1
3.1.1	Early Explorers, Trappers and Traders	3-1
3.1.2	Influence of the U.S. Government	3-2
3.1.3	The Bozeman Trail	3-2
3.1.4	Indians, Troop, Forts and Conflicts	3-2
3.1.5	Early Settlement of Johnson County	3-3
3.1.6	Establishment of Johnson County	3-4
3.1.7	Continued Expansion of Livestock Industry	3-4
3.1.8	Other Resource Development Activities	3-5
3.1.9	Formation of Johnson County Communities	3-7
3.2	REGIONAL LABOR FORCE, EMPLOYMENT AND INCOME	3-8
3.2.1	Labor Force	3-8
3.2.2	Employment	3-8
3.2.3	Income	3-9
3.3	ECONOMIC SECTORS	3-10
3.3.1	Agriculture	3-10
3.3.2	Power Generation, Transmission and Distribution	3-14
3.3.3	Coal Bed Methane Exploration and Production	3-17
3.3.4	Visitor Industry	3-20
3.3.5	Retail Trade	3-22
3.3.6	Government	3-25
3.4	COMMUNITY DEMOGRAPHICS	3-25
3.4.1	Resident Population	3-25
3.4.2	Factors Influencing Future Population Growth	3-26
3.4.3	Anticipated Population for the 2003-2012 Period	3-27
<b>FOUR</b>	<b>ENVIRONMENT AND NATURAL RESOURCES</b>	<b>4-1</b>
4.1	INTRODUCTION	4-1
4.2	THE PHYSICAL ENVIRONMENT	4-1
4.2.1	Geology	4-1
4.2.2	Minerals	4-1
4.2.3	Soils	4-2
4.2.4	Climate	4-3
4.3	WATER RESOURCES	4-6
4.3.1	Ground Water	4-6
4.3.2	Surface Water	4-11
4.4	WILDLIFE RESOURCES	4-18
4.4.1	Big and Trophy Game Animals	4-18
4.4.2	Other Mammals	4-24
4.4.3	Game Birds	4-27
4.4.4	Non-Game Birds	4-27
4.4.5	Aquatic Resources	4-28
<b>FIVE</b>	<b>AGRICULTURAL LAND USES</b>	<b>5-1</b>
5.1	EXISTING AGRICULTURAL LAND USE	5-1
5.2	AGRICULTURAL LAND USE ISSUES	5-2
5.2.1	Recent Market Trends	5-2
5.2.2	Diversification of Ranch Operations	5-3
5.2.3	Conversion of Agricultural Lands to Rural Residential Use	5-3

<b>TABLE OF CONTENTS</b>		
<b>Chapter</b>	<b>Title</b>	<b>Page</b>
5.2.4	The Impact of Federal Resource Management Policies Upon Livestock Grazing	5-5
5.2.5	Impact of Rural Subdivisions Upon Commercial Agricultural Operations	5-6
5.2.6	Conservation of Lands for Agricultural Production	5-8
5.3	FUTURE DEMAND FOR AGRICULTURAL LAND	5-8
5.4	AREAS FOR FUTURE AGRICULTURAL EXPANSION	5-9
<b>SIX</b>	<b>RESIDENTIAL LAND USES</b>	<b>6-1</b>
6.1	EXISTING RESIDENTIAL LAND USE	6-1
6.1.1	Housing Stock And Home Occupancy	6-1
6.1.2	Home Ownership	6-1
6.1.3	Housing in the City of Buffalo	6-2
6.1.4	Housing in the Unincorporated Area of Johnson County	6-5
6.1.5	Housing in the Town of Kaycee	6-7
6.2	RESIDENTIAL LAND USE ISSUES	6-9
6.2.1	General	6-9
6.2.2	Residential Properties in Buffalo	6-9
6.2.3	Residential Land Sales in Buffalo	6-12
6.2.4	Rental Housing in Buffalo	6-13
6.2.5	Sales and Market Trends in Kaycee	6-15
6.2.6	Sales and Market Trends in the Unincorporated Area of Johnson County	6-16
6.3	FUTURE HOUSING DEMAND	6-18
6.3.1	General	6-18
6.3.2	Incoming Retirement Age Population	6-19
6.3.3	Coal Bed Methane Labor Force	6-20
6.3.4	Seasonal Visitor Industry Labor Force	6-22
6.3.5	U.S. Bureau of Land Management, Buffalo Field Office	6-23
6.3.6	Persons Seeking Rural Properties in the Unincorporated Area	6-24
6.3.7	Existing Residents	6-24
6.3.8	Cumulative Housing Demand	6-26
6.4	POTENTIAL AREAS FOR RESIDENTIAL EXPANSION	6-31
6.4.1	New Housing Projects	6-31
6.4.2	Other Potential Housing Expansion Areas	6-33
<b>SEVEN</b>	<b>COMMERCIAL LAND USES</b>	<b>7-1</b>
7.1	EXISTING COMMERCIAL LAND USE	7-1
7.1.1	City of Buffalo	7-1
7.1.2	Unincorporated Area of Johnson County	7-4
7.1.3	Town of Kaycee	7-4
7.2	COMMERCIAL LAND USE ISSUES	7-5
7.2.1	Recent Market Trends	7-5
7.2.2	Lack of Land and Floor Space for Commercial Expansion	7-6
7.2.3	Retail Leakage	7-7
7.2.4	Home-Based Businesses	7-8
7.3	FUTURE DEMAND FOR COMMERCIAL LAND USES	7-8
7.3.1	City of Buffalo	7-8
7.3.2	Town of Kaycee	7-9
7.4	AREAS FOR FUTURE COMMERCIAL EXPANSION	7-10
7.4.1	City of Buffalo	7-10
7.4.2	Town of Kaycee	7-11
7.4.3	Unincorporated Area of Johnson County	7-11

<b>TABLE OF CONTENTS</b>		
<b>Chapter</b>	<b>Title</b>	<b>Page</b>
<b>EIGHT</b>	<b>INDUSTRIAL LAND USES</b>	<b>8-1</b>
8.1	EXISTING INDUSTRIAL LAND USE	8-1
8.1.1	Unincorporated Area of Johnson County	8-1
8.1.2	City of Buffalo	8-1
8.1.3	Town of Kaycee	8-1
8.2	INDUSTRIAL LAND USE ISSUES	8-1
8.2.1	Designation of Land for Future Oil and Gas Development	8-1
8.2.2	Lack of Lands Designated for Light Industrial Uses	8-3
8.3	FUTURE DEMAND FOR INDUSTRIAL LANDS	8-4
8.4	POTENTIAL AREAS FOR FUTURE EXPANSION	8-4
8.4.1	Planned Industrial Sites	8-4
8.4.2	Potential Sites for Future Industrial Expansion	8-4
<b>NINE</b>	<b>PUBLIC FACILITIES</b>	<b>9-1</b>
9.1	EXISTING PUBLIC FACILITY USE	9-1
9.2	PUBLIC FACILITY ISSUES	9-5
9.2.1	Lack of Administrative Office and Meeting Space	9-5
9.2.2	Vacant Public Facilities near Linch and Barnum	9-5
9.3	FUTURE DEMAND FOR PUBLIC FACILITIES	9-5
9.4	OPPORTUNITIES FOR FUTURE PUBLIC FACILITY EXPANSION	9-5
9.4.1	City of Buffalo	9-5
9.4.2	Town of Kaycee	9-6
<b>TEN</b>	<b>COMMUNITY FACILITIES</b>	<b>10-1</b>
10.1	EXISTING COMMUNITY FACILITIES	10-1
10.2	COMMUNITY FACILITY ISSUES	10-1
10.2.1	Lack of Lands Designated for Community Facilities	10-1
10.3	FUTURE DEMAND FOR COMMUNITY FACILITIES	10-5
10.4	AREAS FOR FUTURE COMMUNITY FACILITY EXPANSION	10-5
<b>ELEVEN</b>	<b>RECREATION AND CONSERVATION</b>	<b>11-1</b>
11.1	EXISTING RECREATION AND CONSERVATION AREAS	11-1
11.1.1	City of Buffalo	11-5
11.1.2	Town of Kaycee	11-6
11.1.3	Unincorporated Area	11-6
11.2	RECREATION AND CONSERVATION ISSUES	11-9
11.2.1	Increased Outdoor Recreational Demands and the Application of Recreational Use Capacities	11-9
11.2.2	Greater Public Concern for Resource Conservation	11-10
11.3	DEMAND FOR RECREATION AND CONSERVATION	11-10
11.4	POTENTIAL CONSERVATION AND RECREATION EXPANSION AREAS	11-11
11.4.1	Potential Conservation Areas	11-11
11.4.2	Potential Recreational Areas	11-11
11.4.3	Potential Historic Sites	11-12
<b>TWELVE</b>	<b>TRANSPORTATION</b>	<b>12-1</b>
12.1	GENERAL	12-1
12.2	TRANSPORTATION SYSTEMS	12-1
12.2.1	Roads and Highways	12-1
12.2.2	Municipal Public Transportation	12-4

<b>TABLE OF CONTENTS</b>		
<b>Chapter</b>	<b>Title</b>	<b>Page</b>
12.2.3	Non-Motorized Transportation Modes	12-5
12.2.4	Air Transportation	12-5
12.2.5	Commercial Bus Service	12-6
12.2.6	Rail Transportation Services	12-6
12.3	GOVERNMENT TRANSPORTATION AGENCIES	12-6
12.3.1	Johnson County Road and Bridge Department	12-6
12.3.2	Wyoming Department of Transportation (WYDOT)	12-6
12.4	FUTURE TRANSPORTATION IMPROVEMENTS	12-6
12.5	TRANSPORTATION GOALS AND POLICIES	12-7
<b>THIRTEEN</b>	<b>VISION FOR FUTURE LAND USES</b>	<b>13-1</b>
13.1	GENERAL	13-1
13.2	RECOMMENDED LAND USES	13-2
13.2.1	General	13-2
13.2.2	Land Use Category Definitions and Development Criteria	13-3
13.2.3	Community Expansion	13-3
13.2.4	Multiple Use	13-4
13.2.5	Recreation and Conservation	13-5
13.2.6	Agriculture	13-6
13.3	RECOMMENDED LAND USE PATTERN	13-6
13.3.1	General	13-6
13.3.2	General Recommendations for Land Use Expansion	13-7
13.3.3	Application of General Land Use Categories	13-9
<b>FOURTEEN</b>	<b>FUTURE LAND AND RESOURCE MANAGEMENT</b>	<b>14-1</b>
14.1	GENERAL	14-1
14.2	U.S. FOREST SERVICE	14-2
14.2.1	Management of the Bighorn National Forest	14-2
14.2.2	General Authority for Land and Resource Management	14-2
14.2.3	Land and Resource Management Concerns of Johnson County	14-3
14.2.4	Future Coordination with the U.S. Forest Service	14-5
14.3	U.S. BUREAU OF LAND MANAGEMENT	14-6
14.3.1	Management of Other Public Lands in Johnson County	14-6
14.3.2	General Authority for Land and Resource Management	14-6
14.3.3	Land and Resource Management Concerns of Johnson County	14-7
14.3.4	Future Coordination with the Bureau Of Land Management	14-9
14.4	U.S. FISH AND WILDLIFE SERVICE	14-10
14.4.1	General Management Organization	14-10
14.4.2	General Authority for Resource Management	14-10
14.4.3	Land and Resource Management Concerns of Johnson County	14-11
14.4.4	Future Coordination with the U.S. Fish and Wildlife Service	14-11
14.5	WYOMING GAME AND FISH COMMISSION	14-12
14.5.1	General Management Organization	14-12
14.5.2	General Authority for Fish and Wildlife Management	14-13
14.5.3	Land and Resource Management Concerns of Johnson County	14-14
14.5.4	Future Coordination with the Wyoming Game and Fish Department	14-15
14.6	STATE CONSERVATION DISTRICTS	14-15
14.6.1	General	14-15
14.6.2	Statutory Authority and Responsibilities	14-16
14.6.3	Land and Resource Management Concerns of Johnson County	14-16
14.6.4	Future Coordination with the State Conservation Districts	14-17

<b>TABLE OF CONTENTS</b>		
<b>Chapter</b>	<b>Title</b>	<b>Page</b>
14.7	JOHNSON COUNTY	14-18
14.7.1	Current Responsibility for Land Use Management	14-18
14.7.2	General Authority for Land Management	14-19
14.7.3	Land and Resource Management Concerns of Johnson County	14-21
14.7.4	Recommended Tools for Future Land Use Management	14-28
<b>APPENDIX A: PUBLIC MEETINGS AND COMMENTS</b>		
<b>APPENDIX B: RESULTS OF BUFFALO HOUSING STUDY</b>		
<b>APPENDIX C: RESULTS OF KAYCEE HOUSING STUDY</b>		
<b>REFERENCES</b>		

<b>LIST OF FIGURES</b>		
<b>Figure</b>	<b>Title</b>	<b>Page</b>
2-1	Johnson County Location Map	2-2
3-1	Powder River Energy Corporation Service Area	3-15
4-1	Estimated Precipitation Contours, Johnson County	4-5
4-2	Estimated Depths to Ground Water in Johnson County	4-10
4-3	Powder River Basin Watersheds in Johnson County	4-12
4-4	Big Game Animal Seasonal Habitat Ranges, Johnson County	4-20
6-1	Existing Residential Areas, City of Buffalo	6-3
6-2	Existing Residential Areas, Town of Kaycee	6-8
7-1	Existing and Potential Commercial Areas, City of Buffalo	7-2
7-2	Existing Commercial Areas, Town of Kaycee	7-3
8-1	Existing and Potential Industrial Areas, City of Buffalo	8-2
9-1	Existing and Potential Public Facility Areas, City of Buffalo	9-3
9-2	Existing Public Facility Areas: Town of Kaycee	9-4
10-1	Existing Community Facility Areas, City of Buffalo	10-2
10-2	Existing Community Facility Areas, Town of Kaycee	10-3
11-1	Existing Recreation/Conservation Areas: City of Buffalo	11-2
11-2	Recreation/Conservation Areas: Town of Kaycee	11-3
11-3	Recreation and Conservation Areas: Unincorporated Area: Johnson County	11-4
12-1	Transportation Systems in Johnson County	12-2
13-1	Recommended Land Use Pattern: Johnson County: 2003-2012	13-10
13-2	Recommended Land Use Pattern: Buffalo Vicinity: 2003-2012	13-11
13-3	Recommended Land Use Pattern: Kaycee Vicinity: 2003-2012	13-12

## LIST OF TABLES

<i>Table</i>	<i>Title</i>	<i>Page</i>
3-1	Average Annual Employment, Johnson County Economy, 1997-2000	3-9
3-2	Total Personal Earnings in Johnson County By Employment Sector, 1997-2000	3-10
3-3	Livestock Production for Johnson County, 1995-2002	3-11
3-4	Dry Alfalfa and Hay Production in Johnson County, 1995-2002	3-11
3-5	Changes in the Size of Agricultural Operations, 1992 and 1997	3-12
3-6	Anticipated New Coal Bed Methane Employment Expected to Reside in Johnson County, 2003-2012	3-18
3-7	Seasonal Employment Trends In Johnson County Accommodations, Food Services, and Retail Trade 1Q through 3Q 2001	3-21
3-8	Total Retail Sales, Johnson County, 2001	3-22
3-9	2001 Total Retail Sales by Merchandise Category, Johnson County	3-23
3-10	2002 Total Retail Sales by Merchandise Category, Johnson County	3-24
3-11	Johnson County Population, April 2000	3-26
3-12	Births and Deaths in Johnson County, May 2000 through Dec 2002	3-26
3-13	Anticipated Resident Population, Johnson County, 2003-2012	3-30
3-14	Anticipated Distribution, Johnson County Resident Population, 2003-2012	3-30
4-1	Ambient Temperature and Precipitation Records for Selected Stations, Johnson County, Wyoming	4-4
4-2	Average Stream Flows at Selected Natural Flow Stations in the Powder River Basin, Normal, Wet, and Dry Conditions, 1970-1999	4-13
4-3	Total Annual Available Surface Flow, Primary Sub-Basins of Powder River Basin in Johnson County	4-14
4-4	Summary of Current and Projected Surface Water Uses	4-17
4-5	Other Mammals in Northeast Wyoming, General Habitat and Relative Abundance	4-25,26
4-6	Fish Species within Powder River Basin Watersheds, Johnson County	4-29
5-1	Agricultural Lands in Johnson County, FY 1997-FY 2002	5-1
5-2	Rural Residential Land and Lot Sales, Unincorporated Area of Johnson County, CY 1999-CY 2001	5-4
6-1	Housing Stock and Home Occupancy, Johnson County, April 2000	6-1
6-2	Home Ownership in Occupied Housing Units, Johnson County, April 2000	6-2
6-3	Type and Distribution of Housing, City of Buffalo	6-4
6-4	Manufactured or Mobile Homes, City of Buffalo, 2001	6-5
6-5	Rural Residential Subdivisions in Johnson County, 2001	6-6
6-6	Rural Residential Subdivisions Within 1.5 Miles of Buffalo Boundary, 2001	6-7
6-7	Manufactured or Mobile Homes in Trailer Parks Within 1.5 Miles of Buffalo Boundary, 2001	6-7
6-8	Single Family Housing Distribution, Town of Kaycee	6-9
6-9	Residential Property Sales, City of Buffalo, 1999, 2000 and 2001	6-11
6-10	Residential Land and Lot Sales, City of Buffalo, CY 1999-CY 2001	6-13
6-11	Average Monthly Rental Housing Costs, Johnson County	6-14
6-12	Monthly Rental Housing Cost Ranges, Available Rental Housing in Buffalo, 2Q 2002	6-15
6-13	Improved Rural Residential Property Sales, Unincorporated Area of Johnson County, CY 1999-CY 2001	6-17

## LIST OF TABLES

(Continued from previous page)

<b>Table</b>	<b>Title</b>	<b>Page</b>
6-14	Rural Residential Land and Lot Sales, Unincorporated Area of Johnson County, CY 1999-CY 2001	6-18
6-15	Housing Demand for 56 Years & Older Market Group, Johnson County	6-20
6-16	Anticipated Housing Demand in Johnson County, Coal Bed Methane Labor Force, 2003-2012	6-21
6-17	Anticipated Housing Demand, Seasonal Visitor Industry Employment, City of Buffalo	6-23
6-18	Housing Demand From Existing Buffalo Residents, 2003-2012	6-24
6-19	Housing Demand From Existing Kaycee Residents, 2005-2014	6-26
6-20	Cumulative Housing Demand, City of Buffalo, 2003-2012	6-27
6-21	Cumulative Housing Demand, Town of Kaycee, 2004-2013	6-28
6-22	Cumulative Housing Demand: Unincorporated Area of Johnson County, 2003-2012	6-29
6-23	Rural Residential Subdivisions, Johnson County, 2001	6-34
7-1	Commercial Activities, City of Buffalo, 2002	7-1
7-2	Commercial Activities, Unincorporated Area of Johnson County, 2002	7-4
7-3	Commercial Activities, Town of Kaycee, 2004	7-4
7-4	Commercial Property and Lot Sales, CY 1999-CY 2001	7-5
7-5	Anticipated Commercial Land Use Demands, City of Buffalo, 2003-2012	7-8
7-6	Anticipated Commercial Land Use Demands, Town of Kaycee, 2003-2012	7-10
9-1	Public Facilities, Unincorporated Area of Johnson County	9-1
9-2	Public Facilities, City of Buffalo	9-2
9-3	Public Facilities, Town of Kaycee	9-2
10-1	Community Facilities, Johnson County	10-4
11-1	Recreation and Conservation Areas, Johnson County	11-1
11-2	Federal Recreation and Wilderness Study Areas in Johnson County	11-5
11-3	State Pubic Access and Wildlife Habitat Management Areas	11-8



# CHAPTER ONE

## EXECUTIVE SUMMARY

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### 1.1 GENERAL

The purpose of the Johnson County Comprehensive Land Use Plan and the planning process used to formulate the Land Use Plan are described in Chapter Two. Two of the primary uses of the Plan are to:

- guide future land use management decisions of the Johnson County Commissioners and the Johnson County Planning and Zoning Commission; and,
- adopt a land use plan that must be considered by federal agencies during their preparation of resource management plans and policies that will influence Johnson County.

The Executive Summary provides a general overview of selected background information, conclusions and recommendations that are derived from the overall Johnson County Comprehensive Land Use Plan. Chapters 2 through 14 of this document provide a more detailed presentation of supporting information that was used to form conclusions and recommendations outlined in this Executive Summary.

### 1.2 SIGNIFICANT FACTORS INFLUENCING LAND USE (CHAPTER THREE)

The history, custom and culture of the people of Johnson County have, in part, shaped the type and location of land uses within Johnson County. Various American Indian tribes, early explorers, trappers and traders, the establishment of the Bozeman Trail, U.S. Government expeditions, and the establishment of military forts, influenced the early settlement and eventual formation of Johnson County in 1879.

These factors attracted the migration of a growing population who eventually became involved in cattle and sheep production, coal mining, and the harvest of raw timber. As the natural resources became better identified, mineral industry companies gradually mined uranium, bentonite, and other minerals, as well as explored and tapped oil and gas reserves. Some landowners that provided access to these natural resources, e.g., oil, re-invested income to finance the construction of new irrigation ditches that stimulated the production of crops and livestock along the Powder River.

The expansion of agriculture and development of other natural resources also led to the formation of various small communities in Johnson County. The communities of Barnum, Buffalo, Kaycee, Mayoworth, and Sussex were established between the late 1800's and 1906. The Town of Linch was not formed until 1951.

Today, employment and income in Johnson County are primarily generated from several economic sectors:

- agriculture;
- oil, gas and mineral exploration and development;

- tourism;
- retail trade; and,
- government.

### **1.3 ENVIRONMENT AND NATURAL RESOURCES (CHAPTER FOUR)**

The physical environment, surface and groundwater resources, and wildlife resources will influence future land use development and should be considered in the context of future land use decisions of Johnson County. These resources have important links to agriculture, the mineral industry, the visitor industry, and recreational opportunities for Johnson County residents. The future availability of water resources is essential to all land uses within Johnson County.

### **1.4 AGRICULTURAL LAND USES (CHAPTER FIVE)**

The economic viability of agricultural operations in Johnson County will be influenced by federal and state resource management policies. Much of Johnson County's aquatic and wildlife habitat exists because of agricultural resources. Resource management objectives that are made without adequate consideration of the operational requirements of crop and livestock production may threaten the viability of ongoing agricultural operations. Sustained agricultural production is an asset that is essential to the conservation of land, water, and wildlife resources.

One of the primary concerns of Johnson County is the continued availability of public lands for livestock grazing. Any significant decline in animal unit months may adversely impact the economic viability of many agricultural operations in Johnson County. It is vital that federal agencies consider operational requirements needed to sustain profitable livestock operations in its application of livestock grazing requirements.

The diversification of agricultural operations is often a necessity for agricultural operators to remain financially stable. Agricultural operators often establish guest ranches, recreational outfitter services, guest cabins or other small business opportunities. Johnson County should not discourage the diversification of agricultural operations.

Federal policies on threatened and endangered species may also have a profound effect on agricultural operations. Species that may harm agricultural operations are not limited to predators. Restrictions placed on lands because of most endangered species may affect the economic viability of agricultural operations.

### **1.5 RESIDENTIAL LAND USES (CHAPTER SIX)**

#### **1.5.1 City of Buffalo**

##### Purchase of Fee Simple Single-Family Properties

The predominant demand for housing in Buffalo will continue to be for the purchase of single-family properties. The demand will be for a combination of stick-built homes, manufactured homes, mobile homes, town houses and duplexes.

The demand for single-family home purchases is expected to range between 33 to 132 homes per year during the 2004-2012 period. The primary market for purchases of residential properties is expected to be existing residents of Buffalo who intend to purchase a different home. The coal bed methane labor force and incoming BLM personnel are also expected to generate some demand for single-family home purchases during the 2004-2012 period.

From 2005 through 2012, it is anticipated that the future purchase of residential properties in Buffalo will shift to a growing incoming population 56 years of age and older. This market group includes persons who are nearing or within retirement age.

### Rental Housing

Significant additional rental housing will be needed to meet the demand of seasonal visitor industry workers and existing residents who prefer, and can barely afford, rental housing. Rental-housing demand is also anticipated from the coal bed methane labor force as long as rental housing is available and priced affordably.

Existing occupancies already exhaust the capacity of most available rental housing. Anticipated rental housing demand is well beyond the existing rental housing supply. The lack of rental housing will increase the price of housing and discourage potential residents from locating within the community.

Seasonal visitor industry workers also represent a significant market for rental housing. A portion of this demand can be met through the construction of more RV park/campgrounds and mobile home parks.

### Residential Expansion Areas

Recently completed housing development projects such as Cloud Peak Vistas and Diamond Point Construction Apartments will increase the rental housing inventory in Buffalo and help to ease future rental housing demands.

Similarly, Phase III of the Mountain Ridge Subdivision will help address the future demand for single-family housing. The extent to which the demand for residential property purchases is met will be influenced by available single-family housing inventories.

## **1.5.2 Town of Kaycee**

### Housing Demands

Modest housing demands are expected in Kaycee during the 2004-2012 period (Table 6-21). Much of this demand will be for rental housing for an incoming coal bed methane labor force.

In the aftermath of the August 2002 flood, most residents have remained in the community. Some have replaced homes damaged during the flood (Knapp, 2003). The demand for some new housing from existing community residents was also evident from data gained from the November 2003 housing survey.

### Potential Areas for Residential Expansion

Within the Town of Kaycee, there are various lots that are vacant or undeveloped. In some cases, these properties consist of one or more adjoining residential lots that are associated with an existing single family home. In other situations, existing landowners may be willing to sell one or more vacant lots. However, some lots may no longer be desirable as building sites due to the experience gained during the August 2002 flood in Kaycee.

The Town of Kaycee is considering a proposed subdivision near the mercantile store. The proposed Middle Fork Addition would, if approved, contain 28 lots that could support some future residential expansion.

Some residential expansion opportunities may be feasible north and east of the Kaycee municipal boundary. Residential expansion may require an extension of water distribution and sewer collection lines to these areas.

### **1.5.3 Unincorporated Area**

#### Housing Demand

The unincorporated area of Johnson County can also expect to experience increased housing demands during the 2003-2012 period. New rental housing demands will be generated from an incoming coal bed methane labor force. Some limited demands for assisted living housing will also be generated by persons in the 65+ market group.

The larger 56+ market group will also be the primary source of demand for the purchase of rural residential properties. It is expected that most of this demand will be for properties within about five miles from Buffalo.

### Potential Areas for Residential Expansion

The unincorporated area of Johnson County contains approximately 50 rural residential subdivisions. Johnson County Assessor records for each of these subdivisions indicate that there are about 321 undeveloped lots in these subdivisions.

## **1.6 COMMERCIAL LAND USES (CHAPTER SEVEN)**

### **1.6.1 City of Buffalo**

#### Demand for Commercial Floor Space

Greater expenditures for accommodations, food services, and retail trade are anticipated during the 2003-2012 period. These expenditures will primarily be tied to an expected increase in visitor industry traffic and a growing retirement age population. An increase in coal bed methane employment is expected to supplement the expenditures from visitors and the retirement age market groups.

Increased resident and visitor expenditures will generate demands for additional commercial lands and floor space. It is estimated that such demand will generate the need for approximately 76,000 square feet of additional commercial floor space.

### Potential Areas for Commercial Expansion

Areas desirable for future commercial expansion in Buffalo include undeveloped properties along existing commercial corridors along Main Street, Hart Street, and Fort Street. Some commercial properties along these corridors should also be considered for redevelopment when returns-on-investment are attractive.

The city should consider a continued expansion of retail trade and food services along Lobban Avenue, between Benteen and Bennet Street. This expansion would enable resident and visiting shoppers to walk and/or drive around a looped shopping area. An attractive pedestrian walking area that emphasizes the existing bridge and Clear Creek could be established along Fetterman Street, between Main Street and Lobban Avenue.

The establishment of a one-way circulation pattern along this short segment of Fetterman Street could enable the City of Buffalo to dedicate one lane of the existing street for exclusive pedestrian and bicycle use. This central walkway would create an attractive downtown space that would help attract shopping traffic on both Main Street and Lobban Avenue. As increased shopping activity is realized, the city could consider a central vehicular parking area along Lobban Avenue.

### **1.6.2 Town of Kaycee**

#### Demand for Commercial Floor Space

Significant future expansion of commercial facilities in Kaycee is dependent upon a local marketing strategy to attract greater traffic from Interstate 25.

Assuming that business and community leaders pursue a visitor marketing strategy, it is believed that commercial opportunities will generate demands for about 10,000 square feet of additional commercial floor area during the 2003-2012 period. These demands generally represent additions to existing commercial floor space in the community. The expected amount of floor space for accommodations assumes the renovation or redevelopment of existing accommodations.

#### Potential Areas for Commercial Expansion

Nolan Avenue is the primary corridor where most existing commercial establishments are located and future expansion is desirable. While significant renovation and redevelopment is needed, Nolan Avenue represents the greatest opportunity for commercial expansion because of its central location and connection to Interstate 25 and state highways 190, 191, and 192.

Home-based businesses should be encouraged to stimulate expansion of a variety of retail services. Any zoning ordinance that may be adopted by the Town of Kaycee should permit home occupations in residential areas unless those occupations increase vehicular traffic, create significant parking issues, or generate significant noise in local neighborhoods.

While outside the Kaycee municipal boundary, commercial expansion may also be feasible west of Interstate 25 along State Highway 191. A state rest area, an RV campground, and small truck stop are already located just west of the Interstate. In the event that a truck parking area cannot be developed within the Town of Kaycee, this area would represent an alternative. Commercial expansion might also include the development of a food service establishment or an expanded RV campground.

### **1.6.3 Unincorporated Area of Johnson County**

#### Potential Opportunities for Increased Retail Expenditures and Expanded Technical Services

Retail sales may be increased if truck stops are situated closer to existing interchanges along Interstate 25 or Interstate 90. One potential site is a somewhat developed area that is located just east of the Buffalo municipal boundary, north of the proposed high school site, and immediately west of Interstate 25.

Home-based businesses should be encouraged in the unincorporated areas of Johnson County to expand the variety of retail and technical services. Any zoning regulations adopted by Johnson County should permit appropriate home occupations in rural areas.

## **1.7 INDUSTRIAL LAND USES (CHAPTER EIGHT)**

### **1.7.1 Demand for Industrial Lands**

Johnson County has the opportunity to attract some light industrial operations if more sites are available within a reasonable distance of Interstate 25 and Interstate 90. An opportunity exists for the establishment of regional warehousing and storage facilities for national courier services and distributors of consumer products. Available sites could also support some smaller manufacturing operations.

### **1.7.2 Potential Areas for Industrial Expansion**

#### In the Vicinity of Buffalo

Within or immediately adjacent to Buffalo, there are a few isolated industrial sites. However, there is limited area where investors could develop a new small to medium-sized facility.

The Buffalo Commerce Center is one exception, but industrial lot sizes are relatively small. The mix of residential, commercial and industrial activities in this area is generally not conducive to safe and efficient vehicular ingress and egress from the area. Existing covenants are too restrictive to recruit some types of industrial operations.

Johnson County recently approved a new subdivision of six lots east of Buffalo, which is intended for industrial or commercial use. This small industrial area will be located along U.S. Highway 16, just west of Interstate 90.

There are also potential industrial sites east of Interstate 25. These properties would ideally be connected to the Buffalo water and wastewater systems and be annexed into the city.

- About 170 acres of the Esponda Ranch are readily accessible to Interstate 25 and could easily accommodate 10 to 15 ten-acre sites.
- A second property is situated just west of the Buffalo Commerce Center. This site contains approximately 60 acres. One larger industrial operation could make use of the entire site, or the site could be used by several smaller light industrial enterprises.

## Unincorporated Area

Coal bed methane exploration and production companies are regularly searching for sites where field equipment and materials can be stored and mobilized. Such sites are ideally close to Interstate and state highway routes.

The unincorporated area contains sites suitable for light industrial development. However, many of these sites are situated in remote areas of Johnson County. Consequently, potential industrial sites in the unincorporated area are generally most suited to support oil and gas services, support facilities, and regional utility systems where the proximity to nearby communities is not an important consideration.

## **1.8 PUBLIC FACILITIES (CHAPTER NINE)**

### Demand for Expanded Public Facilities

There is a need for additional county government office space and a new law enforcement center. Johnson County lacks floor space for administrative offices and meeting rooms. Johnson County currently rents other office space for the County Extension Agent, the County Attorney, and the County Coroner. Conflicting meeting schedules hamper the ability of the County Commissioners, the County Planner, and the general public to effectively share the same floor space. Because of the lack of a separate and secure access to the County Court chambers, the transport of prisoners through the Courthouse poses a potential security risk to other Johnson County personnel.

At the time of this report, Justice Concepts Incorporated is evaluating public facility needs of Johnson County and developing alternatives for addressing anticipated facility requirements. Johnson County is considering the development of a new law enforcement center that would include space for the County Sheriff, the county jail, the Buffalo Police Department, and the county court system.

### Potential Opportunities for Future Public Facility Expansion

There are a number of sites and facilities that may be feasible for the development of new offices to support the court system and other administrative activities of Johnson County. For example, the Clear Creek Elementary School, which is situated just west of the Johnson County Courthouse in Buffalo, has been suggested as a viable location for courthouse offices if and when it is vacated by the school system.

The Wyoming Department of Transportation equipment yard along the south side of Fort Street, and immediately adjacent to the existing City-County law enforcement complex, is a potential property that could be considered for the development of other public facilities. The acquisition of this property would likely require some type of land exchange with the State of Wyoming.

Another public facility expansion opportunity is situated in the Town of Kaycee on a vacant lot south of Kaycee Park. This property is the site of an old gun club and is owned by the Town of Kaycee.

## **1.9 COMMUNITY FACILITIES (CHAPTER TEN)**

### **1.9.1 Future Demand For Community Facilities**

The establishment and expansion of more community facilities may take place during the 2003-2012 period. Based on population forecasts, it is expected that some 20,000 square feet of floor space will be required to meet community facility demands. About 75 percent of the floor space is anticipated to support the development of new community facilities; the remainder is expected for expansions of existing community facilities.

### **1.9.2 Potential Areas for Future Community Facility Expansion**

The expansion of community facilities in the unincorporated area may be feasible on vacant properties that are along or accessible from U.S. Highway 16 West. Rural residential subdivisions containing any vacant lots may provide feasible opportunities. For example, there were approximately five vacant properties in the Big Horn Estates Subdivision in 2001 where two churches are already located. An additional 28 lots were vacant in the adjoining Richardson Park Subdivision.

In Kaycee, some undeveloped lots within existing subdivisions may be available for some future community facility expansion. If the proposed Meadow Lark Addition is approved, one lot could be sold to accommodate a new church facility.

## **1.10 RECREATION AND CONSERVATION (CHAPTER ELEVEN)**

### **1.10.1 Demand For Recreation And Conservation**

The U.S. Bureau of Land Management recently reported that recreational use of public lands in the Powder River Basin has increased substantially over the past two decades. BLM anticipates use associated with most recreational activities will increase five percent every five years (U.S. Bureau of Land Management, 2002).

Even in the absence of reliable recreational use data, it can be reasonably concluded that substantially greater recreational activities will be occurring in Johnson County during the 2003-2012 period. The City of Buffalo continues to see a greater number of visitors, a growth in the occupancy of visitor accommodations, and increases in seasonal visitor industry employment. Community leaders indicate that many of these visitors are drawn to recreational opportunities in the Bighorn National Forest and other areas.

Forecasts of recreational demand should be developed as more reliable baseline information becomes available. These forecasts should be developed for recreational activities such as fishing, boating, hunting, hiking, and camping.

### **1.10.2 Potential Areas for Future Recreation and Conservation**

#### Potential Conservation Areas

Through ongoing federal and State efforts to conserve wildlife habitat in Johnson County, the U.S. Forest Service, the U.S. Bureau of Land Management, and the Wyoming Game and Fish Department have identified opportunities for the conservation of fish and wildlife habitat.



Through coordination with these agencies, the need for additional conservation opportunities may be identified.

Even In the absence of new proposed conservation areas, Johnson County can encourage the conservation of aquatic and wildlife resources during its review and consideration of rural subdivision applications. Data available in the Johnson County GIS will better enable Johnson County to consider the impacts of potential projects upon aquatic and wildlife resources, as well as recommend practical conservation measures within new residential subdivision projects.

Continuous coordination with resource managers of the Wyoming Game and Fish Department, the U.S. Forest Service, and the U.S. Bureau of Land Management will help keep Johnson County abreast of the planning and program objectives of these resource management agencies. It will also provide an opportunity for state and federal agencies to hear and react to the concerns of Johnson County (see Chapter 14).

#### Historical Preservation Opportunities

Johnson County is very rich in history. Historical sites include, but are not limited to, Fort Phil Kearny, the Fetterman Battlefield, the Hole-in-the-Wall area, Dull Knife Battlefield, the Crazy Woman Battlefield, the Fort Reno Historic Site and a portion of the Bozeman Trail. Several of these sites lie on privately owned property. Johnson County should explore methods of protecting important areas of historical, archaeological, or architectural significance.

#### Potential Recreational Expansion Areas

One of the most practical opportunities for the establishment of new recreational sites is the Wyoming Game and Fish Department's walk-in program. Should this program have successful results, it is anticipated that more landowners will lease hunting and fishing sites for public recreational use. Johnson County should encourage this type of recreational expansion because it provides attractive recreational opportunities, generates some financial benefits to landowners, and reduces recreational site development costs.

The development of additional conservation areas by the U. S. Forest Service, the U.S. Bureau of Land Management, and the Wyoming Game and Fish Department will generate increased recreational opportunities. Depending upon its assessment of recreational needs, it is possible that the U.S. Forest Service may develop some new recreational areas in the Bighorn National Forest.

## **1.11 TRANSPORTATION (CHAPTER TWELVE)**

### **1.11.1 Transportation Needs**

Several transportation improvements are recommended to better serve the existing and future population of Johnson County:

Airport Expansion – Johnson County should continue existing plans for expanding the capabilities of the Johnson County Airport. This expansion may stimulate some commercial development in the area.

Any future zoning resolution should include some land use restrictions for lands adjacent to the Johnson County Airport. These requirements will enable Johnson County to make future airport expansions and help qualify Johnson County for potential federal funds needed to support future airport improvements.

New Collector Road – A need is developing for a new collector road between French Creek Road and US Highway 16 west of Buffalo. Rural residents on French Creek Road must currently travel the Buffalo street system to reach grocery stores and other commercial areas along Fort Street. In addition, those residents who wish to access US Highway 16 to travel to the Big Horn Mountains for recreational and other trips must also use the Buffalo street system. Since significant growth along the French Creek Road corridor is expected, this problem will only increase. Therefore, this alternative route is highly recommended.

Upgrade of Hart Street – A YDOT project is scheduled for upgrading Hart Street in the City of Buffalo. The improvements will include widening, sidewalks, a center turn lane and replacement of the bridge over Clear Creek. Hart Street serves some properties still located within the unincorporated area of the county adjacent to the City of Buffalo.

US Highway 16 west of Buffalo – WYDOT has awarded the bid to upgrade a section of US Highway 16 west of Buffalo prior to and within the Bighorn National Forest. The construction will take place in 2003 and 2004 and consists of widening and other safety improvements including a new runaway truck arresting system.

### **1.11.2 Recommended Transportation Objectives and Policies**

The following goals and policies are recommended to help provide efficient transportation systems and services within Johnson County, minimize the costs of providing and maintaining transportation infrastructure, and maximize economic opportunities.

1. Care should be taken when planning paving and other road upgrade projects as upgrading roads may encourage development in those areas due to improved access. Roads should be paved or upgraded in areas where growth is desired and in areas where significant growth has already occurred to support existing population.
2. New residential growth should be directed towards existing paved roads when feasible to avoid the capital expense of paving new roads or providing dust control that is ultimately paid for by county taxpayers.
3. Access locations should be limited to the greatest possible extent on all county and state roads, especially those roadways classified as collector and above. This can be accomplished by requiring consolidated accesses and frontage roads. New subdivisions should have an internal street system with minimum accesses onto county or state roadways. These practices help provide safer roads and maintain the ability of those roads to safely handle traffic volumes at higher speeds. Safety and sight distance should be considered prior to granting access permits.
4. The existing county road system should be properly maintained.
5. Dust control on the many miles of county unpaved roads is an ongoing problem that will become increasingly important as the county's population grows. The county should look into cost effective solutions to this problem. Avoiding high-density development along unpaved roads and requiring developers to pave streets in high-density subdivisions is encouraged.

6. Some county roads will continue to receive higher than normal use due to coal bed methane gas development and other industrial activities. Problems include damage to roads, bridges and other components, as well as dust, speeding and other safety issues. The county should work closely with development companies to gain whatever assistance is available for keeping these roads safe and in good condition. Coal Bed Methane and other resource development companies should operate responsibly on county roads and consider compensating the county for any damages they cause to county transportation infrastructure.
7. Storm water runoff within subdivisions can damage roadways, shoulders, borrow ditches and other areas. The county's current subdivision regulations do not adequately address storm water management controls. This problem should be addressed in the next update of the county's subdivision regulations.
8. Whenever feasible, it is desirable to have residential development near established trail systems to provide an alternative to vehicular transportation to residents of those areas. Additional trail systems should be explored in the future in conjunction with new development and when other opportunities arise. The county's subdivision regulations should be modified to incorporate more opportunities for Planned Unit Developments and Cluster Developments to increase the opportunity for new trail systems.
9. There has been recent dialog between the County Planners of Washakie and Johnson Counties concerning an application for a National Scenic Byway or All American Scenic Byway designation for US Highway 16 west of Buffalo over the Big Horn Mountains. Scenic byway designations have been proven to increase visitor traffic and contribute to local economies. This occurs because scenic byway designations are added to tourism and travel maps. Therefore, it is highly recommended that the scenic byway designation be actively pursued and coordinated with Washakie County.
10. Policies of the U.S.D.A. Forest Service that relate to roads in the Bighorn National Forest should consider the effects of such policies on the local tourism economy and other aspects. The Forest Service should solicit and consider comments from Johnson County and its municipalities when decisions are being contemplated.
11. Johnson County should continue existing plans for expanding the capabilities of the Johnson County Airport. This expansion may stimulate some commercial development in the area. Any future zoning resolution should include some land use restrictions for lands adjacent to the Johnson County Airport. These requirements will enable Johnson County to make future airport expansions and help qualify Johnson County for potential federal funds needed to support future airport improvements.

## **1.12 RECOMMENDED VISION FOR FUTURE LAND USES (CHAPTER THIRTEEN)**

Chapter Thirteen recommends a general land use pattern for the unincorporated area of Johnson County. The recommended land use pattern is based upon a variety of information and spatial analyses, as well as three guiding land use recommendations:

1. Concentrate more residential, commercial and industrial land uses in the vicinity of Buffalo and Kaycee,
2. Provide opportunities for diversified rural lifestyles in the unincorporated area, and
3. Conserve important natural resources.

Maps are provided in Chapter 13 that depict recommended land use patterns for the unincorporated area of Johnson County. Recommended land use patterns for Johnson County are expressed via five general land use designations.

1. Rural Living;
2. Community Expansion;
3. Multiple Use;
4. Recreation and Conservation; and,
5. Agriculture.

The general land use designations recognize that most land uses in Johnson County are often highly inter-dependent and occur in combination.

### **1.13 FUTURE LAND AND RESOURCE MANAGEMENT (CHAPTER FOURTEEN)**

Chapter Fourteen recommends land and resource management actions necessary to achieve the goals of the Land Use Plan. Working relationships with various federal and state agencies including the U.S. Forest Service, U.S. Bureau of Land Management, Wyoming Game and Fish Commission, and State Conservation Districts are identified. Chapter Fourteen also defines some of Johnson County's concerns with resource management plans of those agencies. Ongoing coordination with state and federal agencies is recommended to insure that Johnson County's land and resource management concerns are addressed.

The chapter also outlines Johnson County's current responsibility for land use management, general authority for land management, and recommends possible approaches to future land management.

## **2.1 MISSION STATEMENT**

Protect, preserve and develop important physical, cultural, economic, recreational, scenic, agricultural, environmental and other resources of Johnson County for current and future generations. Preserve or improve the quality of life of Johnson County residents through innovative and resourceful planning. Preserve the rural character of Johnson County. Balance individual rights with responsibilities, land use needs for long-term community development, as well as long-term goals of the Land Use Plan.

## **2.2 GOALS OF THE JOHNSON COUNTY COMPREHENSIVE LAND USE PLAN**

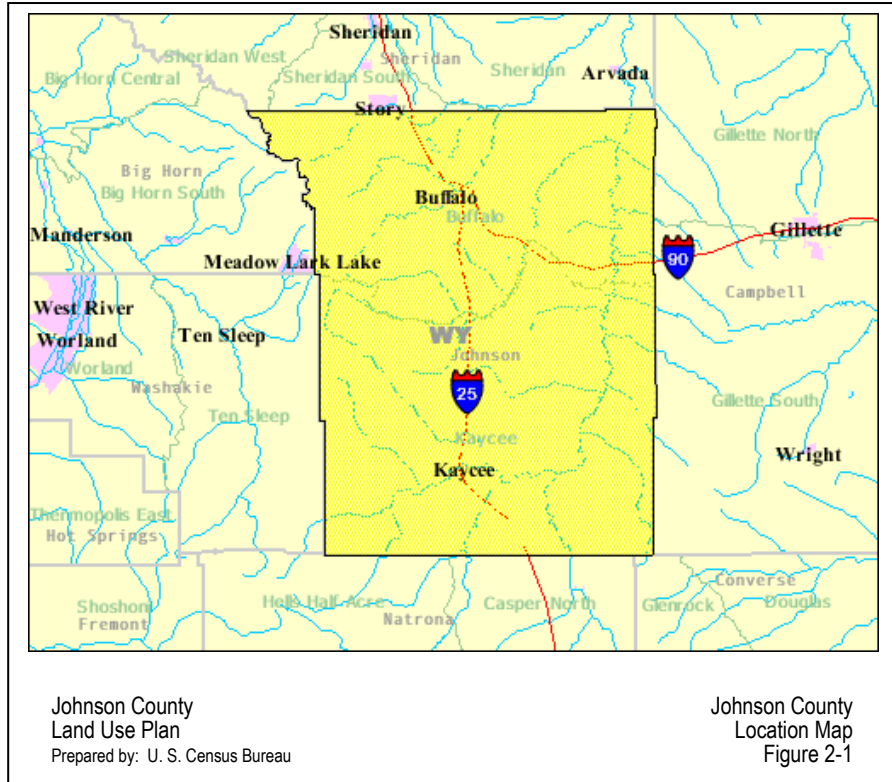
- Adopt a comprehensive Land Use Plan that, under federal and state law, will require recognition and consideration by state and federal agencies when formulating policies or plans that affect Johnson County.
- Protect or preserve the integrity of the county's natural and other resources, including agriculture, water resources, wildlife habitat and open space.
- Conserve the customs, culture and rural character of Johnson County.
- Ensure that there is planned and responsible growth within Johnson County.
- Minimize the cost for providing services and infrastructure necessary to support future growth.
- Balance rights of property owners with responsibilities for protecting property values and the county's quality of life.
- Enable future land use expansion that will sustain economic growth and provide greater stability to the county economy.
- Plan for future services and amenities for county residents.

## **2.3 PLANNING OBJECTIVE**

The Johnson County Land Use Plan is intended to provide a vision for future land use development in Johnson County (Figure 2-1). Land use proposals and recommended land use policies that are contained in the Johnson County Land Use Plan promote a general development concept for Johnson County.

This document provides a variety of information and land use recommendations that will serve as a guide for:

- future land use decisions;
- future infrastructure investments;
- future economic development efforts;
- other community development projects in Buffalo, Kaycee, and the unincorporated area of Johnson County; and,
- coordination of planning with state and federal agencies.



The Johnson County Land Use Plan represents an update of the existing Joint Comprehensive Plan that was prepared by Worthington, Lenhart and Carpenter, Inc. for Johnson County and the City of Buffalo. Subsequently, the Johnson County Commissioners adopted the Joint Comprehensive Plan via Resolutions 238 and 240 on August 21 and September 4, 2001.

Revisions of this plan will occur as conditions and culture of Johnson County warrant.

## 2.4 RELATIONSHIP TO OTHER RELEVANT PLANS

There are other existing resource management plans, or plans in preparation, that will impact future land use in Johnson County. Where appropriate, some recommendations in the Johnson County Land Use Plan attempt to provide some linkage to policies that were previously adopted by other organizations, e.g., state conservation districts, within Johnson County.

Information and recommendations in the Johnson County Land Use Plan can also be used by the City of Buffalo and the Town of Kaycee to facilitate future community planning efforts by each of these communities. The development of municipal master plans, or community development plans, can incorporate and expand upon recommendations presented in the Johnson County Land Use Plan to develop more specific strategies for each community.

Similarly, the Johnson County Land Use Plan is also provided to help guide future policies of the State of Wyoming that may influence future land uses in Johnson County. The Land Use

Plan provides a starting point for various State agencies that are helping facilitate future economic development in Johnson County, or reviewing larger commercial or industrial projects that are proposed for one or more locations in Johnson County.

Since a significant portion of the land in Johnson County is owned and administered by the U.S. Government (Wyoming Department of Administration and Information, Division of Economic Analysis, 1996), the Johnson County Land Use Plan also provides recommendations concerning the future use and management of federal public lands in Johnson County. These recommendations are primarily directed to the U.S. Bureau of Land Management and the U.S. Forest Service that manage the use of most federal lands in Johnson County. Under the Federal Land Policy Management Act, these and other federal agencies are required to consider the plans of local government.

## **2.5 AUTHORITY**

Wyoming Statutes 18-5-202(b) authorizes the preparation of county land use plans. The Johnson County Land Use Plan is not a zoning document or a land use regulation. However, land use management issues are addressed as part of the Land Use Plan.

## **2.6 SCOPE**

The Johnson County Land Use Plan examines various local, regional, and national issues that are expected to influence future land use in Johnson County. Ever-changing trends associated with community demographics, the economy, land use, and the environment will continue to influence the type, location, and extent of future land use development in Johnson County. The evaluation of these issues was made to provide a technical basis for various land use recommendations.

The future demand for residential, commercial, industrial, public and community facilities, as well as recreation and conservation areas, was quantified to the extent possible. This evaluation was made to facilitate a greater understanding of the amount of land area that will be needed to support anticipated land use demands.

Land and resource management issues were also evaluated to help identify potential barriers to future land use development. Recommendations are provided to help establish a more structured approach to Johnson County's land use management activities and facilitate future working relationships with state and federal agencies that administer public lands within Johnson County.

## **2.7 ORGANIZATION OF THE PLAN**

The Johnson County Land Use Plan comprises five essential components:

- 1) an evaluation of demographic and economic trends influencing future land use development;
- 2) an assessment of environmental and resource management issues that are relevant to future land use development;
- 3) an evaluation of land use trends, issues, and opportunities for land use expansion;

- 4) a recommended vision for the type and location of future land uses in Johnson County, as well as recommended transportation corridors to support future land uses; and,
- 5) recommended improvements to the land management process of Johnson County.

The Johnson County Land Use Plan comprises 14 chapters. The general scope of each chapter is described more fully in the following paragraphs.

Chapter One is an executive summary of the primary conclusions and recommendations that are contained in the remaining chapters of the Johnson County Land Use Plan.

Chapter Two describes the purpose and scope of the Johnson County Land Use Plan, general methodologies and process used to develop the plan, as well as the agencies and organizations consulted during the preparation of the Land Use Plan. Reference is also made to appendices that contain a summary of community issues and recommendations made by Johnson County residents at public meetings held in Buffalo and Kaycee.

Chapter Three examines significant demographic and economic factors that will influence future land use in Johnson County. This study evaluates regional labor force, employment and income trends, reviews potential growth in the primary economic sectors of the regional economy, and forecasts an anticipated resident population for the 2003-2012 period.

Chapter Four provides an overview of Johnson County's natural resources and environmental issues that will also influence future land use. The issues are identified from the review and correlation of spatial information, as well as the review and assessment of resource management evaluations that were developed by various state and federal agencies.

Chapters Five through Eleven comprise an evaluation of all land uses in Johnson County. This evaluation examines existing and ongoing land use trends for residential, commercial, industrial, public facilities, community facilities, recreation and conservation. Land use issues and anticipated land use demands for the 2003-2012 period are presented for each general type of land use. Opportunities for land use expansion for each general type of land use are also identified.

Chapter Twelve analyzes existing trends and issues associated with transportation in Johnson County. This assessment focuses primarily upon vehicular and pedestrian access and circulation within Johnson County. This aspect of the land use plan recommends general transportation corridors that are envisioned to support future land uses.

Chapter Thirteen presents a recommended vision for the location and type of land uses in Johnson County. This vision includes a general land use map that describes:

- the general location and type of recommended land uses;
- supporting narrative describing the rationale of a general land use plan map; and,
- recommended land use development policies and related development criteria.

Chapter Fourteen evaluates existing land use management activities of Johnson County and future land use management needs. This analysis considers potential options for future land use management such as county-wide zoning, building permits, and revision of subdivision regulations. The application of a new geographical information system (GIS) for Johnson County and other planning tools are discussed to help facilitate the use of relevant criteria in future land use decisions by Johnson County. The working relationship of Johnson County with various state and federal agencies in the context of future land use planning is also discussed. Recommendations aimed at improving these working relationships are also provided.



## **2.8 METHODOLOGY AND PLAN PROCESS**

### **2.8.1 Use of a Consultant for Preparation of the Land Use Plan**

In February 2002, the Johnson County Board of Commissioners and the Johnson County Planning and Zoning Commission retained the services of Pedersen Planning Consultants (PPC) to prepare a land use assessment of all land uses in Johnson County.

An assessment of housing needs in Kaycee was included as part of the county land use assessment. PPC completed a Buffalo Housing Assessment for the City of Buffalo in July 2002. Johnson County desired to build upon the recent work of PPC to make a more efficient use of planning funds intended to support the preparation of a county land use plan update. The Johnson County Planning and Zoning Commission intended to incorporate the findings of the overall land use assessment into the update of the existing county land use plan.

Subsequently, PPC was retained in August 2002 to complete various additional tasks that would enable the preparation of an overall land use plan update. These additional tasks generally included PPC's continued development of a county-wide land use data base, the incorporation of additional spatial and tabular information within a new GIS developed for Johnson County, an evaluation of natural resource issues, the facilitation of community meetings in Buffalo and Kaycee, a review of county land use management issues, processes and related planning tools, and the completion of draft and final land use plan reports.

PPC completed an initial land use assessment in July 2002 that was subsequently reviewed by the Johnson County Planning and Zoning Commission. The initial land use assessment was subsequently incorporated into a larger draft Johnson County Land Use Plan that was completed by PPC in May 2003. The draft Land Use Plan document was reviewed by the Johnson County Planning and Zoning Commission prior to its general distribution for public review.

### **2.8.2 Community Participation and Plan Approval Process**

The Johnson County Planner and the Johnson County Planning and Zoning Commission organized and held two public meetings in 2002. A public meeting on October 22, 2002 was held in Buffalo at the Johnson County Fairgrounds. A second public meeting at the high school in Kaycee was held on October 23, 2002.

At each of these meetings, the Johnson County Planner and PPC representatives generally described the planning process that would be used to prepare the land use plan update. Representatives of the Johnson County Planning and Zoning Commission and the Board of County Commissioners were also present to listen and evaluate the issues of Johnson County residents.

In addition, PPC representatives facilitated a discussion of land use issues and recommendations that could be used by the Johnson County Planning and Zoning Commission and PPC during the preparation of a draft Johnson County Land Use Plan. These facilitated discussions identified resident issues and recommendations concerning residential, commercial, industrial, public facilities, community facilities, and agricultural land uses. The information gained from these public meetings was documented and summarized in Appendix A.

Forms were also provided during the public meetings to encourage participants to forward written comments to the Johnson County Planner and/or Pedersen Planning Consultants. A few written comments were received following both meetings and are provided in Appendix A.

A few residents also contacted Pedersen Planning Consultants by telephone or e-mail to express concerns and recommendations for the Land Use Plan update. In some cases, residents generously provided copies of selected information that provided useful references during preparation of the plan.

Upon completion of its review of the draft Land Use Plan update, the Johnson County Planning and Zoning Commission made copies of the draft Land Use Plan report available for public review. Written comments were requested from the general public and other state and federal agencies. Subsequently, the Johnson County Planner and Planning and Zoning Commission held a second round of public hearings in Buffalo and Kaycee that included a presentation of conclusions and recommendations.

Following the review period, PPC revised the draft Land Use Plan report in consideration of comments from Johnson County residents, and representatives of various public agencies and community organizations. The final Land Use Plan will be reviewed and approved by the Johnson County Planning and Zoning Commission for consideration by the Board of County Commissioners. The Board of County Commissioner's will subsequently receive public comments via a public hearing. Following the hearing and the Board's review, the final Johnson County Land Use Plan report may be adopted. Following adoption, the Johnson County will make the final Land Use Plan report available for public review and use.

### **2.8.3 Development and Application of a Geographical Information System**

Pedersen Planning Consultants developed a new geographical information system for Johnson County to support the analyses made for the land use assessment and the Land Use Plan update. The new Johnson County GIS, which was developed using ArcView GIS 3.2 software, was intended to help support future land use decisions of Johnson County.

In its development of the GIS, PPC collected available information from various sources. Grizzly Engineering in Buffalo provided available AutoCAD files containing a wide variety of spatial information for Buffalo and Johnson County. JLM Engineering in Buffalo provided digital files that contained new addresses for lots and land parcels in Buffalo. R.G. Stuckert & Associates, a land surveying firm in Buffalo, supplied digital files that included various features for the Town of Kaycee. The U.S. Bureau of Land Management, Buffalo Field Office, furnished various types of resource data and other spatial information for the unincorporated areas of Johnson County.

The Johnson County GIS brings together a considerable amount of spatial and tabular information. An essential part of the Johnson County GIS is a land use database that contains valuable land use information for most land parcels in Johnson County, as well as the City of Buffalo and the Town of Kaycee. The Johnson County Assessor's Office provided land use information for every lot or land parcel in Johnson County, and made clarifications of available data. Pedersen Planning Consultants subsequently input this information into a land use database contained within the geographical information system (GIS) for Johnson County.

Other important data was obtained from the Wyoming Game and Fish Department, as well as Wyoming's Geographical Information Science Center. These spatial data sets were particularly useful to facilitate the correlation of natural resource data and evaluate natural resource issues.

#### **2.8.4 Evaluation of Demographic and Economic Trends**

The evaluation of demographic and economic trends focused upon regional and community characteristics that are expected to influence future land use development. This analysis initially examined regional labor force, employment and income trends. This information was primarily obtained from available public information.

Primary sectors of the Johnson County economy were evaluated to identify important trends, planned or potential industry expansions, and opportunities for new employment. Public information was obtained and, in some cases, supplemented by information from representatives of private industry and government. In sectors where opportunities for new employment were anticipated, calculations were made based upon reliable information and assumptions provided by private industry, e.g., coal bed methane, and governmental agencies.

The demographic analysis relied, in part, upon April 2000 Census information, as well as Bureau of the Census estimates for 2002. The forecasts of future population, as well as regional population distribution, were based upon examination of natural growth, as well as anticipated in and out-migration. Fertility, mortality and migration data, industry employment assumptions, and other relevant information were obtained for this analysis. PPC subsequently developed a statistical model to facilitate the calculation of anticipated resident population and population distribution. The model primarily involved an economic-based forecast methodology to develop population forecasts for the 2003-2012 period.

#### **2.8.5 Evaluation of Land Use Trends and Issues**

This assessment identified existing land uses, examined land use issues, and identified potential land use expansion areas for residential, commercial, industrial, public facilities, community facilities, as well as recreation and conservation areas. The evaluation was based upon information from a variety of public agencies and private organizations. Information was supplemented with more specific data and insights that were gained through informal discussions with the Johnson County Commissioners, the Johnson County Planning and Zoning Commission, the Johnson County Planner, selected representatives of the City of Buffalo and Town of Kaycee, community leaders, bankers, real estate brokers, real estate developers, small business representatives, regional coal bed methane companies, power generation, transmission, and distribution company representatives, selected public agencies, and other sources.

#### **2.8.6 Preparation of Land Use Demand Forecasts**

The calculation of future land use demands was largely derived from anticipated new employment in Johnson County, and expected changes in demographic characteristics, during the 2003-2012 period.

The evaluation and forecast of future housing demands in Johnson County integrates information developed by PPC for the Buffalo Housing Assessment (completed in July 2002) that presents potential housing demands for several market groups. This information is supplemented with forecasts of future housing demands for Kaycee and the unincorporated area of Johnson County. These forecasts were based on assumptions related to anticipated employment and migration.

Commercial demands are derived from a retail trade analysis made in Chapter Two. This evaluation also considers the potential sources of future in-migration to Johnson County, and perceived commercial needs identified by community leaders.

Industrial demands were evaluated in the context of anticipated regional employment and needs identified by small business and public agency representatives, and local real estate brokers.

The forecast of future demands for public and community facilities, as well as recreation/conservation areas, primarily reflect facility needs that were identified by community leaders, the County Commissioners, and the Johnson County Planning and Zoning Commission.

### **2.8.7 Development of a Recommended Land Use Pattern**

Preparation of the recommended land use pattern included an examination of potential land use expansion opportunities and the ultimate preparation of a general land use map for Johnson County. The initial identification of potential land use expansion areas and sites were largely based upon interviews with community leaders and small business representatives.

Preparation of the general land use concept for Johnson County involved the correlation and analysis of selected spatial data such as the location of paved roads, precipitation, soils, surface drainage areas, the depth and production yields of groundwater wells, the location of existing croplands, wildlife habitat ranges, the location of significant historical resources, and the proximity of each land use type to the primary community centers of Buffalo and Kaycee. Pedersen Planning Consultants subsequently examined each potential area by analyzing existing land use patterns, land use relationships, the proximity of potential sites to anticipated land use demands, the location of commercial areas and community services, and the availability of supporting roads and utility systems.

The concerns, issues and opportunities raised by Johnson County residents during public meetings greatly facilitated the definition of various land use combinations that formed the basis of a recommended land use pattern for Johnson County. Resident comments also provided valuable insights to the type of land uses desired in various parts of Johnson County.

## **2.9 CONSULTATION**

Pedersen Planning Consultants consulted representatives of various private and public organizations during its preparation of the Johnson County Land Use Plan. This consultation was largely made through the completion of individual or small group interviews. In some cases, telephone interviews were made when the scheduling of individual interviews was not feasible. The representatives contacted by PPC included the following:

### **Johnson County**

*Board of County Commissioners*  
Marilyn Connolly  
Gerald Fink  
Don Hall  
Jim Mader  
Tracy Rhodes  
Robert Thompson

*Johnson County Planner and Project Manager*  
Rob Yingling

*Johnson County Planning and Zoning Commission*  
Harvey Crowe  
Wayne Graves  
Kelly Lawrence  
Michael McKinley  
Paul Millhouse  
Robert Ruby  
Kim Schwirian  
Margaret Smith  
Priscilla Welles

*Johnson County Assessor's Office*  
Dorothy Elsom, County Assessor

*Johnson County Clerk's Office*  
Linda Barnhart, County Clerk

*Johnson County Treasurer's Office*  
Sharon Wagner, County Treasurer

*Johnson County Sanitarian's Office*  
Rick Durfee, County Sanitarian, and National Floodplain Insurance Program Administrator

**Johnson County Health Center**  
Sandy Ward, Administrator

**City of Buffalo**  
Bruce Hepp, Mayor  
Nels Lofgren, former Mayor  
Ken Gross, Administrative Assistant

**Town of Kaycee**  
Gordon Herring, Mayor  
Joan Buckingham, Council Member  
Tye Curuchet, Council Member  
Tom Knapp, Council Member  
Diana Cornthwaite, Town Clerk  
Robert Thompson, former Mayor

**Wyoming Department of Environmental Quality**  
Kevin Fredrick, Groundwater Pollution Control Supervisor, Water Quality Division, Cheyenne

**Wyoming Game and Fish Department**  
Al Conder, Regional Fisheries Supervisor, Casper Office  
Bob McDowell, Regional Fisheries Supervisor, Sheridan Office

**Wyoming State Engineer's Office**  
Tom Quinn, Cheyenne

**U.S.D.A. Natural Resources Conservation Service**  
Phil Gonzalez, District Conservationist, Buffalo  
Steven Jelden, Soil Scientist, Casper

**U.S. Bureau of Land Management**

Richard Zander, Director, Buffalo Field Office  
Andrew Ambrose, Cartographic Technician, Buffalo  
Steve Hannan, Range Management Specialist, Buffalo  
Kay Medders, Range Management Specialist, Buffalo

**Energy Development Companies**

John Kennedy, President, Kennedy Oil, Gillette  
Craig Goodrich, Superintendent, Devon Energy, Gillette  
Theodore Stegman, Northwest Energy, LLC, Buffalo  
Paul Stroud, Production Supervisor, J.M. Huber Company, Gillette

**Power Generation, Transmission and Electrical Distribution Companies**

Vern Schild, Director of Power Generation, Black Hills Power and Light Company, Gillette  
Mike Blenkush, Vice President, Corporate Communications and External Relations,  
Powder River Energy, Sheridan  
Jim Miller, Manager, Environmental Services, Basin Electric Power Cooperative,  
Rapid City, SD

**Buffalo Chamber of Commerce**

Nadine Gross, Executive Director

**Real Estate Agencies**

Robert "Butch" Buell, Broker Associate, Coldwell Banker, the Smith Brokerage, Buffalo  
Theo Hirshfeld, real estate appraiser and agricultural land broker, Buffalo  
Greg Smith, Responsible Broker, Coldwell Banker, the Smith Brokerage, Buffalo  
Bob Snowden, Broker Associate and Sales Manager, Coldwell Banker,  
The Smith Brokerage, Buffalo

**Residential Developers**

Jacob Hatch, Diamond Point Construction, Buffalo  
John Jenkins, Sand Creek, The Ranch Preservation Company, Buffalo  
Kelly Lawrence, Mill Iron Partners, Buffalo

**Civil Engineering Firms**

Keith Neustel, P.E., Civil Engineer, Grizzly Engineering, Buffalo  
Jack Morey, Jr., P.E., Civil Engineer, JLM Engineering, Buffalo  
Robert Stuckert, R. G. Stuckert and Associates, Buffalo  
Mike Cole, P.E., HKM Engineering, Inc., Sheridan

**Financial Institutions**

Lynne Michelena, President, First Interstate Bank, Buffalo  
Stacy Hall, Loan Officer, First Interstate Bank, Buffalo

**Well Drilling Companies**

Sue Ruby, Ruby Drilling Company, Inc., Gillette

**Other Community Organizations**

Bj. Kristiansen, Assistant Coordinator, CBM Coalition, Buffalo

## **2.10 FUTURE PLAN REVISIONS**

The Johnson County Comprehensive Land Use Plan is a living document. It was written based upon conditions, realities, forecasts and assumptions that were evident at the time it was prepared. Future amendments to or revisions of the Plan should be guided by recommendations from the Johnson County Planning and Zoning Commission, County employees and officials, and the general public, when it becomes evident that conditions, realities, forecasts and assumptions on which the document was based, appear to be no longer valid or are in need of revision.

## **CHAPTER THREE**

### **SIGNIFICANT FACTORS INFLUENCING FUTURE LAND USE**

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#### **3.1 HISTORY, CUSTOM AND CULTURE**

The history, custom and culture of the people of Johnson County have, in part, shaped the type and location of land uses within Johnson County. In order to gain a sense of these influences, PPC researched documented history from a variety of literary sources. Selected spatial data for the Bozeman Trail and some of the historical sites were also obtained and subsequently incorporated into a new geographical information system for Johnson County

Prior to 1800, various Indian tribes such as the Crow, Lakota/Dakota, Arapaho, Kiowa, Comanche, Blackfeet, Cheyenne and Shoshone apparently traveled through Johnson County on an occasional basis, or seasonally entered the area to harvest resources such as various big game and fur bearing animals (U.S. Bureau of Land Management, 2002). However, the historical use of land and resources in Johnson County is better documented during the past 200 years.

##### **3.1.1 Early Explorers, Trappers and Traders**

The first white men to step foot in Johnson County were probably part of the Northwest Company. In 1805, a party of this trading company traveled with Crow Indians along the Powder River and Piney Creek before proceeding up to the foot of the Big Horn Mountains.

In 1811, the Wilson Price Hunt expedition entered Johnson County. This expedition was seeking a suitable overland route to the mouth of the Columbia River. Their travels were likely through the northern portion of Johnson County as they made their way up to the Big Horn Mountains.

Jedediah Smith and Jim Bridger were among those who guided fur traders, government parties, and other exploratory groups into the vicinity of Johnson County. Indian guides, primarily from the Crow tribe, were often used by the military and other groups to assist in the white man's exploration of the area. The trapping of fur bearing animals became more prevalent between 1823 and the early 1830's.

Summer rendezvous gatherings served as the chief means of fur trading primarily among the Crow Indians, but also among mountain men, fur traders, and other travelers in the area. Changing economic conditions, and the growing importance of the tanned buffalo robe trade, prompted trading companies to establish trading posts (Murray, 1981).

In 1834, Antonio Montero built a log stockade and a series of cabins on the Middle Fork Powder River, about 11 miles east of the present Town of Kaycee. This post and other trading posts were operated during the 1830s and continued through, at least, 1841. However, no settlements of any significance had developed within Johnson County and other parts of northern Wyoming (Murray, 1981).



### 3.1.2 Influence of the U.S. Government

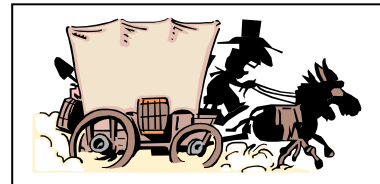
Because of a growing number of transcontinental emigrants traveling across Wyoming, the government attempted to negotiate a treaty for safe passage with the Indians in 1851. Father P. J. DeSmet, as well as representatives from a number of Montana tribes, traveled through the present area of Johnson County en route to the negotiations at Fort Laramie (Murray, 1981). The Fort Laramie Treaty of 1851 represented an historic treaty between the federal government and the Northern Plains Indian tribes.

The federal government saw the need for better mapping of the northern plains in the mid-1850s. Captain William Reynolds was dispatched by Secretary of War John Floyd in 1859 to lead a significant mapping and scientific expedition into the Northern Plains and Rocky Mountain area. The expedition camped along Piney Creek, Rock Creek, and the Middle Fork of the Powder River in September 1859. In his report to Secretary Floyd, Captain Reynolds reported that a road connecting the Platte and Yellowstone rivers would be easy and practical; but such a road must go around, rather than through, the Big Horn Mountains. One of two trails that eventually provided the access route generally recommended by Captain Reynolds was the Bozeman Trail (Murray, 1981).

### 3.1.3 The Bozeman Trail

As some miners and prospectors left mining opportunities in California, they moved inland to explore new opportunities in the mountains of Oregon, Arizona, Nevada, and Idaho. In 1861, new discoveries of gold also generated a rush to Montana. One of those who made his way to Montana was John Bozeman.

In the spring of 1863, John Bozeman teamed with John Jacobs to establish a “shortcut trail” from the Oregon/California Trail to new settlements in Montana. Their intent was to lure some emigrants traveling along the Oregon/California Trail to new settlements in Montana's Gallatin Valley where Bozeman and Jacobs had both settled. Their first attempt to guide a wagon train on that route was delayed and rerouted due to skirmishes with Sioux Indians. Bozeman made another attempt through the Big Horn Basin, without Jacobs, in 1864. The peak year of traffic along the trail occurred in 1864, but use of the trail continued through 1866 (Murray, 1981).



### 3.1.4 Indians, Troops, Forts and Conflicts

In early 1865, a significant number of Indian attacks occurred along the Oregon Trail and the Cherokee Trail. Both of these trails were important to the federal government. A telegraph line was already installed along the Oregon Trail and the Cherokee Trail contained an overland mail route. Further, construction of the new Transcontinental Railroad was moving west across Nebraska. Based upon the recommendations of Colonel William Collins, federal government troops were sent out to Powder River country to help guard the Oregon Trail and the Bozeman Trail. In this context, the federal government intermittently fought against the Sioux, Cheyenne, and Arapahoe Indians from 1865 to 1877 (Murray, 1981).

Colonel Collins had also recommended the construction of two new military posts along the Powder River and one along the Little Missouri. Fort Connor, renamed Fort Reno in 1865, became the first military post to be built in Johnson County (Murray, 1981). Fort Reno was situated east of Kaycee along the Powder River in the area known as Pumpkin Buttes. The post was first occupied in August 1865 and was abandoned by August 1868.

Fort Phil Kearny, the second military post built in Johnson County, was the largest of three outposts built along the Bozeman Trail. Fort Kearny was located halfway between Buffalo and Sheridan along a low knoll lying between Big and Little Piney, not far from the lower end of a ridge that Colonel Henry Carrington named "Sullivant Hills" (Murray, 1981). The imposing structure was erected in July 1866. Eight-foot high posts surrounded a 600 by 800-foot enclosure. By August 1868, Fort Phil Kearny had been abandoned by the military, in accordance with the Treaty of 1868, and was burnt down by Indians.

Between 1865 and 1868, a number of famous battles took place in Johnson County. These battles included the Wagon Box Fight, the Fetterman Fight, and the Crazy Woman Battle (U.S. Bureau of Land Management, 2002).

The Fort Laramie Treaty of 1868 set the stage for a possible resolution of hostilities between the federal government and Northern Plains Indian tribes. Under the Treaty, reservation areas were established for the Sioux and the Crow Indians. The federal government made no additional reservation areas for the Cheyenne and Arapaho Indians, which had previously been addressed in the Medicine Lodge Treaty of 1867. No reservation areas were established in the area that now comprises Johnson County. However, other terms of the treaty authorized all of the Northern Plains tribes to hunt in the unceded lands between the Crow Reservation and the North Platte River, between the Black Hills and the Big Horns, as long as buffalo remained in sufficient numbers to justify the chase (Murray, 1981).

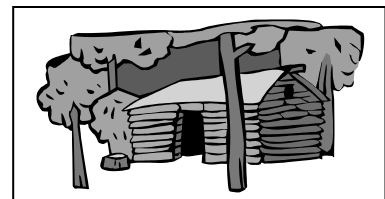
Peace did not last long. The Sioux Indians were keeping the Crows within the extreme western end of the Crow reservation. Gold miners and prospectors overran the Black Hills area; two-thirds of the Black Hills area was located within the Sioux reservation. In 1875, the U.S. Army was ordered to force the Sioux Indians into compliance with the wishes of the federal government. These actions set in motion the final phase of the Indian wars that were to influence Johnson County (Murray, 1981).

U.S. Cavalry campaigns against the Sioux and Cheyenne Indians were made from 1876 through 1878. With the exception of the attack on the Cheyenne Indians by Colonel Mackenzie on the Red Fork of the Powder River, most of the battles associated with this campaign occurred in southern Montana and northwest Nebraska. The Bozeman Trail provided an important travel route for military troops involved in the Indian conflicts. Cantonment Reno in southeast Johnson County served as an important support facility for these efforts.

### **3.1.5 Early Settlement of Johnson County**

With the ending of hostilities between the northern Plains Indians and the U.S Cavalry, settlement began to take place within Johnson County. A greater number of people gained knowledge of the area through military service, government expeditions, commercial trade, and other activities in northeast Wyoming. The development of a second Ft. McKinney on Clear Creek in 1878 (Buffalo Centennial Committee, 1984) significantly influenced the local economy and the establishment of Buffalo (Smith, 1967).

Most of the new settlers in Johnson County desired to obtain a homestead, purchase some adjacent land, produce much of their food supply, and run livestock on adjoining public lands until these lands were eventually settled. Some of these pioneers supplemented their livestock operations with activities,



e.g., timber harvests, that supported Ft. McKinney operations and generated some additional income (Murray, 1981). The Desert Land Act, enacted in 1877, allowed the establishment of homesteads up to 160 acres in size (U.S. Bureau of Land Management, 2002). In contrast, larger cattle companies established significantly larger cattle ranch operations near Kaycee and along the Middle Fork Powder River and gained control of vast areas of public range by mere occupation (Murray, 1981).

The irrigation of lands began on Clear Fork (later called Clear Creek) by, at least, 1878. Within six years, 10,186 acres of land along Clear Fork were being irrigated. Irrigators used surface waters to support the production of hay, wheat, barley, oat, and sugar beets. This production was again used to support Ft. McKinney operations and the growing livestock industry.

### **3.1.6 Establishment of Johnson County**

In 1879, the Wyoming Territory authorized the creation of Johnson County. However, formation of the County was not accomplished until the Territory received 300 petition signatures in 1880, three resident commissioners were appointed by the Territorial Governor, and favorable results were obtained from an organizational election on May 10, 1881.

The original Johnson County comprised all of the area contained in present day Johnson County, Sheridan County and portions of Big Horn County and Washakie County that are situated east of the Big Horn River. However, the size of Johnson County was later reduced with the formation of Sheridan County in 1887, and the establishment of Big Horn County in 1890 (Murray, 1981).

### **3.1.7 Continued Expansion of Livestock Industry**

In 1884, the livestock industry peaked when there were 175,526 head of cattle in Johnson County. The harsh winter of 1886-1887 resulted in a decline in production and significant financial losses in various ranch operations in Johnson County. As a result, there were fewer larger cattle operations now working the open range (Murray, 1981).

The importation of sheep flocks occurred in 1883; however, earlier settlers probably brought small numbers of sheep during their in-migration to Johnson County. By 1889, there were 4,079 sheep in Johnson County. Roughly a decade later, there were 106,138 sheep registered for taxation. However, a significant number of "transient" sheep were brought into Johnson County for summer pasture (Murray, 1981).

In 1895, cattle and sheep producers became increasingly concerned with increased predation on livestock by gray wolves. At one point, some grazing associations established bounties up to \$50 per head to help reduce growing livestock predation (Murray, 1981).

In 1892, there was a ranch situated along the Middle Fork Powder River known as the Nolan Ranch. This ranch was owned by John Nolan, a homesteader along the Powder River. *"During the Cattleman's Invasion of 1892, the "Cattlemen" burned Nolan's ranch house and murdered Nate Champion and Nick Ray who were leasing the ranch from Nolan. This was part of their plot to scare the small ranchers into leaving Wyoming to the sole use of the large outfits so that they could let their herds of cattle have miles and miles of unfenced grazing land"* (The Powder River Heritage Committee, 1982).

The U.S. Department of the Interior established the Big Horn Forest Reserve in 1897. In 1899, livestock grazing within the Reserve was by permit only. Sheep were to be grazed

south of the 13<sup>th</sup> Standard Parallel; cattle were grazed north of the 13<sup>th</sup> Standard Parallel. During the same year, 150,500 sheep and 3,000 cattle were grazed on the Reserve. In an effort to minimize overgrazing, the number of sheep authorized for grazing was gradually reduced between 1901 and 1906. Increased demands for wool eventually lead to increased levels of sheep grazing within the Bighorn National Forest between 1911 and 1919.

The number of sheep in Johnson County grew as more ranchers increased the use of private lands, as well as forest pastures, to graze sheep along side of, or instead of, cattle. Following World War I, sheep production significantly declined by the spring of 1920 (Murray, 1981).

### **3.1.8 Other Resource Development Activities**

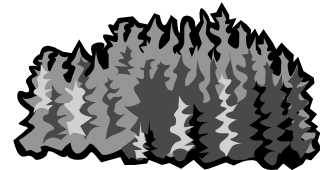
#### **3.1.8.1 Coal**

The availability of coal in Johnson County was observed by various representatives of the U.S. Government during the Reynolds expedition of 1859 and subsequent governmental expeditions in the 1860s. Energy needs to support winter heating at Fort Phil Kearny and Fort McKinney encouraged some ranchers to mine small volumes of coal along Piney Creek, Clear Creek, and along the hills south of the Powder River in the Sussex area. In 1894, annual coal production in the Buffalo area was up to 7,000 tons (Murray, 1981).

The demand for coal increased with expanded economic activity that was associated with World War I. Increased demand was also prompted by purchases of local coal supplies by the Wyoming Railway which used coal to support the operation of two locomotives. The M&M Coal Mine, owned by the Wyoming Company, was transporting shipments of coal to various states and supplying demands from Buffalo residents. The Wyoming Company mine shut down in 1938; however, two other mines opened soon after (Edwards, 1997). One mine, which was owned by Mike Krezelok, remained in production through World War II (Murray, 1981).

#### **3.1.8.2 Timber**

Initial timber harvests in Johnson County began between 1866 and 1868 when U.S. troops, based at Fort Phil Kearny, cut timber for the construction of this military post. Construction of the stockade required 3,000 logs, 250,000 wood shakes, and, at least, 8,000 cords of firewood. Sawmills on the South Piney manufactured slab lumber and wood shakes (Murray, 1981).



The subsequent construction of a new Fort McKinney on Clear Creek in 1878 generated new demands for raw timber. The fort used contract loggers for facility construction, expansion, and repairs over a 16-year period.

*"Ranchers and farmers could cut construction logs, lumber, and fence posts freely on the public domain forests and by the mid-Nineties many settlers made an annual pilgrimage to the mountains to get out their supply of wood"* (Murray, 1981). In the early 1890's, national concerns for future wood supplies led to the establishment of national forest reserves. The Big Horn Forest Reserve was established on February 22, 1897.

The first forest supervisor of the Reserve was W.E. Jackson. Jackson documented that the Forest Reserve was overgrazed, endangered by fire potential, and that timber harvesting was inadequately managed. He also expressed concern for the lack of facilities to accommodate visitor traffic (Murray, 1981).

Responsibility for management of the Big Horn Forest Reserve shifted from the U.S. Department of the Interior to the newly established U.S Forest Service in 1905.

The first larger-scale sales of timber from the Bighorn National Forest were made in 1908-1909 to the Buffalo Lumber Company. These contracts led to timber harvests along the Middle Fork Powder River and Upper French Creek.

In 1921, 5,000 railroad ties were hauled to the roundhouse of the Wyoming Railroad east of Buffalo. The ties were obtained from timber harvesting along the Middle Fork of Clear Creek, as well as Weber Park. Ties were hauled in horse-drawn wagons over the Black and Yellow Trail (Murray, 1981).

### **3.1.8.3 Oil and Gas**

Oil exploration and production activities in Johnson County began in the late 1880's. This exploration was focused primarily in the Salt Creek basin. Pioneer rancher H.W. "Hard Winter" Davis was one person who had an early interest in the development of crude oil. Increased exploration activities by various companies in the Salt Creek basin eventually led to the development of oil camps in neighboring Natrona County.

*"The cash flow from supplying the oil fields helped Hard Winter Davis and his neighbors along Powder River to finance their new irrigation ditches. The oilfield market directed their attention to new crops and livestock production and reshaped farming and ranching along the Powder from Kaycee to Sussex..."* (Murray, 1981).

In 1923, Carter Oil Company developed some commercial quantities of natural gas in the Billy Creek field southwest of Buffalo. A pipeline constructed from the field to Buffalo and Sheridan brought a cheap source of natural gas to both communities until 1947 (Murray, 1981).

The Sussex field came into production in 1948. Within two years, additional gas production was derived from the nearby Meadow Creek field. In 1952, the West Sussex field came into production (Murray, 1981).

In 1987, Btop, Inc. drilled some of the first coal bed methane wells in the Powder River Basin. Several wells were drilled into a shallow coal seam near Arvada, just northeast of Johnson County. The wells produced some gas, but the volumes were insufficient to motivate a pipeline company to connect a pipeline to the wells that could take the gas to market (Bleizeffer, 2000).

### **3.1.8.4 Uranium**

During the past 50 years, about 20 uranium mines have been developed in Johnson County. A rush of uranium prospecting initially occurred on public lands in southeast Johnson County during the 1950's.

In 1978, the Irigaray Project in southcentral Johnson County was licensed for commercial operation. This mine was a solution uranium mining plant that leached the uranium ore via the injection of chemicals (U.S. Nuclear Regulatory Commission, 1998).

### **3.1.8.5 Bentonite**

One of Wyoming's three major production areas of swelling bentonite is located along the east and west flanks of the Big Horn Range. In 2002, the Kaycee mine, owned and operated by the Black Hills Bentonite Corporation, produced over 338,000 tons of bentonite and employed 12 employees.

### **3.1.9 Formation of Johnson County Communities**

#### **3.1.9.1 Barnum**

The first post office in Barnum was established at the Bar C Ranch around 1881. The post office was operated by May Devoe (The Powder River Heritage Committee, 1982).



Barnum is named after Tom Barnum who operated the first registered post office in the area in 1897. The post office was operated from Guy Barnum's home. Before coming to Johnson County, Tom Barnum was a buffalo hunter. He settled in the area with his brother Guy and his wife (The Powder River Heritage Committee, 1982).

#### **3.1.9.2 Buffalo**

The formation of Buffalo was an outgrowth of the establishment of Ft. McKinney along Clear Creek in 1878. In 1880, this village contained a population of 40 people. In contrast, nearby Ft. McKinney included 281 persons (Murray, 1981).

In late 1880, the name given to Buffalo, Wyoming, was determined by someone drawing one of several recommended names that were dropped into a hat by people at the Occidental Hotel. Will Hart of Buffalo, New York suggested the winning name of "Buffalo" (Buffalo Centennial Book Committee, 1984).

#### **3.1.9.3 Kaycee**

The Town of Kaycee was incorporated in 1906. The municipal limits originally extended 20 miles from the center of the Town because 150 signatures were required to legally incorporate the town. Between 1906 and 1919, Kaycee contained several saloons, a mercantile store, a hardware store, two banks, a bakery, a livery barn, and its own newspaper (The Powder River Heritage Committee, 1982).

The post office in Kaycee derived its name from John Nolan's brand "KC". People in the community wanted to name the post office "KC", but the federal government required the community to spell out the brand as a name. Consequently, "KC" was converted to Kaycee (The Powder River Heritage Committee, 1982).

#### **3.1.9.4 Linch**

Linch was a company town that was established in 1951 during the peak of Sussex/Meadow Creek field development. For a brief period, this community was the second largest community in Johnson County.



#### **3.1.9.5 Mayoworth**

Mayoworth, located northwest of Kaycee, is a farming and ranching community that was once known as one of Johnson County's more important towns. It was comprised of several buildings, which housed a post office, dance hall, and general store. The store was not only successful at serving local citizens, but also provided a sourced of supplies for those trailing cattle or sheep to the mountains. The Mayoworth Stock Trail, which started at the Powder River, was once the main trail to the mountains for all of the stockmen in southern Johnson County.

### 3.1.9.6 Sussex

In the 1890's, the town of Sussex developed near the mouth of Salt Creek on Powder River. Oil exploration began in the Sussex area in 1899 and full-scale of development began in the early 1900's. In 1906, the Sahara Ditch Company was approved to construct an irrigation ditch for the area, which was, renamed the Sussex Ditch in 1916. The area is characterized by many small farm and ranch operations. The Sussex Bridge over Powder River was once the largest one-span bridge west of the Mississippi River and it opened the entire Pumpkin Buttes area for settlement.

Sussex is also credited with planting the seeds that started the famous Johnson County Cattle War. It was here that the first cattle were obtained by those who became the "nesters" or "little men".

## 3.2 REGIONAL LABOR FORCE, EMPLOYMENT AND INCOME

### 3.2.1 Labor Force

The labor force of Johnson County included an estimated 4,065 persons in May 2002. The employed labor force included an estimated 3,953 persons. Consequently, the unemployment rate in Johnson County was 2.8 percent (Wyoming Department of Employment, Research and Planning, 2002). This compared favorably with the statewide unemployment estimate of 3.9 percent. The lower unemployment rate in the month of May also reflects the beginning of higher seasonal employment between May and October that is associated with retail trade, accommodations, food services, agriculture, and guest ranches.



### 3.2.2 Employment

The distribution of employment within various economic sectors is reported by various State and federal agencies. Data from these agencies varies considerably due to differences in the source of information and the methods used to estimate the amount of jobs in each economic sector. Employment data from the U.S. Department of Commerce, Bureau of Economic Analysis, provides estimates of average annual employment for the 1997-2000 period (Table 3-1).

For the year 2000, the U.S. Bureau of Economic Analysis estimated that total full-time and part-time employment in Johnson County included 4,891 persons. Roughly 73 percent of this employed labor force worked in the private sector; most of these persons worked in various types of commercial services and retail trade. Government workers accounted for almost 17 percent of the employed labor force (Table 3-1). The remaining 10 percent were employed on local ranches or farms.



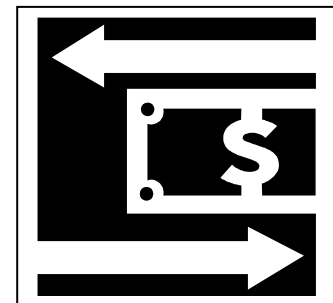
Employment data provided by the U.S. Bureau of Economic Analysis does not distinguish between full and part-time employment. However, it is suspected that there are a significant number of individuals who work one or more part-time jobs. The presence of seasonal work in agriculture and tourism likely provide some of these opportunities.

<b>TABLE 3-1 AVERAGE ANNUAL EMPLOYMENT JOHNSON COUNTY ECONOMY 1997-2000</b>				
<i>Employment Sector</i>	1997	1998	1999	2000
	<i>Number of Employees</i>			
Wage and Salary Employment	2857	2917	3039	3102
Proprietors' Employment	1613	1707	1747	1789
Farm Proprietors	330	336	334	334
Nonfarm Proprietors	1283	1371	1413	1455
<b>TOTAL FULL AND PART-TIME EMPLOYMENT</b>	<b>4470</b>	<b>4624</b>	<b>4786</b>	<b>4891</b>
Farm	448	482	471	492
Private Employment	3243	3350	3519	3570
Ag Services, Forestry, Fishing and Other	145	<sup>1</sup> DW	<sup>1</sup> DW	<sup>1</sup> DW
Mining	180	154	136	150
Construction	293	<sup>1</sup> DW	<sup>1</sup> DW	<sup>1</sup> DW
Manufacturing	168	<sup>1</sup> DW	<sup>1</sup> DW	140
Transportation and public utilities	159	156	160	168
Wholesale trade	124	124	108	121
Retail trade	838	850	902	950
Finance, Insurance and Real estate	394	423	451	477
Services	942	1001	1056	1005
Government and Government Enterprises	779	792	796	829
Federal, civilian	65	61	68	78
<sup>2</sup> Military	42	42	40	39
State Government	120	121	116	117
Local Government	552	568	572	595
<b>TOTAL FARM, PRIVATE AND GOVERNMENT EMPLOYMENT</b>	<b>4470</b>	<b>4624</b>	<b>4786</b>	<b>4891</b>
Notes: 1. DW - Data Withheld to protect privacy of limited number of workers				
2. This employment reflects former residents of Johnson County who worked at U.S. military installations outside of Johnson County and claimed Johnson County as their permanent residence.				
3. Employment data reflects employment taking place in Johnson County.				
Source: U.S. Department of Commerce, Bureau of Economic Analysis, 2002.				

### 3.2.3 Income

In 2000, the average per capita income in Johnson County was approximately \$24,381 (U.S. Department of Commerce, Bureau of Economic Analysis, 2002). Available local area personal income data for Johnson County also reveals where the "income streams" into the regional county economy are derived (Table 3-2).

When personal income data is aggregated by place of work, it is clear that private sector activities generate the greatest amount of personal income in the Johnson County economy. Services and retail trade account for roughly 46 percent of the personal income that is generated from the private sector.





**TABLE 3-2  
TOTAL PERSONAL EARNINGS IN JOHNSON COUNTY  
BY EMPLOYMENT SECTOR  
1997-2000  
(IN THOUSANDS OF DOLLARS)**

Item	1997	1998	1999	2000
<b>Farm Earnings</b>	1,809	-3,980	-623	-1,811
<b>Private (Non-Farm) Earnings</b>	52,574	54,398	59,701	60,120
Ag services, forestry, fishing and others	1,116	<sup>1</sup> DW	<sup>1</sup> DW	<sup>1</sup> DW
Mining	6,986	6,098	5,038	5,257
Construction	5,670	<sup>1</sup> DW	<sup>1</sup> DW	<sup>1</sup> DW
Manufacturing	3,268	<sup>1</sup> DW	<sup>1</sup> DW	3,285
Transportation and public utilities	6,141	6,519	6,908	7,120
Wholesale trade	1,980	2,177	1,879	2,112
Retail trade	9,137	9,664	10,594	11,070
Finance, insurance and real estate	4,424	4,988	5,452	5,502
Services	13,852	15,042	17,342	16,745
<b>Government and government enterprises</b>	20,619	21,495	22,443	23,878

Notes: <sup>1</sup>DW - Data Withheld to protect privacy of limited number of workers.  
Source: U.S. Department of Commerce, Bureau of Economic Analysis, 2002.

### 3.3 ECONOMIC SECTORS

The type and level of economic investments and activity within a regional economy provide some indication of the future demands for various types of land use. A better understanding of trends within selected economic sectors help identify the potential factors that may sustain, increase or diminish demands for one or more types of land use in Johnson County.

PPC examined recent industry trends, potential industry/sector expansion, and potential new employment opportunities for each of the following economic sectors.

- agriculture;
- power generation, transmission and distribution;
- coal bed methane exploration and production;
- tourism;
- retail trade; and,
- government.



#### 3.3.1 Agriculture

##### 3.3.1.1 Industry Trends

Agricultural activities in Johnson County primarily include 1) livestock production of cattle, sheep, and horses; and, 2) crop production of hay, winter wheat, barley, and oats.

The U.S. Department of Agriculture carries out a Census of Agriculture every five years. The most recent data available is from the 1997 Census of Agriculture. In that year, USDA reported that there were 315 farms and ranches in Johnson County. The data gained from Census surveys in 1987, 1992 and 1997 show that the number of ranches and farm operations in Johnson County increased almost 16 percent between 1987 and 1997.

More recently, the number of ranch or farm proprietors in Johnson County was estimated to include 330-336 proprietors between 1997 and 2000 (Table 3-1). Consequently, it appears that the number of agricultural operations in Johnson County is increasing in number.

Based upon data from its 1997 survey, the U.S. Department of Agriculture, National Agricultural Statistics Service, estimated there were 2,131,595 acres of land in Johnson County that were in agricultural use in 1997 (U.S. Department of Agriculture, National Agricultural Statistics Service, 1999). However, available property tax assessment records of the Johnson County Assessor present a significantly different picture.

In FY 1997, the Johnson County Assessor determined that the amount of lands in agricultural use was 1,567,787 acres. During the subsequent FY 1997-FY 2002 period, an additional 7,458 acres of land were converted to agricultural use.

Available property tax assessment information indicates recent increases in the amount of rangeland and irrigated cropland (see Chapter Five).

Available agricultural production statistics confirm that sheep inventories declined significantly from 1997 through 2002 (Table 3-3).

<i>Livestock Group</i>	1995	1996	1997	1998	1999	2000	2001	2002
<b>Cattle&amp;Calves</b>	60000	62000	72000	76000	67000	65000	67000	58000
<b>Cows</b>	38000	37000	40000	47000	40000	38000	40000	38000
<b>Sheep</b>	85000	85000	82000	74000	69000	52000	48000	44000

Source: USDA; National Agricultural Statistics Service, 2002

Similarly, the number of cattle and calves on ranches in Johnson County declined between 1998 and 2002 (Wyoming Agricultural Statistics Service, 2002). Various livestock managers reduced livestock production levels in response to drought conditions that occurred through much of the 1997-2002 period.

Hay crops, particularly alfalfa, are the dominant crops harvested in Johnson County. Most of the alfalfa and dry hay production occurs on irrigated agricultural lands (Table 3-4). Drought conditions during the 1997-2002 period clearly influenced crop production levels. Available crop production data indicates that a steady decline in alfalfa production occurred between 1998 and 2001; although an upturn in alfalfa production occurred in 2002. Similarly, a reduction in dry hay production was also evident between 1999 and 2002 (Wyoming Agricultural Statistics, 2002).

Year	Alfalfa					Other Dry Hay				
	Irrigated Acres Harvested	Production (Tons)	Non-irrigated Acres Harvested	Production (Tons)	Total Crop (Tons)	Irrigated Acres Harvested	Irrigated Production (Tons)	Non-irrigated Acres Harvested	Non-irrigated Production (Tons)	Total Crop (Tons)
1995	22000	56000	7000	12200	68200	7000	13300	2000	3200	16500
1996	20000	48000	3000	3900	51900	6000	9200	2000	1600	10800
1997	23000	71100	4000	8400	79500	6000	11500	2000	2000	13500
1998	N/A	N/A	N/A	N/A	66000	N/A	N/A	N/A	N/A	16500
1999	N/A	N/A	N/A	N/A	60000	N/A	N/A	N/A	N/A	14500
2000	21000	52500	3000	4000	56500	3000	6000	1000	1000	7000
2001	16000	27000	3000	3500	30500	N/A	N/A	N/A	N/A	5500
2002	16000	38400	4000	2000	40400	N/A	N/A	N/A	N/A	5500

Note: N/A indicates that data is not available for that given year.

Source: Wyoming Agricultural Statistics Service, 2002.

Another factor influencing future agricultural land use is the changing size of farms and ranches in Johnson County. In 1997, roughly 55 percent of the 315 ranches in Johnson County were agricultural operations that contained, at least, 2000 acres of land (Table 3-5) Almost nine percent of the ranch operations included between 1,000 to 1,999 acres; another eight percent ranged between 500 to 999 acres in size. The remaining 28 percent represented agricultural enterprises less than 500 acres in size (U.S. Department of Agriculture, National Agricultural Statistics Service, 1999).

Between 1992 and 1997, data from the U.S. Department of Agriculture point to a significant increase in agricultural enterprises that are less than 179 acres, as well as over 2,000 acres in size (Table 3-5). A growing number of parcels less than 179 acres in size suggest past divisions of larger agricultural operations into some smaller land parcels. The operation of an agriculture enterprise on lands less than 179 acres in size, which can operate profitably and support one or more persons in a household, is unlikely unless the farm or ranch operators are virtually debt free and/or derive income from other sources. These trends may suggest a growing number of persons who are seeking an agricultural lifestyle without expectation of profitable agricultural enterprise. In contrast, a growing number of agricultural enterprises over 2000 acres in size suggests the past consolidation of some smaller parcels into larger agricultural operations to facilitate greater economic viability.

Size of Agricultural Operations	1992 (number of operations)	1997 (number of operations)	Change 1992-1997 (number of operations)
1-9 acres	15	7	-8
10-49 acres	13	26	+13
50-69 acres	6	8	+2
70-99 acres	4	4	0
100-139 acres	7	14	+7
140-179 acres	3	11	+8
180-219 acres	8	6	-2
220-259 acres	8	5	-3
260-499 acres	13	8	-5
500-999 acres	34	26	-8
1,000-1,999 acres	31	28	-3
2000 acres or more	148	172	+24

Source: U.S. Department of Agriculture, National Agricultural Statistics Service, 1999

Available agricultural census data indicates that roughly 68 percent of those managing agricultural operations consider agriculture their primary occupation. While agriculture is the primary occupation of most ranchers in Johnson County, there is a growing trend toward the operation of more agricultural enterprises in Johnson County on a part-time basis. This conclusion is evident by a gradual growth in the number of agricultural operators who have another principal occupation of than agriculture. In addition, at least 25 percent of those operating ranches or farms worked 200 or more days away from their ranch or farm in 1997 (U.S. Department of Agriculture, National Agricultural Statistics Service, 1999). However, the taking of part-time job does not necessarily reduce the full-time responsibility of those working in agriculture.

Some ranches are now bought by nonresidents or corporations who do not need to make a profit from agricultural production. Their interests in ranching may be driven by factors other than profit. While these owners tend to maintain agriculture operations, some have less interest in allowing public outdoor recreation opportunities such as hunting and fishing.

### **3.3.1.2 Potential Industry Expansion**

#### Future Livestock Production

Recent drought conditions have significantly impacted livestock production in northeast Wyoming. However, future increases in production can be expected with more favorable levels of precipitation, the availability of adequate supplies of irrigation water, improved soil conditions, and favorable prices for both cattle and sheep.

Long-term livestock production is also dependent upon options that may be pursued to increase the profitability of ranching operations. Livestock operations have increasingly been impacted by the growing operating costs and diminishing profit margins from the sale of cattle to feedlots and intermediate buyers.

A growing number of producer cooperatives have been established in recent years to raise the profitability of both sheep and beef cattle operations. For example, some sheep producers may be investors in the recently established Mountain States Lamb Cooperative (MSLC). The cooperative recently developed a new business venture with B. Rosen & Sons, Inc., a meat processing and distribution company that markets approximately 25 percent of all domestic fabricated lambs. The new corporation intends to use a grid pricing structure that will reward producers for providing premium quality lambs.



Lower profit margins confronting local beef cattle producers may also lead to the eventual formation of one or more producer cooperatives in Wyoming and/or the association of more local ranchers with existing cooperatives in nearby states such as Montana and North Dakota (Beef Today, 2002). Operations such as Dakota Prairie Beef in North Dakota, South Dakota, and Montana, Ranchers Renaissance in Texas, and other cooperatives in various parts of the United States offer examples that may be pursued by local producers to increase the viability of family-owned beef cattle ranch operations.

#### Future Crop Production

No significant expansion in crop production acreage is anticipated during the 2003-2012 period. Based on past development trends and expected future development demands, some loss of crop production acreage has occurred and is expected to continue in the future. A continued demand for local forage will continue to support local livestock production. Under more favorable crop production conditions, some future exports of alfalfa may be made to other markets. Due to the development of coal bed methane, some crop lands may be taken out of production, at least temporarily.

#### Anticipated Increase in the Number of Farms and Ranches

While no significant expansion of future livestock or crop production is anticipated, a slight increase in the number of ranches and farms is expected during the 2003-2013 period.

The attractive, rural setting of most areas of Johnson County is expected to sustain agricultural activities on most all of the existing agricultural lands in the unincorporated area. However, upon retirement, aging ranch operators will, when possible, relinquish management responsibilities to younger family members and other relatives. If this opportunity is not feasible or available, existing ranch operations may divide selected portions of their ranch property and sell smaller agricultural land parcels to new buyers who will be seeking a rural lifestyle, but not dependent upon revenues from agricultural activities to sustain their rural lifestyle. In other situations, ranchers may choose to establish conservation easements to retain the ability to live on their existing lands and sustain agricultural land uses.

In general, the future rural lifestyle in Johnson County is expected to increasingly shift toward more part-time agricultural operations and a very gradual decline in the size of ranch operations. Rural residents will seek to operate crop and livestock operations on a profitable basis. However, income from off-ranch employment and other sources will more frequently support rural lifestyles and, in some cases, help subsidize related agricultural operations.

At the same time, data from the USDA Agricultural Statistics Service for the 1992-1997 period also indicates a growing trend for land consolidations of smaller agricultural parcels into a larger ranch operation. Consequently, it appears likely that Johnson County will continue to experience a combination of two significant trends in agricultural land use:

- a decline in the size of smaller ranch operations; and,
- a merging of some smaller ranch operations that will be incorporated into a larger existing ranch.

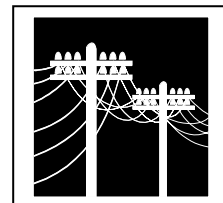
### **3.3.1.3 Potential Opportunities for New Employment**

The cyclical nature of weather, high operating costs, and the marginal prices received by agricultural producers does not suggest an outlook for any significant agricultural expansion. Consequently, no significant expansion of employment in the agricultural sector is anticipated during the 2003-2012 period.

### **3.3.2 Power Generation, Transmission and Distribution**

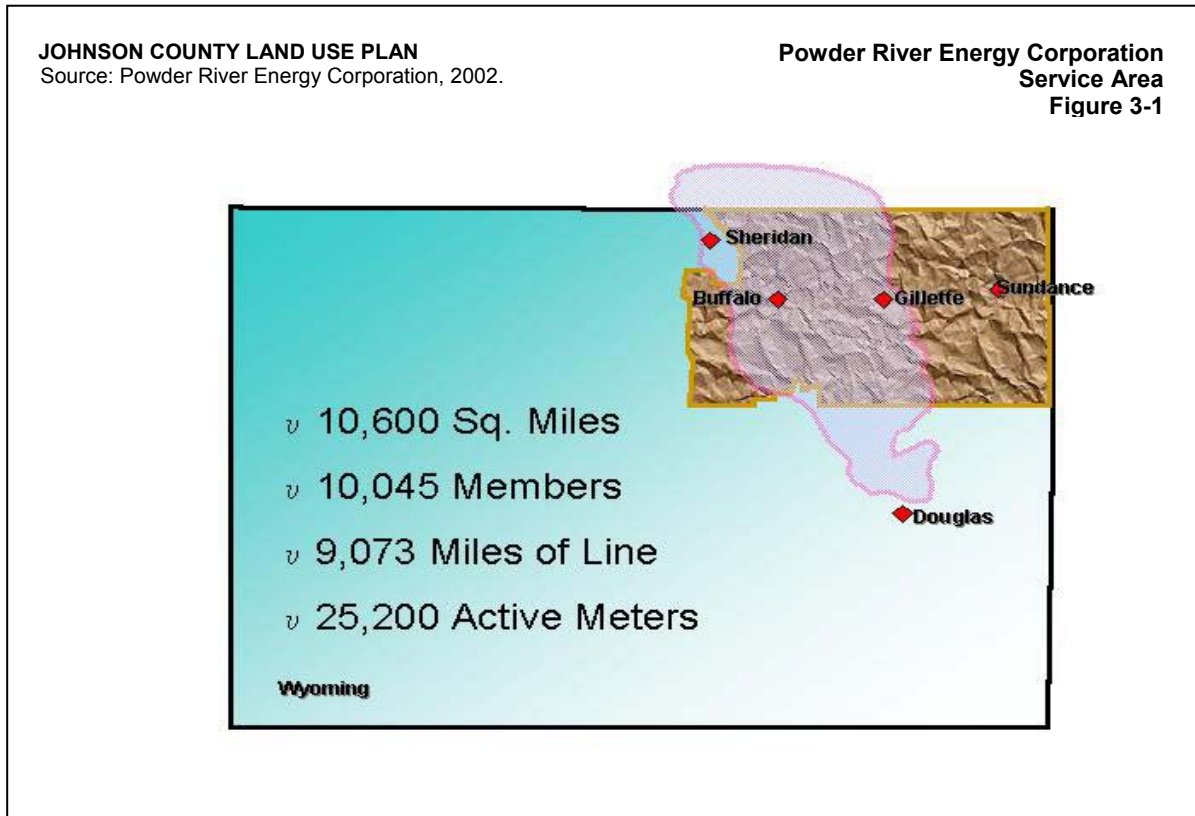
#### **3.3.2.1 Industry Trends**

Basin Electric generates and provides power to Powder River Energy and nine other regional member-owned cooperatives, which distribute and provide electrical power to residential, commercial, and industrial customers. Roughly 16 percent of Powder River Energy's power demand is derived from coal bed methane development and production. This demand represents approximately 40 megawatts (MW) (Casper Star Tribune, 2002).



Recent studies made by Basin Electric consultants suggest that demands from coal bed methane development and production may rise to 200 MW by 2012, or about 40 percent of Powder River Energy's anticipated demand during the next decade. However, Basin Electric and Powder River Energy representatives anticipate that regional power demands will eventually diminish within 20 years once coal bed methane wells have been developed and have attained reasonable production levels.

In the short-term, Basin Electric and Powder River Energy are completing various projects that are designed to stabilize voltages and improve overall system reliability within the Powder River Energy service area (Figure 3-1).



Basin Electric completed the construction of nine gas-fired turbine generators in northeast Wyoming in late 2002. Three 5-megawatt combustion-turbine generators were constructed at Arvada, Barber Creek, and Hartzog Draw (Blenkush, 2002). These plants are intended to provide additional power to coal bed methane exploration and production areas on the west side of the Powder River Basin (Basin Electric Power Cooperative, 2002).

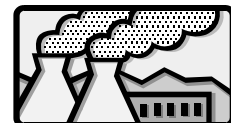
Basin Electric is presently pursuing permit approval for the construction of a 200 MW DC-tie project between Rapid City, South Dakota, and the Powder River Basin. This project will enhance Basin Electric's ability to transmit power to the Powder River Basin. It is anticipated that this project will meet the estimated demands from coal bed methane development through, at least, 2006-2007 (Miller, 2002).

Basin Electric is seeking approval from the U.S. Forest Service for a right-of-way permit for the construction of a 230-kV transmission line (Figure 3-1). The proposed transmission line would extend from Powder River Energy's Teckla substation to the Carr Draw area that is about 75 miles north of Interstate 90 (U.S. Forest Service, 2002). This project is scheduled for construction in 2006-2007 (Miller, 2002).

### 3.3.2.2 Potential Industry Expansion

#### Basin Electric

In 2001, Basin Electric Power Cooperative retained Burns and McDonnell, an engineering firm in Kansas City, to make a preliminary siting study of 11 potential plant site locations in



Wyoming, North and South Dakota, Montana and Iowa (Basin Electric Power Cooperative, 2001). This study is now in a second phase of investigation. Burns and McDonnell is now reviewing feasible sites in greater detail. A decision concerning where to build additional power plants is expected by August 2003 (Miller, 2002).

The most likely developer of a future power plant in northeast Wyoming is Basin Electric Power Cooperative. This organization has the experience, technical capabilities, and the capability to obtain financial resources for viable power generation and transmission projects. All present indications are that Basin Electric will not build a new power plant in northeast Wyoming in the near future.

The development of a power plant will be largely dependent upon the extent of future coal bed methane development and the related consumption of electrical power by CBM companies. Coal bed methane exploration and production on federal lands has been constrained by the completion and approval of a final environmental impact statement for oil and gas activities in the Powder River Basin, and related legal challenges by various special interest groups. Delays in the regulatory process temporarily slowed coal bed methane development in the Powder River Basin between 2000 and early 2003. However, in the longer term, increased regulatory activities can be expected to reduce the extent of future exploration and production.

#### Other Potential Power Plant Developers

A consortium of electrical companies and several Wyoming coal companies are contemplating the development of a power plant that would generate "near-zero" emissions. Electrical companies in the consortium include PacifiCorp, American Electric Power, CONSOL Energy, Inc., North American Coal Corporation, Southern Company and TXU. Wyoming coal companies that are represented in this alliance include Peabody Energy, Kennecott Energy, and RAG American Coal Holding, Inc. (Bleizeffer, 2003).

Should the consortium agree to pursue project design and construction, at least several years would be required to achieve various steps needed for power plant development. These steps would include, at least, the following:

- develop conceptual project design,
- obtain federal air quality permits and other regulatory authorizations,
- secure tentative contracts from energy customers,
- obtain project financing,
- complete detailed construction drawings,
- adopt internal agreements concerning future energy transmission,
- construct power plant , and,
- test and start-up power plant.

The time needed to complete these project steps suggest that the proposed project would probably not be ready to initiate construction until, at least, 2010.

#### **3.3.2.3 Potential Opportunities for New Employment**

No new employment associated with Basin Electric's short-term power plant construction or long-term operation and maintenance is expected. Some short-term employment associated with transmission line construction in northeast Wyoming may be generated during the 2003-2007 period. However, such employment would be limited and probably generate only a few temporary construction worker relocations to Buffalo or Johnson County during the course of transmission line construction.

Potential employment opportunities from a possible "near-zero" emissions power plant in northeast Wyoming are difficult to determine at the time of this report. Since the consortium has not yet committed to project design, potential employment opportunities should not be considered in the context of population forecasts for Johnson County. However, once the potential size and general location of the project are identified by the consortium, a realistic estimate can be made of potential labor forces needed to support both power plant construction and eventual plant operation, as well as where these labor forces would likely be based.

### **3.3.3 Coal Bed Methane Exploration and Production**

#### **3.3.3.1 Industry Trends**

Coal bed methane exploration activities in the Powder River Basin continue at the time of this report. However, new exploration in the Basin has slowed considerably because of lower gas prices. With the ongoing slowdown in CBM exploration, some industry representatives advised PPC that much of the CBM labor force, which arrived during the 1998-2000 period, has left northeast Wyoming. However, some of this labor force is expected to return as greater levels of new exploration takes place.

#### **3.3.3.2 Potential Industry Expansion**

Exploration on federal lands in the Powder River Basin started slowly due to extended delays surrounding the Powder River Basin Oil and Gas EIS (Environmental Impact Statement) and declines in gas prices. Some special interest groups are committed to thwarting the development of CBM resources in the Powder River Basin. Greater involvement by the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers can also be expected to bring longer project review periods, greater project oversight, and more permit stipulations. Increased public scrutiny, greater regulatory oversight, and increased permit stipulations can also be expected to increase the costs of both exploration and long-term production in the Powder River Basin.

In early June 2002, CEO Mike Easley of Powder River Energy provided an overview of company plans during a Coal Bed Methane Fair in Gillette, Wyoming. In his presentation, Easley reported that Basin Electric and Powder River Energy had retained the consulting firm of Pace Global to evaluate economic considerations influencing future coal bed methane development and forecast future power loads that might be derived from future coal bed methane development and production. Some of the conclusions from the Pace Global study, which were reported by Easley, provide some reasonable assumptions that can be used to help estimate future coal bed methane employment:

- CBM development is very sensitive to minor changes in price.
- thinner, deeper coal seams contain significant gas reserves that will likely play an important role in future CBM development in the Powder River Basin.
- the production of 25 TCF (trillion cubic feet) of gas is expected in the Powder River Basin over the next 20 years.
- the development of 3,500 CBM wells per year on federal lands is anticipated due to lower gas price expectations.
- the most likely electrical load forecast, which is expected to peak in 2012, will require generation of 200 MW (assuming an 80 percent load factor).



The final environmental impact statement (EIS) for the Powder River Basin Oil and Gas Project, which was published in February 2003, forecasted the development of 39,367 new coal bed methane wells on federal lands during the 2002-2012 period (U.S. Bureau of Land Management, 2003). In terms of anticipated exploration, it is important to note that the Pace Global forecast is approximately 12 percent lower than the anticipated production forecasts prepared by the U.S. Bureau of Land Management.

### 3.3.3.3 Potential Opportunities for New Employment

During the more robust coal bed methane development period from the late 1990's through the summer of 2001, CBM companies operating in the Powder River Basin anticipated and planned for more aggressive exploration schedules. The subsequent decline in natural gas prices and uncertainties concerning the timing of authorization for new exploration on public lands in the Basin made future production schedules considerably more unpredictable in 2002.

In May 2003, the U.S. Bureau of Land Management issued Records of Decision that finalized the Powder River Basin Oil and Gas EIS for the Wyoming portions of the Powder River Basin. These decisions enable CBM companies to secure appropriate permits from the U.S. Bureau of Land Management for exploration on public lands within the Powder River Basin. Subsequently, various special interest groups filed lawsuits that sought to challenge the final EIS, as well as impose a temporary injunction against permitting oil and gas well development in the Basin (Casper Star Tribune, 2003).

Given the uncertainties of when coal bed methane companies will become more actively engaged in new exploration, PPC concluded that it would be prudent to base its forecast of CBM employment (Table 3-6) upon the Pace Global forecast of future coal bed methane exploration, as well as important employment assumptions derived from discussions with coal bed methane developers in the Powder River Basin.

<b>TABLE 3-6</b>					
<b><sup>1</sup>ANTICIPATED NEW COAL BED METHANE EMPLOYMENT</b>					
<b>EXPECTED TO RESIDE IN JOHNSON COUNTY</b>					
<b>2003-2012</b>					
<b>Year</b>	<b>Well Exploration</b>	<b>Well Completion</b>	<b>Well Production</b>	<b>Administrative</b>	<b>Total</b>
2003	57	1	0	1	59
2004	80	7	5	23	115
2005	80	7	5	23	115
2006	80	7	5	23	115
2007	80	7	5	23	115
2008	80	7	5	23	115
2009	80	7	5	23	115
2010	80	7	5	23	115
2011	80	7	5	23	115
2012	80	7	5	23	115
<b>2003-2012</b>	<b>777</b>	<b>64</b>	<b>45</b>	<b>208</b>	<b>1094</b>
<small>Note: Employment forecast of workers based in Johnson County assumes that 3,500 new wells will be developed on federal lands each year between 2004 and 2012 and will generate comparable levels of annual employment during the 2003-2012 period. 75 percent of the anticipated labor force is expected to come from areas outside of the Powder River Basin. It is assumed that 10 percent of all incoming CBM workers coming into the Powder River Basin will reside in Buffalo. Further, 3.5 percent are expected to live in the unincorporated area of Johnson County and an additional 1.5 percent in Kaycee. Anticipated CBM employment based in Johnson County is based on the average number of new wells produced each year in a ten-year period and the application of various exploration and production ratios.</small>					
<small>Source: Pedersen Planning Consultants, 2002.</small>					

As stated earlier, the Pace Global study forecasted the exploration of roughly 3,500 coal bed methane wells per year in the Powder River Basin. A static level of well exploration is assumed over the 2003-2012 period even though exploration could be highly variable. PPC believes that the economic variables associated with CBM exploration would unnecessarily incorporate assumptions that would add error to the employment forecast. One important deviation from the Pace Global forecast is PPC's assumption that the resurgence of exploration levels up to 3,500 wells per year will not be achieved until 2004. For 2003, it was assumed that only 500 CBM wells would be developed.

To calculate the preceding forecast of coal bed methane employment, PPC developed a statistical spreadsheet model to calculate employment estimates for the 2003-2012 period.

Employment generation assumptions were used to calculate employment estimates for well exploration, well completion, production, and administration. These assumptions were developed through the application of various exploration and production ratios that were obtained from various CBM company representatives in the Powder River Basin. Such ratios considered:

- the number of wells that could be drilled by one drilling crew in one year;
- the number of laborers working on a typical well drilling crew;
- the number of wells that could be completed by a well completion crew in one year;
- the number of laborers working on a well completion crew;
- the number of lease operators required to monitor 3,500 wells per year;
- the number of instrumentation specialists required to monitor 3,500 wells per year;
- and,
- the number of administrative personnel required to monitor 3,500 wells per year.

This information was obtained during discussions with various CBM company representatives in 2000, 2001, and the first two quarters of 2002. A number of the company representatives contacted provided this information on a confidential basis. Consequently, the specific ratios incorporated into the statistical model are not presented in the Land Use Plan report.

Pedersen Planning Consultants applied available exploration forecasts, prepared by Pace Global, to anticipated employment generation assumptions for CBM well exploration, completion and production. The ratios were subsequently used to calculate employment levels for well exploration, completion and production.

The model also incorporated a few general assumptions concerning what proportion of the incoming CBM labor force would live in Johnson County, as well as what proportion of the overall CBM labor force would remain in the Powder River Basin. The following assumptions were made on the basis of discussions with CBM company representatives.

1. Approximately 75 percent of the incoming CBM labor force that will come from communities outside of the Powder River Basin. Roughly 25 percent of the overall CBM labor force needed to support future CBM development already lives in the Powder River Basin.
2. Ten percent of the incoming CBM workers will reside in Buffalo. The majority of new CBM workers are expected to live in Campbell or Sheridan counties.
3. Approximately 3.5 percent of the incoming CBM workers will live in the unincorporated area. Most of these workers will reside within several miles of Kaycee or Buffalo.
4. Roughly 1.5 percent of the incoming CBM workers will reside in Kaycee. The CBM workers living in Kaycee will be associated with well exploration and completion.

The preceding forecasts of employment (Table 3-6) suggest that new direct employment associated with coal bed methane exploration and production is expected to be limited through, at least, 2003. Gradual increases in gas prices and the resolution of environmental issues in the Powder River Basin are not expected to occur before late 2003.

It is anticipated that greater exploration and production will occur in the Powder River Basin through 2012. Fluctuations in gas prices, demand, and other economic variables during the 2004-2012 period can be expected to generate cyclical periods of higher and lower levels of exploration and production.

### **3.3.4 Visitor Industry**



#### **3.3.4.1 Industry Trends**

Johnson County is a gateway to significant seasonal visitor traffic that is coming to and from Wyoming's primary visitor attraction, Yellowstone National Park. Community leaders and local business representatives in Buffalo indicate that the visitor season extends from May through late September. The City of Buffalo has increasingly become a location to stay, at least one night, for travelers en route to Yellowstone, Devil's Tower and Mt. Rushmore, dine at local cafes and restaurants, shop at local retail shops, as well as enjoy recreational opportunities in Buffalo and other parts of Johnson County. Many community leaders envision that Buffalo, Kaycee, and Johnson County may eventually become a significant visitor destination.

Community leaders in Buffalo have observed a growing number of people using Buffalo as a destination to temporarily stay in motor homes and recreational vehicles at private campgrounds for longer periods of time (Gross, 2002). These visitors also shop at local grocery stores and retail stores, dine at local cafes and restaurants, and enjoy nearby recreational opportunities.

Visitor accommodations in Johnson County include motels, trailer and RV campgrounds, bed-and-breakfast establishments, as well as rural recreational lodges and guest ranches. Lodging tax data for the FY 1990-FY 2003 period suggests that an annual growth in visitor accommodations has generally occurred in Johnson County since FY 1993 (Wyoming Department of Revenue, 2003).

FY 2002 visitor accommodations in Buffalo accounted for roughly 64 percent of all visitor accommodation expenditures in Johnson County. Almost 34 percent of visitor accommodation expenditures were derived from visitor stays within Johnson County's unincorporated area. The remaining two percent of visitor accommodation expenditures were generated from accommodation expenditures in Kaycee (Wyoming Department of Administration and Information, Economic Analysis Division, 2003).

The Wyoming Business Council, State Office of Travel and Tourism, reported that visitor expenditures for accommodations were \$6.3 million in 2002. An additional \$25.0 million was expended by visitors for food and beverages, fuel, recreational services, and other retail items (Dean Runyan Associates, 2003).

#### **3.3.4.2 Potential Industry Expansion**

The extent of future increases in visitor traffic in Johnson County will depend largely upon:

- the range and availability of different types of overnight and short-term accommodations;
- continued access to a diversified range of recreational opportunities;

- the availability of greater shopping opportunities; and,
- continued popularity of other tourism destinations outside of Johnson County that influence the volume of visitor traffic through Johnson County.

Existing summer occupancies reported by several motels, bed-and-breakfast establishments, and campgrounds suggest that an expansion in visitor accommodations is needed to support growing seasonal visitor traffic. However, greater off-season occupancies are needed to sustain the financial viability of existing accommodations on an annual basis.

An expanded range of commercial retail opportunities would also help increase the length of stay in the community. However, retail expansions and new investments are dependent upon a perennial flow of retail sales that enables small retail businesses to retain experienced sales personnel throughout the year. At the present time, various retail businesses are forced to lay-off a portion of sales personnel during the considerably slower sales period, i.e., late fall and winter months.

The potential establishment of more overnight accommodations and the expansion of retail operations in the community are tied to the attraction of greater visitor traffic between the months of October and May. More scheduled events and promotions in the fall and winter months may generate some modest increases in visitor traffic. However, the development of more visitor attractions that attempt to expand the visitor market are more likely to stimulate longer-term increases in visitor traffic.

For example, the designation of a Bozeman Trail vehicular tour along existing Johnson County roads in the east and southeast portions of Johnson County represents a potential opportunity to attract greater visitor traffic during the fall, late spring, and summer months. The vehicular tour could be designated over existing Johnson County roads that are built over, or adjacent to, selected portions of the Bozeman trail. Interpretative points could be established at historic fort and battle sites that are presently located on adjacent public lands. Existing historic sites on public lands could be designed for self-interpretation and/or short walking tours at each site. One or more private entrepreneurs could offer short trips on wagons along selected segments of the Bozeman Trail that are located on public land and do not cross private property.

### **3.3.4.3 Potential Opportunities for New Employment**

Growing visitor traffic in Johnson County generates increased seasonal employment for accommodations and food services, as well as retail trade. Monthly covered employment statistics for Johnson County, for the first nine months of 2001, reveal that average monthly employment for accommodations and food services in June, July and August increased to 206-235 jobs from employment levels in March. During the same period, employment in retail services rose to 23-42 jobs (Table 3-7).

<b>TABLE 3-7 SEASONAL EMPLOYMENT TRENDS IN JOHNSON COUNTY ACCOMMODATIONS, FOOD SERVICES, AND RETAIL TRADE FIRST QUARTER THROUGH THIRD QUARTER 2001</b>									
<b>Employment Sector</b>	<b>Monthly Covered Employment</b>								
	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sept</b>
Accommodations & Food Services	334	329	351	337	452	557	586	575	479
Retail Trade	337	339	335	334	364	372	358	377	339
<b>Total</b>	<b>671</b>	<b>668</b>	<b>686</b>	<b>671</b>	<b>816</b>	<b>929</b>	<b>944</b>	<b>952</b>	<b>818</b>

Source: Wyoming Department of Employment, Research and Planning Division, 2001.

A greater seasonal swing in employment associated with accommodations and food services, as well as retail trade, occurred during the first three quarters of 2000 when jobs in accommodations and food services rose to 232-279 jobs. An additional 40-53 retail jobs were added in June, July, and August of 2000.

A portion of this seasonal employment represents vacationing high school and college students, teachers on summer leave, and other residents who desire to work seasonally. However, a proportion of this seasonal labor force includes persons who are not residents of Johnson County. Based upon discussions with two community leaders (Gross, 2002; Michelena, 2002), PPC believes that 75-95 percent of the seasonal visitor industry labor force comes from outside of Johnson County.

Future seasonal employment associated with accommodations and food services, as well as retail trade, can be expected. While no reliable estimates of recent visitor traffic trends are available for Buffalo and Johnson County, the location, physical attractiveness, and Interstate highway access of this community and the adjoining Big Horn Mountains suggest that:

- greater visitor traffic will continue to occur during the months of May through September;
- an expansion of visitor events and an increased diversity in visitor attractions can gradually expand visitor traffic between the months of October through April; and,
- greater visitor traffic will generate increased visitor expenditures for accommodations, food services, and retail trade.

The threat of terrorism and reduced airline travel may mean that more Americans are pursuing recreational opportunities and travel within the United States, as well as making a greater use of personal vehicles for recreational travel. Should these trends continue, they too may help contribute to a greater influx of visitors to Johnson County.

### 3.3.5 Retail Trade

#### 3.3.5.1 Economic Sector Trends

Using sales tax collection information, PPC estimates that \$37.6 million of retail sales were made in Johnson County in 2001 (Table 3-8). Total retail sales rose to \$39.7 million in 2002.

U.S. Census information indicates that there were approximately 126 retail establishments operating in Johnson County in 2000.

<b>TABLE 3-8 TOTAL RETAIL SALES JOHNSON COUNTY, 2001</b>						
Year	Population	Total Retail Sales	<sup>1</sup> Number of Retail Establishments	Average Sales Per Establishment	Per Capita Sales	Pull Factor
<b>2001</b>	<b>17,170</b>	<b>\$37,645,906</b>	<b><sup>2</sup>126</b>	<b>\$298,777</b>	<b>\$5,250</b>	<b>.69</b>
<b>2002</b>	<b>17,374</b>	<b>\$39,748,906</b>	<b><sup>2</sup>126</b>	<b>\$315,463</b>	<b>\$5,390</b>	<b>.67</b>
Notes: 1. Population estimates made by the U.S. Bureau of the Census, 2001.						
2. Number of retail establishment based on the year 2000 (most current data available).						
Sources: U. S. Census Bureau, 2000; Wyoming State Department of Revenue, Excise Tax Division, 2002; Wyoming Department of Employment, Research & Planning, 2002; Pedersen Planning Consultants, 2002.						

The pull factor is a measure of the relative strength of a community's retail market. The extent to which a community captures and loses retail sales from other communities is reflected in the pull factor. A pull factor of 1.0 indicates that a community is capturing the amount of retail sales expected given consideration of retail sales, population and per capita income. Pull factors greater than 1.0 indicate that a community is capturing more retail sales from consumers in other communities than it is losing. Pull factors less than 1.0 suggest that a community is losing more sales than it is capturing in expenditures by non-residents (Broomhall and King, 1995). The latter is frequently referred to as retail trade leakage.

The estimated pull factors for Johnson County suggest a number of potential conclusions:

- Johnson County is losing retail expenditures to Sheridan, Gillette and Casper, as well as Billings, Montana, where greater shopping opportunities and more attractive prices are often available. It should be noted that Montana imposes no sales tax on retail expenditures.
- Retail leakage in Johnson County is considerably greater than reflected by the pull factor since a considerable amount of Johnson County expenditures are derived from tourists and seasonal residents during the fall and summer seasons.

In order to gain a better sense of where leakage is occurring in local retail trade, PPC also calculated total retail sales and potential sales for eight merchandise categories in Johnson County (Table 3-9 and Table 3-10). Estimates of actual retail sales in 2001 and 2002 were calculated from sales tax collection data. Potential sales for 2001 and 2002 were calculated using average statewide retail sales per capita, county and state per capital income levels, and county population estimates.

PPC estimates indicate that \$10.8 million of potential retail expenditures were made outside of Johnson County in 2001 (Table 3-9 and Table 3-10). Almost \$11.6 million were expended outside of Johnson County in 2002. However, overall retail leakage is likely to be considerably greater than the leakage reflected in these estimates. Retail expenditures by visitors clearly represent an important source of retail sales in Johnson County.

<b>TABLE 3-9 2001 TOTAL RETAIL SALES BY MERCHANDISE CATEGORY JOHNSON COUNTY</b>					
<b>Merchandise Group</b>	<b>Percentage of Total Sales (%)</b>	<b>Potential Sales (\$)</b>	<b>Actual Sales (\$)</b>	<b>Surplus or Leakage (\$)</b>	<b>Surplus or Leakage as a % of Potential</b>
Building Material & Hardware	17	5,126,487	6,359,556	1,233,069	24
General Merchandise	1	8,925,872	303,366	-8,622,506	-97
Food Stores	18	9,034,571	6,695,632	-2,338,939	-26
Auto Dealer & Gas Service	13	4,977,245	4,810,134	-167,111	-3
Apparel & Accessory	1	1,427,059	309,666	-1,117,393	-78
Home Furniture	3	2,160,047	1,302,978	-857,069	-40
Restaurants	20	7,773,459	7,572,404	-201,055	-3
Miscellaneous Retail	27	9,039,807	10,265,830	1,226,023	14
<b>Total Retail Sales</b>	<b>100</b>	<b>\$48,464,547</b>	<b>\$37,619,566</b>	<b>-\$10,844,981</b>	<b>-22</b>
Sources: U. S. Census Bureau, 2000; Wyoming State Department of Revenue, Excise Tax Division, 2001; Wyoming Department of Employment, Research & Planning, 2002; Pedersen Planning Consultants, 2002.					

**TABLE 3-10  
2002 TOTAL RETAIL SALES BY MERCHANDISE CATEGORY  
JOHNSON COUNTY**

<b>Merchandise Group</b>	<b>Percentage of Total Sales (%)</b>	<b>Potential Sales (\$)</b>	<b>Actual Sales (\$)</b>	<b>Surplus or Leakage (\$)</b>	<b>Surplus or Leakage as a % of Potential</b>
Building Material & Hardware	18	5,958,900	7,210,828	1,251,928	21
General Merchandise	1	10,279,218	296,122	-9,983,096	-97
Food Stores	16	8,842,640	6,467,022	-2,375,618	-27
Auto Dealer & Gas Service	14	5,364,518	5,390,866	26,348	1
Apparel & Accessory	1	1,386,270	309,416	-1,076,854	-78
Home Furniture	4	2,519,375	1,480,035	-1,039,340	-41
Restaurants	19	8,055,619	7,535,454	-520,165	-6
Miscellaneous Retail	28	8,912,862	11,058,532	2,145,670	24
<b>Total Retail Sales</b>	<b>100</b>	<b>\$51,319,402</b>	<b>\$39,748,275</b>	<b>-\$11,571,127</b>	<b>-23</b>
Sources: U. S. Census Bureau, 2000; Wyoming State Department of Revenue, Excise Tax Division, 2002; Wyoming Department of Employment, Research & Planning, 2002; Pedersen Planning Consultants, 2002.					

Within more specific merchandise categories, significant retail leakage is most evident in sales associated with general merchandise, home furniture, and groceries. Some nominal retail leakage is also occurring with auto dealer and gas services, as well as local restaurants. In contrast, the actual sales of building materials and hardware, as well as miscellaneous retail sales, reflect that local residents are purchasing more of these items from local retail establishments. Greater selection and attractive pricing in other retail markets in Sheridan, Gillette, Casper, and Billings, MT, are likely the primary factors motivating residents to make these expenditures outside of Johnson County.

**3.3.5.2 Potential Expansion of Retail Trade**

The loss of potential retail sales, or retail leakage, should be viewed as a challenge to local economic developers. Losses of potential retail sales reveal areas of opportunity in the retail sector of Johnson County. At the same time, a significant degree of retail leakage will continue as long as retail shopping opportunities are limited.

The correlation of estimates of potential retail sales and actual retail sales within each merchandise category can be shared with retail store chains and prospective individual investors who may be seeking retail investments in Johnson County. The availability of potential retail sales and leakage information may prompt a more serious consideration of future retail opportunities.

The potential for future retail expansion in Johnson County is enhanced by the availability of both resident and visitor markets. However, in order to gain potential sales from these markets, a more diverse and competitive retail environment is needed to cater to the distinct needs of Johnson County residents and visitors.

Greater commercial floor space is needed in marketable locations in downtown Buffalo, Hart Street in Buffalo, Nolan Avenue in Kaycee, and other feasible locations in Johnson County to help stimulate the development of a more diverse and competitive retail environment that is attractive to both residents and visitors. More concentrated retail areas could help attract a combination of pedestrian and drive-through shoppers. Such commercial development could help the community expose a greater number of retail opportunities, as well as facilitate greater retail expenditures.

### **3.3.5.3 Potential Opportunities for New Employment**

A modest growth in retail trade employment is anticipated during the 2003-2012 period. PPC believes that future increases in retail trade employment will expand the existing retail trade labor force by approximately one percent per year for full-time employment. Seasonal employment can also be expected to increase during the peak summer months.

### **3.3.6 Government**

#### **3.3.6.1 Economic Sector Trends**

During the 1990-2000 period, the government sector of the Johnson County economy has generally remained constant in terms of employment. Two exceptions were: 1) a slight increase in local government employment between 1999 and 2000; and, 2) an expansion of the U.S. Bureau of Land Management's Buffalo Field Office in 2000, 2001 and early 2002.

The expansion of federal government employment in Johnson County was primarily a consequence of BLM's continuing effort to complete the environmental impact statement for the Powder River Basin Oil and Gas Project, as well as its growing regulatory oversight of ongoing coal bed methane exploration.

#### **3.3.6.2 Potential Economic Sector Expansion**

A growing retirement age population is relocating into Johnson County. This significant demographic trend suggests that there will be growing demands for public services during the 2003-2012 period. With the expected influx of an older population, the prospect exists for expanded health care services.

The Johnson County Health Care Center (JCHCC) includes Johnson County Memorial Hospital, the Family Medical Center, and the Amie Holt Care Center. These facilities and related medical services presently employ about 175 persons. JCHCC management indicates that existing staffing is expected to remain at the present level for the next two to five years (Ward, 2002).



#### **3.3.6.3 Potential Opportunities for New Employment**

The director of the U.S. Bureau of Land Management's Buffalo Field Office indicated in June 2002 that another 16 personnel are planned to be added to the Buffalo Field Office labor force by the end of 2002 or early 2003. This labor force will be in addition to the 60 personnel that were recently added to the District Office in 2001 and early 2002. However, no additional expansions of the BLM labor force are expected during the 2003-2012 period.

## **3.4 COMMUNITY DEMOGRAPHICS**

### **3.4.1 Resident Population**

The 2000 Census reported by the U.S. Bureau of the Census indicates that approximately 7,075 persons reside in Johnson County. Roughly 55 percent of the Johnson County population lived in the county seat of Buffalo in April 2000. An additional 3.5 percent resided in the Town of Kaycee. The remaining 2,926 persons (41.4 percent) were residents in the unincorporated area of Johnson County (Table 3-11).



<b>TABLE 3-11 JOHNSON COUNTY POPULATION APRIL 2000</b>		
<b>Community</b>	<b>Resident Population (number of persons)</b>	<b>Proportion of County Population (percent)</b>
Buffalo	3,900	55.1
Kaycee	249	03.5
Unincorporated Area	2926	41.4
<b>Total</b>	<b>7,075</b>	<b>100.0</b>

Source: U.S. Bureau of the Census, 2000; Pedersen Planning Consultants, 2002.

During the 1960-2000 period, the resident population of Johnson County increased 29 percent. This represents an annual growth rate of about 0.7 percent per year. More recently, the resident population rose 15 percent, or approximately 1.5 percent per year, between 1990 and 2000.

The gradual increase in resident population during the 1990-2000 period may reflect the recent expansion of the U.S. Bureau of Land Management's Buffalo Field Office, a limited influx of a small portion of the regional coal bed methane labor force since 1998, and a growing number of persons nearing or already of retirement age (56 years and older).

More recent estimates developed by the U.S. Bureau of the Census indicate that the total population of Johnson County increased to 7,170 persons in 2001 and rose to 7,374 residents in 2002. These estimates are based upon birth and death information, data from federal tax returns, as well as Medicare registrations (Liu, 2003).

### 3.4.2 Factors Influencing Future Population Growth

#### 3.4.2.1. Natural Growth Rates

The natural growth rate of a region or community simply refers to the number of births less the number of deaths over a given period of time. For example, the Wyoming Department of Health, Vital Records Service, reported 104 births and 113 deaths for Johnson County from May 2000 through December 2002 (Table 3-12).

<b>TABLE 3-12 BIRTHS AND DEATHS IN JOHNSON COUNTY MAY 2000 THROUGH DECEMBER 2002</b>		
<b>Time Period</b>	<b>Births</b>	<b>Deaths</b>
May-December, 2000	43	54
2001	29	35
2002	32	24
<b>Total</b>	<b>104</b>	<b>113</b>

Source: Wyoming Department of Health, Vital Records Service, 2003

Using the 2000 Census population estimate of 7,075 persons for Johnson County, the natural decrease of nine persons that occurred during the May 2000-December, 2002 period represents a natural growth rate of almost -0.13 percent. During this period, the number of deaths exceeded the number of births from May 2000 through 2001; however, a natural increase of eight persons took place in 2002. Consequently, annual natural increases and decreases in population can be highly variable.

### **3.4.2.2 Migration**

Another factor influencing future population growth in Johnson County is the amount of in and out-migration, or the number of people that will move into and away from the County over a given period of time. "Net migration" is the difference between the numbers of persons moving in and out of Johnson County.



#### In-Migration

To gain insights into this aspect of future population growth, PPC examined U.S. Census 2000 information, as well as national and regional trends in population migration. However, driver license exchange/surrender data from the Wyoming Department of Transportation provides more specific insights concerning recent in-migration to Johnson County. For example, driver license exchange/surrender data indicates an in-migration of approximately 262 people in 2000, 246 persons in 2001, and 224 persons in 2002. This data does not reflect the number of persons under 16 years of age.

Driver license exchange/surrender data from the Wyoming Department of Transportation reveals that roughly 19 percent of those exchanging driver licenses for a new Wyoming driver's license during the 2000-2002 period were 56 years of age or older.

#### Out-Migration

Driver license exchange/surrender data also provides some indications of out-migration. The influx of 732 new residents during the 2000-2002 period was offset by the loss of 144 residents in 2000, 140 residents in 2001, and 141 persons in 2002. This data does not include dependents under 16 years of age.

The out-migration of persons in the 18-22 age group, which is reflected in driver license surrender data, is perhaps the most significant because it is the only age group that repeatedly reflects a negative net migration during the 2000-2002 period. This means that more persons in this age group leave Johnson County rather than stay. PPC believes that the out-migration from this age group stems from the lack of regional educational opportunities, the desire "to see the world", and the lack of job opportunities. However, this age group is typically more mobile as they experience a higher frequency of life course events, e.g., get married, seek higher education, or obtain a new job, that often require departures from home (Schachter, 2001)

### **3.4.3 Anticipated Population for the 2003-2012 Period**

#### **3.4.3.1 Methodology**

##### General Approach

The forecasting of future resident population is an important task associated with community land use planning. Population forecasts facilitate the calculation of some future land use demands, e.g., housing. In turn, community leaders and the general public gain a better understanding of community development issues and opportunities.

There are a number of approaches to forecasting future resident populations. Three of the more common approaches to population forecasting are:

- time series analyses;
- cohort survival model; and,
- employment based analyses.

Time series analysis relies upon past population growth trends and uses past trends to forecast future population. Forecasts using this method typically assume that factors influencing future growth, e.g., fertility, mortality, and migration, will not change significantly. This is a relatively simple approach to forecasting future population. However, in communities such as Johnson County, this approach has limited value because the area is periodically influenced by occasional significant swings in mineral industry employment. This factor, in itself, can lead to unrealistic assumptions concerning future in and out-migration. Consequently, this method of population forecasting was not selected.

The cohort survival method forecasts rely upon fertility and mortality rates, as well as net migration patterns, for various age and sex groups. Regional projections of mortality and fertility rates are applied to each age and sex group (cohort) within a community to produce forecasts of change for each cohort. When combined, forecasts can be developed for a community, county, or larger regional area. While this approach considers basic factors that influence future population growth, this method is more successfully applied to communities where in and out-migration have a negligible influence upon the size and composition of a community population (Isard, 1960). During the next 10 years, anticipated coal bed methane development will likely generate significant changes in migration to and from Johnson County. Consequently, this approach is not considered appropriate for forecasting the future population of Johnson County.

Employment based analysis considers potential changes in community employment, natural growth rates, and migration. This method is appropriate to shorter forecast periods, e.g., 10 or less years, because the estimation of future employment opportunities, on a long-term basis, cannot be reliably estimated. Reasonable estimates of anticipated coal bed methane exploration and production in the Powder River Basin provide an essential piece of information needed for application of the employment based analyses. Drivers' license exchange/surrender data for Johnson County also facilitates the estimation of in and out-migration. For this reason, an employment based analysis was selected as the method to forecast the Johnson County population for the 2003-2012 period.

The population forecast period was limited to a 10-year planning horizon. The forecasting of future population growth beyond 10 years becomes highly speculative in light of ever-changing economic and demographic trends. This is particularly true in Johnson County which continues to be influenced by ongoing and anticipated coal bed methane development in the Powder River Basin.

A statistical model was developed by PPC to facilitate the calculation of the anticipated population during the 2003-2012 period. The model integrates various assumptions concerning future employment and other in-migration, natural growth rates, out-migration, and population distribution.

The year 2002 was selected as the base year for the population forecast. The July 2002 estimate of the U.S. Bureau of the Census is considered reliable since it is based upon a combination of birth and death information, data from federal tax returns, and Medicare registrations (Liu, 2003).

### Primary Assumptions

Various statistical assumptions were applied to the base year estimate to calculate the population forecast for each year during the 2003-2012 period. These assumptions considered natural growth rates, anticipated employment and other in-migration, and out-migration for the 2003-2012 period. The primary assumptions made by PPC included the following:

1. The availability of new job opportunities in Johnson County is expected to generate the greatest amount of future in-migration to Johnson County (see Table 3-6). Such opportunities will be associated with the coal bed methane labor force, a short-term expansion of BLM's Buffalo Field Office in 2003, and related dependents of these work forces.
2. It is anticipated that an average of one dependent will accompany every new incoming coal bed methane worker. In contrast, two dependents are expected to accompany every new BLM employee. These assumptions are based upon previous discussions with various coal bed methane company managers in the Powder River Basin, and a representative of local BLM management.
3. Annual natural growth rates of Johnson County are expected to decline very slightly during the 2003-2012 period. The decline is expected to represent an average of about -0.05 percent in 2003 to about -0.01 percent in the year 2012. The anticipated trend is expected to result in very modest natural decreases in resident population that are expected to become smaller by 2012. A combination of, at least, the following factors are expected to generate the anticipated decline in natural growth rate:
  - decreased number of women in child-bearing ages;
  - decreased fertility among women in childbearing ages; and,
  - increased population in 56 and older age group.
4. Nineteen percent of the in-migration during the 2003-2012 period will consist of persons 56 years and older. Johnson County will continue to be an attractive retirement location for this age group during the next 10 years. This assumption is based upon the rate of in-migration by this age group during the 2000-2002 period.
5. Future out-migration is expected to be about 58 percent of total in-migration. Out-migration will occur in all age groups for a variety of reasons. The assumption that total out-migration will reflect 58 percent of total in-migration during the next 10 years. This assumption is based upon a comparable statistical relationship in driver license exchange/surrender data during the 2000-2002 period.

#### **3.4.3.2 Anticipated Population Growth in Johnson County**

A gradual increase in the resident population of Johnson County is anticipated during the 2003-2012 period (Table 3-13). This increase is expected to be driven primarily by:

- employment opportunities in coal bed methane development;
- nominal expansion of government employment;
- an incoming retirement age population; and
- opportunities for an improved quality of life.

**TABLE 3-13  
ANTICIPATED RESIDENT POPULATION  
JOHNSON COUNTY  
2003-2012**

Year	Natural Growth (persons)	In-Migration (persons)					Out-Migration (persons)	Total Anticipated Population	
		CBM Workers	CBM Dependents	BLM Workers	BLM Dependents	56+ Age Group			Total
2002								7,374	
2003	-4	59	59	16	32	39	205	-119	7,456
2004	-4	115	115	0	0	54	284	-165	7,571
2005	-3	115	115	0	0	54	284	-165	7,687
2006	-3	115	115	0	0	54	284	-165	7,803
2007	-3	115	115	0	0	54	284	-165	7,919
2008	-3	115	115	0	0	54	284	-165	8,035
2009	-2	115	115	0	0	54	284	-165	8,152
2010	-2	115	115	0	0	54	284	-165	8,269
2011	-2	115	115	0	0	54	284	-165	8,386
2012	-2	115	115	0	0	54	284	-165	8,503
2003 to 2012	-28	1094	1094	16	32	525	2761	-1604	1,047

Notes: The population estimate of 7,374 persons in 2002 represents the U.S. Census Bureau estimate. This represents the base year that was used to develop the forecast for the 2003-2012 period.

Source: Pedersen Planning Consultants, 2003.

**3.4.3.3 Anticipated Population Distribution**

PPC assumes that population growth is expected to take place primarily in the City of Buffalo and the unincorporated area of Johnson County (Table 3-14). Limited population growth is expected within the Town of Kaycee.

**TABLE 3-14  
ANTICIPATED DISTRIBUTION  
JOHNSON COUNTY RESIDENT POPULATION  
2003-2012**

Year	Buffalo	Kaycee	Unincorporated Area	Total Anticipated Population
<sup>1</sup> 2000	3,900	249	2,926	7,075
<sup>2</sup> 2002	4,064	260	3,050	7,374
2003	4,117	263	3,076	7,456
2004	4,186	275	3,110	7,571
2005	4,256	286	3,144	7,687
2006	4,326	298	3,178	7,803
2007	4,396	310	3,213	7,919
2008	4,466	322	3,247	8,035
2009	4,537	334	3,282	8,152
2010	4,607	345	3,316	8,269
2011	4,678	357	3,351	8,386
2012	4,749	369	3,385	8,503

Notes:

<sup>1</sup>Final population count derived from the April, 2000 U. S. Census.

<sup>2</sup>Estimated population distribution derived from 2002 U.S. Census estimate using April 2000 distribution.

Sources: Pedersen Planning Consultants, 2003; U.S Department of Commerce, Bureau of the Census, 2003.

The extent of population increase will be offset by a continued out-migration of persons in all age groups. PPC estimates that for every 100 persons migrating into Johnson County, 58 persons will leave.

In summary, the following assumptions were made to calculate an anticipated distribution of the resident population. These assumptions are based upon trends that are evident through U.S. Census data, driver exchange/surrender information, real estate sales information, and insights from local real estate brokers.

1. Coal bed methane workers and their dependents will, for the most part, concentrate in Buffalo and the unincorporated area of Johnson County. Some coal bed methane workers and their dependents are also expected to reside within the Town of Kaycee. Each coal bed methane worker will be accompanied by one dependent.
2. BLM employees will, for the most part, live in Buffalo where the Buffalo field office is located. PPC assumed that two dependents will accompany each new BLM employee. In addition, some BLM employees and their dependents will choose to live in the unincorporated area. PPC assumed that 70 percent of BLM employees and their dependents will live in Buffalo; 30 percent will live in the unincorporated area of Johnson County.
3. Incoming Johnson County residents nearing or of retirement age (56+ age group) will locate within the City of Buffalo and the unincorporated area. PPC assumes that about half of these residents will live in Buffalo; the other half will live in the unincorporated area of Johnson County.
4. Natural increase/decrease in resident population, as well as persons leaving Johnson County (out-migration), were distributed in two different ways. For the 2002 base year, natural decreases in population and anticipated out-migration were assumed to resemble the population distribution documented during the April 2000 Census. This distribution was 55.1 percent of the population in Buffalo, 3.5 percent in Kaycee, and 41.4 percent in the unincorporated area of Johnson County.
5. The distribution of out-migration during the 2003-2012 periods was assumed to be 64.9 percent from Buffalo, 30.2 from the unincorporated area, and 4.9 percent from Kaycee.

## CHAPTER FOUR

# ENVIRONMENT AND NATURAL RESOURCES

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### 4.1 INTRODUCTION

Chapter Four presents a general overview of available natural resources in Johnson County. This overview focuses upon those resources that influence future land use development, as well as resources that should be considered in the context of future land use decisions of Johnson County. Relevant demographic and economic trends influencing Johnson County were evaluated in Chapter Two.

### 4.2 THE PHYSICAL ENVIRONMENT

#### 4.2.1 Geology

The Big Horn Mountains, which are part of the Rocky Mountains, represent a significant geologic feature along Johnson County's west boundary. Available mapping, prepared by the Wyoming Geological Survey, indicates that older Pre-Cambrian rocks characterize a portion of the Big Horn Mountains that are situated in the northwest portion of Johnson County.

The eastern flank of the Big Horn Mountains generally contains Paleozoic and Mesozoic sedimentary rocks that extend east up to several miles west of Interstate 25. In the southern part of Johnson County, Mesozoic sedimentary rocks are believed to extend from the west Johnson County boundary to within a few miles west of Interstate 25.

Cenozoic sedimentary rocks generally characterize the remaining portions of Johnson County (Harris, 1996).

#### 4.2.2 Minerals

Various types of minerals are found in Johnson County. Most mineral resources are found west of Interstate 25.

##### 4.2.2.1 Granite

Granite is found in the northwest corner of Johnson County in the Big Horn Mountains. This rock material is suitable for use as decorative and dimension stone, as well as decorative construction aggregate (Wyoming Geological Survey, 1996).

##### 4.2.2.2 Marble, Amphibolite, Gneiss, and Other Minerals

Rock outcrops of marble, amphibolite, gneiss, and other minerals are also evident in much of the Bighorn National Forest, as well as on some private and State lands between Buffalo and the Bighorn National Forest. These materials are also suitable construction aggregate, e.g., railroad ballast (Harris, 1996).

##### 4.2.2.3 Limestone

Limestone-bearing outcrops are primarily located along the west border and southern half of Johnson County. Limestone is a calcareous chemical precipitate (Harris, 1996).

#### **4.2.2.4 Bentonite**

Rock outcrops containing bentonite are primarily found south and west of Kaycee, as well as the west central portion of Johnson County. Bentonite is an authigenic clay formed by the alteration of volcanic ash (Harris, 1996).

#### **4.2.2.5 Scoria**

Scoria is derived from coal-bearing rocks that are baked or partially melted by naturally ignited coal fires. This process is considerably more prevalent in areas where coal occurs at or near the surface of the land. Most of the scoria material in Johnson County is situated within 10 to 15 miles north and east of Buffalo (Harris, 1996).

Scoria is used for construction aggregate and, secondarily, for some decorative uses. Neighboring Campbell County has historically used a considerable amount of this material for the construction and maintenance of county roads (Lowry, 2001).

#### **4.2.2.6 Sand and Gravel**

Larger sand and gravel deposits are found from eight to 15 miles northwest of Kaycee. However, other deposits are found along and within the Powder River drainage, Clear Creek, Crazy Woman Creek, Salt Creek, and Piney Creek (Harris, 1996).

The use of sand and gravel is well known for the construction of building foundations, roads and highways, and other site work. In Johnson County, roughly 70 percent of the county roads are constructed of gravel (Berlinger, 2001). Johnson County has been able to use gravel for most county road construction because of the availability and accessibility to gravel in the general vicinity of Buffalo.

#### **4.2.2.7 Coal**

Most all of the coal reserves in Johnson County are located east of Interstate 25 in the Powder River Basin. The depths to coal deposits vary greatly throughout the County and they are generally not considered mineable. However, there are many coal seams which may contain significant natural gas reserves. These are becoming a substantial economic benefit for Johnson County.

### **4.2.3 Soils**

#### **4.2.3.1 Available Information**

The U.S. Soil Conservation Service published a soil survey of the southern half of Johnson County in 1971. The fieldwork associated with this survey was accomplished between 1962 and 1969. Available soil maps provide general locations for a wide variety of soil mapping units. The soil survey presents useful information concerning general soil characteristics and soil suitability. Engineering interpretations in the soil survey provide some guidance concerning potential limitations of the soil for the construction of septic tanks and effluent drain fields, roads, ponds and embankments, as well as the use of soils for topsoil, sand and gravel and road fill. This information is regularly referred to by the Johnson County Planning and Zoning Commission for projects in the southern half of Johnson County.



The U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS), is presently organizing field and mapping efforts to complete a similar soil survey for the northern half of Johnson County during the next several years. The survey will be financed, in part, by various agencies such as Johnson County and the Lake DeSmet Conservation District.

#### **4.2.3.2 Southern Half of Johnson County**

The soils found on high terraces, foothills, and the Big Horn Mountains are well-drained to excessively well-drained. Soil textures range from very fine sandy loam to clay loams and contain variable amounts of coarse fragments. These soils derive from limestone, sandstone, shale and siltstone in areas on the mesa near Mayoworth and the Big Horn Mountains (U.S. Department of Agriculture, Soil Conservation Service, 1971).

Upland soils, east of the Big Horn Mountains, are well-drained and range from sandy loam to silty clay. These soils derive from unconsolidated, partly weathered mineral materials such as sandstone, shale and siltstone (U.S. Department of Agriculture, Soil Conservation Service, 1971).

Along flood plains and alluvial fans, soils represent sandy loam to clay loam, and are generally deep and well-drained. Over time, these soils have deposited within and along flood plains via stream drainage and storm runoff (U.S. Department of Agriculture, Soil Conservation Service, 1971).

#### **4.2.3.3 Northern Half of Johnson County**

While no comparable soil survey has been completed for the northern half of Johnson County, the University of Wyoming Agricultural Experiment Station completed some generalized soil mapping of the State of Wyoming in 1999. This statewide soil mapping effort was created for and applied to a Wyoming Groundwater Vulnerability Mapping Project.

Some 350 soil descriptions were identified for the State of Wyoming using the five soil forming factors model that includes consideration of soil parent material, climate, biota, topography, and time. Soils were mapped at a 1:100,000 map scale. However, the digital mapping of the general soil types was simplified through the use of available surficial geology, bedrock geology, and topographic elevation data. While this information is useful, its application to land use planning and land management requires a considerable understanding of soil taxonomy. Consequently, there is an urgent need for NRCS soil mapping and related soil suitability analyses.

### **4.2.4 Climate**

#### **4.2.4.1 Precipitation**

Monthly and annual precipitation data is available for various locations within Johnson County (Table 4-1). Long-term precipitation data from the National Weather Service indicates that the communities of Buffalo and Kaycee receive an average of about 13 to 14 inches of precipitation per year. Short-term records for the communities of Mayoworth and Linch suggest annual precipitation volumes of 13 to almost 15 inches per year. The U.S. Forest Service reports that average annual precipitation in the Bighorn National Forest ranges from 35 inches in the Cloud Peak Wilderness to roughly 15 inches near the eastern Forest boundary (U.S. Forest Service, 2002).

**TABLE 4-1  
 AMBIENT TEMPERATURE AND PRECIPITATION RECORDS  
 FOR SELECTED STATIONS  
 JOHNSON COUNTY, WYOMING**

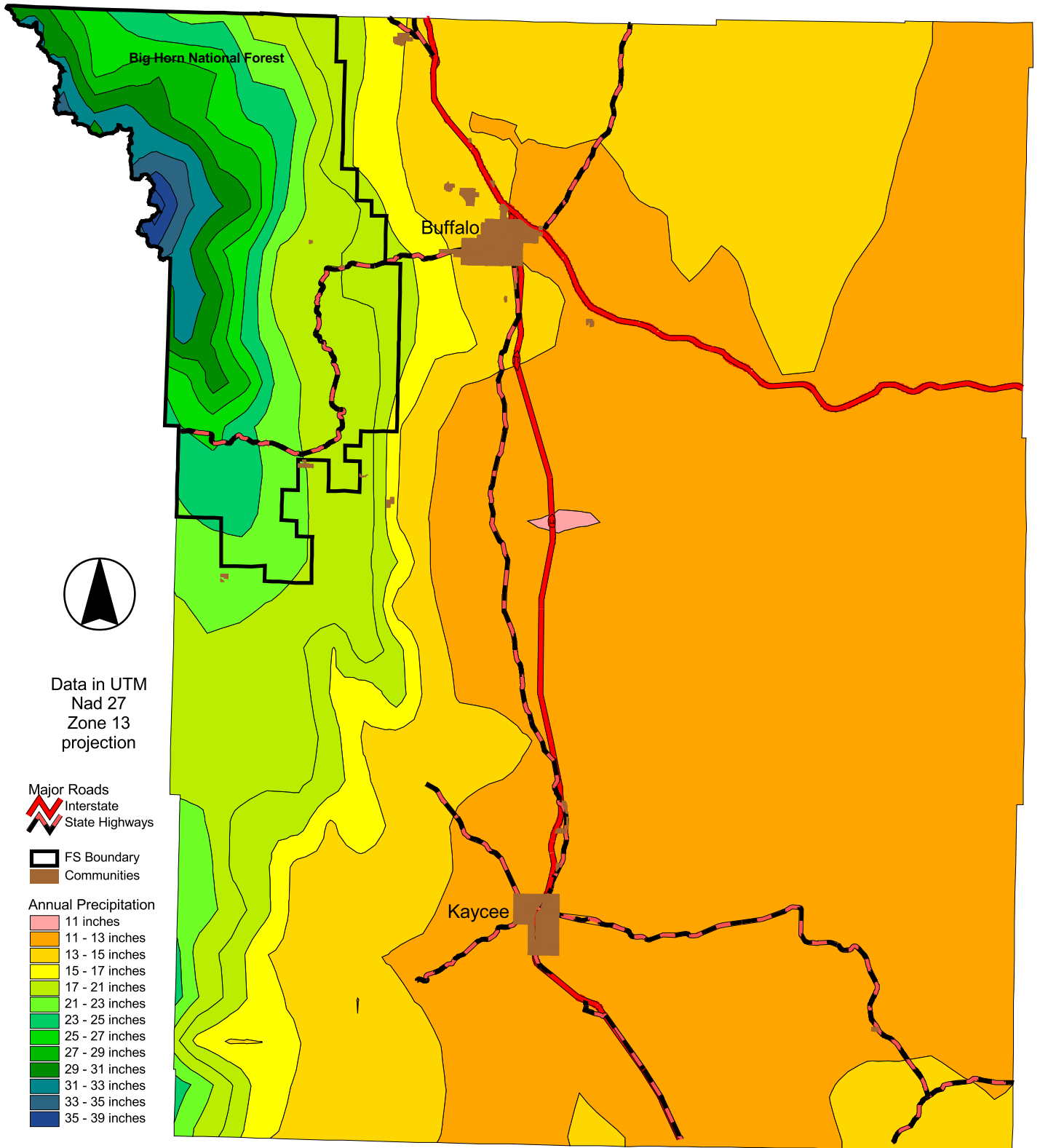
	Condition	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
<b>Billy Creek Station 1971-2000</b>	Temperature High (° F)	35.0	39.5	46.8	55.2	64.3	75.4	83.3	82.9	71.7	59.5	44.3	37.3	57
	Temperature Low (° F)	7.3	13.3	21.0	28.7	37.4	45.7	50.8	48.9	38.6	28.4	16.6	8.9	28.8
	Precipitation (Inches).	.31	.34	.64	1.51	2.26	2.07	1.58	1.06	1.12	1.06	.45	.32	12.72
	Condition	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
<b>Buffalo Station 1971-2000</b>	Temperature High (° F)	33.0	38.0	46.7	55.5	64.9	76.4	84.0	83.3	71.6	59.7	43.2	34.8	57.6
	Temperature Low (° F)	7.3	13.0	22.4	32.0	41.0	50.3	56.2	54.6	43.4	32.3	18.9	9.6	31.8
	Precipitation (inches)	.45	.39	.73	1.60	2.44	2.13	1.48	.89	1.37	1.04	.49	.48	13.49
	Condition	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
<b>Kaycee Station 1971-2000</b>	Temperature High(° F)	35.2	40.0	48.4	56.9	66.4	78.6	86.5	85.7	74.7	61.9	45.3	37.4	59.8
	Temperature Low (° F)	5.5	11.8	20.5	28.6	38.3	47.7	53.3	51.0	39.6	29.3	16.2	8.2	29.2
	Precipitation (Inches)	.44	.40	.81	1.49	2.56	2.09	1.25	.87	1.11	1.28	.56	.40	13.26
	Condition	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
<b>Linch Station 1963-1972</b>	Temperature High (°F)	34.3	39.2	44.9	56	69.4	75.5	88.9	87.1	74.8	62.1	46.8	31.1	55.6
	Temperature Low (° F)	9.2	14.3	21.4	28.2	38.9	51.1	51.2	47.9	42.2	29.3	19.6	9.9	30.2
	Precipitation (Inches)	.66	.55	.78	1.63	2.63	3.02	.69	.76	1.13	1.11	.66	1.01	14.63
	Condition	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
<b>Mayoworth Station 1949-1952</b>	Temperature High (° F)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Temperature Low (° F)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Precipitation (Inches).	.29	.33	.56	1.73	2.84	1.08	1.23	1.24	1.41	.68	.94	.77	13.1
	Condition	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual

Notes: N/A=Not Available

Source: U.S. National Oceanic and Atmospheric Administration, National Weather Service, 2002.

In 1997, Oregon Climate Service and Prism Services completed a statewide analysis of precipitation patterns within Wyoming. This analysis relied primarily upon available data from the National Climatic Data Center and the National Resources Conservation Service SNOTEL stations. Available data for the 1961-1990 period was applied to a Parameter-elevation-Regressions on Independent Slopes Model (PRISM) and Digital Elevation Model (DEM) to generate estimates of precipitation within 4 square kilometer grids (University of Wyoming, Spatial Data and Visualization Center, 1998). Subsequently, these estimates were spatially mapped. Estimated precipitation contours for Johnson County, which were obtained by PPC from the Wyoming Spatial Data and Visualization Center (now known as the Wyoming Geographic Information Center), provide a general indication of variable precipitation ranges within Johnson County (Figure 4-1).

This data generally suggests that greater precipitation (up to 35 inches) occurs on the west side of Johnson County and gradually declines east of the Big Horn Mountains. Lower annual precipitation, ranging from 11 to 13 inches per year, is estimated for the area that is generally east of the Big Horn Mountains and north of Interstate 90.



# Johnson County Land Use Plan

# Estimated Precipitation Contours Johnson County

Prepared by: Pedersen Planning Consultants  
P.O. Box 66, Encampment, WY 82325  
307-327-5434

Figure 4-1

#### **4.2.4.2 Ambient Temperature**

Monthly and annual ranges of ambient temperature are available for Buffalo, Kaycee and Linch (Table 4-1).

Cooler temperature ranges occur typically from November through February. The coldest temperatures usually occur in January when the average low temperature ranges between five and nine degrees Fahrenheit. Warmer ambient temperatures are typically evident in July and August when daily high temperatures reach an average of 84 to 88 degrees Fahrenheit.

Freeze/frost data from the National Climatic Data Center indicates that there is a 90 percent probability that ambient temperatures in Kaycee will drop below 32 degrees Fahrenheit by May 12 in a given year. During the fall season, there is a 90 percent probability that temperatures will fall below 32 degrees Fahrenheit by September 25 (U.S. Department of Agriculture, Wyoming Agricultural Statistics Service, 2002). Consequently, the growing season in, at least, the southern part of Johnson County extends for about 136 days each year.

#### **4.2.4.3 Surface Winds**

Johnson County is generally influenced by westerly winds. However, no long-term wind rose or wind speed data is available from the National Climatic Data Center or the Johnson County Airport.

### **4.3 WATER RESOURCES**

#### **4.3.1 Ground Water**

##### **4.3.1.1 Groundwater Sources and Characteristics**

Past studies by the Water Resources Research Institute of Wyoming indicate that there are five major aquifers in northeast Wyoming (Feathers, Libra, Stephenson and Eisen, 1981). The aquifers include:

- Madison Aquifer System
- Dakota Aquifer System
- Fox Hills/Lance Aquifer System
- Fort Union/Wasatch Aquifer System
- Quaternary Alluvial Aquifer System.

Ground water from these aquifers has historically been used to support domestic uses and municipal water systems, agricultural livestock and crop production, as well as uranium mining and processing in Johnson County.

A recent water study of the Powder/Tongue River Basin, which was prepared by HKM Engineering, Inc., summarized general hydrologic and groundwater quality characteristics, and groundwater development potential for each of the five aquifers in northeast Wyoming. These characteristics were originally identified by the Water Resources Research Institute of Wyoming in its 1981 study. Available information from the Powder/Tongue River Basin Plan is used to present selected groundwater characteristics for each of the five primary aquifers in Johnson County.

##### Madison Aquifer System

The Madison Aquifer System contains ground water available from the Tensleep Sandstone, Amsden Formation, Madison Limestone, Big Horn Dolomite, and Flathead Sandstone geologic units.

Historical Use: Ground water obtained from Madison Limestone is used for municipal water systems, industrial use, irrigation, and livestock purposes. It is probably the most important high yield aquifer in Wyoming.

Groundwater Yields: Flow yields are recorded up to 400 gpm (Tensleep Sandstone). A yield of 600 gpm is reported for an irrigation well at the foot of Big Horn Mountains.

Yields small quantities of water to springs from sandstone and conglomerate in the Big Horn Mountains (Flathead Sandstone).

Groundwater Quality: Ground water in Tensleep Sandstone contains highly variable levels of total dissolved solids that range from <300 to 3,240 mg/l. Water constituents contain variable amounts of magnesium carbonate, calcium magnesium sulfate, sodium sulfate, calcium sodium sulfate, and calcium sulfate.

Ground water associated with Madison Limestone primarily contains calcium magnesium bicarbonate. Total dissolved solids >3,000 mg/l increase basinward. Fluoride enrichment also characterizes ground water. Concentrations of radionuclides may be of concern in some areas.

No groundwater quality information is available for groundwater supplies from Amsden Formation, Big Horn Dolomite, and Flathead Sandstone geologic units.

Development Potential: HKM Engineering, Inc. concluded that..." *the Madison Aquifer System may have the most development potential for high yield wells on a sustained basis*". However, development potential in specific locations within the Powder/Tongue River Basin may be constrained by deeper drilling depths and water quality.

In Tensleep Sandstone, sandstone is generally well-cemented, but primary permeability is sufficient to permit yields of 50 gpm.

Potential yields in Madison Limestone are variable. Deeper drilling depths may constrain future development.

Groundwater development potential in Amsden, Big Horn Dolomite, and Flathead Sandstone geologic units is generally not known.

#### Dakota Aquifer System

The Dakota Aquifer System contains ground water in the Muddy Sandstone (NewCastle Sandstone) and Cloverly Formation.

Historical Use: Domestic use and livestock.

Groundwater Yields: Flowing yields of 1-40 gpm are recorded in Cloverly Formation. No data is available for yields in Muddy Sandstone.

Groundwater Quality: In neighboring Natrona County, ground water from Cloverly Formation primarily contains Sodium bicarbonate. Total dissolved solids range between 300 and 3,000 mg/l.

Development Potential: No data is available from Powder/Tongue River Basin. Probably capable of yielding small quantities of no more than 10 gpm to wells (Muddy Sandstone).

Well yields of 5 to 20 gpm may be expected from the Cloverly Formation.

#### Fox Hills/Lance Aquifer System

The Fox Hills/Lance Aquifer System comprises ground water in the Lance and Fox Hills geologic formations.

Historical Use: Domestic use and livestock (Lance Formation). Municipal water systems, domestic use, and livestock (Fox Hills Formation).

Groundwater Yields: <15 gpm in both formations.

Groundwater Quality: Total dissolved solids range from 500 to 3,060 mg/l. Ground water primarily contains sodium sulfate or calcium sulfate. However, water constituents are highly variable. Sulfate content generally ranges from <100 to 1,780 mg/l. Iron content ranges between 0 and 6.03 mg/l. Sodium absorption ratio (SAR): 1.9-39.

This ground water is generally considered undesirable for domestic use due to potential elevated levels of iron, manganese, and sulfate. It is generally considered poor to good for livestock use; however, more suitable groundwater quality for livestock is found at depths less than 1,000 feet in Fox Hills Sandstone. Elevated salinity and/or SAR levels make this ground water generally unsuitable for irrigation.

Development Potential: HKM Engineering, Inc. concluded that...." *the Fox Hills/Lance Aquifer System may have local potential for development of wells with low to moderate yields*". However, groundwater development may be limited due to uneconomical drilling depths.

#### Fort Union/Wasatch Aquifer System

Groundwater supplies from the Fort Union/Wasatch Aquifer System represent supplies obtained from the Wasatch Formation and Fort Union Formation. The Wasatch Formation is roughly 500 to 2000 feet thick while the Fort Union Formation is estimated to be 1,200 to 3,900 feet.

Historical Use: Important source supporting domestic uses and livestock (Wasatch Formation).

Ground water from the Fort Union Formation is used extensively at depths of less than 1,000 feet.

Groundwater Yields: <15 gpm within the Wasatch Formation. In contrast, flowing yields of 1 to 60 gpm have been reported in the Fort Union Formation where ground water is confined.

Groundwater Quality: In the Wasatch Formation, total dissolved solids are variable and range from 141 to 6,620 mg/l. Sulfate levels range from 0.6 to 4,080 mg/l. The iron content of ground water in the Wasatch Formation ranges between 0 and 25 mg/l. Water varies from soft to very hard.

Total dissolved solids in the Fort Union Formation vary from 484 to 4,630 mg/l. Sulfate ranges from 0.3 to 1,870 mg/l while iron content ranges between 0.06 to 19 mg/l. Ground water hardness varies from soft to very hard

Development Potential: Yields of less than 25 gpm can be expected from ground water obtained from the Fort Union formation.

#### Quaternary Alluvial Aquifer System

The Quaternary Aquifer System is a relatively thin aquifer that is typically located within alluvium and terrace deposits.

Historical Use: Ground water from this aquifer has been used to support municipal water systems, domestic uses, and livestock production.

Groundwater yields: 50 to 300 gallons per minute (gpm) are possible, often through induced recharge.

Groundwater Quality: Total dissolved solids generally range from roughly 100 to >4000 milligrams per liter. Otherwise, water chemistry varies considerably on a geographical basis.

Development Potential: More favorable in coarse-grained deposits and less favorable in fine-grained materials. Moderate to high yields may be possible to optimally located and properly designed wells if induced infiltration from surface water can be tolerated in the upper reaches of the Powder River, as well as Piney, Clear and Crazy Woman Creeks.

#### **4.3.1.2 Groundwater Issues**

##### Potential Location of Future Groundwater Supplies at Economical Depths

The availability and quality of ground water are essential to the support of future land uses in Johnson County. From a land use perspective, new groundwater supplies in Johnson County are ideally developed in areas where groundwater supplies can be produced on an economical basis.

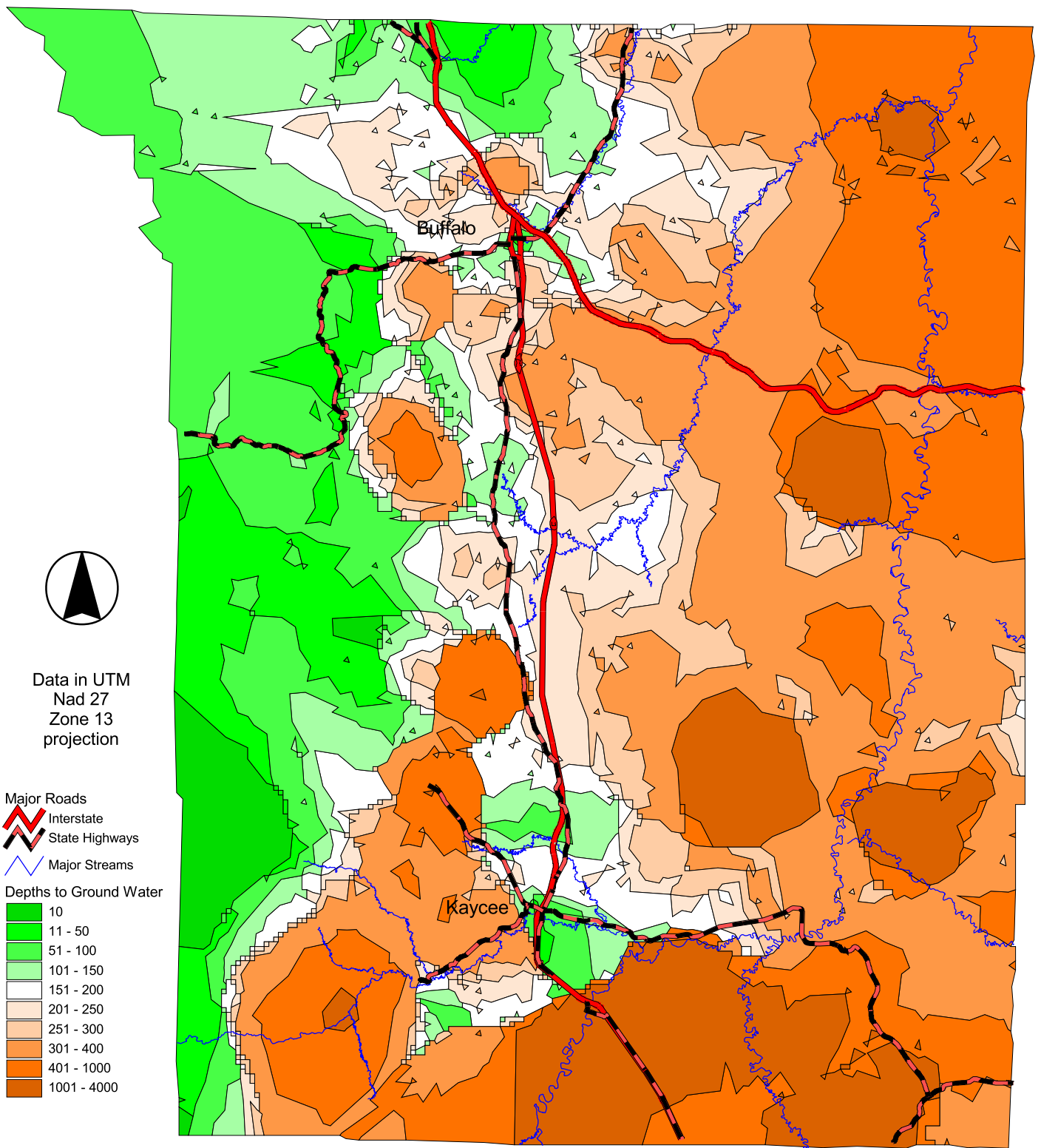
For domestic uses supporting rural residences in the unincorporated area of Johnson County, new groundwater supplies would economically be developed within 400 feet of ground elevation. This conclusion is derived from information gained from a groundwater well drilling company that has developed a significant number of wells in Johnson County. The cost associated with drilling, casing, and pump installation for a new groundwater well is roughly \$25 per foot (Ruby, 2003). At a depth of 400 feet, the cost of new domestic groundwater well is roughly \$10,000. This potential cost is believed to be within an affordable range of most new landowners who desire to live and work in the unincorporated area of Johnson County.

In order to gain a better understanding of groundwater well depths in Johnson County, PPC applied inverse distance weighting (IDW), a method of spatial analysis, to available groundwater well depth data. This information enabled PPC to estimate the location of potential areas where ground water depths are less, or greater than, 400 feet in depth (Figure 4-2). The estimated depths to groundwater can vary significantly throughout Johnson County. However, the estimated depths presented in Figure 4-2 may not necessarily represent actual onsite conditions.

While the spatial analysis has inherent limitations, it does illustrate that there is a significant amount of land area in Johnson County where new groundwater supplies cannot be developed without a significant expenditure of funds. This conclusion is supported by the hydrologic characteristics of the five aquifers.

##### Depletion of Surface Water Interconnected With Aquifer Systems

The continued use of ground water for agricultural, municipal, industrial (other than coal bed methane development), domestic and livestock purposes may gradually deplete surface waters that are interconnected with some aquifer systems. The primary aquifers of concern include the Madison and Quaternary Alluvial Aquifer Systems (HKM Engineering, Inc., 2002).



# Johnson County Land Use Plan

# Estimated Depths to Ground Water in Johnson County

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307-327-5434

Figure 4-2



## 4.3.2 Surface Water

### 4.3.2.1 General

Johnson County is situated almost entirely within the Powder River Basin. Most of the perennial streams, which reach the Powder River, originate in the Big Horn Mountains.

A small portion of the headwaters of the Upper Tongue River Basin is located in the northwest corner of Johnson County. The headwaters of the Upper Tongue River basin and related tributaries drain into Montana.

There are six, 4<sup>th</sup> level hydrologic units (Figure 4-3) in Johnson County that are connected to the Powder River Basin. These hydrologic units are the following watershed areas:

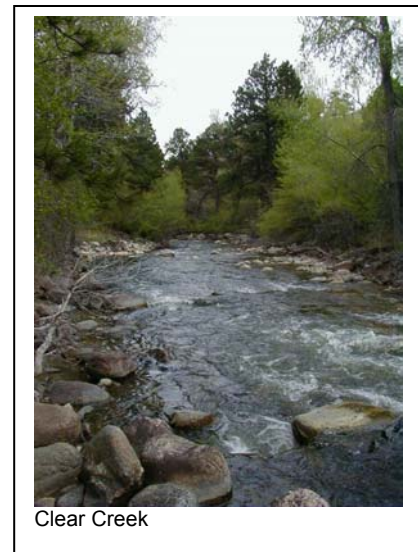
- Clear Creek
- Crazy Woman
- Upper Powder River
- Middle Fork
- Salt Creek
- South Fork

Major rivers and streams, within the portion of the Powder River Basin in Johnson County, include the Powder River, Clear Creek and Crazy Woman Creek (Figure 4-3).

Primary tributaries to Powder River are Salt Creek, South Fork Powder River, North Fork Powder River, Red Fork Powder River, Beaver Creek, Middle Fork Powder River and Buffalo Creek.

Within the Clear Creek drainage, the primary tributaries are Piney Creek, Little Piney Creek, North Piney Creek, South Piney Creek, Shell Creek, Rock Creek, Johnson Creek, and French Creek.

Primary tributaries of the Crazy Woman Creek drainage are Middle Fork Crazy Woman Creek, Billy Creek, Muddy Creek, North Fork Crazy Woman Creek, Little North Fork Crazy Woman Creek, and Kelly Creek (HKM Engineering, Inc., 2002).

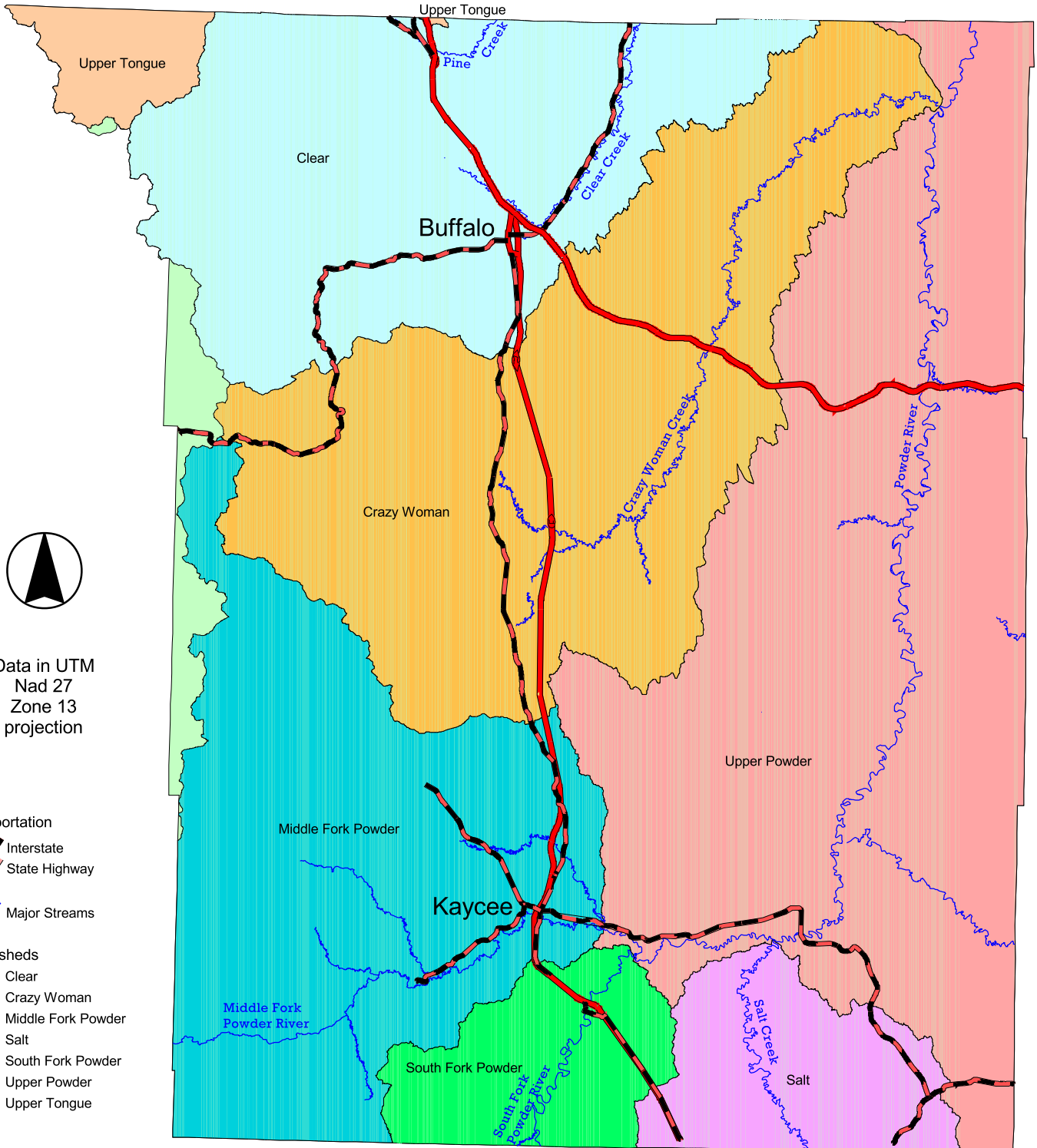


### 4.3.2.2 Surface Water Flows

#### Existing Flows

As stated earlier, most of the perennial streams in Johnson County that reach the Powder River originate in the Big Horn Mountains. However, there are other streams in the Powder River Basin that do not receive direct surface runoff from the Big Horn Mountains. These streams are generally ephemeral and flow as a consequence of snowmelt and rainfall that generate surface runoff within local drainages.

Average monthly stream flows are available for several streams in Johnson County under normal, wet and dry conditions (Table 4-2).



# Johnson County Land Use Plan

# Powder River Basin Watersheds in Johnson County

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Figure 4-3

**TABLE 4-2  
AVERAGE STREAM FLOWS  
AT SELECTED NATURAL FLOW STATIONS IN THE POWDER RIVER BASIN  
NORMAL, WET, AND DRY CONDITIONS  
1970-1999**

Station Number	Station Name		Average Stream Flow (Acre Feet)												
			Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
06314000	North Fork Crazy Woman Creek near Buffalo, WY	Normal	681	494	412	327	273	313	1,079	5,238	5,249	1,878	934	700	17,577
		Wet	557	448	366	314	275	331	875	7,077	9,409	3,174	1,220	724	24,787
		Dry	599	475	373	285	232	264	1,648	4,661	3,031	1,127	598	451	13,744
06313950	North Fork Crazy Woman Creek Below Pole Creek near Buffalo, WY	Normal	670	487	403	316	261	305	1,062	5,365	5,452	1,909	946	698	17,873
		Wet	542	449	359	315	272	329	874	7,018	9,478	3,068	1,159	683	24,544
		Dry	596	463	368	27	227	260	1,652	4,799	3,037	1,127	598	451	13,744
06314500	North Fork Crazy Woman Creek Below Spring Draw near Buffalo, WY	Normal	581	430	358	268	229	273	1,081	7,809	7,212	2,176	946	671	22,032
		Wet	539	398	324	291	221	314	798	9,188	15,384	3,455	1,171	684	32,766
		Dry	510	374	287	222	177	212	1,878	6,015	3,677	1,130	577	423	15,483
06317300	Sourdough Creek near Buffalo, WY	Normal	73	56	47	36	30	33	96	822	847	265	115	84	2,504
		Wet	66	50	41	37	29	40	94	953	1,555	379	137	83	3,462
		Dry	64	45	36	25	22	28	153	457	433	152	75	56	1,545
06317340	Little Sourdough Creek near Buffalo, WY	Normal	34	20	7	3	2	5	188	201	133	35	16	25	668
		Wet	65	39	13	5	3	9	359	373	242	62	28	43	1,242
		Dry	16	11	3	1	1	2	106	95	55	12	5	8	314
06319470	South Rock Creek at Forest Boundary near Buffalo, WY	Normal	461	353	296	234	199	220	818	5,550	5,256	1,631	730	520	16,268
		Wet	437	337	274	244	187	244	621	6,203	10,264	2,837	914	545	23,106
		Dry	414	308	240	189	152	181	1,425	4,299	2,691	882	466	347	11,594
06319480	South Rock Creek Above Red Canyon near Buffalo, WY	Normal	439	336	278	216	186	208	790	5,473	5,219	1,595	706	502	15,949
		Wet	417	325	262	238	180	232	599	6,175	10,222	2,742	882	516	22,788
		Dry	395	293	227	178	143	170	1,383	4,239	2,637	850	445	330	11,228
06315490	Poison Creek near Mayoworth	Normal	256	207	181	153	134	152	362	1,195	1,174	541	331	268	4,954
		Wet	222	191	167	153	139	165	350	1,485	1,805	704	365	253	5,997
		Dry	241	202	171	139	120	133	502	1,091	777	382	242	197	4,195
06315480	Poison Creek below Tetley Spring near Mayoworth	Normal	224	179	155	129	114	128	321	1,133	1,112	490	290	233	4,508
		Wet	192	165	140	130	116	136	314	1,436	1,721	642	318	222	5,530
		Dry	209	173	145	117	100	111	453	1,024	717	339	209	169	3,766
06309200	Middle Fork Powder River near Barnum	Normal	458	392	362	328	296	434	2,192	9,883	4,450	1,052	528	430	20,805
		Wet	543	561	427	373	329	497	1,886	13,410	11,223	1,624	708	542	32,117
		Dry	366	344	335	299	259	320	2,163	5,973	1,485	523	351	336	12,754
06309450	Beaver Creek Below Bayer Creek near Barnum, WY	Normal	183	160	144	127	117	163	545	1,824	1,026	395	238	186	5,106
		Wet	209	204	155	138	118	174	499	2,662	2,173	708	343	251	7,634
		Dry	167	145	128	110	89	119	461	804	454	252	180	153	3,060
06309460	Beaver Creek Above White Panther Ditch near Barnum, WY	Normal	603	555	539	513	479	566	1,040	2,191	1,524	876	673	595	10,154
		Wet	652	633	577	531	487	593	975	3,236	2,937	1,278	898	756	13,553
		Dry	600	544	538	521	456	513	889	1,247	860	647	558	508	7,882

Source: HKM Engineering, Inc. 2002

### Estimated Annual Available Flow

HKM Engineering, Inc. applied available stream flow data, assumptions concerning future water use consumption, and other relevant information to a hydrologic model. A hydrologic model was used to develop a water budget for the Powder/Tongue River Basin, as well as determine the amount of annual surface flow that is physically available to support future land use development. In addition to the estimated volumes of physical stream flows, this modeling effort also considered downstream water demands from existing irrigation, municipal diversions, in-stream flow constraints, and other constraints associated with existing water compact agreements.

Ultimately, annual available flow estimates were calculated that represent the amount of surface water, in excess of existing diversion demands that may be available to support future land uses. Estimates made for rivers and streams in Johnson County are presented in Table 4-3. More detailed estimates of annual available flow within each of the three sub-basins in Johnson County are presented in the Powder/Tongue River Basin Plan.

<b>Sub-basin</b>	<b>Hydrologic Condition</b>		
	<b>Wet Years</b>	<b>Normal Years</b>	<b>Dry Years</b>
Clear Creek	213,000	124,000	80,000
Crazy Woman Creek	69,000	32,000	16,000
Powder River	547,000	324,000	194,000

Source: HKM Engineering, Inc., 2002.

#### **4.3.2.3 Surface Water Quality**

The State Department of Environmental Quality (WDEQ) monitors surface water quality throughout the State of Wyoming. In some cases, the State conservation districts carry out the actual water quality sampling in cooperation with WDEQ.

In 1996, the Wyoming State Legislature enacted a credible data law that requires WDEQ to ensure that all information used in the listing of impaired or threatened surface waters is based upon valid, science-based data. This statute increased surface water monitoring efforts of the State of Wyoming. The State Department of Environmental Quality, Water Quality Division, prepares annual water quality assessments for watersheds in all water basins in the State of Wyoming.

The following paragraphs summarize information obtained from WDEQ's 2002 Water Quality Assessment for the Powder River Basin.

#### Middle Fork Powder Watershed

The headwaters of the Middle Fork Power River are within the Bighorn National Forest. *"The upper Middle Fork of the Powder River flows through a steep canyon with little potential for disturbance"* (Wyoming Department of Environmental Quality, Water Quality Division, 2003).

Watershed assessments conducted by WDEQ indicate that the Middle Fork Powder River (above Buffalo Creek) and Rock Creek are fully supporting aquatic life as is Blue Creek near Barnum.

Beartrap Creek is a spring fed tributary of Red Fork. The upper Beartrap Creek drainage has, historically, been used as a stock driveway and livestock holding area for both cattle and sheep. Livestock have controlled access to surface water in the Creek and local ranchers move livestock through the drainage relatively quickly, particularly in the spring and fall periods. The U.S. Bureau of Land Management and the Wyoming Game and Fish Department installed log spill structures in 1989 to create additional pool and riffle habitat. Both Beartrap Creek and Sawmill Creek are fully supporting aquatic life.

Near Kaycee, the Middle Fork Powder River was removed from the Wyoming's 303(d) list of threatened surface waters. WDEQ approved the waste load allocations that were included in the Town of Kaycee's renewed effluent discharge permit for its wastewater treatment plant.

#### South Fork of the Powder River Watershed

Most of the South Fork of the Powder River watershed is situated in Natrona County. The lower portion of the watershed is primarily located in Johnson County. Livestock grazing and oil and gas production are the primary land uses in the watershed.

Historical data from the past decade indicates that the South Fork of the Powder River contributes selenium to the Powder River. However, WDEQ is uncertain whether selenium loading is generated from natural soil deposition or from human-induced land uses.

#### Salt Creek Watershed

Most stream reaches in the watershed are ephemeral. Highly erosive soils derived from sandstone and calcareous shales, as well as infrequent short duration rainfall and snowmelt, generate turbid and intermittent stream flows within the watershed.

One notable exception is Salt Creek. This stream has perennial flow that is caused, in part by discharge water from oil treatment facilities. Salt Creek, as its name implies, carries higher levels of salts.

Elevated chloride concentrations in Salt Creek exceed desirable levels for the conservation of aquatic life. WDEQ plans to carry out studies to determine the sources of elevated chloride concentrations.

Past oil spills in the watershed led WDEQ to place Salt Creek on the 303(d) list of threatened surface waters. However, none of the past oil spills have discharged into stream flows.

#### Upper Powder River Watershed

This watershed includes most of the drainages, which flow into the main stem of the Powder River from the confluence of the North and Middle Forks downstream to the confluence of Powder River and Clear Creek. With the exception of the main stem of the Powder River, many stream reaches do not flow throughout the year.

Turbid flows are common to drainages within this watershed as the Powder River naturally carries larger amounts of very fine sediment. Sediment loads are generated from highly erosive soils that are derived from geologic materials such as claystone, sandstone, conglomerate and shale.

In 1998, WDEQ listed the Powder River (below Salt Creek) on Wyoming's 303(d) list of threatened waters due to elevated levels of chloride. Data suggests that most of the chlorine load in the Powder River (below Salt Creek) is derived from Salt Creek.

Elevated levels of selenium were also documented at Sussex. Consequently, WDEQ listed selenium as an impairment on Table A of the 303(d) list of threatened waters. Historical data suggests that elevated selenium levels may be generated from the South Fork of the Powder River. WDEQ is uncertain whether selenium loading is generated from natural soil deposition or from human-induced land uses.

#### Crazy Woman Watershed

The headwaters of the Crazy Woman watershed originate on the east side of the Big Horn Mountains. Primary land uses within the watershed include oil and gas development, livestock production, irrigated crop production, and recreation.

A physical degradation of the North Fork of Crazy Woman Creek prompted WDEQ to list the Creek on Table C of the 303(d) list of threatened surface waters. Watershed improvement projects have changed both irrigation and livestock grazing practices in large portions of the watershed. However, WDEQ is uncertain whether modified practices have benefited surface water quality in the watershed.

In 2001, water quality data collected by the U.S. Geological Survey near the mouth of Crazy Woman Creek indicated that surface waters exceeded the drinking water standard for manganese. Consequently, Crazy Woman Creek was placed on Table A of the 303(d) list of threatened surface waters.

#### Clear Creek Watershed

The headwaters of Clear Creek, Piney Creek and Rock Creek originate in the Cloud Peak Wilderness area of the Bighorn National Forest. Recreation, livestock grazing, and timber harvesting are primary land uses within the higher elevations of the watershed.

Downstream of the Bighorn National Forest, the main stems of Rock Creek, Piney Creek, and Clear Creek are perennial. However, some tributaries to these streams are ephemeral. In these downstream elevations, adjoining land uses include livestock grazing, oil and gas development, irrigated crop production, and residential housing.

A water quality assessment of the Rock Creek and North and South Fork Shell Creek drainages indicated that these drainages are threatened by stream channel degradation. Heavy grazing in smaller horse pastures has primarily influenced the degradation of Rock Creek. In contrast, surface water irrigation and conveyance issues have impacted the North and South Fork Shell Creek drainages. The Lake DeSmet Conservation District received a Section 319 Clean Water Act grant to address the surface water issues.

A reach of Clear Creek, downstream of the City of Buffalo's wastewater treatment plant, was removed from the 303(d) list of threatened surface waters. This modification was made by WDEQ because of its anticipated approval of the City of Buffalo's requested total maximum daily loads (TMDL) for ammonia, fecal Coliform, and other effluent quality parameters.

#### **4.3.2.4 Future Surface Water Demands**

HKM Engineering, Inc developed forecasts of future surface water demand for existing conditions and the year 2030 (Table 4-4). These forecasts reflect estimates for the entire Powder/Tongue River Basin and were not segregated for Johnson County. These basin-wide forecasts were based upon estimated rates of per capita water consumption, as well as low,

moderate, and high growth planning scenarios. The three growth scenarios included different sets of planning assumptions that related to irrigation and livestock production, municipal use, and industrial demand.

<b>Surface Water Use</b>	<b>Current Water Use</b>	<b>Project Water Use by Growth Scenario (Acre-Feet per Year)</b>		
		<b>Low</b>	<b>Moderate</b>	<b>High</b>
Municipal	2,700	3,200	3,500	3,800
Industrial	-- <sup>1</sup>	-- <sup>1</sup>	17,000	35,000
Irrigation	184,000	184,000	194,000	205,000
Evaporation	11,300	11,300	11,300	11,300
<b>Total</b>	<b>198,000</b>	<b>198,500</b>	<b>225,800</b>	<b>255,100</b>

Notes:  
 1. Industrial water use was incorporated into municipal water uses for existing conditions and low growth scenario.  
 2. Recreational use was not incorporated into projected surface water uses because recreational use will be non-consumptive.  
 Source: HKM Engineering, Inc., 2002

PPC believes that anticipated surface water uses for Johnson County, during the 2003-2030 period, will more closely resemble surface water use estimates for the low growth scenario. This conclusion is based upon its review of the assumptions associated with the three growth scenarios and the correlation of HKM and PPC population forecasts.

**4.3.2.5 Surface Water Issues**

Viability of Livestock Grazing Within and Adjacent to Riparian Areas

Livestock grazing occurs throughout much of the six watersheds in Johnson County. The 2002 State Water Quality Assessment provides a useful set of qualitative evaluations concerning each watershed in Johnson County. These watershed evaluations facilitate a greater understanding of the impacts of livestock grazing upon surface water quality.

Some stream reaches have experienced some over-grazing in portions of the Middle Fork Powder watershed, e.g., Beartrap Creek. More recent livestock management practices by local ranchers have significantly improved surface water quality.

Stream channel degradation has impacted surface water quality in portions of the Clear Creek Watershed, e.g., Rock Creek. Ongoing conservation efforts by Lake DeSmet Conservation District are addressing these issues with local landowners.

Surface water quality information suggests that livestock grazing associated with cattle and sheep production is not generating significant adverse consequences upon the surface water resources of Johnson County. Elevated sediment, turbidity, and total dissolved solids within the Upper Powder River and the Salt Creek watersheds are primarily a result of perennial and intermittent stream flows through limestone, sandstone, shale and conglomerate which naturally contain higher levels of total dissolved solids, turbidity, and sediment deposition.

The presence of selenium and chloride in the Salt Creek and the Upper Powder River watersheds bears no direct relationship to livestock grazing. It is conceivable that some irrigated soils in some of the watersheds in Johnson County naturally contain elevated levels of selenium which could readily dissolve and be transported into local drainages via irrigation return flows (U.S. Bureau of Land Management, 2002). Nevertheless, in the context of future land use, existing surface water quality conditions demonstrate the

compatibility of livestock grazing within and adjacent to riparian areas when local ranchers carry out appropriate livestock management practices.

In situations where grazing may adversely impact water quality and fisheries habitat, the application of appropriate livestock management in riparian areas can be encouraged. Technical assistance is available from representatives of the local Natural Resources Conservation Service, the Lake De Smet and Powder River Conservation Districts, as well as habitat extension personnel from the Wyoming Game and Fish Department.

#### **4.4 WILDLIFE RESOURCES**

##### **4.4.1 Big and Trophy Game Animals**

Big and trophy game animals in Johnson County include elk, white-tailed and mule deer, pronghorn antelope, moose, black bear, and mountain lion. The less-developed, rural landscape of Johnson County enables these animals to roam freely throughout many portions of the County. However, the habitat and migration characteristics of these animals vary considerably.

Seasonal range maps, originally developed by the Wyoming Game and Fish Department in 1988 and periodically updated, provide a general indication of the type and location of habitat for big game animals in Wyoming. The seasonal range designations provided on these maps are based upon seasonal range definitions that were developed by the Wildlife Society between 1984 and 1990. The Wildlife Society, comprised of professional wildlife biologists, formed a number of committees during this period to establish seasonal wildlife definitions that could be used by all wildlife resource managers in Wyoming. These range definitions include the following:

- **Crucial:** any particular seasonal range or habitat component, but describes that component which has been documented as the determining factor in a population's ability to maintain and reproduce itself at a certain level.
- **Summer or Spring-Summer-Fall:** A population, or portion of a population, of animals that use the documented habitats within this range annually from the end of a previous winter to the onset of persistent winter conditions.
- **Severe Winter Relief:** A documented survival range which may or may not be considered a crucial range area as defined above. It is used to a great extent, only in occasionally extreme severe winters. It may lack habitat characteristics that would make it attractive or capable of supporting major portions of the population during normal years, but is used by, and allows, at least, a significant portion of the population to survive the occasional extremely severe winter.
- **Winter:** A population, or portion of a population, of animals that use the documented suitable habitat sites within this range annually in substantial numbers only during the winter period.
- **Winter/Yearlong:** A population, or portion of a population, of animals that makes general use of the documented suitable habitat sites within this range on a year-round basis. During the winter months, there is a significant influx of additional animals from other seasonal ranges.



- Yearlong: A population, or a substantial portion of a population, of animals that makes general use of the suitable documented habitat sites within the range on a year-round basis. Animals may leave the area under severe conditions on occasion.
- Parturition Areas: Documented birthing areas commonly used by females. It includes calving areas, fawning areas and lambing grounds. These areas may be used as nurseries by some big game species.

These maps, which were developed by the Wyoming Game and Fish Department, include a series of polygons on larger scale maps that identify the general location of different types of seasonal ranges in geographical areas that include State, County and privately-owned lands. The Wyoming Game and Fish Department occasionally revises the seasonal range maps based upon periodic field observations by WGFD personnel.

In the following descriptions, information from various sources is used to describe the type and location of available habitat in Johnson County, seasonal migration patterns, and general diet preferences.

#### **4.4.1.1 Elk**

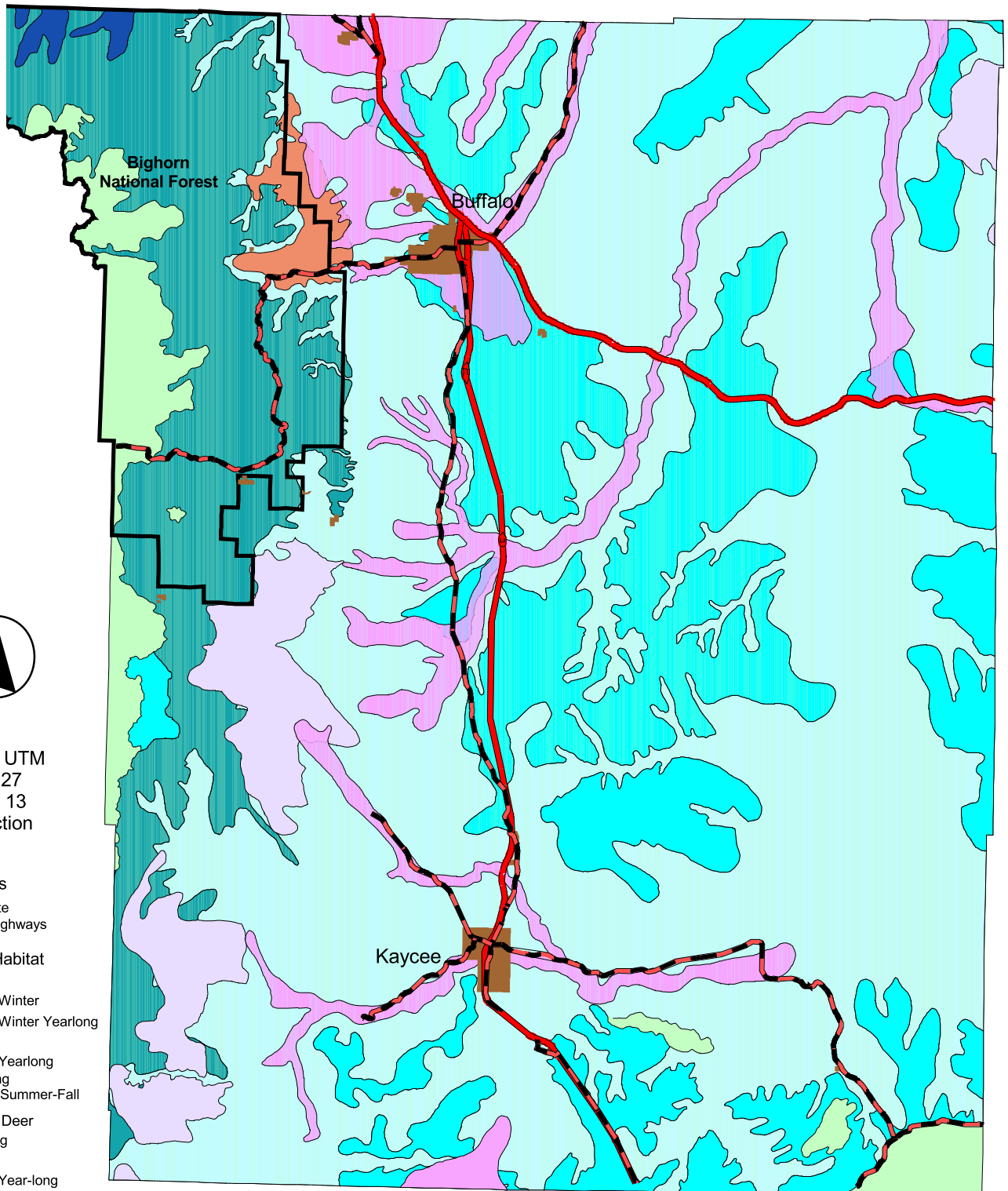
The Rocky Mountain elk is one of six subspecies of elk in North America and is the only elk species that remains in Wyoming. Seasonal range maps for Johnson County show that crucial winter range habitat is located west of Buffalo along the east boundary of the Bighorn National Forest. Crucial winter/year-long range lies south of the Bighorn National Forest, west of Kaycee, and east of the Upper Powder River/Crazy Woman Creek confluence (Figure 4-4).

However, Rocky Mountain elk are migratory animals. During the winter, elk seek wooded and bushy areas in lower elevations that contain south and southwest facing slopes. The seasonal movement of the elk is largely influenced by snow conditions. Hard-packed snow constrains elk from reaching buried food sources. Elk typically avoid areas where snow depths are greater than 18 inches in depth even though elk can move through snow depths up to three feet (Wyoming Game and Fish Department, 1995).

Between April to mid-June, elk primarily seek a wide variety of grasses on transitional range areas. With the beginning of summer, elk tend to migrate to higher elevations, e.g., Bighorn National Forest, and remain in a summer range for about four months. As grasses dry and reduce in protein, elk supplement their grass consumption with forbs and sedges (Wyoming Game and Fish Department, 1995).

With the close of summer, elk return to winter range areas and graze on transitional ranges until the end of December. Such habitats often include timber stands of Douglas fir, aspen, and lodgepole pine. As forbs lose their succulence, elk shift their consumption to dry grasses and browse (leaves, stems, and buds of woody plants). Snow conditions occasionally limit the availability of grass. When this occurs, elk will usually seek shrubs. If snow depth limits the availability of shrubs, elk diets will incorporate aspen, conifers, sagebrush, willow, and other taller browse (Wyoming Game and Fish Department, 1995).

Water sources are usually located within 0.25 to 0.50 mile of grazing areas. The proximity of the surface water sources becomes more important when elk cows nurse their young. During the winter, snow provides moisture requirements when surface water is not available (Wyoming Game and Fish Department, 1995).



Data in UTM  
Nad 27  
Zone 13  
projection



# Johnson County Land Use Plan

# Big Game Animal Seasonal Habitat Ranges Johnson County

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307-327-5434

Figure 4-4

#### **4.4.1.2 Pronghorn Antelope**

Pronghorn antelope can be observed throughout much of Johnson County. Available seasonal range maps indicate that Spring-Summer-Fall habitat is present south of the Bighorn National Forest along the higher elevations of the Big Horn Mountains. Near the base of the Big Horn Mountains, pronghorn antelope use winter/yearlong habitat between the North Fork Powder River and Middle Powder River. Otherwise, yearlong habitat is available east, as well as just west, of Interstate 25. There are no seasonal range areas for pronghorn antelope in Johnson County that are considered crucial range areas (Thiele, 2003).



The habitat of pronghorn antelope generally includes grasslands and sagebrush communities. The antelope prefer flat to gentle rolling topography with short vegetation. This environment, combined with the antelope's keen vision and ability to move quickly, enable antelope to evade its predators (Wyoming Game and Fish Department, 1991).

Similar to deer, the diet of the antelope varies throughout the year. Antelope pursue green grasses during the spring. As grasses mature during the summer, antelope shift their attention to broad-leafed forbs. More browse, e.g., leaves, stems, and buds of woody plants, is consumed by late summer and early fall. After leaves fall from deciduous browse, antelope primarily consume sagebrush (Wyoming Game and Fish Department, 1991).

#### **4.4.1.3 Mule Deer**

Mule deer use a wide variety of habitats. Mule deer are found in forested areas at higher elevations, riparian areas and lowland drainages, juniper-ponderosa pine breaks and ridges, brushy foothill areas, and, occasionally, above forest timberlines.



Mule deer are highly migratory and observed throughout most of Johnson County. Seasonal range maps, which are maintained by the Wyoming Game and Fish Department, suggest that Spring-Summer-Fall ranges are primarily located in the upper elevations of the Bighorn National Forest. Winter/Yearlong and Yearlong habitat are found at lower elevations in most remaining areas of Johnson County (Figure 4-4).

The diet of the mule deer is seasonal and modifies with changes in climate and vegetation. During Spring, mule deer seek greening grasses. As new forb and shrub growth takes place, these forage opportunities are incorporated into their diet. In the summer months, shrub and forb consumption remains high. Mule deer continue to seek grasses, but the consumption of grasses declines considerably. By Fall, mule deer continue to seek forbs, but begin to seek shrubby vegetation as their primary source of food. When rainfall generates the growth of cool season grasses, mule deer will also pursue grasses.

The lack of food sources during the winter months requires mule deer to limit their consumption to trees and shrubs. Browse (leaves, stems, and buds of woody plants) represent, at least, 75 percent of their winter diet.

Deer drink surface water where and when it is available. However, mule deer can survive for extended periods without water. During the winter months, mule deer frequently use snow as a source of moisture.

#### **4.4.1.4 White-Tailed Deer**

Similar to mule deer, white-tailed deer use a variety of habitats that include coniferous and deciduous forest areas, shrubland, agricultural croplands, riparian areas, and moist mountain meadows (Wyoming Game and Fish Department, 1995). However, white-tailed deer thrive more in wooded draws where there is greater cover, the availability of forbs, and fawning habitat (Wyoming Game and Fish Department, 1993).

Seasonal range maps for Johnson County indicate yearlong habitat along the Clear Creek, Crazy Woman Creek and Middle Powder River drainages. Similar habitat is available north of Buffalo between Interstate 90 and the eastern Bighorn National Forest boundary, southeast of Buffalo between Interstate 25 and Interstate 90, as well as east and west of Interstate 90 along Johnson County's northern boundary (Figure 4-4).

The diet preferences and water requirements of white-tailed deer are similar to those previously identified for mule deer.

#### **4.4.1.5 Moose**

Moose also use various habitats. These habitats generally include coniferous and deciduous forests, shrublands, riparian areas, agricultural croplands, and moist mountain meadows (Wyoming Game and Fish Department, 1993).



Seasonal range maps indicate that crucial yearlong habitat for moose is primarily situated within the Bighorn National Forest in the northwest portion of Johnson County (Figure 4-4). Consequently, moose ranges in Johnson County are considerably limited compared to other big game animals.

Moose in the Rocky Mountains depend primarily upon vegetation they consume from a combination of willow, spruce, fir, lodgepole pine, aspen, and birch trees. Between 1963 and 1967, extensive observations were made of moose in the vicinity of Jackson, Wyoming over six seasonal periods. These observations indicated that willow species received about 60 percent of all consumption throughout the year. Upland spruce/fir, lodgepole pine and aspen forest areas represented about 19 percent of the total annual consumption of vegetation. The remaining types of vegetation consumed primarily included sagebrush and bitterbrush from sagebrush and grassland areas (Houston, 1968).

#### **4.4.1.6 Mountain Lion**

The mountain lion inhabits coniferous and deciduous forests, shrublands, rocky cliffs and ledges, and higher elevation meadows (Wyoming Game and Fish Department, 1995) where populations of its preferred diet, mule deer and white-tailed deer, are present (Dixon, 1982). In Wyoming, "...mountain lions are probably most abundant in the foothills and low mountains on the eastern side of the Big Horn Basin" (Clark and Stromberg, 1987).

The seasonal movement of mountain lion parallels the pattern of mule and white-tailed deer. Mountain lions tend to move to higher elevations of Johnson County during the summer months. During the fall and winter months, mountain lions inhabit lower elevations. Documented observations of mountain lions have been made in, at least, the southwest part of Johnson County (Clark and Stromberg, 1987).

Mule deer and white-tailed deer represent 63 to 75 percent of the mountain lion's diet. The remaining 25 to 37 percent of their diet consists of elk, grasses and other vegetation, porcupines, and other smaller mammals. Depending upon the availability of its regular diet preferences, mountain lions will sometimes kill livestock.

#### **4.4.1.7 Black Bear**

The North American black bear is the best known and most widespread of the North American bears. It is of medium size among bears, averages 135 to 350 pounds, although individuals over 600 pounds have been found. Adult black bears, standing slightly over three feet at the shoulders, have a predominately black coat, which is smooth and short-haired. There are, however, also a number of well-defined color variants: chocolate-brown, cinnamon and silver-grey tending to off-white. The black bear is an agile climber, even in adulthood. Black bears are alert creatures, with a sense of smell more highly developed than other large animals. They have exceptional hearing but apparently only average eyesight.

Much of the range of the black bear is shared with the grizzly in parts of the northern Rockies, Western Canada, and Alaska. Although somewhat similar in coloration, in much of its habitat, the black bear does not have the noticeable front shoulder hump of the grizzly. It is a typical woodland animal and prefers forests with abundant growth.

The black bear has become known to the public at large through the enormous popularity of the U. S. National Parks. As they are protected within the boundary of the parks, some bears have lost their fear of man and will even go so far as to beg for handouts at the roadside. Other bears congregate around rubbish dumps or campsites and seize available food. Scarcity or abundance of natural food has much to do with black bear behavior. Not only will a black bear eat almost anything, it will gorge itself until its stomach can hold no more, sleep if off, and start the process over again.

Black bears are solitary animals that wander all their lives in search of food. The black bear's diet is similar to that of the brown bear, omnivores who will eat almost anything, but it is more markedly herbivorous. Depending on the season and the environment, vegetative matter makes up between 80% and 95% of its diet. During the spring (April-May), black bears feed mainly on grasses. Appearing to wander aimlessly, black bears are always in search of amore plentiful source of food, or a mate during breeding season. Ion June they add insects, grubs, and ants to their diet, and in the fall the main source of foods are berries, mushrooms and accords with supplemental carrion when available. Fall is a critical period as far as nutrition is concerned, in that sufficient reserves of fat must be built up for the winter. This is particularly important for those females that are going to be suckling young during the winter retreat.

Occasionally, black bears will take small domestic animals, however, they are attracted to the odor of rotting flesh by their sensitive noses, and are often unjustly blamed for killing animals. Walking with head held below the shoulders is likely to result in some type of aggressive behavior. A whole range of facial and mouth expressions are used to intimidate one another. Snarling, opening and closing the mouth rapidly while salivating, bearing teeth, and making chomping noises often indicate an agitated bear.

The black bear hibernates for between five and seven months each year. The preferred sites for winter dens include small caves, crevices, geological features or beneath deadfalls or blowdowns. During hibernation, the black bear's body temperature falls to about 88 degrees Fahrenheit, from a normal of 101 degrees. The frequency of its heartbeat decreases to about 50% of normal with other body functions diminished to 40 to 50 percent. The females typically hibernate longer than the males, especially while suckling cubs, retiring earlier in the fall and leaving later in the spring.

The black bear first mates at an age of 3.5 to 4.5 years, usually during June and July. The gestation period lasts about 200 days and the young are born in January or February in the mother's winter den. At birth, the cubs are blind and deaf with a sparsely developed coat,

weighing only one half to one pound. They begin to grow rapidly on a diet composed exclusively of sow's milk, which is much higher in solids, total fats, and proteins than cows milk (The Cyber Zoomobile, 2004).

#### **4.4.1.8 Big and Trophy Game Animal Issues**

##### Conservation of Big and Trophy Game Habitat

Big game resources are important to Johnson County as both residents and visitors are afforded the opportunity to view and/or hunt big game animals throughout most of the unincorporated area. The continued availability of these opportunities is important to the lifestyle of Johnson County residents, as well as the Johnson County economy.

A local wildlife biologist from the Wyoming Game and Fish Department indicates that livestock grazing and isolated rural residences are compatible land uses in crucial range areas for big game animals. In contrast, a concentration of rural residences contained in a larger rural residential subdivision adversely impacts big game habitat (Thiele, 2003)

Ranchers are highly aware of the challenges associated with the concurrent grazing of commercial livestock and big game animals. Residents of both incorporated and unincorporated areas also regularly lose trees and shrubs unless they adequately protect them with fencing or other protective barriers.

Future land use decisions of Johnson County need to consider the variable habitats of big game resources in Johnson County. Any future decisions concerning land subdivisions should give consideration to the impacts of future land use subdivisions and related land uses upon significant big game habitats. Crucial range areas are especially important since these habitat areas often represent a determining factor that is essential to the survival and reproduction of one or more big game animals.

In this context, the review of future rural residential subdivisions in crucial range areas should be made in close coordination with the Wyoming Game and Fish Department, the Lake DeSmet Conservation and Powder River Conservation Districts. The Johnson County Planning and Zoning Commission should request WGFD and the two Conservation Districts to identify reasonable opportunities to help mitigate the impact of future land use development upon big game habitat.

Since site development characteristics and seasonal range conditions vary considerably, Johnson County should not attempt to adopt wildlife mitigation standards that are applicable to every rural residential subdivision or land use development project. However, Johnson County could identify and recommend some development guidelines, e.g., fencing options, that could be used by developers and landowners to help facilitate the continued migration of big game animals and enhance big game habitat conditions. In essence, Johnson County can provide planning and design tools that facilitate the conservation of big game resources on a voluntary basis.

#### **4.4.2 Other Mammals**

In addition to big game animals, there are some 65 other mammals that inhabit Johnson County. These mammals include a variety of marsupials, shrews and moles, bats, pikas and cottontails, hares, chipmunks, marmots, ground squirrels and prairie dogs, pocket gophers, pocket and other mice, kangaroo rats, beavers, small mice, wood rats, voles, muskrats, domestic rats, porcupines, raccoons, weasels, badgers, coyotes, skunks, and bobcats.

The relative abundance and general types of habitat that support each mammal species in northeast Wyoming is summarized in Table 4-5.

**TABLE 4-5  
OTHER MAMMALS IN NORTHEAST WYOMING  
GENERAL HABITAT AND RELATIVE ABUNDANCE**

<b>Family</b>	<b>Specie</b>	<b>Relative Abundance in Wyoming</b>	<b>General Type(s) of Habitat</b>
<b>Marsupials</b>	Virginia Opossum	Rare	Riparian, wetlands, ag croplands
<b>Shrews and Moles</b>	Masked Shrew	Common	Coniferous and deciduous forests, riparian, shrubland, prairie, wetlands, meadows
	Hayden's Shrew	Rare	Coniferous and deciduous forests, riparian, wetlands, meadows
	Merriam's Shrew	Rare	Shrubland, prairie
	Dusky Shrew	Uncommon	Coniferous and deciduous forests, riparian, shrubland, prairie, meadows
	Vagrant Shrew	Rare	Coniferous and deciduous forests, riparian, shrubland, prairie, meadows
<b>Bats</b>	Western Small-Footed Myotis	Uncommon	Coniferous and deciduous forests, shrubland, prairie
	Long-Eared Myotis	Uncommon	Coniferous and deciduous forests, riparian, shrubland, prairie
	Northern Myotis	Rare	Coniferous and deciduous forests
	Little Brown Myotis	Common	Coniferous and deciduous forests, riparian, prairie
	Fringed Myotis	Rare	Coniferous and deciduous forests, shrubland
	Long-Legged Myotis	Undetermined	Coniferous and deciduous forests, riparian, shrubland
	Hoary Bat	Rare	Coniferous and deciduous forests, riparian, shrubland, prairie
	Silver-Haired Bat	Uncommon	Coniferous and deciduous forests
	Big Brown Bat	Common	Coniferous and deciduous forests, shrubland, prairie
	Townsend's Big-Eared Bat	Uncommon	Coniferous and deciduous forests, riparian, shrubland, prairie
<b>Pikas and Cottontails</b>	Desert Cottontail	Common	Coniferous and deciduous forests, riparian, shrubland, prairie
	Mountain Cottontail	Common	Coniferous and deciduous forests, shrubland
<b>Hares</b>	Black-Tailed Jackrabbit	Common	Shrubland, prairie, ag croplands, meadows
	White-Tailed Jackrabbit	Common	Coniferous and deciduous forests, shrubland, prairie, meadows
<b>Chipmunks</b>	Least Chipmunk	Abundant	Coniferous and deciduous forests, riparian, shrubland, prairie, meadows
<b>Marmots, Ground</b>	Yellow-Bellied Marmot	Common	Coniferous and deciduous forests, riparian, shrubland, prairie
<b>Squirrels, and Prairie Dogs</b>	Thirteen-Lined Ground Squirrel	Common	Shrubland, prairie, ag croplands
	White-Tailed Prairie Dog	Common	Shrubland, prairie
	Black-Tailed Prairie Dog	Common	Prairie
<b>Tree Squirrels</b>	Fox Squirrel	Common	Coniferous and deciduous forests, riparian, shrubland, ag croplands
	Red Squirrel	Common	Coniferous and deciduous forests
	Northern Flying Squirrel	Uncommon	Coniferous and deciduous forests
<b>Pocket Gophers</b>	Northern Pocket Gopher	Common	Coniferous and deciduous forests, riparian, shrubland, prairie, ag croplands, meadows
	Plains Pocket Gopher	Uncommon	Shrubland, prairie, ag croplands
<b>Pocket Mice</b>	Olive-Backed Pocket Mouse	Common	Shrubland, prairie
	Slicky Pocket Mouse	Rare	Shrubland, prairie
	Hispid Pocket Mouse	Rare	Shrubland, prairie
<b>Kangaroo Rats</b>	Ord's Kangaroo Rat	Common	Shrubland, prairie

**TABLE 4-5 (CONTINUED)  
OTHER MAMMALS IN NORTHEAST WYOMING  
GENERAL HABITAT AND RELATIVE ABUNDANCE**

<b>Family</b>	<b>Specie</b>	<b>Relative Abundance in Wyoming</b>	<b>General Type(s) of Habitat</b>
<b>Beaver</b>	Beaver	Common	Riparian, wetlands
<b>Small Mice</b>	Western Harvest Mouse	Common	Riparian, shrubland, prairie
	Plains Harvest Mouse	Rare	Prairie
	White-Footed Mouse	Rare	Coniferous and deciduous forests, riparian, prairie
	Deer Mouse	Abundant	Coniferous and deciduous forests, riparian, shrubland, prairie, wetlands, ag croplands, meadows
<b>Wood Rats</b>	Bushy-Tailed Wood Rat	Common	N/A
<b>Voles</b>	Southern Red-Backed Vole	Common	Coniferous and deciduous forests, riparian, meadows
	Long-Tailed Vole	Common	Coniferous and deciduous forests, riparian, shrubland, prairie, wetlands, meadows
	Montane Vole	Common	Coniferous and deciduous forests, riparian, shrubland, prairie, ag croplands, wetlands, meadows
	Prairie Vole	Common	Shrubland, prairie, ag croplands
	Meadow Vole	Common	Coniferous and deciduous forests, riparian, shrubland, prairie, meadows
	Water Vole	Rare	Riparian, meadows
	Sagebrush Vole	Common	Shrubland, prairie, ag croplands
<b>Semi-Aquatic Mammals</b>	Muskrat	Common	Wetlands
<b>Domestic Rats</b>	Norway Rat	Common	Uncommon
<b>Other Mice</b>	House Mouse	Common	Ag croplands
	Western Jumping Mouse	Uncommon	Coniferous and deciduous forests, riparian, wetlands, meadows
<b>Porcupines</b>	Porcupine	Common	Coniferous and deciduous forests, riparian, shrubland, prairie
<b>Dog-Like Mammals</b>	Coyote	Common	Coniferous and deciduous forests, riparian, shrubland, prairie, ag croplands
	Swift Fox	Rare	Prairie, ag croplands
	Red Fox	Common	Riparian, shrubland, prairie, ag croplands, meadows
	Gray Fox	Rare	Coniferous and deciduous forests, riparian, shrubland, prairie, ag croplands
<b>Ringtail and Raccoon</b>	Raccoon	Common	Coniferous and deciduous forests, riparian, shrubland, prairie, wetlands, ag croplands, meadows
<b>Weasel-Like Mammals</b>	Ermine	Uncommon	Coniferous and deciduous forests, riparian, wetlands, meadows
	Long-Tailed Weasel	Common	Riparian, shrubland, prairie, wetlands, ag croplands, meadows
	Least Weasel	Rare	Shrublands, riparian, meadows
	Mink	Common	Coniferous and deciduous forests, riparian, shrubland, prairie, wetlands, ag croplands, meadows
	Badger	Common	Shrubland, prairie, ag croplands, meadows
	Eastern Spotted Skunk	Uncommon	Coniferous and deciduous forests, riparian, ag croplands
	Striped Skunk	Common	Coniferous and deciduous forests, riparian, shrubland, prairie, ag croplands, meadows
<b>Cats</b>	Bobcat	Common	Coniferous and deciduous forests, shrubland, prairie, meadows

Source: Wyoming Game and Fish Department, 1995



### **4.4.3 Game Birds**

#### **4.4.3.1 Existing Game Birds**

Several species of upland game birds inhabit northeast Wyoming throughout the year. These birds include the ring-necked pheasant, the sage grouse, ruffed grouse, sharp-tailed grouse, blue grouse, chukar, mourning dove, gray partridge and wild turkey (Wyoming Game and Fish Department, 1995).

#### **4.4.3.2 Habitat Concerns**

The U.S. Fish and Wildlife Service and the Wyoming Game and Fish Department have concerns for the long-term conservation of habitat for game birds in northeast Wyoming. WGFD has particular concern for the sage grouse and sharp-tailed grouse.

The sagebrush prairie provides habitat for the sage grouse while grasslands provide habitat for the sharp-tailed grouse. During the spring, male sage grouse and male sharp-tailed grouse carry out separate courtship rituals where males of each species compete for female mates. These courtship rituals take place on areas known as leks; male sage grouse and male sharp-tailed grouse annually return to these areas from March through early May (Buffalo Bulletin, 2003).

Leks for the sage grouse and sharp-tailed grouse are situated in various locations throughout Johnson County. Most of the leks sites have been documented within a 20-25 mile radius of both Kaycee and Buffalo.

Local wildlife biologists for WGFD indicate that livestock grazing is compatible with the conservation of lek areas. However, fencing, water development, and structural development are viewed as incompatible land uses that do not promote the conservation of leks (Thiele, 2003).

### **4.4.4 Non-Game Birds**

Roughly 400 species of birds in Wyoming are “non-game” or protected birds. Riparian and wetland habitats support the greatest diversity of species. Available information suggests that roughly 284 species of non-game birds have been observed in Johnson County (Wyoming Game and Fish Department, Wildlife Division, 2004).

#### **4.4.4.1 Raptors**

There are various raptors, or birds of prey, that inhabit northeast Wyoming on an annual basis. These raptors include the bald eagle, the golden eagle, the northern goshawk, the red-tailed hawk, the Ferruginous hawk, merlin, as well as the peregrine and prairie falcons. Various owls such as the short-eared owl, great horned owl, and long-eared owl are also common in northeast Wyoming throughout the year (Wyoming Game and Fish Department, 1995). Available spatial data from the Wyoming Game and Fish Department indicates that a considerable number of hawk and eagle nest sites are scattered throughout Johnson County.

Other raptors inhabit northeast Wyoming only during the summer and migrate out of Wyoming during the winter. These raptors include the northern harrier, sharp-shinned hawk, Cooper's Hawk, the American Kestrel, Osprey, and turkey vulture. In contrast, the gyrfalcon and rough-legged hawk inhabit northeast Wyoming during the winter, but migrate out of Wyoming during the summer (Wyoming Game and Fish Department, 1995).

#### 4.4.4.2 Waterfowl

Streams, wetlands, moist meadow areas provide habitat for various waterfowl such as the Canada goose, the green-winged teal, mallard duck, and northern pintail. Most of these species reside in northeast Wyoming throughout the year. However, several species, e.g., white-winged scoter and northern shoveler, are migratory birds that inhabit the area in either summer or winter months (Wyoming Game and Fish Department, 1995).



#### 4.4.5 Aquatic Resources

##### 4.4.5.1 Fish

As stated earlier, there are six, 4<sup>th</sup> level hydrologic units (Figure 4-3) in Johnson County that are connected to the Powder River Basin. These hydrologic units include the following watershed areas:

1. Clear Creek
2. Crazy Woman
3. Upper Powder River
4. Middle Fork Powder River
5. Salt Creek
6. South Fork Powder River

Perennial streams in the Powder River Basin include the south Fork Powder River, Salt Creek, Crazy Woman Creek, and Clear Creek. These streams support a diverse fish fauna that is comprised primarily of native, non-game species. Table 4-6 summarizes the occurrence of various fish species within each of the six watersheds in Johnson County.

##### Clear Creek Watershed

The Clear Creek watershed contains a diverse fish population. Streams and lakes in the headwaters of the watershed contain various species of non-native trout such as grayling, golden, Yellowstone and Snake River cutthroat, rainbow, as well as brown and brook trout. A reach of Clear Creek contains channel catfish, sauger, and goldeye (Stewart, 2001).

There are several factors that influence the condition of fish habitat in the Clear Creek watershed.

- *"The absence or scarcity of deep pools reduces the habitat diversity in several of the headwater tributary streams. This lack of habitat diversity coupled with cold water temperatures limits the larger fish potential in these headwater reaches"* (Stewart, 1996).
- Irrigation diversions reduce stream flows. Irrigation return flows increase sedimentation and elevates water temperatures. These influences constrain the reproduction of trout, as well as the production of macroinvertebrates.
- The diversion of surface water upstream of the City of Buffalo substantially limits the potential for sport fishery development in the vicinity of Buffalo.
- *"Irrigation diversions and Interstate highway crossings (Rock Creek-I-90 and Clear Creek I-25) pose barriers to upstream fish migration"* (Stewart, 2001).
- The harvest of fishery resources is limited by a lack of public access.

**TABLE 4-6  
FISH SPECIES WITHIN POWDER RIVER BASIN WATERSHEDS  
JOHNSON COUNTY**

Fish Species  Common Name (Scientific name) (Species: I - Introduced or N- Native)	Wyoming Native Species Status	Watersheds					
		Middle Fork Powder River	Upper Powder River	South Fork Powder River	Salt Creek	Crazy Woman Creek	Clear Creek
Black crappie ( <i>Pomoxis nigromaculatus</i> )(I)			X				
Brassy minnow ( <i>Hybognathus hankinsoni</i> )(N)	6		X				X
Brook trout ( <i>Salvelinus fontinalis</i> )(I)		X					
Brown trout ( <i>Salmo trutta</i> )(I)		X	X				
Channel catfish ( <i>Ictalurus punctatus</i> )(N)	4		X			X	
Common carp ( <i>Cyprinus carpio</i> )(I)			X			X	X
Creek chub ( <i>Semotilus atromaculatus</i> )(N)	5		X	X			X
Emerald shiner ( <i>Notropis lutrensis</i> )(I)			X				
Fathead minnow ( <i>Pimephales promelas</i> )(N)	6		X	X	X	X	X
Flathead chub ( <i>Platygobio gracilis</i> )(N)	3	X	X	X	X	X	X
Goldeye ( <i>Wiodon alosodies</i> )(N)	2		X			X	X
Lake trout ( <i>Salvelinus namaycush</i> )(I)			X				
Longnose dace ( <i>Rhinichthys cataractae</i> )(N)	7	X	X	X	X	X	X
Longnose sucker ( <i>Catostomus catostomus</i> )(N)	4	X	X			X	X
Mountain sucker ( <i>Catostomus platyrhynchus</i> )(N)	3	X	X	X		X	
Northern redhorse ( <i>Maxostoma macrolepidotum</i> )(N)	4		X			X	X
Plains killfish ( <i>Fundulus zebrinus</i> )(N)	6		X	X			
Plains minnow ( <i>Hybognathus placitus</i> )(N)	3		X	X	X		X
Rainbow trout ( <i>Oncorhynchus mykiss</i> )(I)			X				
River carpsucker ( <i>Carpionodes carpio</i> )(N)	4		X			X	X
Rock bass ( <i>Ambloplites rupestris</i> )(I)			X			X	X
Sand shiner ( <i>Notropis stramineus</i> )(N)	7		X	X	X	X	X
Smallmouth bass ( <i>Micropterus dolomieu</i> )(I)						X	X
Stonecat ( <i>Noturus flavus</i> )(N)	4	X			X	X	X
Sturgeon chub ( <i>Macrhybopsis gelida</i> )(N)	1				X		X
White sucker ( <i>Catostomus commersoni</i> )(N)	7	X		X	X	X	X

Notes:  
(I) Fish specie introduced in Wyoming  
(N) Fish specie native to Wyoming  
Wyoming Native Specie Definitions:  
Status 1 Species – Populations are physically isolated and/or exist at extremely low densities throughout range. Habitats are declining or vulnerable. Extirpation appears possible.  
Status 2 Species - Populations are physically isolated and/or exist at extremely low densities throughout range. Habitat conditions appear stable.  
Status 3 Species – Populations are widely distributed throughout its native range and appear stable. However, habitats are declining or vulnerable.  
Status 4-7 Species – Populations are widely distributed throughout native range and are stable or expanding. Habitats are also stable.

Source: Wyoming Game and Fish Department, 2001; U. S. Bureau of Land Management, 2002.

### Crazy Woman Watershed

A diverse population of native and introduced fish resides in the Crazy Woman watershed. The upper portion of this watershed is situated within the Bighorn National Forest where cold-water streams in alpine and sub-alpine areas provide habitat for wild trout populations. However, the trout population declines in lower portions of the watershed (generally east of Highway 87).

Native game species, including black bullhead, stonecat, shovelnose sturgeon and channel catfish, primarily reside in the lower reaches of Crazy Woman Creek and its three main tributaries. Channel catfish also inhabit the lower reaches of Crazy Woman Creek near its confluence with the Powder River. The rare goldeye inhabits Crazy Woman Creek, as well as its Middle and South Forks. Introduced game fish generally include brook trout, brown trout, rainbow trout, splake, largemouth bass, and green sunfish.

Several factors influence the condition of fish habitat in the Crazy Woman watershed:

- Colder stream temperatures at higher elevations limit trout production.
- The lower reaches of streams are unsuitable for cold water fish.
- Higher summer temperatures and naturally occurring silt in the lower streams of the watershed, which are exacerbated by agricultural practices, make the lower reaches of streams more suitable to warm or cool-water species (Bradshaw, 1996).
- Crazy Woman Creek represents an important spawning habitat for channel catfish and shovelnose sturgeon that migrate from the lower Powder River. Lower stream flows that occur during spawning migrations "*...have the potential to prevent these fish from reaching spawning areas or returning to the main stem Powder River*" (Bradshaw, 2001).

### Middle Fork Powder River

Most streams in the Middle Fork Powder River watershed support trout. The headwaters of the watershed, along the eastern face of the Big Horn Mountains, are dominated by brook trout.

The Middle Fork Powder River is one of the more important trout fisheries in northeast Wyoming. A 12.8-mile segment of the Middle Fork supports very high trout densities and represents one of the more popular fishing areas in northeast Wyoming.

With lower stream reaches of the watershed, trout densities are considerably lower. Rainbow and brown trout dominate the streams at lower elevations of the watershed. The black bullhead, the only native game fish in the watershed, also inhabits the lower stream reaches within the watershed.

There are several factors that influence the condition of fish habitat in the Middle Fork Powder River watershed:

- WGFD fishery biologists believe that natural erosion from upslope geologic formations, combined with elevated silt loads and temperatures from irrigation return flows, influence the potential extent of fisheries production (Bradshaw, 1996).
- Livestock damage along some riparian areas of the watershed reduces trout habitat.

- *"Low-flow releases from Dull Knife Reservoir into the North Fork Powder can limit trout production between the reservoir and Bull Creek"* (Bradshaw, 2001).
- *"Algae-laden water released from Dull Knife Reservoir can cause summer fish kills in the upper North Fork Powder below the reservoir"* (Bradshaw, 2001).

#### Upper Powder River Watershed

The Upper Powder River watershed supports a diverse fish population that primarily comprises native, non-game species.

Channel catfish, sauger, shovelnose sturgeon and stonecat inhabit streams within the Upper Powder River watershed. Channel catfish, sauger, and shovelnose sturgeon are most common below the mouth of Crazy Woman Creek.

The sturgeon chub, once endemic to several Wyoming rivers, is now found only in the Powder River and is considered rare by the Wyoming Game and Fish Department. This fish apparently requires turbid waters which are common along the Powder River.

The Wyoming Game and Fish Department believes that extreme fluctuations in stream flow and temperature, low aquatic invertebrate production, high turbidity and dissolved solids, and an unstable streambed limit the capability of the Powder River and its tributaries to support salmonids and most Wyoming gamefish (Bradshaw, 2001).

#### South Fork Powder and Salt Creek Watersheds

Most of the streams in these watersheds are intermittent due to a more arid climate. Consequently, fish populations are believed to be very limited to non-existent. However, the Wyoming Game and Fish Department intends to conduct field surveys in various streams of these watersheds to better determine resident fish communities.

#### **4.4.5.2 Opportunities for Future Habitat Conservation**

The preceding descriptions of fish habitat in the six watersheds of the Powder River Basin generally indicate a healthy and diverse fish fauna in the streams within Johnson County. WGFD fish basin game plans indicate that some degradation of fish habitat has occurred in selected reaches of various perennial streams. In addition, WFGD points out that there are opportunities to expand fisheries production in the Powder River Basin.



WGFD representatives should pro-actively work with local ranchers to help identify areas of concern, as well as recommend practical measures to enhance surface water quality and local fish habitat. Any stream improvement projects should continue to be coordinated with the Lake DeSmet and Powder River Conservation Districts.

In the long term, building setbacks from perennial and intermittent stream banks can provide some limited protection to aquatic resources. However, local landowners and ranchers can more effectively carry out specific livestock management and habitat conservation measures on a voluntary basis. Such efforts should be encouraged and supported by the Wyoming Game and Fish Department, NRCS, and the Lake DeSmet and Powder River Conservation Districts.

## CHAPTER FIVE AGRICULTURAL LAND USES

### 5.1 EXISTING AGRICULTURAL LAND USE

Agricultural land in the State of Wyoming refers to lands where, at least, \$1,000 of income have been derived from some type of agricultural production in a given tax year (U.S. Department of Agriculture, National Agricultural Statistics Service, 2001).

As stated in Chapter Three, the U.S. Department of Agriculture, National Agricultural Statistics Service, reported that 2,132,000 acres of private land in Johnson County were in use for agricultural purposes in 1997 (U.S. Department of Agriculture, National Agricultural Statistics Service, 1999). However, these findings are inconsistent with Johnson County property tax assessment records for FY 1997.

Johnson County Assessor records indicate that 1,567,787 acres of privately owned land in Johnson County were used for agricultural purposes in FY 1997 (Table 5-1). Approximately 96 percent of these lands were determined to be agricultural rangelands. About 3.6 percent were irrigated croplands; the remaining lands were determined to be non-irrigated, dry croplands (Johnson County Assessor's Office, 2002).

Available property tax assessment records indicate that the total amount of land in agricultural production has increased slightly during the FY 1997-FY 2002 period (Table 5-1). However, the proportional distribution of agricultural lands used for rangeland, cropland, and dry crop production purposes has remained about the same during the same period.

<b>TABLE 5-1 AGRICULTURAL LANDS IN JOHNSON COUNTY FY 1997-FY 2002</b>							
<b>Fiscal Year</b>	<b>Agricultural Range Lands (acres)</b>	<b>Proportion of Total Ag Land (percent)</b>	<b>Irrigated Croplands (acres)</b>	<b>Proportion of Total Ag Land (percent)</b>	<b>Non-Irrigated, Dry Croplands (acres)</b>	<b>Proportion of Total Ag Land (percent)</b>	<b>Total Agricultural Lands (acres)</b>
1997	1,508,976	96.2	56,382	3.6	2,429	0.2	1,567,787
1998	1,523,452	96.2	57,713	3.6	2,431	0.2	1,583,596
1999	1,523,369	96.2	57,728	3.6	2,391	0.2	1,583,488
2000	1,521,976	96.2	57,627	3.6	2,406	0.2	1,582,009
2001	1,521,215	96.2	57,657	3.6	2,406	0.2	1,581,278
2002	1,515,588	96.2	57,251	3.6	2,406	0.2	1,575,245

Source: Johnson County Assessor's Office, 2002

Agricultural lands in Johnson County are primarily used for cattle and sheep production. Alfalfa and hay production are made primarily upon irrigated lands to support livestock production. The trends associated with livestock and crop production are discussed more fully in Chapter Three.

## **5.2 AGRICULTURAL LAND USE ISSUES**

The sustained use of agricultural lands in Johnson County for livestock and crop production suggests the presence of a stable agricultural industry. The stability of agricultural land use is remarkable when considered in the context of a significant drought period between 1998 and 2002 and the concurrent need to reduce livestock production levels (see Chapter Three). These trends indicate a high level of commitment by local ranchers to continue their contribution to agricultural production, and sustain their preferred rural lifestyle.

About 68 percent of the ranch managers in Johnson County consider ranching their primary occupation. This compares with a statewide average of about 40 percent (U.S. Department of Agriculture, National Agricultural Statistics Service, 1999). This also demonstrates the commitment of local ranchers to agriculture, and their economic dependence upon profitable agricultural production.

The continued economic viability of ranch operations in Johnson County is also influenced by federal and state resource management policies. Expanded attempts continue to be made by various federal and state agencies to improve and conserve aquatic and wildlife habitat, surface water quality, and other resources. While it is important to have objectives aimed at protecting these resources, it should be noted that much of Johnson County's aquatic and wildlife habitat, surface water quality, and other resources exist due to the open space, water, and other resources provided by agricultural operations. If efforts by the state and federal government become intrusive to the point that they threaten the viability of agricultural operations, it may become more lucrative for ranchers to convert to another land use. This would likely result in an even greater threat to aquatic and wildlife habitat, surface water quality, and other resources.

Recent market trends associated with agricultural sales, changes in the size and number of agricultural operations, and other related trends bear watching. As with any commodity-based business, agriculture is regularly confronted with physical and economic variables that can significantly influence future agricultural land use.

Because of split-estates issues when agricultural landowners do not own mineral development rights on their property, extraction of minerals on such property can disrupt agricultural operations. It is essential that mineral interests coordinate access, exploration, and production activities with local agricultural landowners.

### **5.2.1 Recent Market Trends**

Available records of agricultural land sales indicate that about 1,066 acres of land were sold during the CY 1999-CY 2001 period. The average cost of agricultural land sold was roughly \$771 per acre (Buffalo Board of Realtors, MLS, 2002).

The agricultural property sales that occurred during the 1999-2001 period may, in part, be indicative of the changing trends associated with the size of agricultural operations that were also evident between 1992 and 1997.

Data obtained from the U.S. Department of Agriculture's 1997 Census of Agriculture revealed a significant increase in agricultural enterprises that were less than 179 acres, as well as substantive increase in agricultural operations over 2,000 acres in size.

## **5.2.2 Diversification of Ranch Operations**

Because the rural lifestyle associated with agriculture is rewarding in many ways, ranch families frequently become highly creative in their efforts to supplement income derived from livestock and hay crop sales. Some ranch operations in Johnson County have chosen to establish guest ranch operations, recreational outfitter services, guest cabins, or other onsite recreational opportunities.

These activities have enabled ranch owners to diversify the scope of their operations and source of revenues to obtain a more favorable return-on-investment. At the same time, family-owned ranches are better able to sustain the productive rural lifestyle that the owners prefer and enjoy. Both of these motivations should prompt Johnson County to not discourage the future diversification of ranch operations.

## **5.2.3 Conversion of Agricultural Lands to Rural Residential Use**

### ***5.2.3.1 Division of Land to Support Financial Needs of Agricultural Operators***

As the economic value of agricultural lands increases, some ranchers in Johnson County may consider selling a portion, or all, of their agricultural lands in order to:

- sustain the financial viability of ranch operations;
- repay personal or corporate debt;
- avoid tax burdens to future heirs of ranch property; and/or
- generate capital to support retirement.

The greatest return-on-investment, which would be gained from the sale of most agricultural properties, would be derived from sales to individuals who desire to establish a rural residence in the unincorporated area of Johnson County. The amount of acreage desired by buyers is dependent upon the intended land use and desired lifestyle of the buyer. Current Wyoming subdivision laws and county subdivision regulations enable landowners to make the division of land a relatively simple process, particularly land divisions that are 35 acres in size or greater.

Other landowners may sell larger tracts of agricultural lands to developers of rural residential property. In order to achieve a reasonable return-on-investment, the developer generally seeks to develop smaller land parcels that are attractive to the rural residential market. Most developers of residential subdivisions seek to limit their investments for onsite utilities and roads to reduce risk and maximize the return-on-investment.

The division of larger agricultural land tracts to create smaller agricultural parcels and/or the development of rural residential subdivisions ultimately disperses the resident population over a larger area within Johnson County. Local real estate brokers indicate that a growing number of buyers are seeking smaller land parcels for rural living purposes.

Rural residential land and lot sales information indicates that almost half of rural land buyers purchased smaller land parcels within a five-mile radius of Buffalo during the 1999-2001 period (Table 5-2). The other 54 percent purchased smaller rural residential land further away from Buffalo (Buffalo Board of Realtors, MLS, 2002). If the availability of smaller rural land parcels diminishes, buyers can be expected to seek properties at a greater distance from Buffalo.



**TABLE 5-2  
RURAL RESIDENTIAL LAND AND LOT SALES  
UNINCORPORATED AREA OF JOHNSON COUNTY  
CY 1999-CY 2001**

Location	Distance from Buffalo (miles)	1999		2000		2001	
		Number of Lots	Average Sales Price (\$)	Number of Lots	Average Sales Price (\$)	Number of Lots	Average Sales Price (\$)
<b>Rural Subdivisions</b>							
Buena Vista	3.5 to 5	1	\$ 22,000				
Cloud Peak Ranchettes	3.5 to 5	2	\$ 38,400				
Diamond Cross Ranch	3.5 to 5			3	\$ 44,667	1	\$ 67,000
Elk Ridge	3.5 to 5			2	\$ 64,300	8	\$ 70,650
Johnson Creek Ranchettes	3.5 to 5	1	\$ 36,000	1	\$ 33,500		
Robbers Roost	3.5 to 5	1		1	\$ 50,000		
Little Piney Estates	10 to 20	4	\$ 13,750	1	\$ 29,500		
Mountain Ridge Estates	1.5			1	\$ 25,000		
Richardson Park	1.5					1	\$ 14,000
<b>Total Number of Properties</b>		<b>9</b>		<b>9</b>		<b>10</b>	
<b>Average Price</b>			<b>\$ <sup>1</sup>22,980</b>		<b>\$ <sup>1</sup>45,511</b>		<b>\$ <sup>1</sup>64,620</b>
<b>Other Unincorporated Areas</b>							
	1.5						
	2 to 3						
	3.5 to 5					2	\$ 60,250
	5 to 10	1	\$ 43,000			3	\$115,667
	10 to 20			1	\$ 68,787	3	\$ 68,667
	20 to 50	4	\$ 54,850	3	\$ 64,167		
	50 plus	2	\$ 73,200				
	Undetermined					3	\$ 42,833
<b>Total Number of Properties</b>		<b>7</b>		<b>4</b>		<b>11</b>	
<b>Average Price</b>			<b>\$ <sup>1</sup>44,654</b>		<b>\$ <sup>1</sup>65,322</b>		<b>\$ <sup>1</sup>61,955</b>

Note: Residential land and lot sales are vacant lands that are being sold primarily for rural residential use.  
<sup>1</sup>Average prices are based upon actual sales prices divided by the total number of properties sold, not the average price calculated for each rural subdivision.

Source: Buffalo Board of Realtors, Multiple Listing Service, 2002; Pedersen Planning Consultants, 2002.

### **5.2.3.2 Implications of a More Dispersed Rural Population**

Utilizing rural property for residential purposes is an attractive lifestyle that, historically, has attracted many people to Wyoming. For example, early settlers of Johnson County were attracted to the opportunity to establish homesteads and agricultural operations. However, the experience of early settlers was dramatically different. One of the more significant differences that contrasts sharply with today's rural residential living is the expectation for public services. The availability of county services for road maintenance, law enforcement, and emergency services are examples of public services that residents in the unincorporated area of Johnson County have come to expect in return for payment of property taxes.

In a recent study of The Cost of County Rural Residential Development, the University of Wyoming, Department of Agricultural and Applied Economics, concluded that the replacement of agricultural land with rural residential uses costs Wyoming counties and school districts more than they receive in tax revenue. On the average, rural residential development in Wyoming requires \$1.16 in county government services for every dollar of tax revenue contribution (Coupal, Taylor, and McLeod, 2001). In Johnson County, rural residential development requires \$1.54 for every dollar of tax revenue contribution.

The lesson learned from the Department of Agricultural and Applied Economics study, as well as similar studies by the American Farmland Trust, is that rural residential development costs county governments more to serve. This higher cost warrants the concentration of future residential development within and around the existing communities of Buffalo and Kaycee. However, it is important that residents not be denied opportunities to pursue rural living in appropriate areas.

### **5.2.4 The Impact of Federal Resource Management Policies Upon Livestock Grazing**

#### **5.2.4.1 Potential Reductions in Animal Units Months on Federal Grazing Allotments**

One of the primary public land concerns of Johnson County is the continued availability of public lands for livestock grazing. Many ranching operations in Johnson County are dependent upon grazing allotments from the U.S. Forest Service (USFS) and the U.S. Bureau of Land Management (BLM). Available data indicates that there are over 1.8 million acres of federal allotments in Johnson County. Any significant decline in the number of animal unit months may adversely impact the economic viability of many livestock operations in Johnson County. Proposed amendments to BLM's 1995 Grazing Regulations may facilitate cooperative efforts to meet BLM conservation objectives. It is vital that federal agencies consider operational requirements needed to sustain profitable livestock operations in its application of livestock grazing requirements.

Forage management policies adopted by the Forest Service in recent years and the implementation of more stringent regulations have had a discouraging affect on permittees' use of the forest allotments resulting in reduced utilization of the forest forage resources. The additional AUM's of grazing that the forest provides is an important economic asset to the livestock industry and the local community.

Therefore, Johnson County encourages the USFS and BLM to keep all available grazing allotments in use and adjust management practices to facilitate the re-issue of vacant allotments.

#### **5.2.4.2 Introduction of Threatened or Endangered Species**

The Endangered Species Act often has a profound impact on land management and agricultural operations. While the listing of any species as endangered may have an adverse effect upon agriculture, the species of primary concern in Johnson County include wolves, grizzly bears, eagles, wolverines, and the Canadian lynx due to their predatory nature. The designation of the sage grouse and the black-tailed prairie dog, as well as other species, could also negatively impact land management and agricultural operations. Due to the livestock dependent nature of agriculture in Johnson County, the introduction of predators, or the expansion of current predator populations, would have adverse economic impacts on the industry and should be opposed.

*"The Forest Service and Bureau of Land Management are proposing to amend land management plans for 18 national forests (including the Bighorn National Forest) and four BLM units in the northern Rocky Mountains to include measures to conserve Canada lynx"* (U.S. Forest Service, Bighorn National Forest, 2002).

The primary concern of Johnson County is for potential establishment of new measures to conserve the Canada lynx. Should this Canada lynx be conserved throughout the Bighorn National Forest and public rangelands in Johnson County, it is possible that this mammal will gradually establish habitat and roam in portions of Johnson County. Some community leaders and residents are concerned that the lynx may become a predator to commercial livestock in portions of Johnson County if the abundance of hares and mice are inadequate to support the diet preferences of the lynx.

However, the greater impact would be the constraints that introduction or management for the Canadian lynx would place on land management and agricultural operations. It should be noted that the Wyoming Game and Fish Department has stated that the Big Horn Mountains provides only marginal habitat for the lynx and the potential for a significant population of the lynx does not exist (Fink, 2003).

Species that harm agricultural operations are not limited to predators. Restrictions placed on lands because of most endangered species may also affect the economic viability of agricultural operations. For example, prairie dogs can pose a major threat to agriculture.

#### **5.2.5 Impact of Rural Subdivisions Upon Commercial Agricultural Operations**

##### **5.2.5.1 Incompatibility of Rural Subdivisions with Agriculture**

When other adjacent land uses are incompatible with agricultural land uses, such incompatibilities can create problems for agriculture. Rural subdivisions are one example of a land use that can be incompatible with agricultural uses.

Factors that accompany residential uses such as pets, recreational vehicles, and the mere presence of people, can disturb agricultural operations. Pets and vehicles can disturb or cause injuries to livestock.

##### **5.2.5.2 Wyoming Right to Farm and Ranch Act**

Residential occupants close to agricultural operations are often bothered by noises, smells and other products of agriculture. In accordance with the Wyoming Right to Farm and Ranch Act (Wyoming Title 11, Chapter 44), a farm or ranch operation shall not be found to be a public or private nuisance by reason of the operation if the farm or ranch operation:

1. Conforms to generally accepted agricultural management practices; and
2. Existed before a change in the land use adjacent to the farm or ranch land and the farm or ranch operation would not have been a nuisance before the change in land use or occupancy occurred.

To avoid these issues, rural subdivisions should not be encouraged in many agricultural areas.

#### **5.2.5.3 Fragmentation of Agricultural Land**

Rural subdivisions may fragment tracts of agricultural land. Small parcels of agriculture land, resulting after residential subdivisions, are often taken out of agricultural production. Large tracts of agricultural land are more useful for livestock grazing and crop production. When rural subdivisions occur on agricultural land, they should be situated in such a manner as to minimize the fragmentation of the agricultural land. More specifically, whenever rural subdivision of agricultural land occurs, the amount of land used for residential purposes should be minimized and the amount of land retained for agriculture should be maximized.

The use of conservations tools should be explored as alternatives to *traditional* rural residential subdivision of agricultural land in order to keep agricultural land in production while providing incentives to agricultural landowners. These tools include, but may not be limited to, cluster development, transfer of development rights, purchase of development rights and conservation easements. Where such tools are not supported by Wyoming statutes, Johnson County should encourage the Wyoming legislature to adopt such statutory provisions.

#### **5.2.5.4 Ground Water Issues**

The Wyoming State Engineer's Office imposes a limitation on the rate of groundwater use at the time a groundwater well permit is issued. However, the volumes of groundwater use are rarely monitored unless complaints are received from nearby landowners. Consequently, rural subdivisions may, in some situations, adversely impact the availability of ground water that supports local agricultural production.

There is no measure of the long-term effects on groundwater supplies due to an increasing number of private wells drawing water from aquifers. Residential users with private wells can draw as much water as the well will support, causing an inefficient use of water. On the other hand, residential units connected to public water systems have a metered water supply. A continued supply of adequate ground water is crucial to sustaining agricultural production.

#### **5.2.5.5 Stock Trails**

All Johnson County roads are considered to be stock trails. Local ranchers periodically use roads for moving livestock from one location to another. As rural subdivisions are developed along county roads, fences are often damaged or not maintained, which hamper the movement of livestock. County subdivision regulations should be modified to require owners of new residential properties to maintain existing fences along county roads. In many cases, new subdivision lots should also be fenced to keep livestock from entering the subdivision from the county road/stock trail. For county roads that are used as stock trails, accesses to subdivisions from those roads should be equipped with cattle guards or gates. These issues should be addressed during the subdivision review process.

### **5.2.6 Conservation of Lands for Agricultural Production**

Sustained agricultural production in Johnson County is one of the most effective methods of long-term land and resource conservation. For this reason, it is important that lands for agricultural production be preserved.

The Johnson County Land Use Plan presents an opportunity for Johnson County to recommend and designate lands within Johnson County that are most suitable for agricultural production. These lands include but are not limited to:

- land where cropland production already takes place,
- land where agricultural grazing already takes place,
- irrigated lands, and
- lands with good soil qualities.

Data that identifies precipitation levels and croplands can provide a basis for the determination of areas most suitable for current and future agricultural production. Tax assessment records and delineations of cropland resource areas also provide important information about existing rangeland and cropland resources to help determine agricultural suitability. Rangeland and cropland resource areas currently used by the Johnson County Assessor's Office were adopted by the State of Wyoming in 1998. The delineation of these resource areas were based upon the insights and experience of a former U. S. Soil Conservation Service soil scientist, Jim Stevens, who was well acquainted with soil resource and agricultural activities in Johnson County (Elsom, 2002).

Irrespective of factors that indicate where lands most suitable for agriculture exist, it should be noted that most land in Johnson County is suitable for some form of agriculture.

As mentioned earlier, the use of conservation tools should be explored as alternatives to *traditional* rural residential subdivision of agricultural land in order to keep agricultural land in production while providing incentives to agricultural landowners. These tools include, but may not be limited to, cluster development, transfer of development rights, purchase of development rights, and conservation easements.

### **5.3 FUTURE DEMAND FOR AGRICULTURAL LAND**

Recent agricultural land sales suggest that there is a general stability in agricultural land uses and the ownership of agricultural properties. Future demand for agricultural land in Johnson County can be expected from persons seeking a rural lifestyle in either part-time or full-time agricultural activities. Some existing agricultural operations may choose to expand by acquiring additional lands. Agricultural property sizes will vary, depending on the financial resources of the buyers, lifestyles and preferences of buyers, and intended uses for the property.

Developers must balance land investment and site development costs with market demands to achieve a reasonable return on investment. Developers are often attracted to better agricultural land because its topography makes it more economical to develop. This type of development, however, often escalates the cost of public services when the development is situated a considerable distance from where public services are based. It can also result in the reduction of agricultural land and the decline of the quality of life in Johnson County that agriculture provides.

#### 5.4 AREAS FOR FUTURE AGRICULTURAL EXPANSION

Start-up costs associated with the establishment of a new ranch operation can discourage the development of larger tracts of rural lands for new commercial agricultural production. Consequently, expansion of agricultural land uses will likely involve the expansion of existing ranches and farms.

Other agricultural expansion may occur on rural properties where small farm or ranch operations will be established. Some of these smaller parcels may include property sold by larger ranchers and landowners. Johnson County should encourage both small-scale and large-scale agricultural production. Small-scale agricultural operations often provide a nominal return in investment, and can also provide meat and produce for local residents.



## CHAPTER SIX RESIDENTIAL LAND USES

### 6.1 EXISTING RESIDENTIAL LAND USE

#### 6.1.1 Housing Stock And Home Occupancy

The U.S. Census Bureau documented 3,503 housing units in Johnson County in April 2000. Approximately 2,959 housing units (84.5 percent) of all housing units were occupied in April 2000 (Table 6-1). An estimated 544 housing units (15.5 percent) were vacant; almost two-thirds of the vacant buildings were seasonal residences.

<b>TABLE 6-1 HOUSING STOCK AND HOME OCCUPANCY JOHNSON COUNTY APRIL 2000</b>				
<b>Community/Area</b>	<b>Occupied Housing Units</b>	<b>Vacant Housing Units</b>		<b>Total Housing Units</b>
		<b>Seasonal</b>	<b>Other</b>	
Buffalo	1,718	34	90	1,842
Kaycee	103	5	13	121
Unincorporated Area	1,138	317	85	1,540
<b>Johnson County</b>	<b>2,959</b>	<b>356</b>	<b>188</b>	<b>3,503</b>

Source: U.S. Department of Commerce, Bureau of the Census, 2001.

Housing units are predominantly found in Buffalo and the unincorporated area of Johnson County. A nominal number of seasonal and other vacant housing units were documented in the communities of Buffalo and Kaycee.

In the unincorporated area of Johnson County, almost 21 percent of all housing units represent seasonal residences. Another 5.5 percent of homes in the unincorporated area were also vacant.

#### 6.1.2 Home Ownership

Almost 74 percent of all occupied housing units in Johnson County were owner-occupied in April 2000 (Table 6-2). This proportion of owner-occupied and renter-occupied homes is slightly higher than the statewide average of about 70 percent owner-occupied housing during the same period.

Comparative information for the unincorporated area and the two primary communities of Johnson County indicate that a greater proportion of owner-occupied homes (81 percent) are located in the unincorporated area (Table 6-2). A greater proportion of renter-occupied homes are located in Buffalo.



<b>TABLE 6-2 HOME OWNERSHIP IN OCCUPIED HOUSING UNITS JOHNSON COUNTY APRIL 2000</b>			
Community/Area	Home Ownership (units)		Total Housing Units
	Owner-Occupied	Renter-Occupied	
Buffalo	1,181	537	1,718
Kaycee	74	29	103
Unincorporated Area	927	211	1,138
Johnson County	2,182	777	2,959

Source: U.S. Department of Commerce, Bureau of the Census, 2001.

### 6.1.3 Housing in the City of Buffalo

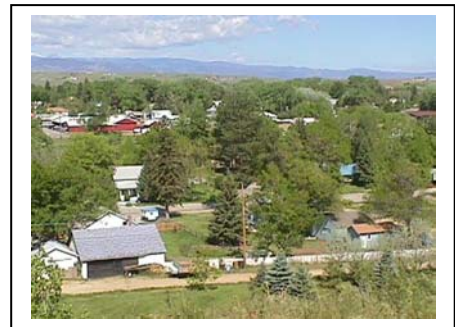
#### 6.1.3.1 Single-family Housing

Housing within the City of Buffalo is located in 51 subdivisions (Figure 6-1). Some of these subdivisions also contain other types of land uses such as commercial, industrial, or public facilities.

Most residential units in Buffalo are detached single-family homes (Table 6-3). Pedersen Planning Consultants estimated that there were 1,419 detached single-family homes in Buffalo in 2001.

These homes included:

- stick-built homes; and,
- newer manufactured homes or older trailers installed on permanent foundations.



Many manufactured homes and older trailers on permanent foundations are situated on designated spaces within one of eight trailer parks in Buffalo. In FY 2001, the County Assessor records indicate that approximately 137 manufactured homes or older mobile homes were located in Buffalo (Table 6-4). Approximately 15 vacant trailer spaces were available in 2001.

PPC estimates for 2001 vary somewhat from Census 2000 estimates that documented 1,250 detached single-family units and 212 mobile homes. This difference likely stems from the difference in available files for the city that do not contain all residential lots and/or the use of a different definition for a mobile home by the U.S. Census.

Townhomes or duplexes (single-family homes sharing a common wall) are often referred to as attached single-family units. The Pioneer Homes project along Lobban Street, as well as along portions of Hogerson Street in the North Ridge, represent examples of this type of single-family housing. County Assessor records indicate that approximately 90 townhome or duplex units were located within 10 subdivisions in Buffalo.






### Legend

 Existing Residential Land Use

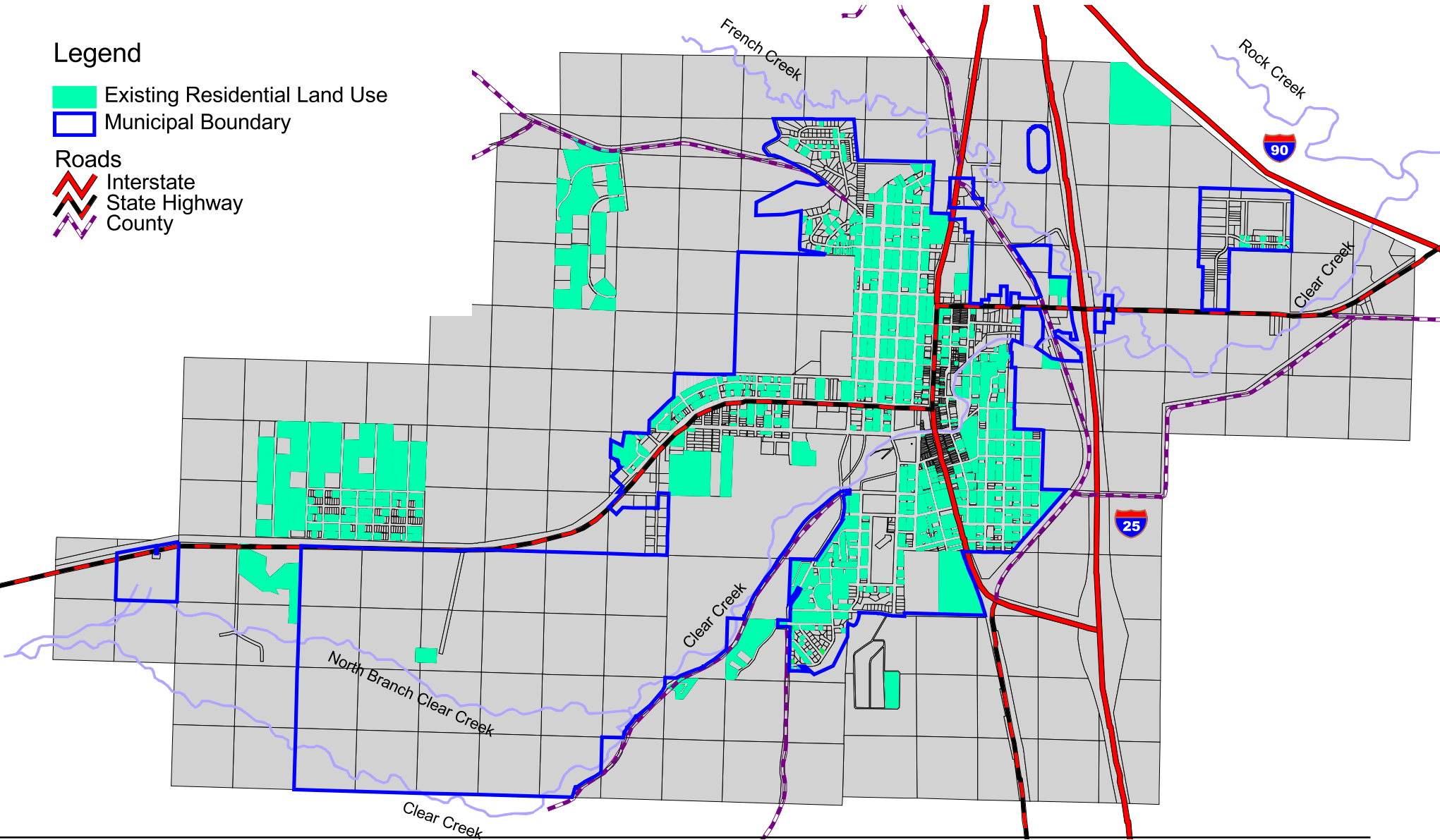
 Municipal Boundary

### Roads

 Interstate

 State Highway

 County



## Johnson County Land Use Plan

## Existing Residential Areas City of Buffalo

**TABLE 6-3  
TYPE AND DISTRIBUTION OF HOUSING  
CITY OF BUFFALO**

RESIDENTIAL SUBDIVISIONS	Number of Housing Units			Total Units
	Single Family	Apartments	Townhomes or Duplexes	
Benton Addition	1	0	0	1
Bergner Addition	1	0	0	1
Buckingham, First Addition	3	0	0	3
Buckingham, Second Addition	1	0	0	1
Buffalo Park Addition <sup>1</sup>	0	30	0	30
Buffalo West Addition	3	0	0	3
Burlington Addition	343	25	24	392
Burlington, North Addition	30	0	4	34
Camino Addition	1	0	0	1
Carwile Addition	133	8	2	143
Carwile Second Addition	22	0	0	22
Clark Addition	3	0	0	3
Clear Creek View Addition	5	0	0	5
Cloud Peak Addition	34	5	2	41
Dalomar Addition	1	0	0	1
Dixon Addition	41	28	0	69
Eagle Summit Addition	14	0	8	22
Edwards Addition	1	0	0	1
Esponda Addition	3	0	0	3
Eychaner Addition	29	0	0	29
Eychaner Re-Subdivision	5	0	0	5
Fetterman	2	2	2	6
Filter House Addition	2	0	0	2
Foothills Park Addition	13	0	0	13
Ft. McKinney Addition <sup>2</sup>	0	117	0	117
Four-K Addition	32	0	0	32
Greenleaf Estates Addition	19	0	0	19
Hamilton Addition	117	4	2	123
Hepp Addition	1	0	0	1
Indian Campground Addition	1	0	0	1
Irvine Addition	1	0	0	1
Justice-Swift Addition	2	0	0	2
Kenitzer Addition	18	0	0	18
Klondike Addition	34	0	0	34
Kube, First Addition	3	0	0	3
Lusher Addition	1	0	0	1
Marlow-Parker Addition	1	0	0	1
McKenzie Addition	6	0	0	6
Meadow Lark Addition	6	0	0	6
Mountain Drive Addition	148	3	4	155
Mountain Drive, Second Addition	6	0	0	6
Mountain View Addition	12	0	0	12
Needens Addition	1	0	0	1
North Ridge Addition	14	0	14	28
Original City	132	35	8	175
Park Addition	125	37	10	172
Payne Addition	1	0	0	1
Peck Addition	1	0	0	1
Pichlmaier Addition	2	0	0	2
Pioneer Addition	1	0	10	11
Railroad Addition	1	0	0	1
REA Addition	1	0	0	1
Riverside Addition	6	4	0	10
Ross Addition	3	0	0	3
Skyline Addition	8	0	0	8
Sonna Addition	24	0	0	24
<b>TOTAL</b>	<b>1,419</b>	<b>298</b>	<b>90</b>	<b>1,807</b>

Notes: 1. Clear Creek Apartments is limited to seniors and disabled or handicapped persons. 2. Veteran's Home of Wyoming is an assisted care facility.

Source: Pedersen Planning Consultants, 2002.

<b>TABLE 6-4            MANUFACTURED OR MOBILE HOMES            CITY OF BUFFALO            2001</b>		
<b>Name/Location</b>	<b>Available Spaces</b>	<b>Occupied Spaces</b>
Double G	15	10
Bozeman Trailer Court	5	5
Kinnison Court	6	5
Lurylei, LLC Court	6	6
Mountain View Motel	14	10
New Dawn Trailer Court	18	16
Venture Court	6	5
Village West Trailer Court	50	50
Not in a Trailer Court	-	30
<b>Total</b>	<b>120</b>	<b>137</b>
Sources: Johnson County Assessor's Office, 2002; Pedersen Planning Consultants, 2002.		

### 6.1.3.2 Multi-Unit Housing

County Assessor records for 2001 indicate that there were 298 residential apartment units in the City of Buffalo.

The largest complex is the Veteran's Home, which comprises 117 apartments in Buffalo's Fort McKinney Addition. The Veteran's Home is an assisted-living complex that serves retired veterans. Thirty apartment units are within the Clear Creek Apartments. This complex provides housing for seniors, disabled and handicapped persons. Beehive Homes on Klondike Drive contains 12 assisted-living units. This is a privately operated assisted-living facility.



The remaining 21 apartment complexes or buildings contain from two to 25 units per apartment complex. These apartments are scattered throughout Buffalo and are generally located in areas that are immediately adjacent to single-family residential areas.

### 6.1.4 Housing in the Unincorporated Area of Johnson County

The 2000 U.S. Census reported that there were approximately 1,540 housing units in the unincorporated area of Johnson County in April 2000. A detailed review and tabulation of Johnson County Assessor records indicates that 416 of these housing units (27 percent) were located in rural residential subdivisions in 2001 (Table 6-5). About one-third of the units in rural residential subdivisions are located within 1.5 miles of the Buffalo municipal boundary (Table 6-6).

Another 135 single-family units are located in seven trailer courts or campgrounds within 1.5 miles of the Buffalo municipal boundary (Table 6-7). These single-family housing units comprise a combination of manufactured homes or older mobile homes on permanent foundations. The remaining single-family homes are situated on individual rural parcels throughout Johnson County.

**TABLE 6-5  
RURAL RESIDENTIAL SUBDIVISIONS IN JOHNSON COUNTY  
2001**

<b>Subdivision</b>	<b>Single Family Homes</b>	<b>Apartment Units</b>	<b>Townhome or Duplex Units</b>	<b>Total Housing Units</b>
Beacon Hills	8	0	0	8
Big Horn Phase 1	17	0	0	17
Big Horn Phase 2	23	0	0	23
Boggs	16	0	0	16
Buckingham	6	0	0	6
Buena Vista #1	10	0	0	10
Clearock	0	0	0	0
Cloud Peak Ranchettes	38	0	0	38
Diamond Cross Ranch	9	0	0	9
Dry Creek	6	0	0	6
Dube Lots in Glenn Acs	2	0	0	2
Dull Knife-North & South	11	0	0	11
Elk Ridge	2	0	0	2
Elk Meadows	1	0	0	1
Foothills	7	0	0	7
Gillam	0	0	0	0
Glenn Acres	7	0	0	7
Hesse Mtn	3	0	0	3
Hi-Country	4	0	0	4
Hillcrest Village	11	0	0	11
Homestead	0	0	0	0
Indian Valley	11	0	0	11
Johnson Creek	7	0	0	7
Lake Desmet	5	0	0	5
Last Chance	9	0	0	9
Little Piney	21	0	0	21
Meadows	9	0	0	9
Middle Fork	1	0	0	1
Mountain Ridge 1	8	0	0	8
Mountain Ridge 2	17	0	0	17
Mountain Top	6	0	0	6
North Fork	3	0	0	3
Park West	0	0	0	0
Powder River Properties	3	0	0	3
Redhills Ranches	10	0	0	10
Richardson Park	68	0	0	68
Robbers Roost	5	0	0	5
Rocky Knob	0	0	0	0
Sandy Creek	1	0	0	1
Skyline Peaks	4	0	0	4
Top of the Rockies	14	0	0	14
Trabing Knoll	3	0	0	3
Twin Lakes	3	0	0	3
Ventling	1	0	0	1
Valley View Estates	3	0	0	3
Wagon Wheel	22	0	0	22
Weeden	1	0	0	1
<b>TOTAL</b>	<b>416</b>	<b>0</b>	<b>0</b>	<b>416</b>

Source: Johnson County Assessor's Office, 2001, Pedersen Planning Consultants, 2002.

<b>TABLE 6-6 RURAL RESIDENTIAL SUBDIVISIONS WITHIN 1.5 MILES OF BUFFALO BOUNDARY 2001</b>			
<b>Subdivisions</b>	<b>Single Family Homes</b>	<b>Apartment Units</b>	<b>Townhome or Duplex Units</b>
Big Horn Estates Phase I	17	0	0
Big Horn Estates Phase II	23	0	0
Boggs	16	0	0
Buckingham	6	0	0
Mountain Ridge*	25	0	0
Richardson Park	72	0	0
<b>TOTAL</b>	<b>159</b>	<b>0</b>	<b>0</b>
*Note: The number of single-family homes in Mountain Ridge Subdivision was established by a visual on-site count. This count does not match with County Assessor's records provided Pedersen Planning Consultants in March 2002, most likely because the homes were still under construction at that time.			
Source: Johnson County Assessor's Office, 2001, Pedersen Planning Consultants, 2002.			

<b>TABLE 6-7 MANUFACTURED OR MOBILE HOMES IN TRAILER PARKS WITHIN 1.5 MILES OF BUFFALO BOUNDARY 2001</b>		
<b>Name/Location</b>	<b>Available Spaces</b>	<b>Occupied Spaces</b>
Bald Mountain Trailer Court	-	52
Big Horn Mountain Campground	-	20
Deer Park Campground	-	10
Hilltop Trailer Park	9	7
Murdock's Trailer Court	9	9
Pioneer Trailer Court	10	8
Sunrise Mobile Homes	22	22
Not in a Trailer Court	-	7
<b>Total</b>	<b>50</b>	<b>135</b>
Source: Johnson County Assessor's Office, 2001, Pedersen Planning Consultants, 2002.		

## 6.1.5 Housing in the Town of Kaycee

### 6.1.5.1 Single-Family Housing

The April 2000 Census reported 79 single-family housing units in Kaycee (Figure 6-2). Tabulations of available data from the Johnson County Assessor records indicate that approximately 80 single-family housing units were located in one of nine subdivisions in Kaycee (Table 6-8) in 2001.

A correlation of the number and location of single-family housing prior to and following the August 2002 flood (Table 6-8) suggests that several new homes are present in Kaycee. The greatest change between August 2002 and January 2004 occurred in the Young Addition where five additional single-family homes were constructed. The Young Addition, which is located just north of the Powder River, was significantly impacted by the August 2002 flood. Consequently, the recent expansion of new single-family housing in the community is probably a reflection of housing replacements rather than any substantive demand for housing within Kaycee.



# Johnson County Land Use Plan

# Existing Residential Areas Town of Kaycee

Prepared by: Pedersen Planning Consultants  
 P.O. Box 66, Encampment, WY 82335  
 307-327-5434

Figure 6-2

TABLE 6-8 SINGLE FAMILY HOUSING DISTRIBUTION TOWN OF KAYCEE		
Subdivision	Number of Single Family Homes	
	2001	2004
Buell Addition	23	24
Knudson Addition	1	1
Lindsey Addition	13	15
Original Town	10	13
Perry Addition	1	1
Rissler Addition	9	9
Town of Kaycee	3	2
Yeigh Addition	5	0
Young Addition	15	22
<b>Total</b>	<b>80</b>	<b>87</b>

Source: Johnson County Assessor's Office, 2001; Pedersen Planning Consultants, 2002.

### 6.1.5.2 Duplexes

There is one duplex along Campbell Avenue that is owned by Johnson County School District. These two units are used by the Johnson County School District for teacher housing.

### 6.1.5.3 Multi-Unit Housing

The Johnson County School District also owns two four-plex housing units along Campbell Avenue in Kaycee. These eight units are used for teacher housing.

## 6.2 RESIDENTIAL LAND USE ISSUES

### 6.2.1 General

A number of housing issues were determined by Pedersen Planning Consultants through its evaluation of recent housing market trends in Buffalo and the adjoining unincorporated area within 1.5 miles of Buffalo. This evaluation was made in conjunction with the preparation of the Buffalo Housing Assessment. Selected portions of this evaluation were incorporated into the Johnson County Land Use Assessment and are presented in the following paragraphs.

### 6.2.2 Residential Properties in Buffalo

#### 6.2.2.1 Recent Sales Trends

Residential property sales and rental housing information help identify market preferences concerning the desired type of housing, home sizes, and amenities. The same information also provides considerable insights concerning the willingness of prospective buyers to purchase residential properties in Buffalo. Pedersen Planning Consultants examined housing market trends associated with fee simple property sales from CY 1999 through CY 2001, as well as residential properties that were on the Buffalo Board of Realtors Multiple Listing Service (MLS) during the first quarter of 2002.



Information from the Buffalo Board of Realtors MLS indicates that 104 sales of residential property (house and lot) in Buffalo were made during CY 2001 (Table 6-9). However, more residential property sales were made in CY 1999 and CY 2000 than were reported in 2001.

The average price for those residential properties sold in Buffalo in CY 2001 was \$120,717. Approximately 60 percent of the residential properties sold during CY 2001 were sold for less than \$120,000. When compared to CY 1999 and CY 2000, a steady growth in residential property prices is evident. The average residential property was sold for \$84,498 in CY 1999 and increased to \$117,658 in CY 2000.

The average days-on-market for all residential property sales was 297 days in CY 1999 and 269 days in CY 2000. In CY 2001, the average days-on market declined to 222 days. The length of time on the market suggests that sales prices were inflated, potential buyers were unwilling or unable to pay listed sales prices, and/or there was limited interest from the market.

One rather remarkable aspect of the CY 1999-CY 2001 residential property sales is the significant proportion of sales below \$50,000. Some of these sales included older trailer homes that have been installed on permanent foundations. However, homes under \$50,000 are becoming very scarce in most rural residential markets in Wyoming. In 1999, residential property sales under \$50,000 represented 43 percent of all residential property sales in Buffalo (Table 6-9). However, in CY 2001 and CY 2002, the proportion of sales in this price range dropped to about 11 percent. Nevertheless, this trend may suggest the following market conditions that bear consideration:

- affordability is a significant issue to many incoming homebuyers;
- some homebuyers are living in Buffalo on a seasonal basis and don't wish to make a sizeable investment for a second home in Buffalo; and,
- there may be potential buyers in the coal bed methane labor force who desire to purchase a home, but don't wish to make a significant investment.

Through the correlation of residential property information for the CY 1999-2001 period, it can be further concluded that:

- the market is accepting higher prices as the housing inventory shrinks;
- with higher prices and fewer properties on the market, the number of residential property sales are declining; and,
- despite a decline in the average days-on-market, residential property sales prices in Buffalo are generally not consistent with buyer expectations and market demand.





**TABLE 6-9  
RESIDENTIAL PROPERTY SALES  
CITY OF BUFFALO  
1999, 2000 AND 2001**

Sold Price (\$)	1999		2000		2001	
	Number of Residential Properties	Average Days On Market	Number of Residential Properties	Average Days On Market	Number of Residential Properties	Average Days On Market
0 - 50,000	47	339	14	263	11	192
50,001 - 60,000	4	407	6	168	3	243
60,001 - 70,000	4	290	6	462	3	53
70,001 - 80,000	4	278	16	238	8	187
80,001 - 90,000	13	201	13	255	8	437
90,001 - 100,000	4	175	8	153	4	201
100,001-110,000	2	276	8	219	14	219
110,001-120,000	4	447	6	208	12	324
120,001-130,000	5	270	6	271	6	201
130,001-140,000	3	250	8	317	8	276
140,001-150,000	3	141	6	282	6	333
150,001-160,000	4	293	4	123	4	531
160,001-170,000	2	300	5	434	2	398
170,001-180,000	1	109	3	298	3	131
180,001-190,000	1	308	2	74	5	91
190,001-200,000	-	-	-	-	-	-
200,001-225,000	3	353	2	282	1	31
225,001-250,000	1	335	5	514	-	-
250,001-275,000	2	59	1	1,101	2	76
275,001-300,000	-	-	1	39	-	-
300,000+	2	243	3	187	4	372
All Sales Price Ranges	109	297	123	269	104	222

Source: Buffalo Board of Realtors, Multiple Listing Service, 2002; Pedersen Planning Consultants, 2002.

### **6.2.2.2 Retirees and Those Nearing Retirement**

Since the late 1990's, local real estate brokers report that about 55 percent of incoming clients are retirees or persons contemplating retirement (Smith, 2002). This market group includes households with persons 56 years and older.

Nearly half of the retirement-age or nearing retirement market group is looking for residential properties located within the City of Buffalo. These potential buyers desire a house and lot that are near retail shopping opportunities, public facilities and services, and other community facilities. Accessibility within the home is an important consideration, so this market group generally prefers one-level properties with a basement. (Smith, 2002).

Most of the remaining retirement-age or nearing retirement market seek properties that contain a few acres of land near the City of Buffalo, a home, and a workshop for hobbies. Views of the Big Horn Mountains and water are also important site amenities.

### **6.2.2.3 Younger and Middle-Aged Families**

The remaining market is comprised of younger and middle-aged families. The heads of households range between 26 to 55 years of age. Census 2000 data indicates that about 28 percent of all households in Buffalo include children under 18 years of age.

State driver license exchange/surrender data for Johnson County confirms the presence of this market group. During 2000, a positive net migration of 95 persons in this age group likely moved into Johnson County via job and/or primary residence relocations. In contrast, a negative net migration of 28 persons for the 18 to 25 age group demonstrated a greater tendency among this age group to leave Johnson County.

### **6.2.2.4 Available Residential Properties**

In early March 2002, there were 50 active residential property listings on the Buffalo Board of Realtors Multiple Listing Service. The average sales price was \$158,465. The average days-on-market for these properties was 141 days.

One of the incoming market groups, which primarily includes persons 56 years and older, is more likely to have greater incomes and more favorable credit history. Aside from any significant or unforeseen changes in the economy and community demographics, there appears to be little stimulus that would reduce residential property prices in the Buffalo housing market unless more residential development occurs.

One important issue is affordability that is particularly applicable to the 26-55 years of age market that continue to work, as well as carry and incur debt. If single family home prices in Buffalo rise beyond the affordability of most prospective buyers in this market, residential property demand may diminish, days-on-market may increase, and lower prices may follow.

## **6.2.3 Residential Land Sales in Buffalo**

### **6.2.3.1 Recent Sales Trends**

Residential land and lot sales (residential properties without homes) were also examined for CY 1999-CY 2001 (Table 6-10). Thirty-six residential land parcels and lots were sold in CY 2001 within Buffalo. The number of residential land and lot sales in 2001 was about one-third of the number of improved residential properties (containing both land and an existing home) that were sold in 2001.

**TABLE 6-10  
RESIDENTIAL LAND AND LOT SALES  
CITY OF BUFFALO  
CY 1999-CY 2001**

LOCATION Subdivision	1999		2000		2001	
	Number of Lots	Average Sales Price (\$)	Number of Lots	Average Sales Price (\$)	Number of Lots	Average Sales Price (\$)
Burlington Addition	0	0	2	20,500	5	23,800
Carwile Addition	0	0	1	16,500	0	0
Eagle Summit Addition	2	32,450	5	31,550	6	29,550
Four-K Addition	0	0	3	29,833	10	28,800
Greenleaf Estates Addition	0	0	8	15,897	8	14,613
Northwest Greenbelt Addition	0	0	1	16,500	6	25,667
Park Addition	0	0	0	0	1	21,000
<b>TOTALS</b>	<b>2</b>	Total Sales Volume: <b><u>\$59,000</u></b> Average: <b><u>\$32,450</u></b>	<b>20</b>	Total Sales Volume: <b><u>\$448,427</u></b> Average: <b><u>\$22,421</u></b>	<b>36</b>	Total Sales Volume: <b><u>\$876,200</u></b> Average: <b><u>\$24,338</u></b>

Source: Buffalo Board of Realtors, Multiple Listing Service, 2002; Pedersen Planning Consultants, 2002.

The average days-on-market was 703 days. The length of time associated with residential land sales suggests that vacant residential properties were listed for prices that were higher than the market was willing to pay and/or the demand for these properties was limited.

### **6.2.3.2 Available Residential Land and Lots**

In early March 2002, there were 83 active listings for residential lands and lots in the City of Buffalo. The average sales price was \$78,516. However, the average days-on-market was 553 days.

## **6.2.4 Rental Housing in Buffalo**

### **6.2.4.1 Available Rental Housing Opportunities**

Rental housing opportunities in Buffalo include:

- residential apartments;
- mobile homes on a residential lot;
- a single family home; and,
- mobile home spaces where a mobile home or recreational vehicle (RV) can be parked.

However, some workers associated with the regional coal bed methane labor force are residing in some motels in Buffalo on a long-term or sea-seasonal basis. Consequently, a portion of the rental housing demand is being met by local motels. The use of motels by CBM workers was also observed by PPC in Gillette in 2001 during the recent coal bed methane boom in the Power River Basin.



One reason that motel units are used as rental housing is because the City's zoning ordinance contains no provisions that limit the length of stay in motel facilities. In many communities, 30 days is the maximum rental period for guests using a motel or hotel facility.

**6.2.4.2 Rental Housing for Seniors, Disabled and Handicapped Residents**

There are 30 one-bedroom apartments available for senior citizens, as well as disabled or handicapped persons, at Clear Creek Apartments. This facility has been fully occupied for the past 10 years and, typically, has a waiting list of 10 applicants.

Beehive Homes, an assisted-living provider, owns and operates an assisted-living complex along Klondike Drive in Buffalo. This facility includes 12 units within one complex.

Veterans Home of Wyoming is an assisted-living facility that has 117 units. This facility is presently occupied by 104 residents.



While there is a significant amount of rental housing for seniors, disabled and handicapped persons, the growing retirement age population has nearly saturated the capacity of existing facilities.

**6.2.4.3 Rental Housing Costs**

Data from the Wyoming Housing Data Partnership provides insight concerning average monthly costs associated with the four types of rental housing (Table 6-11) between 1998 and 2001.

<b>Quarter/Year</b>	<b>Apartments</b>	<b>Mobile Home Spaces</b>	<b>Single Family Homes</b>	<b>Mobile Homes on a Lot</b>
Q2 98	\$337	\$123	\$535	\$358
Q4 98	366	123	436	360
Q2 99	374	150	480	339
Q4 99	379	142	443	380
Q2 00	376	127	463	345
Q4 00	396	137	569	488
Q2 01	391	138	555	445
Q4 01	415	136	609	421

Source: Wyoming Housing Data Partnership, 2002.

More recent data obtained by PPC provides a range of rental rates based upon the number of bedrooms (Table 6-12). For example, during 2Q 2002, the rental rate for a 3-bedroom apartment in Buffalo was \$750 per month while one-bedroom apartments ranged between \$350 and \$400 per month.

<b>TABLE 6-12 MONTHLY RENTAL HOUSING COST RANGES AVAILABLE RENTAL HOUSING IN BUFFALO 2Q 2002</b>			
<b>No. of Bedrooms</b>	<b>Apartments</b>	<b>Single Family Homes</b>	<b>Mobile Homes/ Trailers</b>
Studio	\$ 270	No data available	No data available
1 Bedroom	\$350-400	\$350	No data available
2 Bedrooms	No data available	\$375-675	\$350-400
3 Bedrooms	\$750	\$550-750	\$400-550
4 Bedrooms	No data available	\$725	No data available
<small>Note: PPC determined monthly rental rates based upon a review of classified advertisements in the Buffalo Bulletin from April 4 through June 13, 2002.</small>			
<small>Source: Buffalo Bulletin, 2002; Pedersen Planning Consultants, 2002.</small>			

Monthly rental rates at Clear Creek Apartments are determined on the basis of annual income and medical expenses. Rental rates generally reflect 30 percent of annual incomes less deductions for medical expenses and a standard \$400 deduction for each household.

### **6.2.5 Sales and Market Trends in Kaycee**

No residential property or land sales are known to have taken place within the Town of Kaycee during the 1999-2001 period. The Casper Board of Realtors and Buffalo Board of Realtors Multiple Listing Service (MLS) maintain information on past sales or available properties that have been listed on the MLS. However, properties that have not been listed are not reflected in this information.

In April of 2002, a new listing for a 4-bedroom mobile home was included on the Casper Board of Realtors MLS. The list price for this single-family home was \$64,000.

The lack of residential sales prior to the August 2002 flood suggests a limited demand for residential properties in Kaycee. Informal discussions with some community leaders suggests that the lack of job opportunities, as well as limited commercial and public services, likely discourage those seeking a home in a more rural community. Conversely, the limited number of residential listings suggests a general stability in the resident population and a limited interest of the existing population to relocate to another community.

Since August 2002, some expansion in the number of single-family residences has occurred in Kaycee. However, this expansion is a largely a reflection of housing replacements that were damaged during the August 2002 flood.

The potential construction of some new single-family housing may eventually be realized with the proposed development of a new Middle Fork Addition near Kaycee's Mercantile Store. The proposed subdivision contains approximately 28 lots. It is anticipated that one of the lots will be used for the construction of a new church facility; the remaining lots will likely be developed for residential use.

### 6.2.6 Sales and Market Trends in the Unincorporated Area of Johnson County

Moderate sales of improved rural residential property and undeveloped rural land in the unincorporated area of Johnson County occurred during the CY 1999-CY 2001 period (Tables 6-13 and 6-14). Overall, the sale of improved rural residential properties was somewhat stronger than the sale of unimproved rural residential lots during this period.

Approximately 83 percent of the improved rural residential properties sold during the CY 1999-CY 2001 period were located in 11 rural residential subdivisions within five miles of Buffalo (Table 6-13). Two of the rural residential property sales were in two rural subdivisions north of Kaycee.

Rural residential land sales involved the sales of land, without residences, that were intended for eventual residential use. Fifty-three percent of these rural land sales involved undeveloped land parcels within five miles of Buffalo (Table 6-14). The remaining sales of rural residential lands were 5 or more miles outside of Buffalo.

When improved residential property and rural land sales are correlated for the 1999-2001 period, it reveals that 70 percent of the market in the unincorporated area purchases properties within five miles of Buffalo. Nevertheless, there is a limited, but growing market that desires to purchase lands beyond five miles from Buffalo. A limited housing inventory in Buffalo, combined with rising housing and land prices, will encourage more buyers to seek properties that are located at increasing distances from Buffalo. This pattern may be reversed if a greater number of improved residential properties and rural residential land become available to the market.



**TABLE 6-13  
IMPROVED RURAL RESIDENTIAL PROPERTY SALES  
UNINCORPORATED AREA OF JOHNSON COUNTY  
CY 1999-CY 2001**

Location	Distance from Buffalo (miles)	1999		2000		2001	
		Number of Properties	Average Sales Price (\$)	Number of Properties	Average Sales Price (\$)	Number of Properties	Average Sales Price (\$)
<b>Subdivisions</b>							
Big Horn Estates	1.5					1	\$120,000
Buckingham Subdivision	1.5					1	\$190,000
Buena Vista	3.5 to 5					2	\$187,500
Cloud Peak Ranchettes	3.5 to 5	2	\$146,500	1	\$135,000	3	\$196,667
Diamond Cross Ranch	3.5 to 5	4	\$ 38,500	1	\$ 33,500	1	\$149,000
Hesse Mountain	20 to 50			1	\$190,000		
Hillcrest Village	3.5 to 5	1	\$305,000				
Indian Valley	3.5 to 5	2	\$122,000			1	\$132,000
Meadows	3.5 to 5	3	\$ 23,517			1	\$115,000
MiddleFork (Kaycee)	20 to 50			1	\$120,000		
Mountain Ridge	1.5			2	\$136,000		
Pine Ridge (Kaycee)	20 to 50			1	\$ 92,000		
Red Hills	10 to 20			1	\$ 74,000		
Richardson Park	1.5	2	\$127,450	7	\$102,929	4	\$135,575
Wagon Wheel Acres	3.5 to 5	1	\$150,000	1	\$217,500	1	\$175,000
<b>Total Number of Properties</b>		<b>15</b>		<b>16</b>		<b>15</b>	
<b>Average Price</b>			<b>\$138,725</b>		<b>\$123,738</b>		<b>\$155,638</b>
<b>Other Unincorporated Area</b>							
	1.5			1	\$129,000		
	2 to 3			6	\$232,583		
	3.5 to 5	1	\$138,000	4	\$211,750	3	\$153,833
	5 to 10	1	\$100,000	1	\$ 11,000	1	\$350,000
	10 to 20	1	\$ 89,000	4	\$171,615		
	20 to 50			2	\$300,000	1	\$180,000
	50 plus						
<b>Total Number of Properties</b>		<b>3</b>		<b>18</b>		<b>5</b>	
<b>Average Price</b>			<b>\$109,000</b>		<b>\$191,111</b>		<b>\$153,833</b>
Note: Rural residential property is considered to be an improved rural acreage of 40 acres or less that contains, at least, a rural single-family residence.							
Source: Buffalo Board of Realtors, Multiple Listing Service, 2002; Pedersen Planning Consultants, 2002.							

**TABLE 6-14**  
**<sup>1</sup>RURAL RESIDENTIAL LAND AND LOT SALES**  
**UNINCORPORATED AREA OF JOHNSON COUNTY**  
**CY 1999-CY 2001**

Location	Distance from Buffalo (miles)	1999		2000		2001	
		Number of Lots	Average Sales Price (\$)	Number of Lots	Average Sales Price (\$)	Number of Lots	Average Sales Price (\$)
<b>Rural Subdivisions</b>							
Buena Vista	3.5 to 5	1	\$ 22,000				
Cloud Peak Ranchettes	3.5 to 5	2	\$ 38,400				
Diamond Cross Ranch	3.5 to 5			3	\$ 44,667	1	\$ 67,000
Elk Ridge	3.5 to 5			2	\$ 64,300	8	\$ 70,650
Johnson Creek Ranchettes	3.5 to 5	1	\$ 36,000	1	\$ 33,500		
Robbers Roost	3.5 to 5	1		1	\$ 50,000		
Little Piney Estates	10 to 20	4	\$ 13,750	1	\$ 29,500		
Mountain Ridge Estates	1.5			1	\$ 25,000		
Richardson Park	1.5					1	\$ 14,000
<b>Total Number of Properties</b>		<b>9</b>		<b>9</b>		<b>10</b>	
<b>Average Price</b>			<b>\$ 122,980</b>		<b>\$ 45,511</b>		<b>\$ 64,620</b>
<b>Other Unincorporated Areas</b>							
	1.5						
	2 to 3						
	3.5 to 5					2	\$ 60,250
	5 to 10	1	\$ 43,000			3	\$115,667
	10 to 20			1	\$ 68,787	3	\$ 68,667
	20 to 50	4	\$ 54,850	3	\$ 64,167		
	50 plus	2	\$ 73,200				
	Undetermined					3	\$ 42,833
<b>Total Number of Properties</b>		<b>7</b>		<b>4</b>		<b>11</b>	
<b>Average Price</b>			<b>\$ 44,654</b>		<b>\$ 65,322</b>		<b>\$ 61,955</b>
Note: 1. Residential land and lot sales are vacant lands that were intended for future rural residential use. The properties contained no rural residence at the time of sale. 2. Average prices are based upon actual sales prices divided by the total number of properties sold, not the average price calculated for each rural subdivision.							
Source: Buffalo Board of Realtors, Multiple Listing Service, 2002; Pedersen Planning Consultants, 2002.							

### 6.3 FUTURE HOUSING DEMAND

#### 6.3.1 General

During the 2003-2012 period, future housing demands in Johnson County will be derived primarily by:

- an expansion of the regional coal bed methane labor force;
- the continued influx of a growing retirement population; and,
- occasional expansions to the labor forces of larger employers in the community.



During the next 10 years, much of the demand from these market groups is expected to be for housing that is located in the City of Buffalo and the adjoining unincorporated area within five miles of the Buffalo municipal boundary.

The future coal bed methane labor force is expected to generate some demands in other portions of the unincorporated area of Johnson County and, to a lesser extent, within the Town of Kaycee. The extent and location of demand for coal bed methane workers and their dependents will generally reflect the availability and affordability of opportunities for rental housing.

Housing demands in the unincorporated area of Johnson County may reflect growth in the number of smaller farms and ranches, as well as other rural residences. For example, about half of the retirement age market is expected to seek rural residential homes within five miles of Buffalo.

The potential demand for housing can change significantly with the unexpected loss or gain of larger employers in Buffalo and Johnson County. The cyclical nature of coal bed methane gas development can also generate significant swings in housing demand, particularly for transient and rental housing.

### **6.3.2 Incoming Retirement Age Population**

The influx of persons to Johnson County, who are 56 years or older, is undeniable. The U.S. Census Bureau reported that 24.7 percent of all persons living in Buffalo in April 2000 lived in a different state in 1995. An additional eight percent had previously lived in another county in Wyoming. These statistics suggest that a significant amount of in-migration is occurring within the City of Buffalo and that a significant proportion of in-migrants are coming from other states outside of Wyoming.

In terms of the age of incoming population, driver license exchange/surrender data also offers some useful information. During the 2000-2002 period, 732 persons exchanged an existing driver's license from another state for a new Wyoming driver's license. About 19 percent of those exchanging driver licenses for a new Wyoming driver's license and moving into Johnson County during the 2000-2002 period were 56 years or older. Approximately 27 percent of the in-migrants, who were 56 years and older, were over 65 years of age.

Through its evaluation of the preceding statistics and other relevant information, PPC used the following assumptions to calculate housing demands for the 2003-2012 period:

- roughly 19 percent of the incoming population to Johnson County is 56 years or older;
- almost all of the incoming population 56 years and older will be seeking a new or an existing single family home; and,
- the average household size for the 56-years-and-older population will be approximately two persons per household.
- roughly 27 percent of the incoming population 56-years-and-older will be over 65 years of age and represent a potential assisted-living market.

The 56-years-and-older population is expected to generate single-family housing demands (Table 6-15) for stick-built homes, mobile homes, manufactured housing, and town houses on residential lots. It is expected that about half of these housing demands will be for new or existing single-family homes within Buffalo and up to five miles outside of the municipal boundary. The remaining half of the anticipated demand will be improved residential properties beyond five miles of Buffalo. Chapter Three identifies other important housing preferences for this age group.

**TABLE 6-15  
HOUSING DEMAND FOR 56 YEARS AND OLDER MARKET GROUP  
JOHNSON COUNTY**

Year	<sup>1</sup> Single-Family Home Purchases	<sup>2</sup> Assisted-Living Unit Rentals	Total
2003	28	11	39
2004	39	15	54
2005	39	15	54
2006	39	15	54
2007	39	15	54
2008	39	15	54
2009	39	15	54
2010	39	15	54
2011	39	15	54
2012	39	15	54

Notes:

1. Assumes 73% of the 56+ market group will purchase single family homes.
2. Assumes 27% of the 56+ market group will reside in assisted living facilities.

Source: Pedersen Planning Consultants, 2003.

It also expected that there will be an increased demand for assisted-living facilities. About 27 percent of the housing demand from the 56+ age group is expected to be for assisted-living rental housing. The demand for assisted-living facilities is based upon the age characteristics of in-migrants who exchanged driver licenses during the 2000-2002 period. It is important to understand that the 65 years and older market will likely include some "cross-overs" who may generate demands for single-family housing.

The future stability of the 56+age group market will depend largely upon the availability and cost of single-family and assisted-care facilities. If an adequate inventory of single-family homes and assisted-care facilities is available but prices are unattractive, a segment of this market may choose to lease a single-family home or cottage on a seasonal basis. If an adequate number of assisted-living units are not available for those residents 65 years and older, a portion of this market group may eventually relocate elsewhere.

### 6.3.3 Coal Bed Methane Labor Force

#### 6.3.3.1 General

Housing demands derived from anticipated coal bed methane employment (see Chapter Three) include demands for both temporary and rental housing, as well as the purchase of residential properties (Table 6-16).

The demands are derived from the transient labor force associated with coal bed methane well exploration and completion. However, the CBM labor force also includes lease operators and others associated with field office administration that can be expected to remain in the community for several years.



This demand analysis considers direct employment associated with coal bed methane well exploration, completion, production and related field office administration. Other indirect employment associated with consulting services such as land and title research, permitting and environmental studies, are not reflected in the calculation of future housing demand.

**TABLE 6-16  
ANTICIPATED HOUSING DEMAND IN JOHNSON COUNTY  
COAL BED METHANE LABOR FORCE  
(Number of Housing Units)  
2003-2012**

Year	Well Exploration						Well Completion						Well Production				Administration						TOTAL			
	Buffalo		Kaycee		Uninc		Buffalo		Kaycee		Unincorp		Buffalo		Uninc		Buffalo		Kaycee		Uninc		JOHNSON COUNTY			
	Pur	Rent	Pur	Rent	Pur	Rent	Pur	Rent	Pur	Rent	Pur	Rent	Pur	Rent	Pur	Rent	Pur	Rent	Pur	Rent	Pur	Rent	Pur	Rent	Total	
2003	0	38	0	5	0	14	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	58	59
2004	0	53	0	7	0	20	0	4	0	1	0	2	3	1	1	0	11	4	1	1	4	2	19	96	115	
2005	0	53	0	7	0	20	0	4	0	1	0	2	3	1	1	0	11	4	1	1	4	2	19	96	115	
2006	0	53	0	7	0	20	0	4	0	1	0	2	3	1	1	0	11	4	1	1	4	2	19	96	115	
2007	0	53	0	7	0	20	0	4	0	1	0	2	3	1	1	0	11	4	1	1	4	2	19	96	115	
2008	0	53	0	7	0	20	0	4	0	1	0	2	3	1	1	0	11	4	1	1	4	2	19	96	115	
2009	0	53	0	7	0	20	0	4	0	1	0	2	3	1	1	0	11	4	1	1	4	2	19	96	115	
2010	0	53	0	7	0	20	0	4	0	1	0	2	3	1	1	0	11	4	1	1	4	2	19	96	115	
2011	0	53	0	7	0	20	0	4	0	1	0	2	3	1	1	0	11	4	1	1	4	2	19	96	115	
2012	0	53	0	7	0	20	0	4	0	1	0	2	3	1	1	0	11	4	1	1	4	2	19	96	115	

Source: Pedersen Planning Consultants, 2003.

### **6.3.3.2 Exploration and Well Completion Personnel**

In general, exploration and well completion crews are a highly migratory portion of the workforce. Transient or temporary housing that may be accommodated in RV and trailer parks, as well as rental apartments, is very marketable to this segment of the CBM workforce. It is assumed that 100 percent of the exploration and well completion personnel residing in Johnson County will desire some form of rental housing.

### **6.3.3.3 Lease Operators Associated With Long-Term Production**

The lease operators and instrumentation specialists associated with CBM production have a much greater potential to become longer-term residents of a community in the vicinity of the Powder River Basin. The nature of their work will involve the monitoring and maintenance of CBM wells in the Powder River Basin for, at least, several years.

Based upon discussions with CBM industry representatives, 75 percent of the lease operators will represent potential homebuyers of single-family homes and other homes. The remaining 25 percent will likely pursue rental housing, such as apartments or the lease of a mobile home lot.

### **6.3.3.4 Administrative and Technical Personnel**

Personnel that manage and operate smaller administrative offices for CBM companies will continue to generate a demand for residential properties. It is estimated that approximately 70 percent of this demand will be for the purchase of single-family residential properties. The remaining 30 percent will be for rental housing such as apartments or mobile home park spaces.



New housing demands for this segment of the CBM labor force are expected to be limited. A number of CBM companies such as Fidelity Exploration and Production, Northwest Energy, and MTG Operating Company have already established field offices in Buffalo.

### **6.3.4 Seasonal Visitor Industry Labor Force**

Future housing demands for the seasonal visitor industry labor force will include rental housing, RV park and mobile home trailer spaces, from May through late September. Those working in accommodations, food services, and retail on a seasonal basis will not be looking for permanent housing unless they obtain long-term employment within Buffalo and other parts of Johnson County. But, for the most part, these workers enjoy living and working in different areas of the country rather than making personal and financial commitments to one location. Websites such as workamp.com regularly provide job listings for seasonal job opportunities for this workforce.

In general, this workforce tends to include two groups of seasonal workers:

- those under 30 years old who tend to be single; and,
- persons over 55 years of age who, more frequently, are couples.

Dormitories, apartment units, and campgrounds are more attractive to the seasonal workers under 30 years of age. The older segment of the seasonal workforce frequently owns a trailer, RV, or motor home that they use for housing as they travel from one location to another.

Covered employment information for 2000 and 2001 suggests that there are, at least, 330 seasonal jobs in accommodations, food services, and retail trade in the Johnson County economy. If 75 percent of this workforce is from outside of Buffalo and Johnson County, there is a demand for about 248 rental-housing units for the incoming seasonal visitor industry labor force. Some community leaders have suggested that the proportion of incoming seasonal visitor industry workers may be as much as 95 percent (Gross, 2002). If so, the present demand may be as high as 314 rental-housing units per season. Since covered employment does not include accommodations, food services and retail trade that are owned by sole proprietors, a potential demand of 314 rental-housing units may be more reasonable.

It is believed that the volume of this demand (Table 6-17) will increase three percent per year during the 2003-2012 period. This is tied to an assumption that the Buffalo community will continue to promote itself as a visitor destination and that private investors will continue to respond to potential accommodations, food service, and retail trade opportunities derived from visitor traffic.

Tourism is a very cyclical industry that is highly sensitive to social, economic and political trends. Seasonal employment can decline significantly during periods of international economic crises, outbreaks of war, regional fires in national forests, and other events. Nevertheless, the future expansion of the visitor industry in Buffalo and Johnson County is highly dependent upon the availability of housing for seasonal workers associated with accommodations, food services, and retail trade.

<b>TABLE 6-17 ANTICIPATED HOUSING DEMAND SEASONAL VISITOR INDUSTRY EMPLOYMENT CITY OF BUFFALO</b>	
<b>Year</b>	<b><sup>1</sup>Rental Housing Units</b>
2003	209
2004	215
2005	222
2006	228
2007	235
2008	242
2009	250
2010	257
2011	265
2012	273

Notes: <sup>1</sup>Assumes an occupancy of 1.5 of its workers per housing unit.  
Source: Pedersen Planning Consultants, 2002.

There is also a considerable number of seasonal workers employed at various guest ranches in Johnson County. Most of these operations provide housing for seasonal workers. Consequently, potential demands for accommodations may be over-stated. At the same time, there is an undetermined number of seasonal workers employed on a cash basis and not reflected in covered employment data published by the Wyoming Department of Employment.

### 6.3.5 U.S. Bureau of Land Management, Buffalo Field Office

The U.S. Bureau of Land Management's Buffalo Field Office intends to hire 16 additional personnel by the end of CY 2002. These personnel will be hired to support efforts to complete the environmental impact statement for the Powder River Basin Oil and Gas Project, as well as monitor ongoing and future oil and gas activities. It is anticipated that the present size of the BLM workforce will remain through, at least, 2012 (Zander, 2002).



It is anticipated that these personnel will prefer the purchase of single-family residential properties within, or in close proximity to, the City of Buffalo. If residential properties are not affordable, they will likely seek rental housing until single-family properties within their range of affordability become available.

### 6.3.6 Persons Seeking Rural Properties in the Unincorporated Area

A continuing demand for rural residential properties will be derived from those persons that seek to establish a smaller farm or ranch, or own a residence on a more spacious rural property in Johnson County. The smaller farmer/rancher market will most likely be seeking properties that are, at least, 40 acres in size. In contrast, those seeking a rural residence, with no intention to participate in agricultural activities, will likely prefer properties less than 5 acres in size.

These demands reflect that some coal bed methane workers will choose to live in the unincorporated area of Johnson County. As stated earlier, another portion of the demand in the unincorporated area will come from the 56+age group.

### 6.3.7 Existing Residents

#### 6.3.7.1 Buffalo

Based upon resident intentions derived from a 2002 Buffalo Housing Survey, it is estimated that 12 percent of all Buffalo households will seek different housing in Buffalo within the next three to five years. Using the 2000 Census estimate of 1,718 households in Buffalo, this demand represents approximately 206 housing units between 2003 and 2007.

The primary market will be for a single family home, manufactured or modular home, town home or duplex. Survey results indicated that 92 percent of this market will purchase their housing; the remaining market will rent housing.

The Buffalo Housing Survey results suggest that 56 percent of those intending to make future housing purchases and rentals (12 percent of all Buffalo households) will occur sometime in 2003. Another 22 percent is expected to purchase or rent a different home in 2004. The remaining 22 percent of home purchases would occur in 2005, 2006 and 2007. These survey results were used to calculate the anticipated housing demands for existing residents of Buffalo (Table 6-18).

<b>TABLE 6-18 HOUSING DEMAND FROM EXISTING BUFFALO RESIDENTS 2003-2012</b>			
<b>Year</b>	<b>Purchase</b>	<b>Rent</b>	<b>Total</b>
2003	106	9	115
2004	44	4	48
2005	14	1	15
2006	13	1	14
2007	13	1	14
2008	0	0	0
2009	0	0	0
2010	0	0	0
2011	0	0	0
2012	0	0	0

Source: Pedersen Planning Consultants, 2002.

### 6.3.7.2 Kaycee

#### April 2002 Survey

A similar housing survey was made of Kaycee residents in April 2002. Completed surveys were received from 53 residents, or approximately 51 percent of all households in Kaycee.

Based upon resident intentions expressed in survey responses, PPC initially estimated that 21 percent of all Kaycee households would seek different housing within Kaycee within the next three to five years. Using the 2000 Census estimate of 103 households, this demand represents approximately 22 housing units from 2003 through 2007.



The primary market will be for a single-family home that is a manufactured or modular home. Following survey results, PPC assumed that 75 percent of this market will purchase their housing; the remaining 25 percent of the resident market will rent available housing.

Responses to the April 2002 Kaycee Housing Survey suggested that 55 percent of those intending to make future housing purchases and rentals would seek other housing sometime in 2003. Another 27 percent were expected to purchase or rent a different home in 2004. The remaining 18 percent of home purchases would occur in 2005, 2006 and 2007.

#### November 2003

The same survey was distributed to Kaycee residents in late November 2003 to determine if the flood of August 2002 significantly changed resident housing preferences and/or future plans to rent or purchase new housing in Kaycee. There were 62 total responses to the 2003 survey, or approximately 60 percent of all households in Kaycee. The satisfaction of Kaycee residents with their current housing remained high (84 percent) and only slightly less than reported in April 2002 (88 percent).

For those respondents dissatisfied with their existing housing, the dissatisfaction was based upon their perception that their existing home was:

- too small;
- in poor condition;
- not the type of housing unit desired; and/or,
- the home was not in a desirable location.

In terms of housing preference, those dissatisfied with their existing housing desired to live in a manufactured or modular home, or some other type of single-family dwelling. A minority of these respondents would seek a mobile home or town home.

Ninety percent of those dissatisfied with their existing housing desire to purchase new housing if the desired type of housing would be available in Kaycee. About 38 percent said that they would purchase or rent new housing in 2004. Fifty percent indicated that they would purchase or rent new housing in 2005. The remaining 12 percent felt that they would purchase or rent new housing sometime between 2006 and 2008. Consequently, most of those residents dissatisfied with their present housing are expected to purchase or rent a new home in 2004 or 2005.

The intentions of those responding to the Kaycee Housing Survey were used to calculate the anticipated housing demands from existing residents of Kaycee (Table 6-19).

**6.3.8 Cumulative Housing Demand**

Cumulative housing demands in Johnson County are expected to be substantial during the 2003-2012 period (Table 6-20, Table 6-21, and Table 6-22). The level of demands for fee simple residential properties and rental housing is significant when correlated with available housing inventories. In essence, anticipated demands for the 2003-2012 suggest the following for Buffalo, Kaycee and the unincorporated area of Johnson County:

**6.3.8.1 City of Buffalo**

Fee Simple Residential Properties

The predominant demand for housing in Buffalo will continue to be for the purchase of fee simple single-family properties. The demand will be for a combination of stick-built homes, manufactured homes, mobile homes, town houses and duplexes.

The demand for single-family home purchases is expected to range between 33 to 132 homes per year during the 2003-2012 period. The primary market for purchases of fee simple residential properties is expected to be existing residents of Buffalo who intend to purchase a different home in 2003 and 2004. The demand for new residential properties will help generate needed additions to the fee simple housing inventory as existing homes in Buffalo are sold. However, this additional inventory will likely be insufficient to meet future demands.

From 2005 through 2012, it is anticipated that the fee simple residential market in Buffalo will shift to a growing incoming population 56 years of age and older. This market group includes persons who are nearing or within retirement age. This is a growing market group of buyers that will have an effect upon future demand and available inventories. About half of this market is expected to seek fee simple residential properties in the unincorporated area.

The coal bed methane labor force is also expected to generate some demand for single-family home purchases during the 2003-2012 period. This demand is anticipated to be from lease operators and a portion of new administrative personnel. Given the nature of the natural gas industry, potential buyers of fee simple residential properties from this labor force can be expected to quickly search the market for available single-family housing. If residential properties are not readily available and/or reasonably priced, this market may obtain rental housing or search for fee simple residential property in an adjoining county.

Some demand for the purchase of single-family residential properties may also be generated from new workers that are expected to join BLM's Buffalo Field Office in CY 2003. However, this demand is not anticipated to extend beyond 2003.

<b>Year</b>	<b>Purchase</b>	<b>Rent</b>	<b>Total</b>
2004	5	0	5
2005	6	1	7
2006	1	0	1
2007	1	0	1
2008	0	0	0
2009	0	0	0
2010	0	0	0
2011	0	0	0
2012	0	0	0
2013	0	0	0

Source: Pedersen Planning Consultants, 2002.



**TABLE 6-20  
CUMULATIVE HOUSING DEMAND  
CITY OF BUFFALO  
2003-2012**

YEAR	COAL BED METHANE		BUREAU OF LAND MANAGEMENT		SEASONAL WORKERS		RETIREMENT AGE POPULATION		EXISTING RESIDENTS		TOTAL			
	Purchase	Rental	Purchase	Rental	Purchase	Rental	Purchase	Assisted Living	Purchase	Rental	Purchase	Assisted Living	Rental	Total
<b>2003</b>	1	39	11	0	0	209	14	6	106	9	<b>132</b>	<b>6</b>	<b>257</b>	<b>395</b>
<b>2004</b>	14	62	0	0	0	215	20	8	44	4	<b>78</b>	<b>8</b>	<b>281</b>	<b>367</b>
<b>2005</b>	14	62	0	0	0	222	20	8	14	1	<b>48</b>	<b>8</b>	<b>285</b>	<b>341</b>
<b>2006</b>	14	62	0	0	0	228	20	8	13	1	<b>47</b>	<b>8</b>	<b>291</b>	<b>346</b>
<b>2007</b>	14	62	0	0	0	235	20	8	13	1	<b>47</b>	<b>8</b>	<b>298</b>	<b>353</b>
<b>2008</b>	14	62	0	0	0	242	20	8	0	0	<b>34</b>	<b>8</b>	<b>304</b>	<b>346</b>
<b>2009</b>	14	62	0	0	0	250	20	8	0	0	<b>34</b>	<b>8</b>	<b>312</b>	<b>354</b>
<b>2010</b>	14	62	0	0	0	257	20	8	0	0	<b>34</b>	<b>8</b>	<b>319</b>	<b>361</b>
<b>2011</b>	14	62	0	0	0	265	20	8	0	0	<b>34</b>	<b>8</b>	<b>327</b>	<b>369</b>
<b>2012</b>	14	62	0	0	0	273	20	8	0	0	<b>34</b>	<b>8</b>	<b>335</b>	<b>377</b>

Note: The number of housing units represents the housing demand for each year. However, these demands can also be considered cumulative for the 2003-2012 period. For example, the retirement age population is expected to generate a demand for 78 assisted living units for the 2003-2012 period. In contrast, the housing demands for seasonal workers are not cumulative. Seasonal workers stay in the community for only three to six months, and the same workers do not necessarily return.

Source: Pedersen Planning Consultants, 2003.

**TABLE 6-21  
CUMULATIVE HOUSING DEMAND  
TOWN OF KAYCEE  
2004-2013**

YEAR	COAL BED METHANE		BUREAU OF LAND MANAGEMENT		SEASONAL WORKERS		RETIREMENT AGE POPULATION		EXISTING RESIDENTS		TOTAL			
	Purchase	Rental	Purchase	Rental	Purchase	Rental	Purchase	Assisted Living	Purchase	Rental	Purchase	Assisted Living	Rental	Total
<b>2004</b>	0	5	0	0	0	0	0	0	5	0	<b>5</b>	<b>0</b>	<b>5</b>	<b>10</b>
<b>2005</b>	1	9	0	0	0	0	0	0	6	1	<b>7</b>	<b>0</b>	<b>10</b>	<b>17</b>
<b>2006</b>	1	9	0	0	0	0	0	0	1	0	<b>2</b>	<b>0</b>	<b>9</b>	<b>11</b>
<b>2007</b>	1	9	0	0	0	0	0	0	1	0	<b>2</b>	<b>0</b>	<b>9</b>	<b>11</b>
<b>2008</b>	1	9	0	0	0	0	0	0	0	0	<b>1</b>	<b>0</b>	<b>9</b>	<b>10</b>
<b>2009</b>	1	9	0	0	0	0	0	0	0	0	<b>1</b>	<b>0</b>	<b>9</b>	<b>10</b>
<b>2010</b>	1	9	0	0	0	0	0	0	0	0	<b>1</b>	<b>0</b>	<b>9</b>	<b>10</b>
<b>2011</b>	1	9	0	0	0	0	0	0	0	0	<b>1</b>	<b>0</b>	<b>9</b>	<b>10</b>
<b>2012</b>	1	9	0	0	0	0	0	0	0	0	<b>1</b>	<b>0</b>	<b>9</b>	<b>10</b>
<b>2013</b>	1	9	0	0	0	0	0	0	0	0	<b>1</b>	<b>0</b>	<b>9</b>	<b>10</b>

Note: The number of housing units represents the housing demand for each year. However, these demands can also be considered cumulative for the 2003-2012 period.

Source: Pedersen Planning Consultants, 2003.

**TABLE 6-22  
CUMULATIVE HOUSING DEMAND  
UNINCORPORATED AREA OF JOHNSON COUNTY  
2003-2012**

YEAR	COAL BED METHANE		BUREAU OF LAND MANAGEMENT		SEASONAL WORKERS		RETIREMENT AGE POPULATION		EXISTING RESIDENTS		TOTAL			
	Purchase	Rental	Purchase	Rental	Purchase	Rental	Purchase	Assisted Living	Purchase	Rental	Purchase	Assisted Living	Rental	Total
<b>2003</b>	0	14	5	0	0	0	14	5	0	0	<b>19</b>	<b>5</b>	<b>14</b>	<b>38</b>
<b>2004</b>	5	14	0	0	0	0	19	7	0	0	<b>23</b>	<b>7</b>	<b>14</b>	<b>44</b>
<b>2005</b>	5	14	0	0	0	0	19	7	0	0	<b>23</b>	<b>7</b>	<b>14</b>	<b>44</b>
<b>2006</b>	5	14	0	0	0	0	19	7	0	0	<b>23</b>	<b>7</b>	<b>14</b>	<b>44</b>
<b>2007</b>	5	14	0	0	0	0	19	7	0	0	<b>23</b>	<b>7</b>	<b>14</b>	<b>44</b>
<b>2008</b>	5	14	0	0	0	0	19	7	0	0	<b>23</b>	<b>7</b>	<b>14</b>	<b>44</b>
<b>2009</b>	5	14	0	0	0	0	19	7	0	0	<b>23</b>	<b>7</b>	<b>14</b>	<b>44</b>
<b>2010</b>	5	14	0	0	0	0	19	7	0	0	<b>23</b>	<b>7</b>	<b>14</b>	<b>44</b>
<b>2011</b>	5	14	0	0	0	0	19	7	0	0	<b>23</b>	<b>7</b>	<b>14</b>	<b>44</b>
<b>2012</b>	5	14	0	0	0	0	19	7	0	0	<b>23</b>	<b>7</b>	<b>14</b>	<b>44</b>

Note: The number of housing units represents the housing demand for each year. However, these demands can also be considered cumulative for the 2003-2012 period.

Source: Pedersen Planning Consultants, 2003.

The extent that anticipated fee simple residential property demand is met will be influenced by available single-family housing inventories. There were approximately 50 properties in the single-family residential property market during the 1Q 2002. This inventory level is highly inadequate to meet the expected single-family demands for residential property purchases from 2003 through 2012. Therefore, available inventories may need to be three to four times the demand to enable local real estate professionals to market 39-50 residential property sales per year.

### Rental Housing

Significant additional rental housing will be needed to meet the demand of seasonal visitor industry workers and existing residents who prefer, and barely afford, rental housing. Rental-housing demand is also anticipated from the coal bed methane labor force as long as rental housing is available and priced affordably to attract this labor force.

There is a demand for the lease of approximately 68 assisted living units to accommodate residents 65 years and older during the 2003-2012 period.

Existing occupancies already exhaust the capacity of most available rental housing. Anticipated rental housing demand is well beyond the existing rental housing supply. The lack of rental housing will increase the price of housing and discourage potential residents from locating within the community.

Seasonal visitor industry workers represent a significant market for rental housing. A large portion of this demand can be met through the construction of more RV park/campgrounds and mobile home parks.

#### **6.3.8.2 Town of Kaycee**

Modest housing demands are expected in Kaycee during the 2003-2012 period (Table 6-21). Much of this demand will be for rental housing for an incoming coal bed methane labor force.

In the aftermath of the August 2002 flood, most residents have remained in the community. Some have replaced homes damaged during the flood (Knapp, 2003). The demand for some new housing from existing community residents was also evident from data gained from the November 2003 housing survey.

#### **6.3.8.3 Unincorporated Area**

The unincorporated area of Johnson County can also expect to experience increased housing demands during the 2003-2012 period. New rental housing demands will be generated from an incoming coal bed methane labor force. Secondly, some limited demands for assisted living housing will also be generated by persons in the 65+ market group. The larger 56+ market group will also be the primary source of demand for the purchase of rural residential properties. It is expected that most of this demand will be for properties within about five miles from Buffalo.

## **6.4 POTENTIAL AREAS FOR RESIDENTIAL EXPANSION**

### **6.4.1 New Housing Projects**

#### **6.4.1.1 *Cloud Peak Vistas***

This residential project, which was recently developed by Community Development, Inc. of Caldwell, Idaho, involved the construction of 30 rental housing units on a 2-acre site in the Buffalo Commerce Center. These units were developed in five six-plex buildings that comprise 20 two-bedroom flats and 10 three-bedroom town house units.

Onsite amenities include a 900-square foot community building that is comprised of a manager's office, small computer room, laundry room and large community room. The community room is made available to project residents, at no additional cost, for general recreation. In addition, the developer furnished a children's playground area that contains playground equipment.

Community Development, Inc. reports that rental rates at this complex will be established at rates that will be affordable to households with incomes at 40-50 percent of area median income (AMI). Two bedroom units will rent for \$346 (40 percent AMI), \$372 (45 percent AMI), and \$396 (45 percent AMI, tax credit only units) per month. Three-bedroom units will be rented for either \$440 (45 percent AMI) or \$505 (50 percent AMI) per month. While the rental rates are targeted for affordable income ranges, the developer points out that the rental rates will be below market rates for comparably sized units.

Census 2000 data indicates that the median household income for the City of Buffalo was \$29,392 in April 2000.

#### **6.4.1.2 *Diamond Point Construction Apartments***

Diamond Point Construction has completed construction of an eight-plex apartment complex just north of the YMCA. This complex consists of two four-plex buildings on two residential lots that are joined together with a common wall. Each of the eight apartment units contains approximately 1,100 square feet of floor area (Hatch, 2002).

It is anticipated that the apartments will be rented by Diamond Point Construction for roughly \$650 to \$700 per month (Hatch, 2002).

#### **6.4.1.3 *Mountain Ridge Estates Subdivision, Phase III***

The Mountain Ridge Estates Subdivision is situated northwest of the Buffalo Golf Course and immediately south of French Creek Road. The Johnson County Planning and Zoning Commission and the Johnson County Commissioners approved development of the subdivision's third increment (Figure 6-3). Phase III will include 22 2.5-acre lots that will eventually be developed for single-family housing. These lots will be serviced by onsite groundwater wells and septic systems.

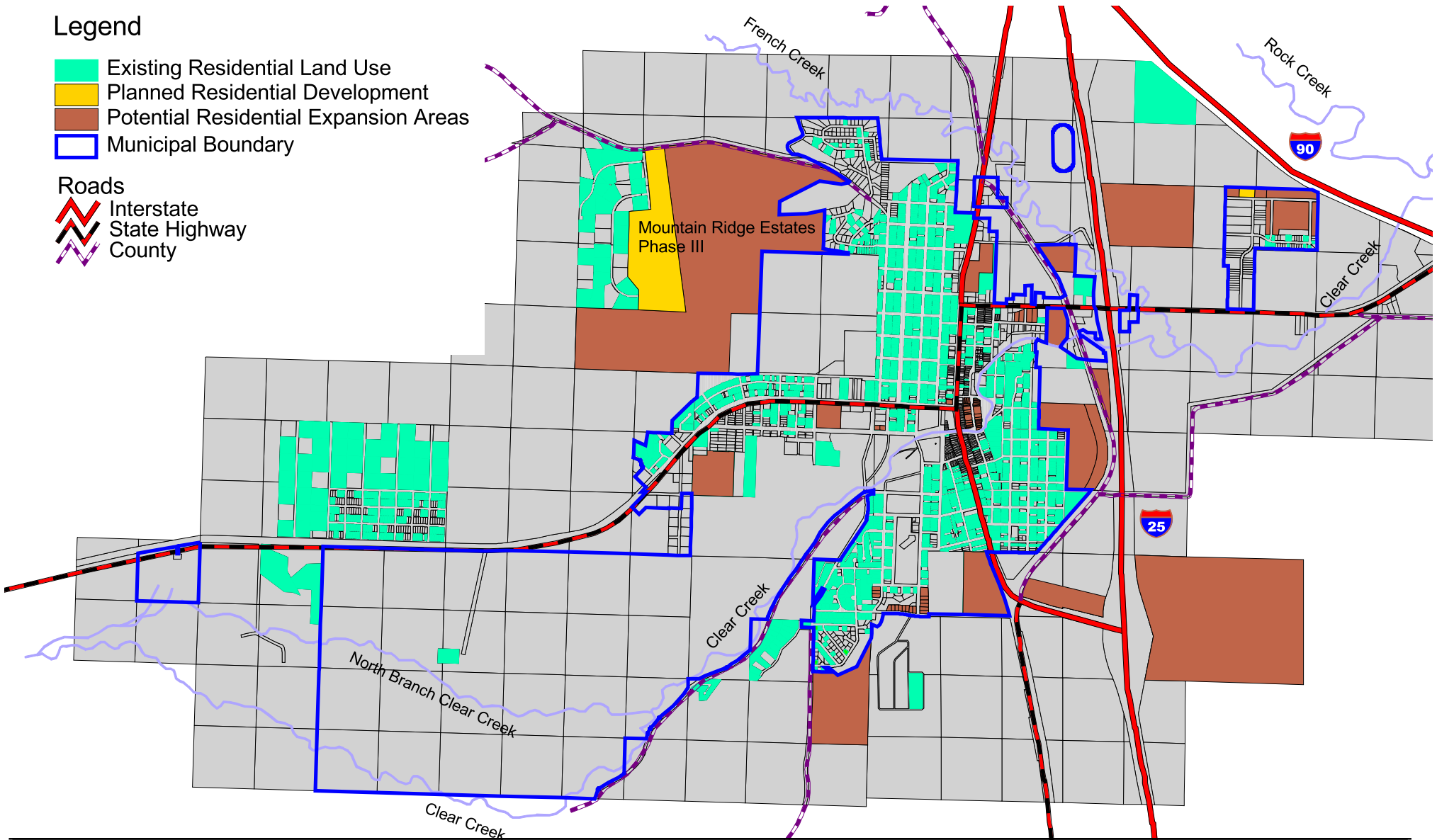
An additional phase or phases of the Mountain Ridge Estates Subdivision are being designed at the time of this report. This expansion will be served by the City of Buffalo's municipal water system.

# Legend

- Existing Residential Land Use
- Planned Residential Development
- Potential Residential Expansion Areas
- Municipal Boundary

## Roads

- Interstate
- State Highway
- County



# Johnson County Land Use Plan

# Planned and Potential Residential Expansion City of Buffalo

Prepared by: Pedersen Planning Consultants  
P.O. Box 66, Encampment, WY 82325  
307-327-5434

Figure 6-3

## **6.4.2 Other Potential Housing Expansion Areas**

Aside from recent housing development projects, there are various sites in the vicinity of Buffalo, Kaycee and in the unincorporated area of Johnson County where potential residential expansion can occur to accommodate future housing demands during the 2003-2012 period. Discussions with various municipal representatives, real estate brokers and developers provided valuable insights to this evaluation. Based upon their insights and a cursory review of potential locations, various sites are considered feasible for future residential development. The identification of these sites is not intended to suggest a complete listing of sites that may be feasible or desirable for residential expansion in Johnson County. Rather, these sites represent examples of where residential expansion might occur.

### **6.4.2.1 Buffalo**

There are various sites that may be feasible for residential expansion in the City of Buffalo and within a five-mile radius of Buffalo's municipal boundary (Figure 6-3). These sites include the following:

- Undeveloped lands east of the Mountain Ridge subdivision (Phase III) that are northwest of the Buffalo Golf Course, as well as west of the North Ridge Addition and the Northwest Greenbelt Addition. This property is a logical location for more single-family housing that should be annexed by the City of Buffalo. Annexation will require connection of this project to the Buffalo water system. The proposed development of a water storage tank upslope of this area was recently evaluated by a Wyoming Water Development Commission consultant. This improvement will enhance the feasibility of connecting a future residential subdivision to the municipal water system.
- The City of Buffalo owns approximately 17 residential lots in the Meadowlark Addition, which is located north of the Willow Creek Cemetery. These residential lots are suitable for single family, apartment, or town house development. The development of an affordable housing project in this area could be accomplished by private residential developers if the City of Buffalo would structure an attractive investment opportunity.
- A platted mobile home park with 50-60 spaces is situated in the Anderson Addition. This property is presently for sale and could be used to attract seasonal visitor industry workers, CBM labor force, or provide RV and trailer spaces for summer visitors.
- Undeveloped acreage within or immediately adjacent to the City limits that have residential development potential include, at least, the Bergner Addition, a 50-60 acre parcel immediately south of the 4-K Addition, and the Smith Trust property east of the Hamilton Addition.

### **6.4.2.2 Unincorporated Area of Johnson County**

The unincorporated area of Johnson County contains approximately 50 rural residential subdivisions (Table 6-23). PPC's review of Johnson County Assessor records for each of these subdivisions indicates that there are, at least, 321 undeveloped lots in these subdivisions.

This is a conservative estimate, as adjoining vacant properties owned by a landowner in one subdivision were not considered in this estimate.

**TABLE 6-23  
RURAL RESIDENTIAL SUBDIVISIONS  
JOHNSON COUNTY  
2001**

<b>Subdivision</b>	<b>Single Family Homes</b>	<b>Undeveloped Residential Lots</b>
Beacon Hills	8	3
Big Horn Phase 1	17	2
Big Horn Phase 2	23	3
Boggs	16	1
Buckingham	6	1
Buena Vista	10	7
Clearrock	0	1
Cloud Peak Ranchettes	38	9
Diamond Cross Ranch	9	4
Dry Creek	6	5
Dube Lots in Glenn Acres	2	1
Dull Knife-North & South	11	10
Elk Ridge	2	22
Elk Meadows	1	0
Foothills	7	0
Gillam	0	2
Glenn Acres	7	1
Hesse Mtn	3	3
Hi-Country	4	6
Hillcrest Village	11	2
Homestead	0	35
Indian Valley	11	2
Johnson Creek	7	5
Lake Desmet	5	1
Last Chance	9	1
Little Piney	21	55
Meadows	9	4
Middle Fork	1	7
Mountain Ridge 1	8	2
Mountain Ridge 2	17	9
Mountain Top	6	3
North Fork	3	26
Paradise Ranch	0	0
Park West	0	10
Powder River Properties	3	7
Redhills Ranches	10	12
Richardson Park	68	28
Robbers Roost	5	2
Rocky Knob	0	3
Sandy Creek	1	5
Skyline Peaks	4	3
Top of the Rockies	14	7
Trabing Knoll	3	2
Twin Lakes	3	3
Ventling	1	0
Valley View Estates	3	2
Wagon Wheel Acres	22	4
Weeden	1	0
<b>TOTAL</b>	<b>416</b>	<b>321</b>
Source: Johnson County Assessor's Office, 2002, Pedersen Planning Consultants, 2002.		



These undeveloped lots represent residential expansion opportunities for landowners who seek to construct seasonal or full-time residences in the unincorporated area. However, these properties are generally not large enough to support smaller farm or ranch operations.

#### **6.4.2.3 Town of Kaycee**

Within the Town of Kaycee, there are various lots that are vacant or undeveloped. In some cases, these properties represent one or more adjoining residential lots that are associated with an existing single family home. In other situations, existing landowners may be willing to sell one or more vacant lots. However, some lots may no longer be desirable as building sites due to the experience gained during the August 2002 flood in Kaycee. In the absence of more specific information from existing landowners, PPC believes that few lots, within existing subdivisions, are available for future residential expansion.

The Town of Kaycee is considering the approval of a proposed subdivision near the mercantile store. The proposed Middle Fork Addition would, if approved, contain 28 lots that could support some future residential expansion.

Some residential expansion opportunities may be feasible north and east of the Kaycee municipal boundary. Residential expansion may require an extension of water distribution and sewer collection lines to these areas. In 1998, consideration was given to an expansion of the Kaycee water system. A water master plan, prepared by Grizzly Engineering, Inc. in 1998, examined the feasibility of expanding the existing system to potential users north and east of Kaycee.

## CHAPTER SEVEN COMMERCIAL LAND USES

### 7.1 EXISTING COMMERCIAL LAND USE

Commercial facilities and activities in Johnson County are primarily concentrated within the City of Buffalo and the Town of Kaycee. Additional commercial activities are also located mostly within adjoining unincorporated areas situated within a one-mile radius of both communities (Figure 7-1 and Figure 7-2).

#### 7.1.1 City of Buffalo

The primary commercial center of Johnson County is the City of Buffalo. In this community, there are about 260 commercial enterprises (Table 7-1). Most commercial activities are concentrated along Main Street, Hart Street, and Fort Street. However, a considerable number of commercial enterprises are being operated from the homes of many residents (See Section 7.2.4).

<b>TABLE 7-1 COMMERCIAL ACTIVITIES CITY OF BUFFALO 2002</b>	
<b>Type of Commercial Establishments</b>	<b>Number of Establishments</b>
Retail Trade	49
General Merchandise	40
Information	11
Finance and Insurance	35
Real Estate Rental and Leasing	4
Professional, Scientific and Technical Services	31
Health Care and Social Assistance	7
Accommodations and Food Services	39
Other Services	27
Other categories	15
<b>Total</b>	<b>258</b>
Source: Johnson County Assessor's Office, 2001; Pedersen Planning Consultants, 2002.	

The predominant types of commercial enterprises in Buffalo are retail trade, general merchandise, accommodations and food services. Ongoing commercial activities reflect Buffalo's commitment to a visitor industry and services supporting the resident population.

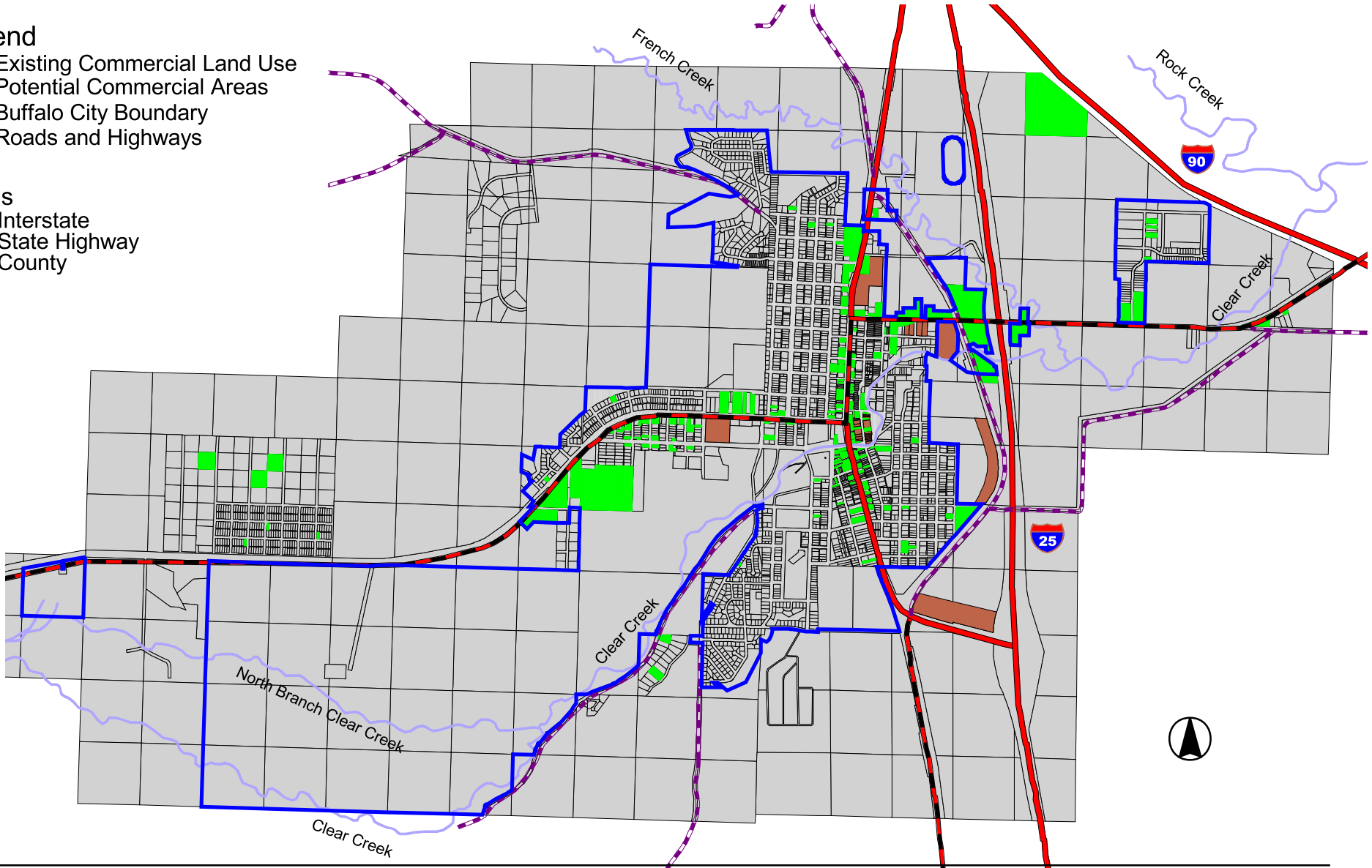


**Legend**

- Existing Commercial Land Use
- Potential Commercial Areas
- Buffalo City Boundary
- Roads and Highways

**Roads**

- Interstate
- State Highway
- County

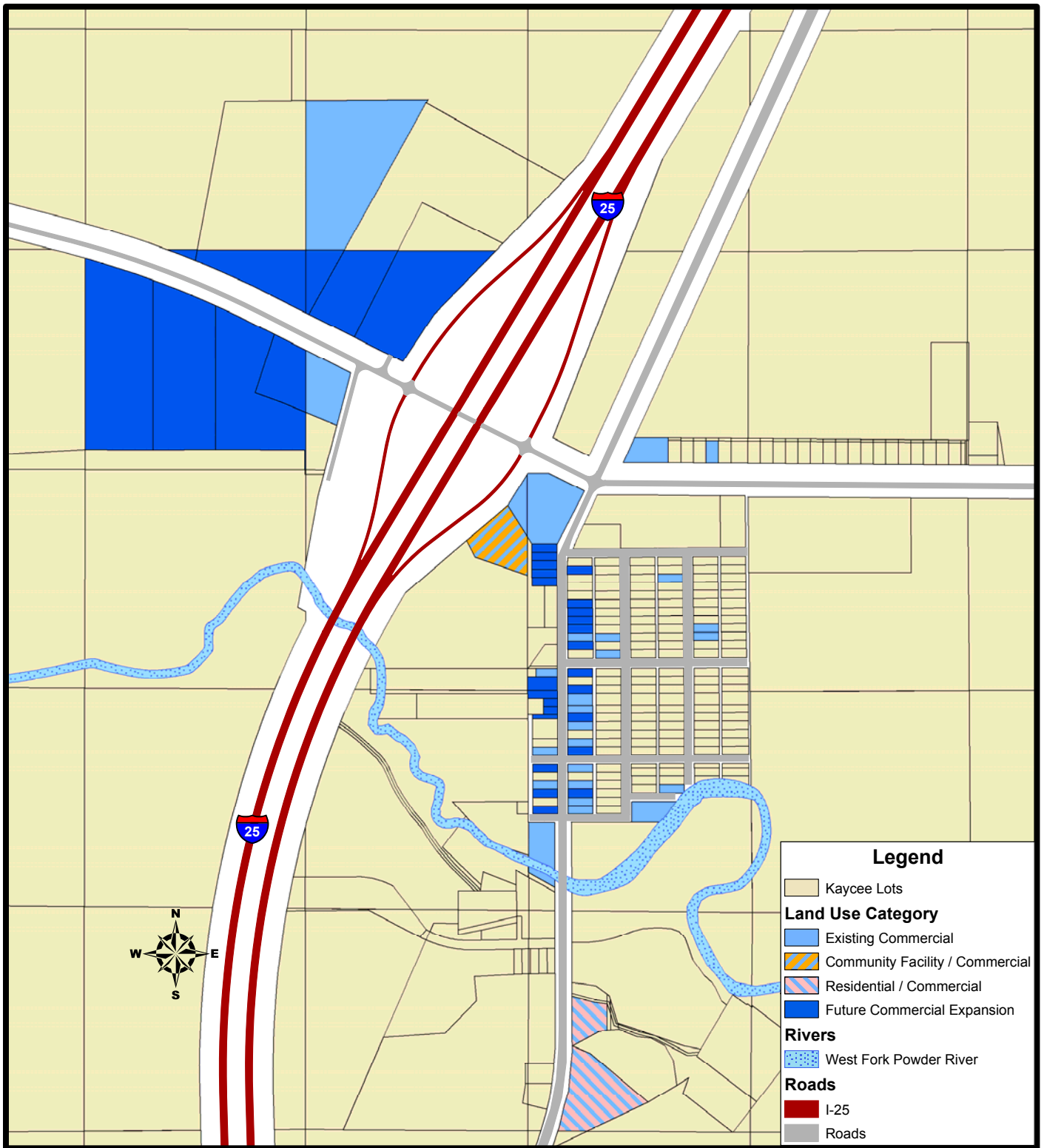


**Johnson County  
Land Use Plan**

**Existing and Potential Commercial Areas  
City of Buffalo**

Prepared by: Pedersen Planning Consultants  
P.O. Box 66, Encampment, WY 82325  
307-327-5434

Figure 7-1



# Johnson County Land Use Plan

# Existing and Potential Commercial Areas Town of Kaycee

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307-327-5434

Figure 7-2

### 7.1.2 Unincorporated Area of Johnson County

About 40 commercial establishments operate in the unincorporated area of Johnson County (Table 7-2). PPC estimates that 85-90 percent of these establishments are located within a one-mile radius of Buffalo's municipal boundary. Most of the remaining are situated within a one-mile radius of Kaycee.

<b>TABLE 7-2 COMMERCIAL ACTIVITIES UNINCORPORATED AREA OF JOHNSON COUNTY 2002</b>	
<b>Commercial Activities</b>	<b>Number of Establishments</b>
Retail Trade	9
General Merchandise	6
Information	0
Finance and Insurance	0
Real Estate Rental and Leasing	0
Professional, Scientific and Technical Services	7
Health Care and Social Assistance	0
Accommodations and Food Services	13
Other Services	2
Other Categories	3
<b>Total</b>	<b>40</b>
Source: Pedersen Planning Consultants, 2002.	

<b>TABLE 7-3 COMMERCIAL ACTIVITIES TOWN OF KAYCEE 2004</b>	
<b>Commercial</b>	<b>Number of Establishments</b>
Retail Trade	3
General Merchandise	1
Information	0
Finance and Insurance	1
Real Estate Rental and Leasing	1
Professional, Scientific and Technical Services	0
Health Care and Social Assistance	0
Accommodations and Food Services	8
Other Services	5
Other categories	0
<b>Total</b>	<b>19</b>
Source: Pedersen Planning Consultants, 2002	

Similar to Buffalo and Kaycee, a considerable number of residents operate home-based commercial enterprises from their homes. Most of these businesses represent sole proprietorships and operate with no paid employees.

### 7.1.3 Town of Kaycee

There are approximately 19 commercial businesses within the Town of Kaycee (Table 7-3) that operate in commercial facilities. These businesses are largely associated with accommodations and food services. However, a few additional enterprises are related to retail trade, general merchandise, finance and insurance, as well as real estate rental and leasing.

The flood of July 2002 significantly impacted the availability of commercial facilities. One mercantile store was lost due to damage and losses experienced from the flood.

Since the flood of July 2002, a new private investor established a new mercantile store operation west of Nolan Avenue. A convenience store also opened at the intersection of Nolan Avenue and First Street. In addition, a new retail horse tack store is also expected to open along Nolan Avenue during the summer of 2004.

Similar to the City of Buffalo, a number of residents in Kaycee likely operate home-based commercial businesses from their homes. A gas station, convenience store, and the KC RV Park are also located west of Interstate 25 along Sussex Road. However, these commercial facilities are located outside of the municipal boundary.

## 7.2 COMMERCIAL LAND USE ISSUES

### 7.2.1. Recent Market Trends

Recent market information associated with the sale of commercial property and undeveloped commercial lots in Johnson County signal some trends that are relevant to the availability of commercial floor space and undeveloped commercial lots (Table 7-4).

LOCATION	1999		2000		2001			
	Number of Buildings	Average Sales Price (\$)	Number of Buildings	Average Sales Price (\$)	Number of Buildings	Average Sales Price (\$)	Number of Lots	Average Sales Price (\$)
<b>Buffalo Commerce Center Addition</b>	5	51,755	0	0	2	60,569	3	13,941
<b>Burlington Addition</b>	1	111,000	0	0	0	0	0	0
<b>Downtown</b>	5	135,330	4	145,100	3	259,333	0	0
<b>Fort Street</b>	1	58,000	2	89,750	2	210,000	0	0
<b>East Hart Street/Hwy 16</b>	1	90,000	0	0	1	85,000	0	0
<b>TOTALS</b>	<b>13</b>	Total Sales Volume <b><u>\$1,194,274</u></b>  Average: \$91,867	<b>6</b>	Total Sales Volume <b><u>\$122,960</u></b>  Average: \$22,421	<b>8</b>	Total Sales Volume <b><u>\$1,404,138</u></b>  Average: \$175,517	<b>3</b>	Total Sales Volume <b><u>\$ 41,822</u></b>  Average: \$13,941
<b>Unincorporated Johnson County</b>	1	\$ 185,500	0	0	0	0	0	0

Source: Buffalo Board of Realtors, Multiple Listing Service, 2002; Pedersen Planning Consultants, 2002.

With the exception of one commercial building sale in the unincorporated area of Johnson County, all commercial property sales during the CY 1999-CY 2001 period involved properties in Buffalo. Commercial sales data suggests that the primary demand is for existing commercial buildings. The historical downtown area appears to be the area where most commercial buyers want to establish their commercial enterprises. Considerably higher prices are paid to purchase commercial buildings in this area.

In CY 1999 and CY 2000, only commercial properties with building improvements were sold. In CY 2001, only three of 30 commercial property sales involved undeveloped commercial lots. Aside from the primary demand for existing commercial buildings, the lack of commercial lot sales may also be due to the lack of undeveloped commercial lots.

## 7.2.2 Lack of Land and Floor Space for Commercial Expansion

### 7.2.2.1 General

The stability of smaller rural communities is partly dependent upon the availability of lands to support a combination of uses such as residential, commercial, industrial, community facilities and public facilities. The availability of lands for commercial land use is essential to sustain a viable local economy that generates employment and income. The availability of commercial properties and facilities is also important to stimulate future economic investments, attract new residents and help sustain an existing resident population.

### 7.2.2.2 Downtown City of Buffalo

One of the most important retail trade areas in Buffalo is along Main Street between Fort Street and Angus Street. Retail establishments in this area have the advantage of capturing potential visitor and resident markets as both groups are attracted to the historical downtown area.

If Johnson County desires to attract more visitors to downtown Buffalo, the business community, local landowners, and local government leaders should work cooperatively to:

- expand the amount of land available for future commercial investment;
- examine the structural capability of selected buildings in downtown Buffalo to support future building renovations;
- encourage the gradual renovation of existing commercial buildings along Main Street
- demolish buildings that may not be feasible for renovation and pose a significant safety hazard; and
- select and apply an architectural theme to future development and redevelopment along Main Street.

The completion of these tasks will enable the creation of additional commercial floor space in downtown Buffalo. Expanded floor space will enable the establishment of more retail shopping opportunities necessary to help increase visitor length of stay. While Johnson County is blessed with an abundance of natural resources and attractive outdoor recreational opportunities, many visitors to Buffalo are attracted to the scenic and friendly atmosphere of the community. The availability of increased shopping opportunities will create a more diversified experience for incoming visitors. Greater retail sales generate more employment, income, as well as municipal and county sales tax revenues.

### 7.2.2.3 Hart Street

Hart Street is an important commercial area that is primarily devoted to accommodations and food services. This area is very important to the local economy because it is the primary location where many visitor expenditures are made.



Hart Street is the first visual impression of the community for many visitors to Buffalo. Familiar signs associated with various nationally known franchises are evident and attracts visitor traffic. However, this is the view that many visitors find in most American communities. When visitors come to Buffalo, many hope to find a different view.

To attract more visitor traffic, the business community should strive to keep this corridor clean, attractive, and interesting to visitors. Attractive landscaping and signage, and other onsite improvements, e.g., the carousel adjacent to the Bozeman Trail Steak House restaurant, represents constructive approaches. However, this should be a concerted effort of all businesses along Hart Street in order to make a significant impression on visitors.

#### **7.2.2.4 Nolan Avenue in Kaycee**

The commercial area of Kaycee is primarily located along Nolan Avenue. Since the flood of August 2002, some redevelopment has occurred along Nolan Avenue. Such development will gradually encourage greater commercial investment and redevelopment.

The focus of future re-development should focus upon retail trade opportunities that can meet some of the everyday retail needs of local residents and travelers along Interstate 25. The history of Kaycee and the surrounding area also presents an opportunity to lengthen the time visitors stay in the community. An extended visitor length of stay can increase expenditures associated with accommodations, food service, auto repairs, fuel, and other retail services. These efforts will help sustain the viability of existing commercial enterprises and encourage future investment in new businesses.



#### **7.2.3 Retail Leakage**

Local governments, community and business leaders, and potential investors should also examine other retail trade opportunities. An evaluation of retail trade leakage was presented in Chapter Two. This analysis indicates significant retail leakage in the sale of general merchandise, home furniture, and groceries. Some retail leakage is also occurring with auto dealers, gas services, and local restaurants. In contrast, the actual sales of building materials and hardware, as well as miscellaneous retail sales, reflects that residents are purchasing more of these items from local retail establishments.

Greater selection and attractive pricing in retail markets in Sheridan, Gillette, Casper, and Billings, Montana, are important factors motivating residents to make expenditures outside of Johnson County. It should also be noted that Montana imposes no state sales tax. Nevertheless, future economic development efforts should target local entrepreneurs and other investors who may express interest in pursuing retail trade opportunities in these merchandise categories. Calculations of potential sales in 2001 and 2002, which were developed by PPC for its evaluation of retail leakage, can provide a "starting point" for these business recruitment efforts (Table 3-10).



## 7.2.4 Home-Based Businesses

A correlation of existing commercial establishments in Buffalo, Kaycee, and the unincorporated area of Johnson County with non-employer statistics from the U.S. Census Bureau indicates that a considerable number of Johnson County residents operate small businesses from their home. Home-based commercial enterprises are important to the regional economy because they expand the type and number of retail trade and technical services available in Johnson County. Many of these businesses generate sales and use tax revenues to local government. In some cases, home-based businesses help foster the growth of larger small businesses. For this reason, it is important that the Johnson County Land Use Plan encourage home-based businesses within Buffalo, Kaycee, and the unincorporated area of Johnson County.

Some types of home businesses may generate land use conflicts and adversely impact residents on neighboring properties. For example, home-based businesses that generate considerable vehicular traffic, parking issues, and/or significant noise levels can cause conflicts with neighboring residents. In order to avoid these consequences, any future zoning ordinance should include provisions to restrict home-based businesses that may generate significant adverse consequences to neighboring residents.

## 7.3 FUTURE DEMAND FOR COMMERCIAL LAND USES

### 7.3.1 City of Buffalo

Greater expenditures for accommodations, food services, and retail trade are anticipated during the 2003-2012 period. These expenditures will primarily be tied to an expected increase in visitor industry traffic and a growing retirement age population. An increase in coal bed methane employment is expected to supplement the expenditures from visitors and the retirement age market groups.

Increased resident and visitor expenditures will generate demands for additional commercial lands and floor space (Table 7-5). It is estimated that such demand will generate the need for approximately 76,000 square feet of additional commercial floor space.

<b>TABLE 7-5 ANTICIPATED COMMERCIAL LAND USE DEMANDS CITY OF BUFFALO 2003-2012</b>	
<b>Type of Commercial Activity</b>	<b>Floor Space (square feet)</b>
Accommodations	20,000 <sup>1</sup>
Food Service	24,000 <sup>2</sup>
Food and Beverage	4,000 <sup>3</sup>
Retail Trade	25,000 <sup>4</sup>
Furniture and Home Furnishings	3,000 <sup>5</sup>
<b>TOTAL</b>	<b>76,000</b>
Notes: <sup>1</sup> Assumes the development of 4 new motels that each contain 20 rooms and a gross building area of roughly 5,000 square feet. <sup>2</sup> Assumes the development of eight new food service enterprises that each contain 3,000 square feet of floor area. <sup>3</sup> Assumes the expansion or redevelopment of existing grocery stores in Buffalo. <sup>4</sup> Assumes the development of 10 new retail stores that contain an average of 2,500 square feet. <sup>5</sup> Assumes the expansion or redevelopment of existing furniture and home furnishing stores.	
Source: Pedersen Planning Consultants, 2002.	

The likelihood of expansions in accommodations, food service, and retail trade facilities is also dependent upon the continuing efforts of the business community, the Buffalo Chamber of Commerce, and local government to increase visitor traffic during the late fall and winter months. These promotional efforts are necessary to increase business cash flows during the off-season and for businesses to be able to retain key personnel. Various approaches can be used to attract more visitor traffic during the fall and winter months. Some examples include:

- schedule more cultural and recreational events in the community;
- pursue opportunities to host more small to medium size conventions;
- market the expanded use of the County fairgrounds to groups from outside of Johnson County; and,
- designate selected Johnson County roads and State Highway segments for a historical Bozeman Trail corridor and promote opportunities for self-guided vehicular tours (see Chapter Two).

### 7.3.2 Town of Kaycee

Commercial activities along Nolan Avenue serve both resident and visitor markets. The population of Kaycee represents a small market. The potential visitor market traveling along Interstate 25 averages about 5,000 vehicles per day.

Data from the Wyoming Department of Transportation indicates that about 30 percent of the average daily traffic (approximately 1,500 vehicles) exits at the Town of Kaycee. About 38 percent of the exiting vehicles drive to the state rest area on the west side of Interstate 25. Most of the remainder probably travel into Kaycee where some commercial services are available.

The demand for commercial space will largely depend upon the efforts of existing businesses and the community to attract greater truck and passenger traffic from Interstate 25. The community's recent establishment of the Kaycee Visitor Center represents an effective marketing tool for attracting greater visitor traffic by providing useful information concerning Kaycee's history, recreational opportunities, accommodations, food and other retail services, and schedule of upcoming community events. Other possible strategies could include:



- the display of community information inside the Kaycee rest area facility;
- the lease of increased signage along Interstate 25 by the Town of Kaycee;
- promotion of scheduled community events by the Wyoming Business Council and others; and,
- maintaining Kaycee's friendly small town atmosphere.

Greater visitor traffic could generate an expansion of commercial operations in Kaycee. Commercial expansion could include:

- gradual expansions of the mercantile store and other retail trade establishments;
- renovation, redevelopment, or expansion of existing visitor accommodations that may sustain reasonable summer and fall occupancies; and,

- a small seasonal snack shop operation that sells items such as ice cream, snow cones, hot dogs, baked goods, ice tea and coffee.

Greater truck traffic may be attracted through the establishment of a truck parking area. An increase in truck parking could facilitate greater sales of diesel fuel, food, convenience items, and truck supplies. The Town of Kaycee or local landowners could establish a truck parking area through the development of vacant property that may be publicly or privately owned. Once established, local truck stop operators could maintain the truck parking area.

Each of the preceding opportunities would have to be marketed to both residents and visitors traveling along Interstate 25 to be financially feasible. Consequently, expansion of commercial facilities in Kaycee is dependent upon a marketing strategy to attract greater traffic from Interstate 25.

Assuming that business and community leaders pursue a visitor marketing strategy, it is believed that commercial opportunities will generate demands for about 10,000 square feet of additional commercial floor area during the 2003-2012 period (Table 7-6). These demands generally represent additions to existing commercial floor space in the community. The expected amount of floor space for accommodations assumes the renovation or redevelopment of existing accommodations.

<b>TABLE 7-6</b> <b>ANTICIPATED COMMERCIAL LAND USE DEMANDS</b> <b>TOWN OF KAYCEE</b> <b>2003-2012</b>	
<b>Type of Commercial Activity</b>	<b>Floor Space (square feet)</b>
Accommodations	5,000 <sup>1</sup>
Food Service	500 <sup>2</sup>
Food and Beverage	1,000 <sup>3</sup>
Retail Store (work clothes, hardware & auto parts)	1,000 <sup>4</sup>
Truck Stop Retail	1,000 <sup>5</sup>
<b>TOTAL</b>	<b>8,500</b>
Notes: <sup>1</sup> Assumes the renovation or redevelopment of existing accommodations within the community. <sup>2</sup> This floor space would probably be generated through the establishment of a seasonal snack shop operation. <sup>3</sup> This floor space requirement would most likely be met through the potential expansion of the existing convenience store along Nolan Avenue. <sup>4</sup> The potential expansion of the new mercantile store could provide this floor space requirement. <sup>5</sup> This floor space would logically be met by expansions to convenience stores within existing service stations and truck stops.	
Source: Pedersen Planning Consultants, 2002.	

## 7.4 AREAS FOR FUTURE COMMERCIAL EXPANSION

### 7.4.1 City of Buffalo

#### 7.4.1.1 General

Areas desirable for future commercial expansion in Buffalo include undeveloped properties along existing commercial corridors along Main Street, Hart Street, and Fort Street. Some commercial properties along these corridors should also be considered for redevelopment when returns-on-investment are attractive.

### **7.4.1.2 Old Downtown Buffalo**

The city should consider a continued expansion of retail trade and food services along Lobban Avenue, between Benteen and Bennet Street. A few commercial facilities are already located along Lobban Avenue. As existing residences are sold, new commercial facilities could be developed. This expansion would enable resident and visiting shoppers to walk and/or drive around a looped shopping area. An attractive pedestrian walking area that emphasizes the existing bridge and Clear Creek could be established along Fetterman Street, between Main Street and Lobban Avenue.



The establishment of a one-way circulation pattern along this short segment of Fetterman Street would enable the City of Buffalo to dedicate one lane of the existing street for exclusive pedestrian and bicycle use. This central walkway would create an attractive downtown space that would help attract shopping traffic on both Main Street and Lobban Avenue. As increased shopping activity is realized, the city should consider a central vehicular parking area along Lobban Avenue.

### **7.4.2 Town of Kaycee**

Nolan Avenue is the primary corridor where most existing commercial establishments are located and future expansion is desirable. While significant renovation and redevelopment is needed, Nolan Avenue represents the greatest opportunity for commercial expansion because of its central location and connection to Interstate 25 and state highways 190, 191, and 192.



Home-based businesses should be encouraged to stimulate expansion of a variety of retail services. Any zoning ordinance that may be adopted by the Town of Kaycee should permit home occupations in residential areas unless those occupations increase vehicular traffic, create significant parking issues, or generate significant noise in local neighborhoods.

### **7.4.3 Unincorporated Area of Johnson County**

#### **7.4.3.1 Interstate Highway Interchanges**

Retail sales may be increased if truck stops are situated closer to existing interchanges along Interstate 25 or Interstate 90. One potential site is a somewhat developed area that is located just east of the Buffalo municipal boundary, north of the proposed high school site, and immediately west of Interstate 25.



#### **7.4.3.2 West of Kaycee**

Commercial expansion may be feasible west of Interstate 25 along State Highway 191. A state rest area, an RV campground, and small truck stop are already located just west of the Interstate.

In the event that a truck parking area cannot be developed within the Town of Kaycee, this area would represent an alternative. Commercial expansion might also include the development of a food service establishment or an expanded RV campground.

#### **7.4.3.3 Johnson County Airport**

Johnson County has existing and future plans to expand the Johnson County Airport. This expansion includes commercial space for hangars and other related facilities. Johnson County should reserve appropriate lands around its airport so that it may qualify for future state and federal funds to continue expansion of the airport.

#### **7.4.3.4 Other Unincorporated Areas**

Home-based businesses should be encouraged in the unincorporated areas of Johnson County to expand the variety of retail and technical services. Any zoning regulations adopted by Johnson County should permit appropriate home occupations in rural areas.

## CHAPTER EIGHT INDUSTRIAL LAND USES

---

### 8.1 EXISTING INDUSTRIAL LAND USE

Industrial activities are manufacturing operations engaged in processing and manufacturing of materials or products derived from raw or extracted materials. In Johnson County, these activities include mining, oil and gas exploration and production, construction, manufacturing, and utility systems.

#### 8.1.1 Unincorporated Area of Johnson County

Industrial operations are located at a variety of sites throughout the unincorporated area. Buckingham Lumber, pictured below, processes raw timber and produces various types of wood products. Industrial operations include:

- bentonite mining;
- uranium mining;
- rock quarries and gravel pits;
- oil and gas exploration, production, and support facilities;
- lumber and logging;
- meat processing facilities;
- construction contractor operations; and,
- welding and sheet metal fabrication.



#### 8.1.2 City of Buffalo

Industrial activities in the City of Buffalo include various types of manufacturing operations (Figure 8-1). Three welding operations repair and produce a variety of metal products. Ouray Sportswear embroiders and silk-screens T-shirts.

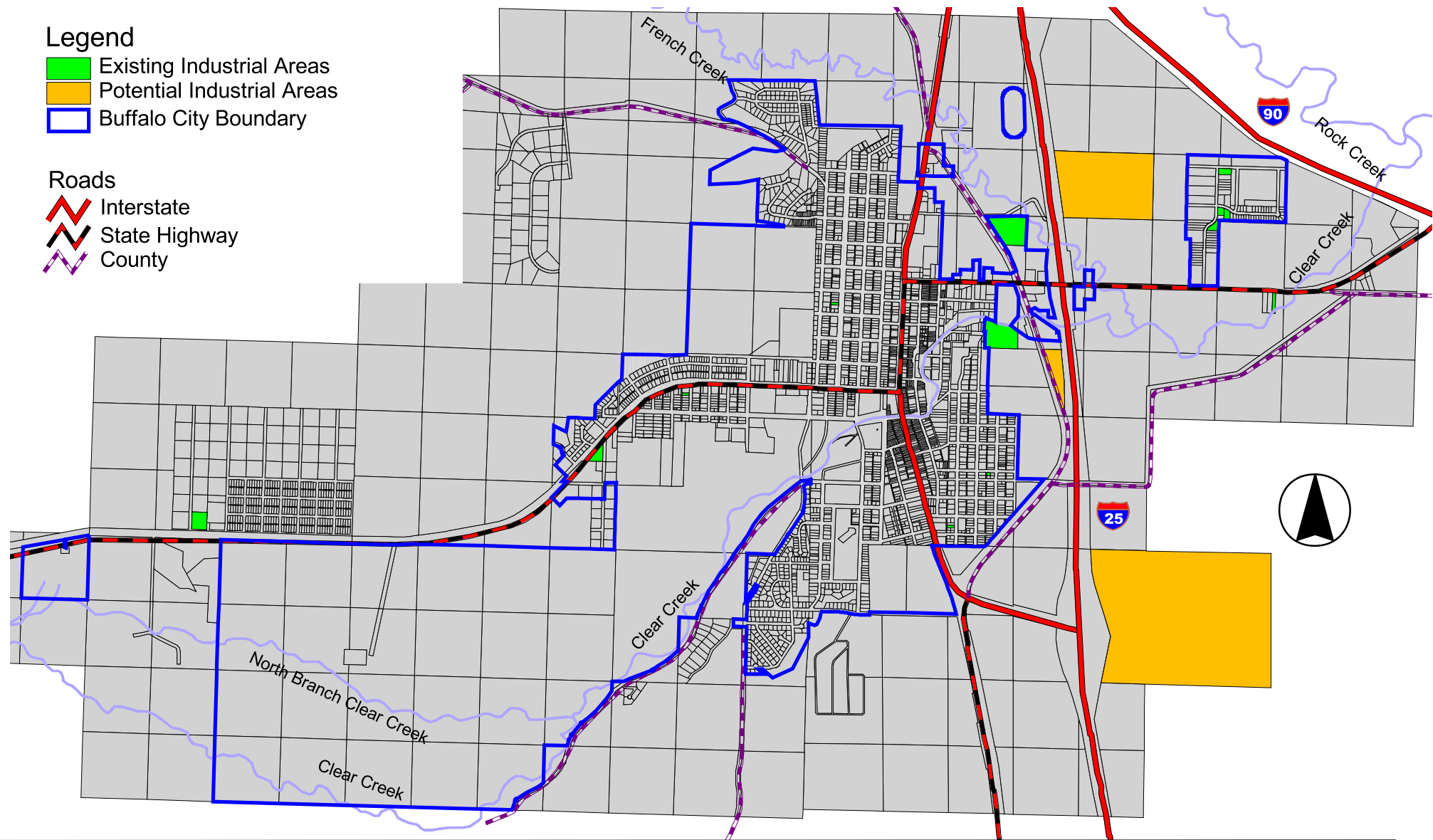
#### 8.1.3 Town of Kaycee

There are no industrial facilities in the Town of Kaycee.

### 8.2 INDUSTRIAL LAND USE ISSUES

#### 8.2.1 Designation of Lands for Future Oil and Gas Development

Much of the ongoing industrial activity in Johnson County is associated with oil and gas development. Oil and gas exploration, production, and product transportation activities generally occur on undeveloped rural properties, or within livestock pasture areas. The lands associated with oil and gas development are very important to the State of Wyoming and Johnson County in light of the significant mineral tax revenues derived from these activities.



# Johnson County Land Use Plan

# Existing and Potential Industrial Areas City of Buffalo and Vicinity

Prepared by: Pedersen Planning Consultants  
 P.O. Box 66, Encampment, WY 82325  
 307-327-5434

Figure 8-1

The designation of lands in the Johnson County Land Use Plan suitable for future oil and gas is desirable to help encourage future oil and gas development. However, meaningful information is somewhat difficult to map since oil and gas companies continually re-evaluate potential exploration and production prospects within Johnson County and other portions of the Powder River Basin. For this reason, it is important that the Johnson County Land Use Plan generally encourages oil and gas development within undeveloped rural areas.

Some general development criteria for future oil and gas exploration and production activities on private lands are appropriate. Reasonable development and operational criteria should be established to address issues such as:

- noise, light and dust impacts near residential areas
- vehicular speeds and other safety factors on county roads
- damage to roads, bridges, culverts and other county facilities
- minimizing and properly constructing new accesses onto county roads
- shielding equipment yards in highly visible and residential areas
- consolidation of transmission lines, utility trunks, access roads and other elements of infrastructure to minimize effects on the landscape
- minimizing emissions and air pollution
- controlling discharges and water pollution
- controlling the existence and spread of noxious weeds
- reclaiming areas disturbed during construction and restoring areas back to their original land use upon completion of industrial activities

Such criteria will help minimize adverse impacts upon local landowners, rural residences, agricultural operations, and other land uses. These criteria should be addressed more specifically and incorporated within any future zoning regulations for Johnson County.

### **8.2.2 Lack of Lands Designated for Light Industrial Uses**

The unincorporated area contains sites suitable for light industrial development. However, many of these sites are situated in remote areas of Johnson County. Consequently, potential industrial sites in the unincorporated area are generally most suited to support oil and gas services and support facilities and regional utility systems where the proximity to nearby communities is not an important consideration.

Within or immediately adjacent to Buffalo, there are a few isolated industrial sites. However, there is limited area where investors could develop a new small to medium-sized facility.

The Buffalo Commerce Center is one exception, but industrial lot sizes are relatively small. The mix of residential, commercial and industrial activities in this area is generally not conducive to safe and efficient vehicular ingress and egress from the area. Some community leaders also suggest that existing covenants are too restrictive to recruit some types of industrial operations.

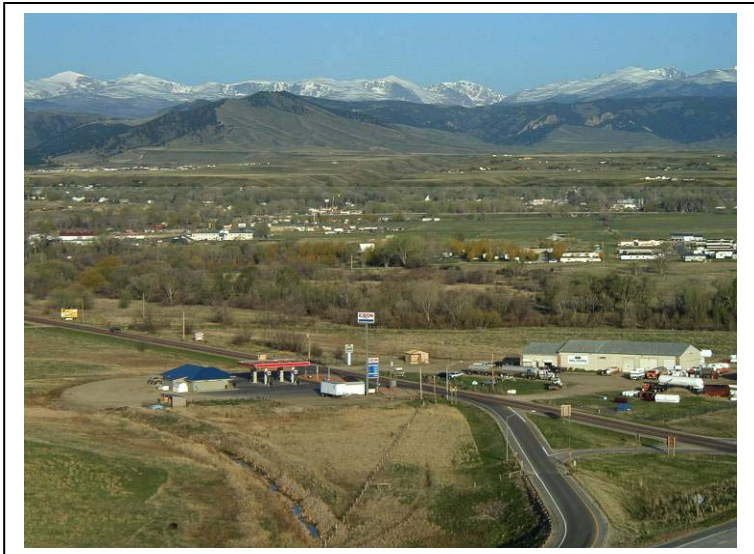




### **8.3 FUTURE DEMAND FOR INDUSTRIAL LANDS**

Johnson County has the opportunity to attract some light industrial operations if more sites are available within a reasonable distance of Interstate 25 and Interstate 90. An opportunity exists for the establishment of regional warehousing and storage facilities for national courier services and distributors of consumer products. Available sites could also support some smaller manufacturing operations.

Coal bed methane exploration and production companies are regularly searching for sites where field equipment and materials can be stored and mobilized. Such sites are ideally close to Interstate and state highway routes.



### **8.4 POTENTIAL AREAS FOR FUTURE EXPANSION**

#### **8.4.1 Planned Industrial Sites**

Johnson County recently approved a new subdivision of six lots east of Buffalo, which is intended for industrial or commercial use. This small industrial area will be located along U.S. Highway 16, just west of Interstate 90.

The six lots range from 1.5 to 6.0 acres. This small industrial area will be connected to Buffalo's municipal water system. Wastewater treatment may, in some instances, be accomplished through the use of onsite wastewater treatment systems. Further subdivision in this area is expected to create additional industrial/commercial lots.

#### **8.4.2 Potential Sites for Future Industrial Expansion**

There are potential industrial sites east of Interstate 25. These properties would ideally be connected to the Buffalo water and wastewater systems and be annexed into the city.

One property, about 170 acres of the Esponda Ranch, is readily accessible to Interstate 25 and could easily accommodate 10 to 15 ten-acre sites.

A second property is situated just west of the Buffalo Commerce Center. This site contains approximately 60 acres. One larger industrial operation could make use of the entire site. However, this site could also be used by several smaller light industrial operations.

**CHAPTER NINE  
PUBLIC FACILITIES**

**9.1 EXISTING PUBLIC FACILITY USE**

Public facilities in Johnson County include facilities that are owned and operated by Johnson County, the City of Buffalo, the Town of Kaycee, the State of Wyoming, and the U.S. Government (Tables 9-1,9-2 and 9-3, Figures 9-1 and 9-2). Some existing public facilities in the vicinity of Linch and Barnum are now vacant and in disrepair. The major public facilities are listed in the following tables

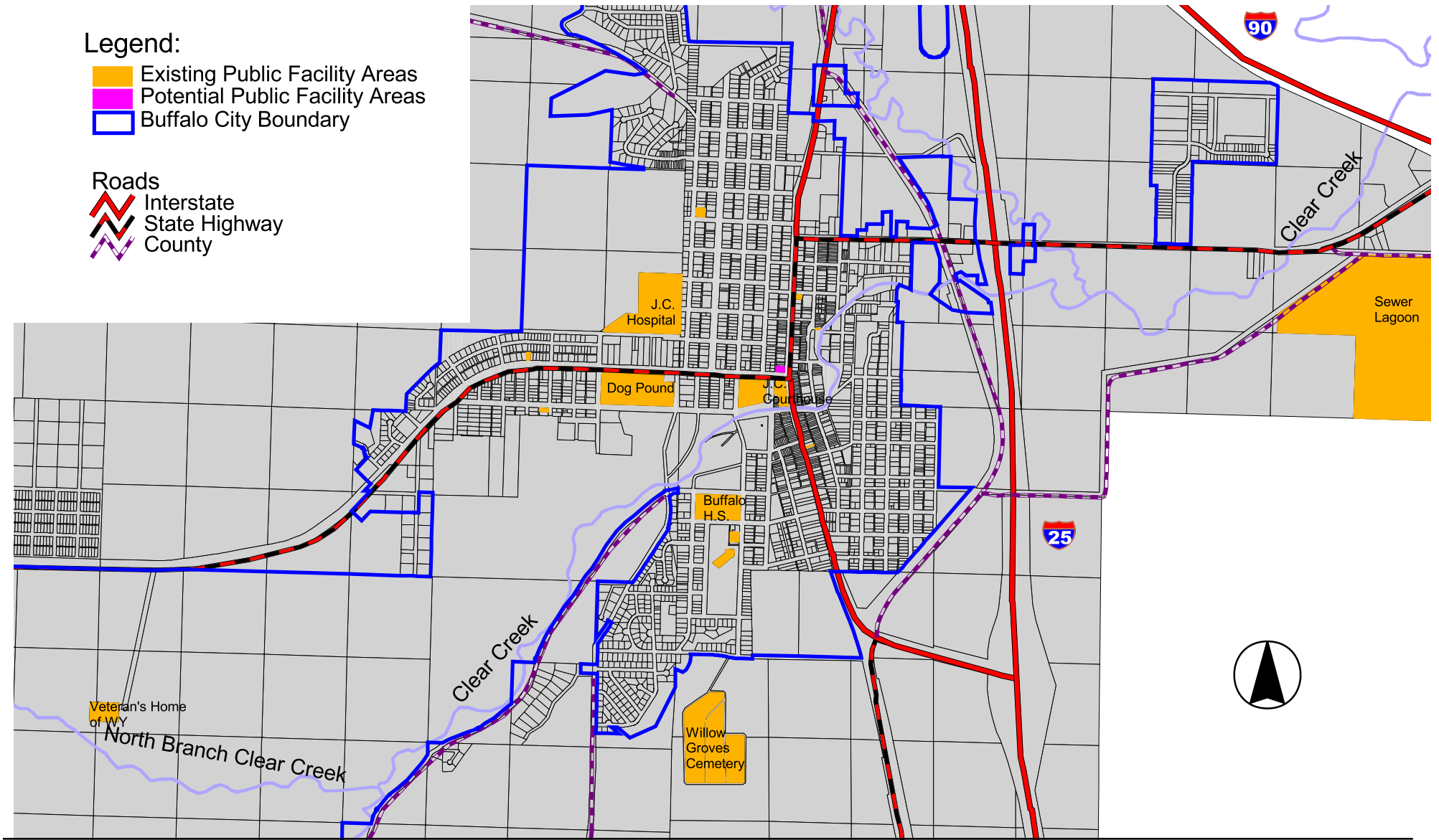
<b>TABLE 9-1 PUBLIC FACILITIES UNINCORPORATED AREA OF JOHNSON COUNTY</b>	
<b>Federal</b>	
	United States Post Office-Linch
<b>State</b>	
	I-90 Rest Area, Kaycee
	I-90 Rest Area, Powder River Area
	Muddy Creek Guard Station (Fire)
	Highway Maintenance Camp-Pole Creek Highway
	Fort Phil Kearny Museum and Historical Site
<b>County</b>	
	Johnson County School District #1
	Billy Creek School
	Bus & Barn Shop
	Kearny School
	Linch Grade School
	Linch School (two vacant buildings)
	Linch School Gymnasium
	Rock Creek Road (vacant school building)
	Shell Creek School (vacant)
	Linch Community Library
	Linch Library (vacant)
	Willow Grove Cemetery
<b>Municipal</b>	
	Linch Fire Department
	Buffalo Medical Clinic
<b>Johnson County Solid Waste District</b>	
	Johnson County/Buffalo Landfill
Source: Johnson County Clerk's Office, 2002; City of Buffalo, 2002; Town of Kaycee, 2002.	

**TABLE 9-2  
PUBLIC FACILITIES  
CITY OF BUFFALO**

<b>Federal</b>
Bureau of Land Management Office
U.S.D.A. Forest Service Office
U.S.D.A. Service Center U.S.D.A. Farm Service Agency U.S.D.A. Natural Resources Conservation Service
United States Post Office
<b>State</b>
Agricultural Extension Service (located in USDA Svc Center)
Veteran's Home of Wyoming
Wyoming Department of Transportation
Wyoming Department of Game & Fish
<b>County</b>
Johnson County Courthouse
Johnson County Public Library
Johnson County Road & Bridge Office/Equipment Yard
Johnson County Weed & Pest Control Building
Johnson County Fairgrounds and Buildings
Johnson County Sheriff Department (shared with Buffalo Police Department)
Johnson County Medical Center
Johnson County School District #1
Johnson County School District Administrative Ofc
Clear Creek Elementary School
Meadowlark Middle School
Buffalo High School
Lake DeSmet Conservation District (located in USDA Service Center)
<b>Municipal</b>
Buffalo City Hall
Buffalo Municipal Yard
Buffalo Police Department (shared with Johnson County Sheriff's Office)
Buffalo Fire Department
Buffalo Wastewater Oxidation Treatment Ponds
Buffalo Water Treatment Plant
Jim Gatchell Museum
Buffalo Municipal Swimming Pool
Source: Johnson County Clerk's Office, 2002; City of Buffalo, 2002.

**TABLE 9-3  
PUBLIC FACILITIES  
TOWN OF KAYCEE**

<b>Federal</b>
United States Post Office
Powder River Conservation District Office
<b>State</b>
Kaycee Rest Area
Wyoming Department of Transportation
Wyoming Game & Fish
<b>County</b>
Kaycee Cemetery
Johnson County Fire/Emergency Shop
Kaycee School
Johnson County Public Library – Kaycee Branch
<b>Municipal</b>
Kaycee Landfill
Kaycee Town Hall and Community Health Center
Kaycee Wastewater Oxidation Treatment Ponds
Source: Johnson County Clerk's Office, 2002; City of Buffalo, 2002; Town of Kaycee, 2002.

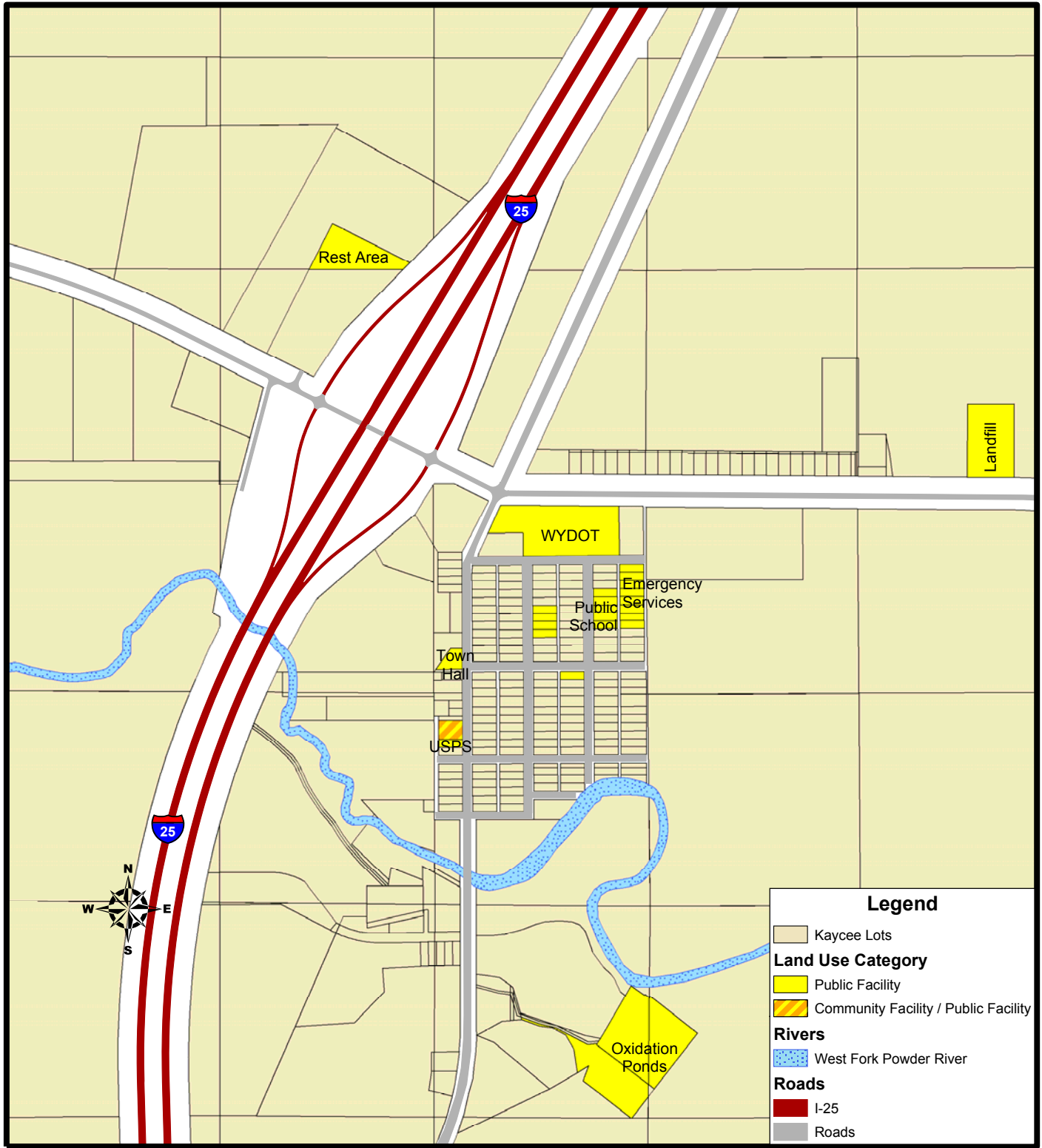


# Johnson County Land Use Plan

# Existing and Potential Public Facility Areas City of Buffalo

Prepared by: Pedersen Planning Consultants  
 P.O. Box 66, Encampment, WY 82325  
 307-327-5434

Figure 9-1



# Johnson County Land Use Plan

# Existing Public Facility Areas Town of Kaycee

Prepared by: Pedersen Planning Consultants  
 P.O. Box 66, Encampment, WY 82335  
 307-327-5434

Figure 9-2

## 9.2 PUBLIC FACILITY ISSUES

### 9.2.1 Lack of Administrative Office and Meeting Space

Johnson County lacks floor space for administrative offices and meeting rooms. Johnson County currently rents other office space for the County Extension Agent, the County Attorney, and the County Coroner.

The County Planner shares a small portion of the County Commissioner's meeting room. Conflicting meeting schedules hamper the ability of the County Commissioners, the County Planner, and the general public to effectively share the same floor space.



Johnson County Courthouse, Buffalo

Detainees from the Johnson County jail are regularly brought to the Johnson County court for hearings and trials. Johnson County Sheriff deputies transport the detainees to the County Courthouse and accompany detainees to the second floor of the Courthouse. Because of the lack of a separate and secure access to the County Court chambers, the transport of prisoners through the first floor of the Courthouse poses a potential security risk to other Johnson County personnel.

At the time of this report, Justice Concepts Incorporated is evaluating public facility needs of Johnson County and developing alternatives for addressing anticipated facility requirements. Consideration is being given to the development of a new law enforcement center that would include space for the County Sheriff, the county jail, the Buffalo Police Department, and the county court system.

### 9.2.2 Vacant Public Facilities near Linch and Barnum

Some existing public facilities in the vicinity of Linch and Barnum are now vacant and in disrepair. However, these facilities are not in demand for public use.



U.S. Post Office, Linch

## 9.3 FUTURE DEMAND FOR PUBLIC FACILITIES

Due to the county's current and projected low population, there is no anticipated demand for public facilities other than that for additional county government office space and a new law enforcement center as mentioned in 9.2.1 above.

## 9.4 OPPORTUNITIES FOR FUTURE PUBLIC FACILITY EXPANSION

There are a number of sites and facilities that may be feasible for the development of new offices to support the court system and other administrative activities of Johnson County.

### 9.4.1 City of Buffalo

In Buffalo, potential opportunities for future public facility expansion include the following:

- The Clear Creek Elementary School, which is situated just west of the Johnson County Courthouse, has been suggested as a viable location for courthouse offices if and when it is vacated by the school system.
- Wyoming Department of Transportation equipment yard along the south side of Fort Street and immediately adjacent to the joint City-County law enforcement complex. The acquisition of this property would likely require some type of land exchange with the State of Wyoming.



#### 9.4.2 Town of Kaycee

One public facility expansion opportunity is situated on a vacant lot south of Kaycee Park. This property is the site of an old gun club and is owned by the Town of Kaycee.



Kaycee Town Hall

# CHAPTER TEN COMMUNITY FACILITIES

---

## 10.1 EXISTING COMMUNITY FACILITIES

Community facilities are important assets in every community. Various churches, museums, private clubs and other organizations provide educational and recreational opportunities to community residents. The facilities used by various community organizations are typically privately owned, but accessible to the general public.

Community facilities in rural counties are typically located within communities where most residents live (Figure 10-1 and Figure 10-2) and Johnson County is no exception. About 30 community facilities are located in Johnson County (Table 10-1). Three fourths of these facilities are situated in Buffalo.



## 10.2 COMMUNITY FACILITY ISSUES

### 10.2.1 Lack of Lands Designated for Community Facilities

Community facilities are typically accommodated within residential areas as long as adequate vehicular parking requirements can be met and nuisance issues are addressed. Special use permits are usually required by local communities to ensure that these issues are adequately addressed by applicants.

Johnson County should incorporate a "Community Facility" district into any future zoning regulations and related zoning map. Such a zoning district would help ensure that adequate area is set aside for the development of community facilities. Rising property values and a limited vacant land inventory will encourage organizations to look outside of the municipal boundary for the development of new or expanded community facilities.

Community facility areas should be conveniently accessible and situated so that they do not generate adverse traffic and noise impacts upon adjoining land uses. Parking areas that support community facilities should be sized to reflect variable use characteristics. For example, churches typically generate the greatest amount of parking requirements on Sunday mornings. In the absence of adequate parking areas, adjoining residential neighborhoods can be impacted by an increased level of on-street parking that generates conflicts with adjoining or nearby homeowners.



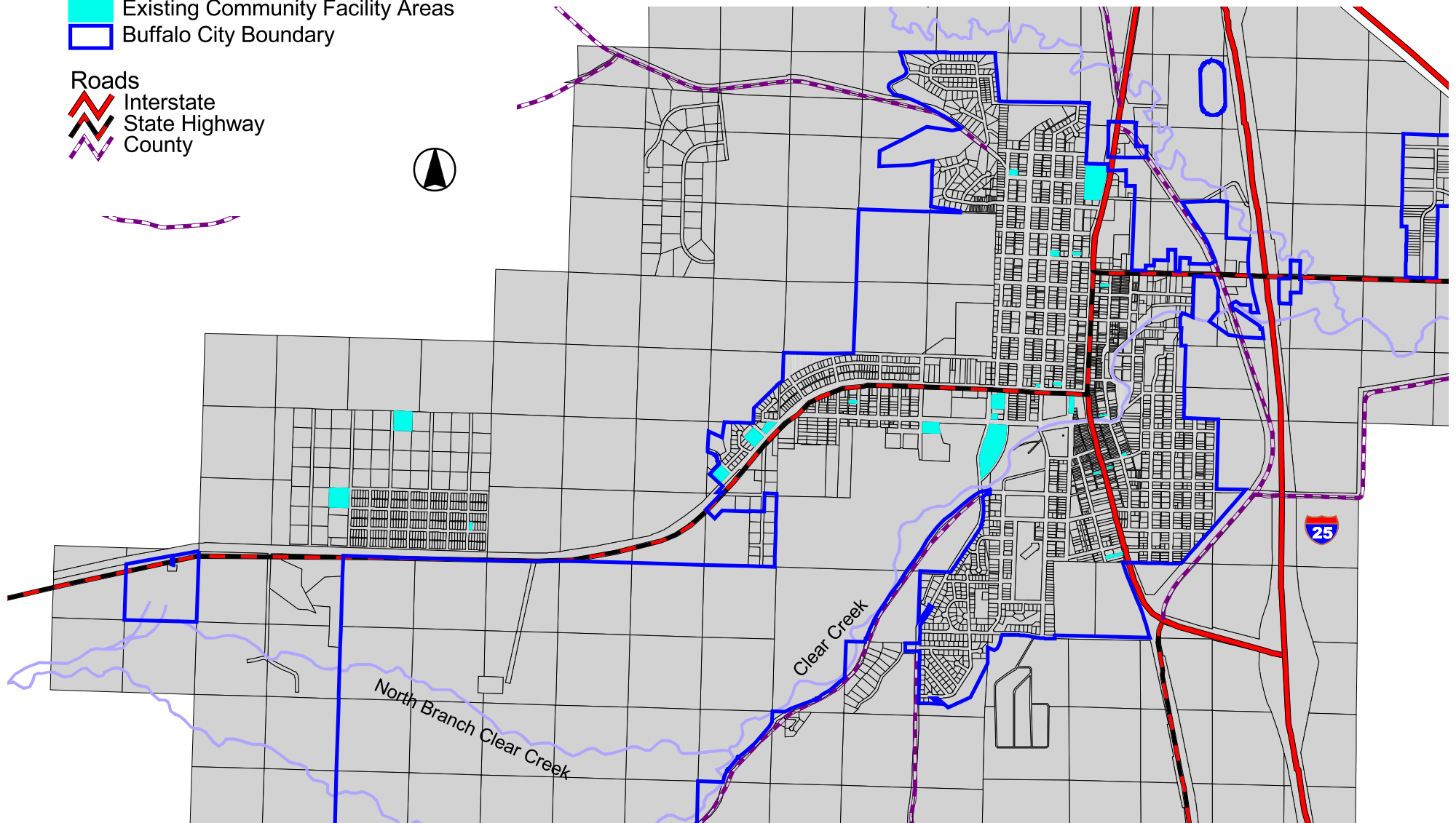


# Legend

- Existing Community Facility Areas
- Buffalo City Boundary

## Roads

- Interstate
- State Highway
- County

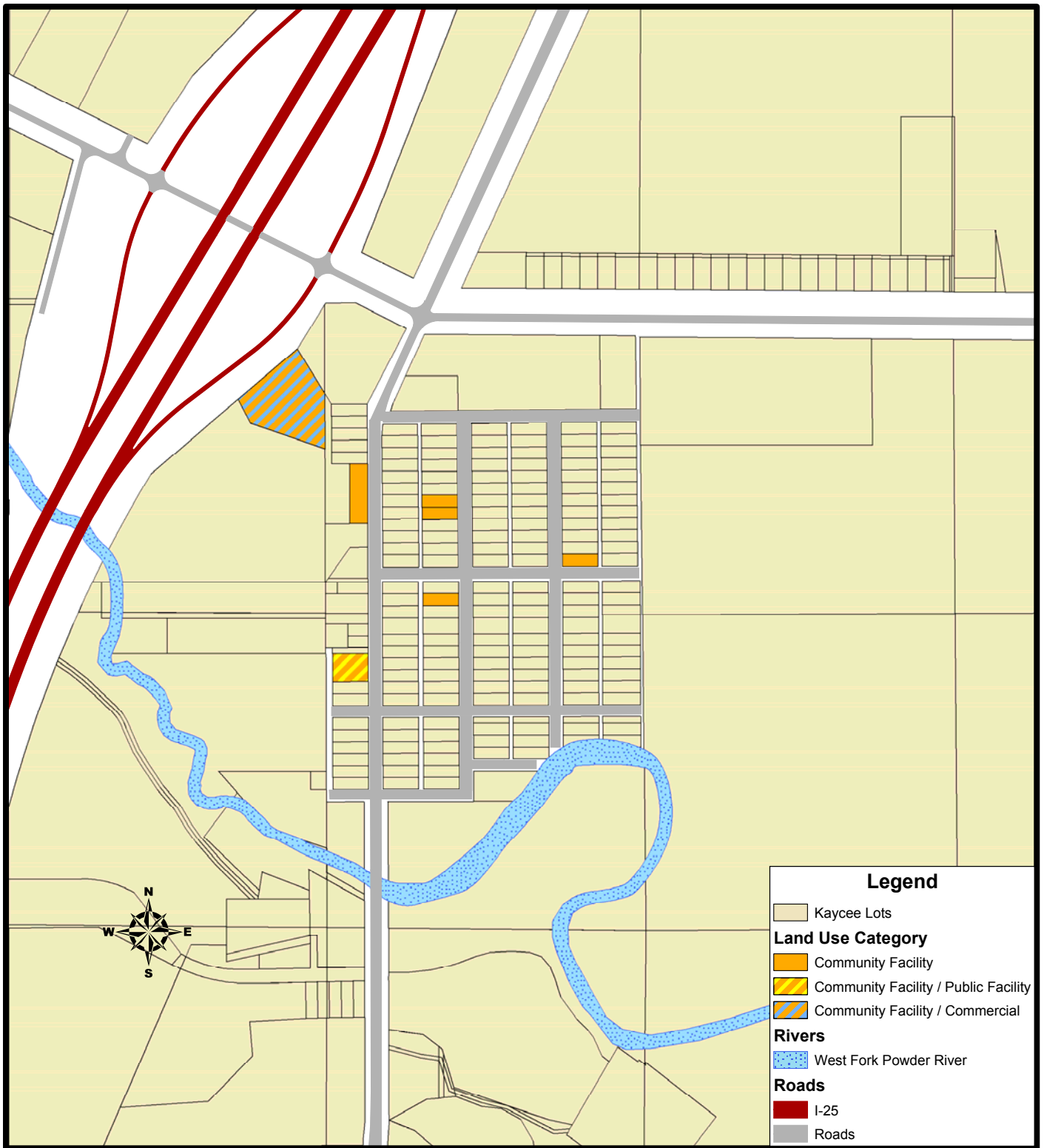


# Johnson County Land Use Plan

# Existing Community Facility Areas City of Buffalo

Prepared by: Pedersen Planning Consultants  
P.O. Box 66, Encampment, WY 82325  
307-327-5434

Figure 10-1



Johnson County  
Land Use Plan

Existing Community Facility Areas  
Town of Kaycee

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307-327-5434

Figure 10-2

**TABLE 10-1  
COMMUNITY FACILITIES  
JOHNSON COUNTY**

<b>Community Facilities in City of Buffalo</b>
Agape Home Care
American Legion
Big Horn Baptist Church
Buffalo Children's Center
Buffalo Senior Center
Calvary Chapel
Church of Christ
Church of Jesus Christ Latter Day Saints
First United Methodist Church
Grace Fellowship Church
Grace Mission Baptist Church
New Life Assembly of God Church
Perry Memorial Independent Baptist Church
Prince of Peace Lutheran Church
Red Cross
St. Francis Animal Shelter
Saint John the Baptist Catholic Church
Saint Luke's Episcopal Church
Saint Luke's Evangelical Lutheran Church
Union Congregational
Veterans Administration Hall
Wesleyan Church
Word of Life Ministries
YMCA
<b>Community Facilities in Kaycee</b>
1 <sup>st</sup> Southern Baptist Church
All Souls' Episcopal Church
Cowboy Church
Hoofprints of the Past Museum
Kaycee United Methodist Church
<b>Community Facilities in the Unincorporated Areas of Johnson County</b>
Barnum Community Hall
Barnum School (vacant)
Jehovah's Witness Kingdom Hall
Kearny Community Hall
Mayoworth School
Seventh Day Adventist Church and School
Sussex Community Hall
Source: Johnson County Assessor's Office, 2002; Pedersen Planning Consultants, 2002.

### **10.3 FUTURE DEMAND FOR COMMUNITY FACILITIES**

The establishment and expansion of more community facilities may take place during the 2003-2012 period. Based on population projections, it is expected that some 20,000 square feet of floor space will be required to meet community facility demands. About 75 percent of the floor space is anticipated to support the development of new community facilities; the remainder is expected for expansions of existing community facilities.

### **10.4 AREAS FOR FUTURE COMMUNITY FACILITY EXPANSION**

The expansion of community facilities in the unincorporated area may be feasible on vacant properties that are along or accessible from U.S. Highway 16 West. Rural residential subdivisions containing any vacant lots may provide feasible opportunities. For example, there were approximately five vacant properties in the Big Horn Estates Subdivision in 2001 where two churches are already located. An additional 28 lots were vacant in the adjoining Richardson Park Subdivision.

In Kaycee, some undeveloped lots within existing subdivisions may be available for future community facility expansion. If the proposed Meadow Lark Addition is approved, one lot may be sold to accommodate the development of a new church facility.

## CHAPTER ELEVEN RECREATION AND CONSERVATION

### 11.1 EXISTING RECREATION AND CONSERVATION AREAS

A variety of indoor and outdoor recreational opportunities are available in Johnson County. These include facilities and sites in Buffalo and Kaycee, and the unincorporated area of the county (Figure 11-1, Figure 11-2, and Figure 11-3). Several ranches and other landowners operate commercial guest ranches, recreational lodges, and cabins (Table 11-1).

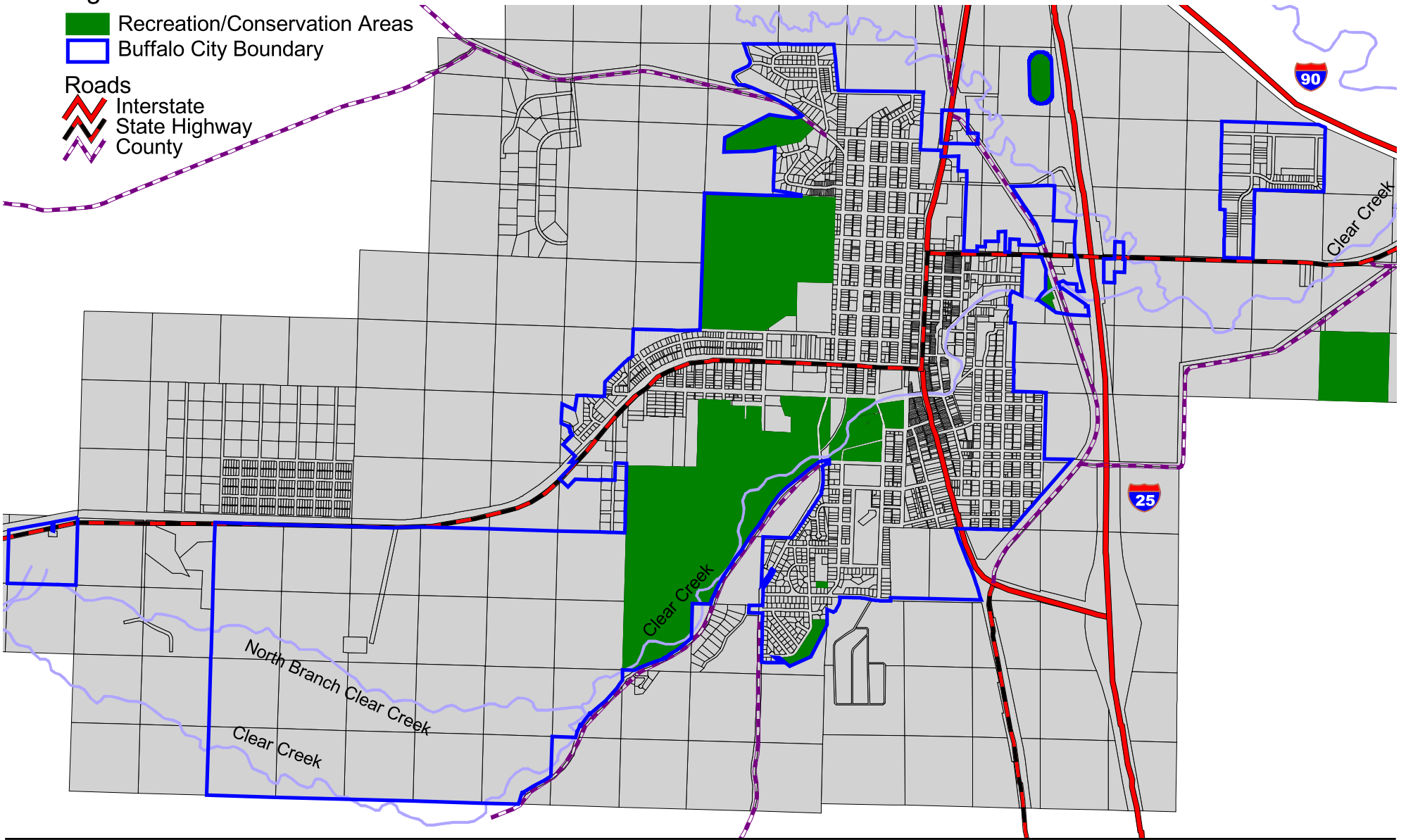
<b>TABLE 11-1 RECREATION AND CONSERVATION AREAS JOHNSON COUNTY</b>	
<b>Facility/Area</b>	<b>Owner</b>
<b>BUFFALO</b>	
Bi-Centennial Fields(Buffalo Park Add.)	City of Buffalo
Buffalo Park Addition Block One	City of Buffalo
Clear Creek Trail Park	City of Buffalo
Dixon Addition Park	City of Buffalo
Eva Knepper Park	City of Buffalo
Buffalo Golf Course	City of Buffalo
Jack Meldrum Park	City of Buffalo
North Burlington Park	City of Buffalo
Northwest Greenbelt	City of Buffalo
Prosinski Ballfields	City of Buffalo
George Washington Park	City of Buffalo
<b>KAYCEE</b>	
Kaycee Park	Town of Kaycee
Harold Jarrard Park	Johnson County
<b>UNINCORPORATED AREA</b>	
Johnson County Fairgrounds	Johnson County
Canyon Park	City of Buffalo
Buffalo Outdoor Shooting Range	City of Buffalo
Buffalo Rifle Club	Private Owner
Mikesell Potts Recreation Area at Lake DeSmet	Johnson County
Mountain Plains Heritage Park	City of Buffalo/Johnson County
State Boat Ramp at Lake DeSmet	State of Wyoming
Wildlife Habitat Area	City of Buffalo
Bozeman Trail	Public and private owners
Guest Ranches/Recreational Lodges/Cabins	
HF Bar Ranch	Private Owner
Paradise Guest Ranch	Private Owner
TA Guest Ranch	Private Owner
Klondike Ranch	Private Owner
Willow Creek Ranch at Hole-in-the-Wall	Private Owner
Lake Stop Resort (Lake DeSmet)	Private Owner
V Bar F Cattle Company	Private Owner
The Pines Lodge	Private Owner
South Fork Mountain Lodge & Outfitters	Private Owner
Triple Three Ranch	Private Owner
Source: Johnson County Clerk's Office, 2002; Yingling, 2002; City of Buffalo, City Clerk, 2002.	

# Legend

- Recreation/Conservation Areas
- Buffalo City Boundary

## Roads

- Interstate
- State Highway
- County



# Johnson County Land Use Plan

# Existing Recreation/Conservation Areas City of Buffalo

Prepared by: Pedersen Planning Consultants  
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307-327-5434

Figure 11-1

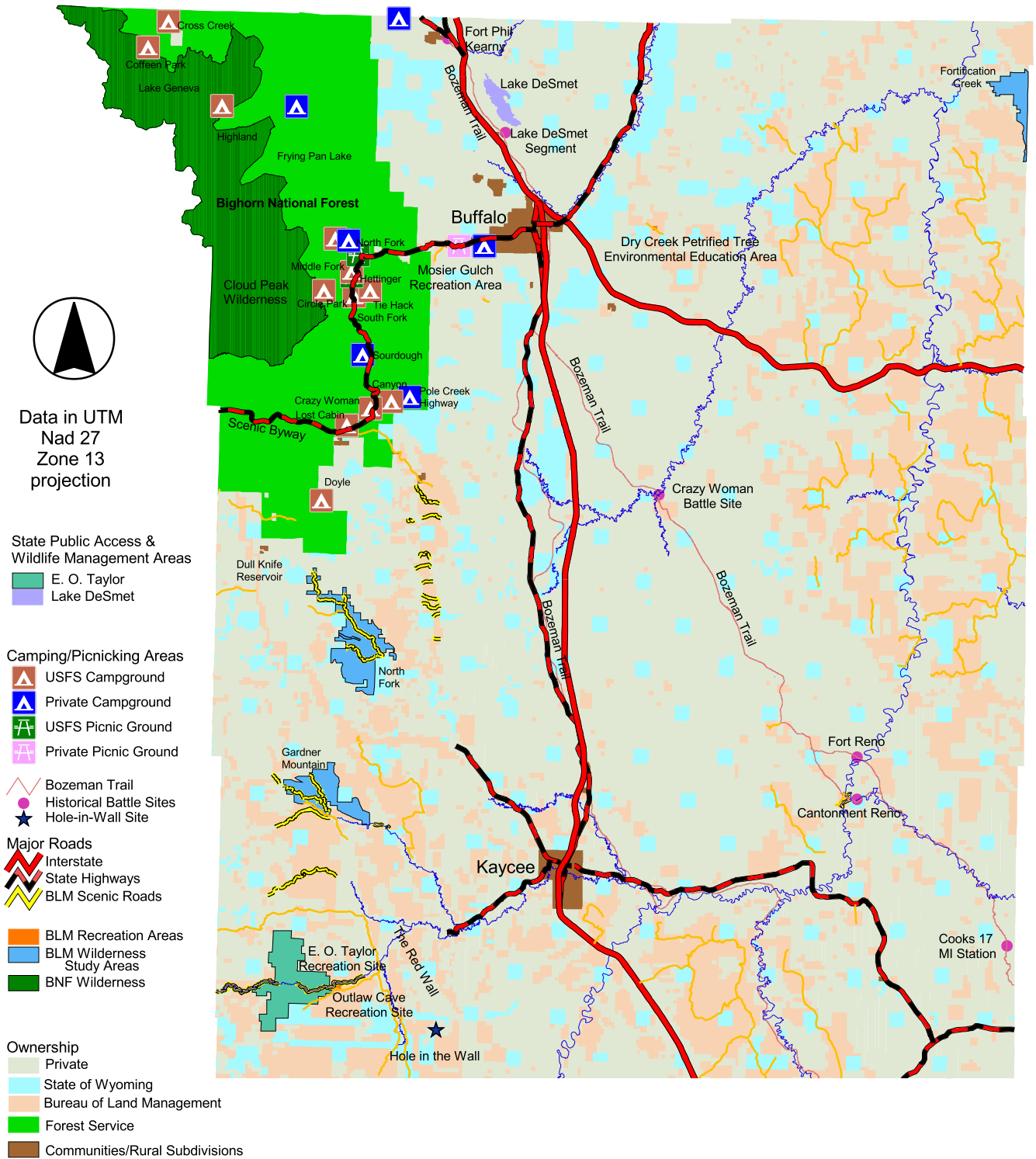


# Johnson County Land Use Plan

# Recreation/Conservation Areas Town of Kaycee

Prepared by: Pedersen Planning Consultants  
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 307-327-5434

Figure 11-2



# Johnson County Land Use Plan

# Recreation and Conservation Areas Unincorporated Area Johnson County

Prepared by: Pedersen Planning Consultants  
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307-327-5434

Figure 11-3



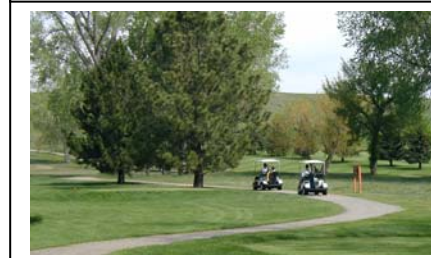
Many of the outdoor recreational areas in Johnson County are federal wilderness study areas, designated historic sites (Table 11-2), or state wildlife habitat management areas where only outdoor recreation is authorized. Consequently, many of the federal and State lands in conservation are concurrently available for recreational use.

<b>TABLE 11-2 FEDERAL RECREATION AND WILDERNESS STUDY AREAS IN JOHNSON COUNTY</b>	
<b>Facility/Area</b>	<b>Owner</b>
Dull Knife Battlefield Site	Private
Middle Fork Recreation Area	U.S. Bureau of Land Management
Outlaw Cave Recreation Site	U.S. Bureau of Land Management
Red Wall/Hole-in-the Wall area	U.S. Bureau of Land Management
Dry Creek Petrified Tree Environmental Education Area	U.S. Bureau of Land Management
Fortification Creek	U.S. Bureau of Land Management
Gardner Mountain Wilderness Study Area	U.S. Bureau of Land Management
North Fork Wilderness Study Area	U.S. Bureau of Land Management
Mosier Gulch Recreation Area	U.S. Bureau of Land Management
Fort Phil Kearney	State of Wyoming
Bighorn National Forest	U.S. Forest Service
Circle Park Campground	U.S. Forest Service
Crazy Woman Campground	U.S. Forest Service
Doyle Campground	U.S. Forest Service
Lost Cabin Campground	U.S. Forest Service
Middle Fork Campground	U.S. Forest Service
South Fork Campground	U.S. Forest Service
Hettinger Group Area	U.S. Forest Service
Tie Hack Campground	U.S. Forest Service
North Fork Picnic Ground	U.S. Forest Service
Hunter, Circle Park & Elgin Park Trailheads	U.S. Forest Service
Source: U.S. Bureau of Land Management, Buffalo Field Office, 2002; U.S. Forest Service, Buffalo Ranger District, 2001; and Graves, 2003.	

### 11.1.1 City of Buffalo

The City of Buffalo owns 455 acres of land dedicated for recreational purposes. These facilities include soccer and ball fields, swimming and wading pools, picnic areas, horseshoe pits, tennis courts, and a shooting range.

The 136-acre 4-Star Buffalo Golf Course is located west of the Burlington Addition and north of the County Hospital (Figure 11-1). In 1996, the Buffalo Golf Course was rated as one of the "Places to Play" by Golf Digest.



One of the more significant recreational facilities in Buffalo is the Clear Creek Trail System. This trail system extends between County Road 252 and Mosier Gulch, situated about four miles west of Buffalo. The Clear Creek Trail System, which is on state and municipal lands, accommodates both pedestrian and bicycle traffic. It was recently reported that the trail system is used by an average of 400 persons per day (Buffalo Bulletin, 2002).



### **11.1.2 Town of Kaycee**

Kaycee has two important recreational areas: Johnson County's Harold Jarrard Park and the Town of Kaycee's Kaycee Park (Figure 11-2). Both of these facilities provide outdoor recreational opportunities to residents and visitors.

The Town of Kaycee allows and encourages visitors to park recreational vehicles at Kaycee Park for no charge. This policy attracts some traffic from Interstate 25 that generates visitor expenditures at local businesses.

### **11.1.3 Unincorporated Area**

#### ***11.1.3.1 Immediate Vicinity of Buffalo***

The Johnson County Fairgrounds provides facilities that support the annual Johnson County Fair, 4-H and Future Farmers of America programs, rodeos, and other community events. A variety of community meetings are also held at this facility.

The Buffalo Outdoor Shooting Range is located just east of Buffalo, immediately south of the Buffalo wastewater treatment plant. The Buffalo Rifle Club is located just west of Buffalo off of U.S. Highway 16.

Canyon Park is a watershed conservation area that was established by the City of Buffalo on an 800-acre parcel just west of Buffalo. The City of Buffalo's water treatment plant and reservoir are situated adjacent to Canyon Park. A portion of the Clear Creek Trail System traverses the Canyon Park area.



An additional 80 acres of wildlife habitat area are located south of the Buffalo Commerce Center Addition. This conservation area, owned by the City of Buffalo, makes use of former wastewater oxidation ponds for wildlife habitat.

### 11.1.3.2 Bighorn National Forest

From Johnson County, the primary access to the Bighorn National Forest is U.S. Highway 16. This is one of three U.S. highways in the Big Horn Mountains designated as a state scenic byway. Along this corridor, residents and visitors can enjoy scenic views of Loaf Mountain, the Cloud Peak Wilderness Area and Cloud Peak, the highest peak in the Big Horn Range, which is over 13,000 feet.



Numerous recreational opportunities are available within the Bighorn National Forest. These activities include:

- snowmobiling and ATV recreation;
- cross-country skiing, downhill skiing, and snow-shoeing;
- hiking and backpacking;
- horseback and trail riding;
- camping and picnicking;
- canoeing and boating; and
- hunting and fishing



### 11.1.3.3 Other Federal Recreation Areas

Other federal recreation and wilderness areas are primarily located on large parcels of public lands in the southwest portions of Johnson County and segments of the Powder River. For example, the Middle Fork Recreation Area encompasses about 48,400 acres along the Middle Fork of the Powder River. Camping, fishing and hiking opportunities are available in the vicinity of the Outlaw Cave Recreation Site. These areas are accessible by a combination of public and private roads.



### 11.1.3.4 State Public Access and Wildlife Habitat Management Areas

There are five State public access areas and two wildlife habitat management areas in Johnson County (Table 11-3). Various outdoor recreational activities are authorized in each of these areas. These areas are also intended to help conserve fish and wildlife habitat.



<b>TABLE 11-3 STATE PUBLIC ACCESS AND WILDLIFE HABITAT MANAGEMENT AREAS</b>			
<b>Area</b>	<b>Authorized Activities</b>	<b>Available Facilities</b>	<b>Conservation Objective</b>
Blue Creek Public Access Area	Fishing	Restrooms	Not Available
Lake DeSmet Public Access Area	Fishing, boating	Restrooms	Conserve surface water quality.
Dull Knife Reservoir Public Access Area	Fishing, hunting	Pedestrian access	Not Available
Ed O. Taylor Wildlife Habitat Management Area	Hunting, hiking, camping, fishing	None	Protect winter range for elk that summer in Bighorn Nat'l Forest.
Muddy Guard Reservoir Public Access Area	Fishing	Restrooms	Not Available
Bud Love Wildlife Habitat Management Area	Hunting, camping, fishing, hiking	None	Provide crucial winter range habitat for big game species.
Red Horse Public Access Area	Hunting, hiking, wildlife observation	None	Not Available
Source: Wyoming Game and Fish Department, 2002.			

### **11.1.3.5 Recreational Access to Private Hunting and Fishing Areas**

Some landowners in Johnson County provide recreational access to private hunting and fishing areas. Such access is often granted to friends and other individuals known by the landowner. In other cases, private landowners lease access to private hunting parties and commercial outfitters. The extent of private hunting and fishing areas that are made available for recreational access in this manner is not known.

Some ranches are now bought by nonresidents or corporations who do not need to make a profit from agricultural production. Their interests in ranching may be driven by factors other than profit. While these owners tend to maintain agriculture operations, some have less interest in allowing public outdoor recreation opportunities such as hunting and fishing.

The Wyoming Game and Fish Department developed the Wyoming Private Lands Public Wildlife Conservation Initiative in 1998. This program increases public recreational access for hunting and fishing while providing benefits to landowners that support wildlife and maintain public hunting and fishing opportunities. After a two-year trial period, the Wyoming Game and Fish Commission evaluated a proposed walk-in area program based upon public comments and internal departmental review. In 2001, the Wyoming Game and Fish Commission directed the Wyoming Game and Fish Department to establish a permanent, walk-in area program.

Under this program, the Wyoming Game and Fish Department leases tracts of land from private landowners for hunting or fishing rights. Once a tract of land is established as a walk-in area, the landowner receives annual payments from the Wyoming Game and Fish Departments. These payments are based upon the size of the area. In turn, the Wyoming Game and Fish Department identifies these recreational sites to the general public who can access them without contacting or making arrangements with landowners.

Two walk-in fishing areas have been established in Johnson County. One area (Powder River Drainage, Fishing Area 6) is located north of the historical Fort Phil Kearny site along Piney Creek. The other area is the J Bar U Reservoir, which is east of Interstate 25, Exit 246.

## **11.2 RECREATION AND CONSERVATION ISSUES**

### **11.2.1 Increased Outdoor Recreational Demands and the Application of Recreational Use Capacities**

A primary recreational issue confronting Johnson County is the growing interest in outdoor recreation by residents and visitors. Since the prospects for increased recreational activities signal potential economic opportunities, private enterprise can be expected to invest in accommodations and retail trade to promote growth in outdoor recreation.



In the past two decades, the U.S. Forest Service and the U.S. Bureau of Land Management have identified preferred capacities for recreational sites, wilderness areas, resource management areas, and other public lands. While these criteria are useful for the planning of specific recreational sites, they also impact the availability of public lands that can support future recreational demands.

#### **11.2.1.1 U.S. Forest Service**

A primary recreational attraction in Johnson County is the Bighorn National Forest. The U.S. Forest Service is preparing a forest plan update for the forest. For the forest plan update, the U.S. Forest Service has drafted forest-wide standards and guidelines. For recreational use, criteria have been identified for general categories such as primitive, semi-primitive, non-motorized, and semi-primitive motorized. Since some of these criteria are tied to specific numerical ranges of recreational use, it appears that the U.S. Forest Service desires to set capacities for future recreational use in the Bighorn National Forest.

Recreational use statistics for Johnson County are limited. The dispersed nature of outdoor recreational activities and the location of recreational sites hamper efforts to secure reliable recreational use data. In the absence of reliable statistics, a question relevant to future recreation in Johnson County emerges: How does current recreational use correlate with intended recreational capacities for the Bighorn National Forest? As the capacity of existing campgrounds, trailheads, and other facilities becomes saturated, it is important for Johnson County to be consulted by the U.S. Forest Service if the agency intends to develop new sites or change existing recreational sites.

### **11.2.1.2 U.S. Bureau of Land Management**

The U.S. Bureau of Land Management also periodically prepares resource management plans for each of its regional management districts. Johnson County should determine the intentions and commitment of the Bureau of Land Management to serve growing recreational demands in Johnson County as part of its ongoing management of federal wilderness study areas in Johnson County.

Informal discussions with a representative of the U.S. Bureau of Land Management, Buffalo Field Office, suggest that the agency intends to make a more thorough review of regional recreational use in the Powder River Basin, and the capacity of existing public lands to support future recreational use (Zander, 2002).

### **11.2.2 Greater Public Concern for Resource Conservation**

In recent years, northeast Wyoming has experienced an influx of new residents and some modification in community values. A number of new environmental organizations have established regional offices. The recent coal bed methane development boom has generated some concerns regarding potential impacts of water discharges upon agricultural lands. Air quality impacts have been evaluated in the context of coal bed methane, coal extraction, rail transportation, and vehicular traffic. This combination of issues has generated a greater public awareness of land and resource conservation issues in Johnson County.

Currently, the U.S. Forest Service, the U.S. Bureau of Land Management, and the Wyoming Game and Fish Department have elected to include recreational opportunities in existing wilderness and wildlife management areas. However, regional environmental organizations can be expected to promote:

- the expansion of existing wildlife habitat areas and the conservation of additional wildlife habitat areas;
- the introduction of threatened and/or endangered plant and animal species;
- the listing of more endangered species;
- increased restrictions upon recreational access; and,
- greater restrictions upon the type of recreational uses that occur on public lands.

Through these efforts, Johnson County could see a reduction in the amount of public lands available for recreational use. To protect recreational interests, Johnson County should make a commitment to monitor and participate in decisions that impact land use and resource conservation programs on public lands. It is essential that Johnson County be an active participant in forest plan updates of the Bighorn National Forest and land use plans of the U.S. Bureau of Land Management.

## **11.3 DEMAND FOR RECREATION AND CONSERVATION**

The U.S. Bureau of Land Management recently reported that recreational use of public lands in the Powder River Basin has increased substantially over the past two decades. BLM anticipates use associated with most recreational activities will increase five percent every five years (U.S. Bureau of Land Management, 2002).

Even in the absence of reliable recreational use data, it can be reasonably concluded that substantially greater recreational activities will be occurring in Johnson County during the

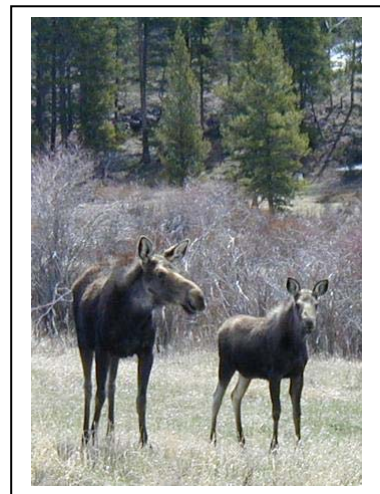
2003-2012 period. The City of Buffalo continues to see a greater number of visitors, a growth in the occupancy of visitor accommodations, and increases in seasonal visitor industry employment. Community leaders indicate that many of these visitors are drawn to recreational opportunities in the Bighorn National Forest and other areas.

Forecasts of recreational demand should be developed as more reliable baseline information becomes available. These forecasts should be developed for recreational activities such as fishing, boating, hunting, hiking, camping, skiing, snowmobiling, ATV use, and horseback riding.

## **11.4 POTENTIAL CONSERVATION AND RECREATION EXPANSION AREAS**

### **11.4.1 Potential Conservation Areas**

Through ongoing federal and State efforts to conserve wildlife habitat in Johnson County, the U.S. Forest Service, the U.S. Bureau of Land Management, and the Wyoming Game and Fish Department has identified ample new opportunities for the conservation of fish and wildlife habitat. Through coordination with these agencies, the need for additional conservation opportunities may be identified.



Even In the absence of new proposed conservation areas, Johnson County can encourage the conservation of aquatic and wildlife resources during its review and consideration of rural subdivision applications. Data available in the Johnson County GIS will better enable Johnson County to consider the impacts of potential projects upon aquatic and wildlife resources, as well as recommend practical conservation measures within new residential subdivision projects.

Continuous coordination with resource managers of the Wyoming Game and Fish Department, the U.S. Forest Service, and the U.S. Bureau of Land Management will help keep Johnson County abreast of the planning and program objectives of these resource management agencies. It will also provide an opportunity for state and federal agencies to hear and react to the concerns of Johnson County (see Chapter 14).

### **11.4.2 Potential Recreational Areas**

One of the most practical opportunities for the establishment of new recreational sites is the Wyoming Game and Fish Department's walk-in program. Should this program have successful results, it is anticipated that more landowners will lease hunting and fishing sites for public recreational use. Johnson County should encourage this type of recreational expansion because it provides attractive recreational opportunities, generates some financial benefits to landowners, and reduces recreational site development costs.



The development of additional recreational areas by the U. S. Forest Service, the U.S. Bureau of Land Management, and the Wyoming Game and Fish Department will generate increased recreational opportunities. Depending upon its assessment of recreational needs, it is possible that the U.S. Forest Service may develop some new recreational areas in the Bighorn National Forest.

#### **11.4.3 Potential Historic Sites**

Johnson County is very rich in history. Historical sites include, but are not limited to, Fort Phil Kearny, the Fetterman Battlefield, the Hole-in-the-Wall area, Dull Knife Battlefield, the Crazy Woman Battlefield, the Fort Reno Historic Site and a portion of the Bozeman Trail. Several of these sites lie on privately owned property. Johnson County should explore methods of protecting important areas of historical, archaeological, or architectural significance.



## CHAPTER TWELVE TRANSPORTATION

### 12.1 GENERAL

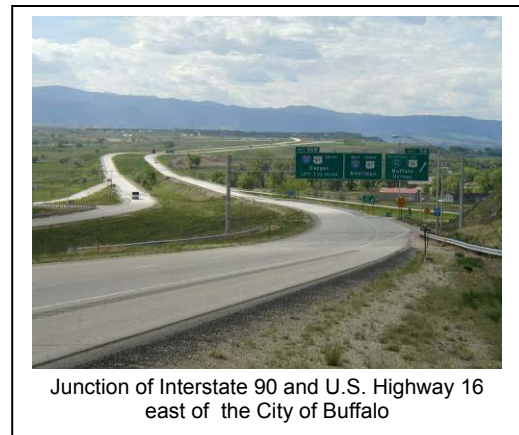
Johnson County, Wyoming's transportation system is primarily comprised of its Interstate, state and local roadways (Figure 12-1). Because of its relatively low population, the county has limited public transportation and other transportation modes.

### 12.2 TRANSPORTATION SYSTEMS

#### 12.2.1 Roads and Highways

##### 12.2.1.1 Interstate Highways

Johnson County is served by two Interstate Highways. I-90 enters Johnson County from the east, turns northward at Buffalo and crosses into Montana approximately 25 miles north of Sheridan, Wyoming. I-25 crosses into Johnson County from the south, passes the Town of Kaycee and ends at I-90 at the City of Buffalo. I-90 is a popular route for Johnson County residents to access Sheridan, Wyoming; Billings, Montana and other points in Montana to the north; as well as Gillette, Wyoming, Rapid City, South Dakota, and other points to the east. I-25 is a popular route for Johnson County residents to reach Casper, Wyoming, Cheyenne, Wyoming, Denver, Colorado, and all points in between.



Junction of Interstate 90 and U.S. Highway 16  
east of the City of Buffalo

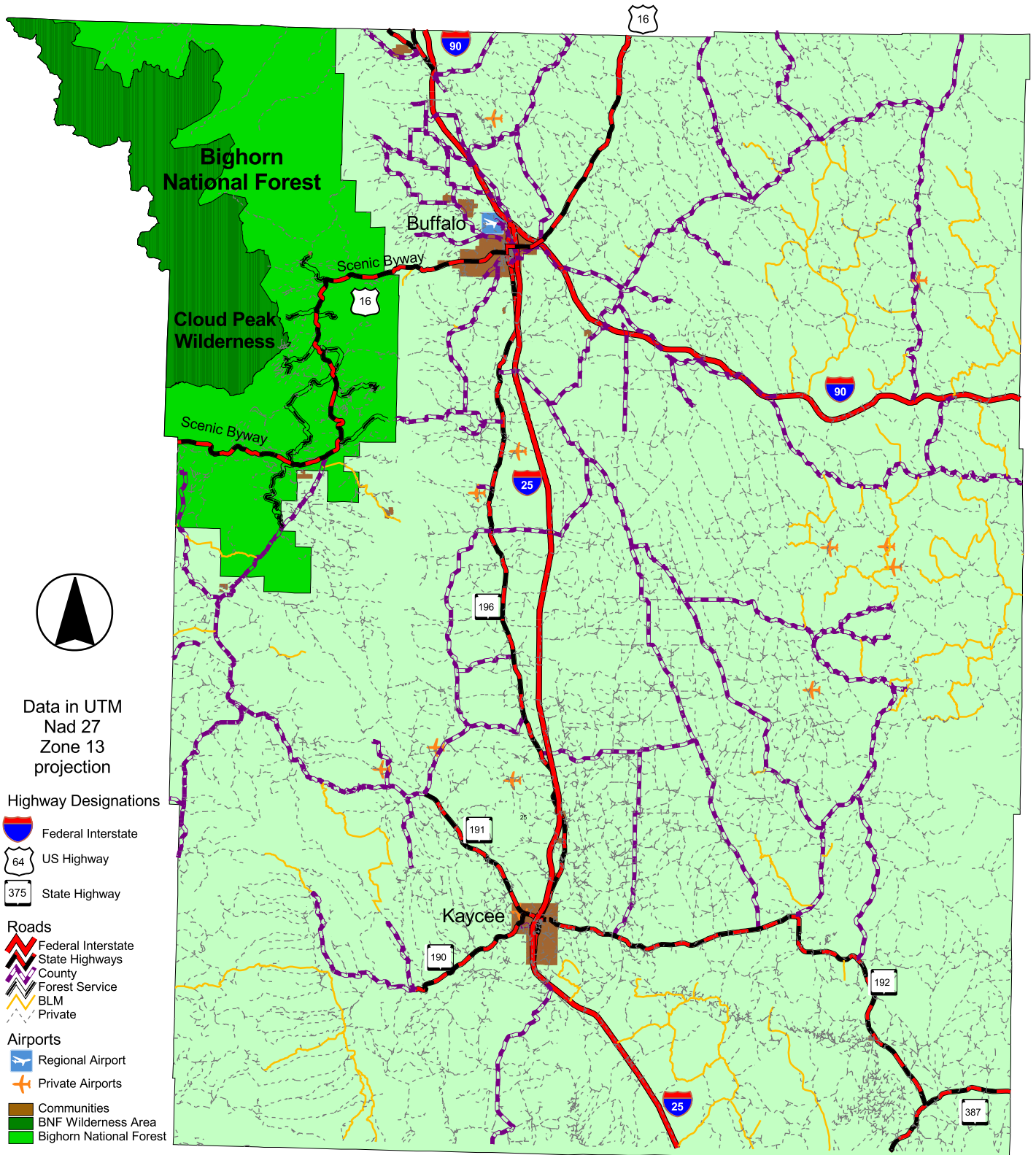
Because I-25 passes along the west side of the Town of Kaycee and both Interstate highways intersect at the City of Buffalo, both incorporated municipalities within the county are served by the Interstate highway system.

##### 12.2.1.2 Other Highways

U.S. Highway 16. The principal two-lane highway affecting the City of Buffalo is U.S. Highway 16, which enters Buffalo from the east, passes through the City of Buffalo and serves as the southern route across the Big Horn Mountains. The highway enters the Town of Tensleep and the City of Worland after crossing the Big Horns. It is a very popular route for tourists and other visitors for crossing the Big Horn Mountains and to reach Yellowstone and Grand Teton National Parks. It is also the best, most scenic, and safest route across the Big Horns.

In 2004 the Wyoming Department of Transportation completed an upgrade of a section of the highway just west of Buffalo. The project included highway widening, rock fall protection and a state-of-the-art runaway truck arresting system.

Wyoming State Highway 192. This highway runs generally east to west between Kaycee and Sussex.



# Johnson County Land Use Plan

# Transportation Systems in Johnson County

Old U.S. Highway 87 (WY Highway 196). This highway runs south from Main Street in Buffalo and runs adjacent to Interstate I-25 south to the Town of Kaycee. South of Kaycee, the highway parallels Interstate 25 into Natrona County. It is used by some to travel between Buffalo and Kaycee as an alternate to I-25.

Other County and State Roads. Other significant, but less traveled state roads in Johnson County include Barnum Road (CR 78 / WY 190), Mayoworth Road (CR 266 / WY 191), Story Road (WY 193), Wyoming Highway 387, Trabling Road, and Tipperary Road.

### **12.2.1.3 County Road System**

The county road system is made up of 566 miles of paved and unpaved roadway. Based on visual observations, all county roads appear to be functioning at an acceptable level of service. This is due to the county's low population and traffic volumes on most county roads.

Klondike Road, which runs south from the Buffalo, was upgraded to a two-lane paved surface during the summer of 2002. This area is expected to be a location for future subdivision, given its close proximity to Buffalo and the desirability for residential development in that area.

French Creek Road, which extends northwest from Buffalo, carries substantial traffic due to numerous subdivisions along that route. It is expected that there will be significant new subdivision along this corridor. Therefore, maintenance and improvements of this road are expected to be issues.

All county roads are designated as stock driveways. This should be considered when subdivision applications are reviewed to assess the necessity of such features as cattle guards, fencing and gates to preserve the integrity of stock driveways.

### **12.2.1.4 Strategic County Roads**

The North and South Bypass Routes on the east side of Buffalo are part of the old U.S. highway system. These routes help keep traffic off of Main Street by providing motorists with an alternative and more expeditious route around the city. As population in the area increases, it is anticipated that these bypass routes will become increasingly important. Therefore they should be protected by:

- restricting and consolidating future accesses onto the bypass routes,
- maintaining the bypass right-of-way to provide for expansion of the bypass routes if necessary, and
- limiting land uses adjacent to the bypass routes to minimize traffic access onto the routes.

### **12.2.1.5 Functional Classification of Johnson County Roads**

Interstate. Interstate Highways 25 and 90 represent the highest level of the county's road network, and provide for the high-speed movement of large volumes of traffic with minimum interference. Interstate routes are characterized by full control of access, divided roadways, and grade separations at all crossings.

Arterials. Arterials accommodate major movements of traffic not served by interstate highways. Based on current traffic volumes and functional usage, U.S. Highway 16 is the only arterial roadway in Johnson County.

Collectors. Collectors connect local roads to arterials as well as origins and destinations. Johnson County’s significant collectors include Barnum Road (WY 190), Mayoworth Road (WY 191), Story Road (WY 193), Old Highway 87 (WY 196), French Creek Road, Klondike Road, Tipperary Road, Sussex Road, Piney Creek Road and Trabing Road.

Local Roads. Local roads provide access to abutting properties and are usually characterized by low traffic volumes, short trip lengths and unrestricted access, although the County has a policy of keeping accesses to a minimum.

Private Roads. There are many private roads within Johnson County. Some private roads serve multiple residences or recreational properties. Addressing these properties, especially those in the Bighorn National Forest region, has been a concern for local emergency services response.

**12.2.1.6 Rural Addressing**

Johnson County currently funds a consultant-maintained rural addressing map system to facilitate the location of residences by emergency services. Rural addressing information is required to be submitted for each new subdivision as part of the subdivision review process. Maps are usually updated once per year. As mentioned above, the addressing of properties along private roads and within the Bighorn National Forest region is a major concern for local emergency services response.

**12.2.1.7 Traffic Volumes**

WYDOT reports indicate that traffic volumes on all county and state roadways are minimal and well within any recognized level of service standards (Wiseman, 2002). This is due to the county’s low population.

**12.2.1.8 Traffic Accident History**

Traffic accident information provided by WYDOT indicates no problem areas where a significant number of accidents involving property damage, injuries or deaths have occurred. (Stout, 2003). This is due to the county’s low population.

**12.2.2. Municipal Public Transportation**

Neither the City of Buffalo nor the Town of Kaycee has public taxi service. The Buffalo Area Transit System (BATS) provides bus transportation for residents in and around Buffalo. The fleet includes two buses and one van, which are equipped with wheelchair lifts. Hours of operation are:

Monday through Friday	8:00 am – 4:45 pm
Saturday	9:00 am – 2:00 pm
Sunday	8:30 am – 2:00 pm



Buffalo Area Transit System (BATS)

**12.2.3. Non-Motorized Transportation Modes**

The Clear Creek Trail System runs from east Buffalo approximately 10 miles into the Big Horn Mountains. The trail follows Clear Creek and is popular for recreation and exercise.



In October 2002, Johnson County received approval for Transportation Enhancement Activities Local (T.E.A.L.) funding to construct a hiking/bicycling pathway along newly paved Klondike Road south of the City of Buffalo. The right-of-way for the trail was reserved as part of the Klondike Road upgrade project in 2002 and construction of the trail was completed during the summer of 2003.

It is expected that the Klondike Road area will be a desirable location for residential development. The Klondike Pathway will serve as an alternative transportation mode for current and future residents. In addition, since Klondike Road accesses Buffalo near several public schools, the pathway could provide a safe mode for children to walk or bicycle to schools.

**12.2.4. Air Transportation**

**12.2.4.1 Johnson County Aero**

Johnson County Aero is located near Buffalo at 158 Airport Road. The airport provides fuel and a maintenance crew. Flight instruction was offered at one time but was abandoned because of insurance costs. There is an airport expansion plan, which calls for lengthening the airport’s runway from its current length of 6,158 ft. to 7,500 ft. However, the project planning has not been finalized, so there is no time schedule for the runway expansion.



The current runway can accommodate aircraft up to 80,000 lbs. If the runway expansion project is completed, the airport anticipates it will be able to accommodate small commuter planes. However, there are no immediate plans to seek commercial flights.

**12.2.4.2 Commercial Air Transportation**

The commercial airports listed below provide service to Johnson County.

<b>Airport</b>	<b>Location</b>	<b>Approximate Mileage from Buffalo, Wyoming</b>
Campbell County Airport	Gillette, Wyoming	75
Sheridan County Airport	Sheridan, Wyoming	38
Natrona County International Airport	Casper, Wyoming	122
Billings Logan International Airport	Billings, Montana	169
Rapid City International Airport	Rapid City, South Dakota	220
Denver International Airport	Denver, Colorado	404

### **12.2.5. Commercial Bus Service**

Commercial bus transportation service is provided by Powder River Transportation (Coach USA) 1700 E. US Highway 14-16, Gillette, Wyoming. Buses depart Buffalo twice daily from the “Just Gone Fishing” sporting goods store at 777 Fort Street. Buses arrive in Buffalo twice daily at 9:05 am and 8:45 pm. Buffalo is the only bus stop in Johnson County. Buses run north to Billings, Montana where they connect with Greyhound, and east to Gillette where they connect with buses east and south. Powder River Transportation also provides charter bus and rental bus services.

### **12.2.6 Rail Transportation Services**

#### **12.2.6.1. Commercial Rail Services**

There is no commercial freight or passenger rail service within Johnson County. However, there is a commercial rail line in the Town of Clearmont (east of Buffalo on U.S. Highway 14/16) and the City of Sheridan which could likely support commercial rail freight service.

## **12.3 GOVERNMENT TRANSPORTATION AGENCIES**

### **12.3.1 Johnson County Road and Bridge Department**

The Johnson County Road and Bridge Department operates out of the Johnson County Road and Bridge Shop located at 310 Railroad Avenue in Buffalo. The Department provides maintenance and snow removal for the Johnson County Road System.

### **12.3.2 Wyoming Department of Transportation (WYDOT)**

The Wyoming Department of Transportation has maintenance and construction offices located on Fort Street in Buffalo, which includes a Resident Engineer and a Maintenance Supervisor, as well as a State Highway Patrol Office.

The WYDOT driver’s license office is located at 350 East Hart Street, Suite #3, in Buffalo.

## **12.4 FUTURE TRANSPORTATION IMPROVEMENTS**

Several transportation improvements are recommended to better serve the existing and future population of Johnson County:

- Airport Expansion – Johnson County should continue existing plans for expanding the capabilities of the Johnson County Airport. This expansion may stimulate some commercial development in the area. Any future zoning resolution should include some land use restrictions for lands adjacent to the Johnson County Airport. These requirements will enable Johnson County to make future airport expansions and help qualify Johnson County for potential federal funds that will be needed to support future airport improvements.
- New Collector Road – A need is developing for a new collector road between French Creek Road and US Highway 16 west of Buffalo. Rural residents on French Creek Road must currently travel the Buffalo street system to reach grocery stores and other commercial areas along Fort Street. In addition, those residents who wish to access US Highway 16 to travel to the Big Horn Mountains for recreational and other trips

must also use the Buffalo street system. Since significant growth along the French Creek Road corridor is expected, this problem will only increase. Therefore, this alternative route is highly recommended.

- Upgrade of Hart Street – There is a WYDOT project scheduled for upgrading Hart Street in the City of Buffalo. The improvements will include widening, sidewalks, a center turn lane and replacement of the bridge over Clear Creek. Hart Street serves some properties still located within the unincorporated area of the county adjacent to the City of Buffalo.
- US Highway 16 west of Buffalo – WYDOT has awarded the bid to upgrade a section of US Highway 16 west of Buffalo prior to and within the Bighorn National Forest. The construction will take place in 2003 and 2004 and consists of widening and other safety improvements including a new runaway truck arresting system.

## **12.5 TRANSPORTATION GOALS AND POLICIES**

The following goals and policies are recommended to help provide efficient transportation systems and services within Johnson County, to minimize the costs of providing and maintaining transportation infrastructure, and to maximize economic opportunities.

1. Care should be taken when planning paving and other road upgrade projects as upgrading roads may encourage development in those areas due to improved access. Roads should be paved or upgraded in areas where growth is desired and in areas where significant growth has already occurred to support existing population.
2. New residential growth should be directed towards existing paved roads when feasible to avoid the capital expense of paving new roads or providing dust control that is ultimately paid for by county taxpayers.
3. Access locations should be limited to the greatest possible extent on all county and state roads, especially those roadways classified as collector and above. This can be accomplished by requiring consolidated accesses and frontage roads. New subdivisions should have an internal street system with minimum accesses onto county or state roadways. These practices help provide safer roads and maintain the ability of those roads to safely handle traffic volumes at higher speeds. Safety and sight distance should be considered prior to granting access permits.
4. The existing county road system should be properly maintained.
5. Dust control on the many miles of county unpaved roads is an ongoing problem that will become increasingly important as the county's population grows. The county should look into cost effective solutions to this problem. Avoiding high-density development along unpaved roads and requiring developers to pave streets in high-density subdivisions is encouraged.
6. Some county roads will continue to receive higher than normal use due to coal bed methane gas development and other industrial activities. Problems include damage to roads, bridges and other components, as well as dust, speeding and other safety issues. The county should work closely with development companies to gain whatever assistance is available for keeping these roads safe and in good condition. Coal Bed

Methane and other resource development companies should operate responsibly on county roads and consider compensating the county for any damages they cause to county transportation infrastructure.

7. Storm water runoff within subdivisions can damage roadways, shoulders, borrow ditches and other areas. The county's current subdivision regulations do not adequately address storm water management controls. This problem should be addressed in the next update of the county's subdivision regulations.
8. Whenever feasible, it is desirable to have residential development near established trail systems to provide an alternative to vehicular transportation to residents of those areas. Additional trail systems should be explored in the future in conjunction with new development and when other opportunities arise. The county's subdivision regulations should be modified to incorporate more opportunities for Planned Unit Developments and Cluster Developments to increase the opportunity for new trail systems.
9. There has been recent dialog between the County Planners of Washakie and Johnson Counties concerning an application for a National Scenic Byway or All American Scenic Byway designation for US Highway 16 west of Buffalo over the Big Horn Mountains. Scenic byway designations have been proven to increase visitor traffic and contribute to local economies. This occurs because scenic byway designations are added to tourism and travel maps. Therefore, it is highly recommended that the scenic byway designation be actively pursued and coordinated with Washakie County.
10. Policies of the U.S.D.A. Forest Service that relate to roads in the Bighorn National Forest should consider the effects of such policies on the local tourism economy and other aspects. The Forest Service should solicit and consider comments from Johnson County and its municipalities when actions are being contemplated.
11. Continue existing plans for expanding the capabilities of the Johnson County Airport. This expansion may stimulate some commercial development in the area. Any future zoning resolution should include some land use restrictions for lands adjacent to the Johnson County Airport. These requirements will enable Johnson County to make future airport expansions and help qualify Johnson County for potential federal funds needed to support future airport improvements.



## CHAPTER THIRTEEN VISION FOR FUTURE LAND USES

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### 13.1 GENERAL

Land use planners and the community planning commissions they serve often recommend and adopt general visions of future land use development patterns to help shape future regulatory land use policies. While these visions can be useful to facilitate local land use management, a local vision of future land use development has considerably greater value and potential application if the vision is used to address a combination of community development objectives such as:

- promoting future economic development and private investment;
- helping guide state and federal agencies who are administering land uses on public lands;
- conserving important resources, e.g., productive agricultural lands, wildlife and fish habitat, for current and future generations;
- identifying desirable land use relationships that respect the lifestyle of existing residents and anticipating the demands of those who may reside in Johnson County in the future;
- determining the focus of future improvements for vehicular roads; and,
- evaluating the suitability of lands for various types of future land use development.

In order to facilitate the application of this land use plan for multiple community development purposes, the recommended land uses and the recommended land use pattern presented in this chapter generally reflects consideration of the following:

- Demographic trends occurring in Johnson County;
- Customs and culture of Johnson County;
- Personal property rights;
- Natural resource conservation issues and opportunities;
- Economic development issues and opportunities;
- Anticipated demand for future land uses;
- Sensible land use relationships that promote the use and enjoyment of land and avoid potential land use conflicts between residents, private companies, and public agencies;
- Public costs associated with the construction, operation and maintenance of County roads and state highways; and,
- Public costs associated with the delivery of public services such as emergency medical care, fire protection, law enforcement, and public schools.

The preceding issues were compiled using available data and insights received from Johnson County residents via interviews, public meetings and written comments; evaluation of the information and conclusions presented in Chapters 2 through 12; the insights of the Johnson County Planning and Zoning Commission and the Johnson County Board of Commissioners; and the experience of Pedersen Planning Consultants.

A geographical information system (GIS) for Johnson County, developed in conjunction with this plan, facilitated the correlation of various types of information. These correlations and other related information enabled the identification of general land use criteria for general land

use categories such as rural living, recreation and conservation, agriculture, community expansion, and multiple use.

Since the land use planning effort is intended to update the existing Joint Comprehensive Plan for Johnson County, conclusions and recommendations presented in the existing Land Use Plan were also carefully examined. Past conclusions and recommendations were compared with conclusions derived from more recent evaluations of the regional economy, community demographics, natural resources and the environment, and the land use assessment. Similarly, past conclusions and recommendations were also compared with the insights and information gained from Johnson County residents during community meetings and informal interviews.

## **13.2 RECOMMENDED LAND USES**

### **13.2.1 General**

County land use plans traditionally identify and map a combination of one or more land uses within a given area or region. For example, the existing Joint Comprehensive Plan for Johnson County, which was completed by Worthington, Lenhart, and Carpenter, Inc. in 1999, defined three planning areas: the Buffalo Urban Growth Area, the Buffalo Planning Area, and a Resource Area for remaining portions of Johnson County. More specific types of land uses were identified for each of these areas. Recommended land uses within the Buffalo Urban Growth Area, which was considered the primary expansion area for Buffalo, were more specifically mapped.

For this land use plan update, a somewhat different approach was used to develop a new land use vision for Johnson County. Five broad land use categories were identified for all of Johnson County. Those categories are:

- 1) Rural Living
- 2) Community Expansion
- 3) Multiple Use
- 4) Recreation and Conservation
- 5) Agriculture

Each of these broad land use categories supports a combination of more specific land uses. The land uses envisioned for each of the categories recognizes that most land uses in Johnson County are often highly inter-dependent and occur in combination. For example:

- The concurrent use of more than one type of land use on suburban and rural properties in the unincorporated area of Johnson County is often necessary to sustain adequate household incomes;
- Lake DeSmet provides a valuable surface water supply, as well as important recreational opportunities; and
- The Bighorn National Forest conserves wildlife habitat and surface water resources, provides recreational opportunities, permits the harvesting of raw timber resources, and provides opportunities for the grazing of livestock.

The land use plan for Johnson County provides an opportunity to help clarify the type and location of various land use combinations that are desirable to sustain the customs and culture of Johnson County, promote economic development and land use expansion, promote reasonable expansions to County infrastructure, minimize costs to taxpayers of providing public services, conserve important natural resources, and sustain the delivery of public services to Johnson County residents.

General development criteria for each of these land use categories were developed to recommend general locations for future land uses. The same criteria also recommends general types of vehicular access and circulation, water supply and distribution systems, and wastewater systems to support recommended land uses within each of the five general land use categories. In essence, the recommended land use pattern considers both the general location of future land uses, as well as the extent of Johnson County's commitment to the development of supporting infrastructure.

### **13.2.2 Land Use Category Definitions and Development Criteria**

#### **13.2.2.1 Rural Living**

**Land Uses:** Rural Living represents a combination of land uses that includes single-family residential, agriculture, smaller home-based occupations, and resource development operations, (e.g., oil and gas production, and mining).

Single-family residential uses would occur on individual land parcels and tend to be located in more remote portions of the unincorporated area. Future residential development in these remote portions of the county would not include additional high-density rural subdivisions because of the distance to commercial and public services in Buffalo and Kaycee, and increased costs associated with providing road maintenance, law enforcement and emergency services.

**Vehicular Access:** Vehicular access would normally occur through the use of existing or new paved, gravel, or dirt roads. Access to homes, ranches, and resource development sites would desirably occur from county or state roadways. When such access is not available, deeded easements across private lands would be required to avoid conflicts among landowners.

**Water Systems:** Individual groundwater wells would be used to support domestic, livestock and irrigation uses. The development of new groundwater wells for domestic purposes is expected to be in areas where well depths are not greater than 400 feet in depth, due to the costs of drilling wells to excessive depths.

**Wastewater Systems:** Onsite wastewater systems, e.g., septic tanks and effluent drainfields, would be installed in accordance with applicable state and county regulations.

### **13.2.3 Community Expansion**

**Land Uses:** Community Expansion refers to a combination of residential, commercial, industrial, public facilities, community facilities development, and the expansion or development of new recreation and conservation areas that would take place on lands within a close proximity to Buffalo and Kaycee and close to paved roads or highways.

**Vehicular Access:** Vehicular access to Community Expansion areas would primarily include paved roadways or improved gravel roads. Similar roads would be developed in areas that extend beyond municipal boundaries. Future road improvements would be planned along existing county roads to encourage community expansion in appropriate areas.

Paved roads and streets are recommended for residential subdivisions that contain higher residential densities, (e.g., four to five dwelling units per acre). Paved streets encourage residential growth and minimize dust emissions in residential subdivisions.

New paved and gravel roads in Community Expansion areas may ultimately be dedicated to the municipalities of Buffalo or Kaycee, Johnson County, or the State of Wyoming. Therefore, roads should be constructed to municipal standards whenever practical. Similar dedication may also be applicable to new collector roads.

**Water Systems:** Development in community expansion areas should be closely coordinated with incorporated municipalities to ensure that new development does not hinder future expansion plans for municipal water systems. Where feasible, all land uses requiring domestic water should be connected to existing municipal water systems. Such connections are especially recommended for future residential subdivisions that contain higher residential densities, (e.g., four to five dwelling units per acre), and in close proximity to municipal water transmission systems.

Where the connection to municipal systems is not feasible, smaller community water systems should be considered for new rural residential subdivisions. Landowners who could not be feasibly connected to community or municipal water systems would develop individual groundwater wells and distribution systems.

**Wastewater Systems:** Development in community expansion areas should be closely coordinated with incorporated municipalities to ensure that new development does not hinder future expansion plans for municipal sewer systems. Where feasible, all land uses should be connected to existing municipal or privately-owned community wastewater systems. Such connections are recommended for subdivisions that contain higher densities, (e.g, four to five dwelling units per acre).

Where connections to municipal wastewater systems are not feasible, smaller community wastewater systems should be considered unless site factors make this option impractical. Effluent from multiple onsite wastewater systems could impact individual groundwater wells where local soils do not afford adequate soil-based treatment.

#### **13.2.4 Multiple Use**

**Land Uses:** Multiple Use areas may contain various land uses such as commercial agriculture, timber harvesting, oil and gas exploration and production, mining activities, commercial visitor accommodations, community and public facilities, as well as private and public recreation areas. Recreational uses could include a wide range of activities such as overnight camping and lodging, horseback riding, use of off-road vehicles in appropriate areas, hunting, fishing, hiking and other outdoor recreational activities.

The development of community facilities and public facilities is also envisioned in Multiple Use areas that are owned by both state and federal agencies. These uses would be particularly beneficial in the vicinity of Buffalo and Kaycee when land is needed to support the future expansion of existing or development of new community and public facilities.

New residential development in Multiple Use areas should only be considered to directly support one or more of the preceding land uses.

**Vehicular Access:** Vehicular access would occur through the use of existing or new paved, gravel, or dirt roads. Roads providing access to authorized resource development sites, as well as public and private recreation areas, would ideally be gravel-surfaced.

Vehicular access to ranches, single family homes or group living quarters, and resource development sites would desirably occur from county or state roadways. When such access is not available, deeded easements across private lands may be necessary to avoid conflicts among landowners and clarify responsibilities for road maintenance.

**Water Systems:** The connection of Multiple Use facilities to existing municipal water systems or private community water systems is recommended when the connection to existing water transmission lines is economically feasible. However, in most cases, available public lands are located in remote portions of Johnson County. Consequently, most Multiple Land uses will be supported by independent groundwater wells and distribution systems.

**Wastewater Systems:** Onsite wastewater systems, (e.g., septic tanks and effluent drainfields), would be the primary form of wastewater collection, treatment and disposal. These systems must be installed in soils that will afford an adequate level of wastewater treatment. When feasible, small community wastewater systems should be developed to afford a higher degree of treatment, or facilitate private or public wastewater management.

### **13.2.5 Recreation and Conservation**

**Land Uses:** Recreation and Conservation uses would be comprised of public and private recreational uses, access to and interpretation of significant historical sites and trails, and the conservation of significant natural resource areas, e.g., important wildlife and aquatic habitat areas, streams and stream buffers, forested areas, and significant vistas. Development in these areas would likely include the construction of restrooms, kiosks, visitor centers, pedestrian and bicycle trails, boat launching ramps, and vehicular parking areas to support the primary land uses. Residences might also be developed in selected locations to provide housing to onsite caretakers and maintenance personnel.

**Vehicular Access:** Vehicular access would occur through the use of existing or new paved, gravel, or dirt roads. Roads providing access to Recreation and Conservation areas would ideally be gravel-surfaced.

Vehicular access to single-family homes would desirably occur from county or state roadways. When such access is not available, deeded easements across private lands may be necessary to avoid conflicts among landowners and clarify responsibilities for road maintenance.

**Water Systems:** Most land uses associated with Recreation and Conservation will be supported by independent groundwater wells and related distribution systems, since Recreation and Conservation areas are likely to be expanded or developed in remote areas of the county. Whenever feasible, these land uses should be connected to municipal water systems.

Wastewater Systems: Onsite wastewater systems, e.g., septic tanks and effluent drainfields, would be the primary form of wastewater collection, treatment and disposal. These systems must be installed in soils that will afford an adequate level of wastewater treatment.

### **13.2.6 Agriculture**

Land Uses: Agricultural operations represent the primary activity in these areas to maintain these lands for crop and/or livestock production, as well as for wildlife habitat and migration areas. The development of barns, storage and processing facilities, and other supporting uses is envisioned to facilitate agricultural expansion, as well as improve the efficiency and financial viability of agricultural operations.

These areas would also include home-based occupations and other commercial enterprises, e.g., private visitor accommodations, hunting and fishing guiding and outfitting, ranch recreation, or heavy equipment repair, since those involved in agricultural operations are sometimes dependent upon income from other sources.

The development of single-family residences and group living quarters is also envisioned to directly support agricultural operations and other economic enterprises. Single-family residential uses would occur on individual land parcels and tend to be located in more remote portions of the unincorporated area. However, future residential development would not include the development of additional rural subdivisions because of the suitability of these lands for agricultural production and the cost of providing police and other emergency services to remote populated areas.

Vehicular Access: Vehicular access would occur through existing or new paved, gravel, or dirt roads. Access to rural homes and ranches would preferably occur from county or state roadways. When such access is not available, deeded easements across private lands may be necessary to avoid conflicts among landowners.

Water Systems: Individual groundwater wells would support domestic, livestock and irrigation uses. New groundwater wells for domestic purposes are expected to be developed primarily in areas where well depths are not greater than 400 feet due to the high cost of drilling deeper wells.

Wastewater Systems: Onsite wastewater systems, (e.g., septic tanks and effluent drainfields), must be installed in soils that afford an adequate level of wastewater treatment.

## **13.3 RECOMMENDED LAND USE PATTERN**

### **13.3.1 General**

In order to develop a recommended land use pattern for Johnson County, general recommendations were developed concerning future land use expansion in Johnson County. These general recommendations were again based upon evaluation of various issues and the correlation of various types of spatial information.

### **13.3.2 General Recommendations for Land Use Expansion**

#### ***13.3.2.1 Concentrate Residential, Commercial and Industrial Land Uses in Close Proximity to Buffalo and Kaycee***

According to studies conducted by the American Farmland Trust, the University of Wyoming and others, rural residential development costs counties more to serve than the tax revenues received. The proliferation of rural residential subdivisions will likely result in the eventual need for increased taxes. Therefore, it is recommended that future residential development be concentrated within and near the existing communities of Buffalo and Kaycee.

Concentrating land uses in the vicinity of Buffalo and Kaycee is a sensible approach for future land use expansion. Concentrating these land uses around Buffalo and Kaycee will enable more people to conveniently and affordably live, work and make retail expenditures within or close to one of the two incorporated municipalities.

Future residential, commercial, and industrial development is dependent upon good vehicular access and roads, the availability of utilities, and convenient access to commercial, public and community services. The concentration of residential, commercial and industrial land uses within close proximity to Buffalo and Kaycee enables future land use expansion to occur without requiring unreasonable public investments for:

- the construction of new roads;
- the procurement of more vehicles and equipment to provide road maintenance, law enforcement, and emergency services to more remote areas of Johnson County;
- increased staffing and operational costs of law enforcement and emergency services agencies that would be required to support more remote areas of Johnson County.

The availability of improved paved and gravel roads within close proximity to Buffalo and Kaycee enables county agencies to provide more efficient and cost-effective public services to the two primary concentrations of Johnson County residents. A concentration of residential, commercial, and industrial land uses around these communities enhances the ability of county agencies to provide efficient and cost-effective public services to its residents in a centralized area where most of those residents reside. Development far from the central location where these services are based can often take these services away from the area where most of the residents reside, leaving the greater population less protected.

#### ***13.3.2.2 Provide Opportunities for Rural Lifestyles in the Unincorporated Area***

A second component to future land use expansion is to recognize the customs and culture of the people of Johnson County.

Since the coming of settlers along the Bozeman Trail, those who chose to reside in Johnson County have generally represented a determined set of individuals and families. In the 1860's, early settlers in Johnson County were afforded few luxuries or conveniences; consequently, they had to be self-reliant and self-sufficient to survive. With this history, it is not surprising that a free, enterprising, and self-determined spirit continues with their ancestors and more recent newcomers who now live in the unincorporated area of Johnson County.

In April 2000, 2,926, or 41.5 percent of county residents lived in the unincorporated area of Johnson County (U.S. Bureau of Census, 2000). About 17 percent of the rural population in Johnson County works part-time or full-time in agricultural enterprises. With dependents, it is

estimated that 40 percent of the population in the unincorporated area lives in households that are directly involved in agriculture. The remaining population may operate home-based businesses, are retired, or work within jobs in Buffalo, Kaycee, or other Wyoming communities. Although not directly involved in agriculture, they represent a significant portion of the resident population that has chosen a rural lifestyle.

In this context, the Johnson County Land Use Plan should recognize rural lifestyles in the unincorporated area of Johnson County. It is recommended that Johnson County:

- promote compatible land uses that can help sustain rural lifestyles; and,
- identify areas that are more suitable to support rural lifestyles.

### **13.3.2.3 Conserve Important Natural Resources**

#### *Conserve Selected Land and Water Areas in Johnson County*

Johnson County contains an abundance of natural resources such as forests, soils, ground water and surface water, fish and wildlife habitat, and minerals. These resources help to enhance the quality of life for county residents by providing recreational opportunities, wildlife and scenic vistas, tourism and other economic value, and a rural lifestyle. Many residents depend on wild game and fish for food. As stewards of these resources, land use policies contained in the Johnson County Land Use Plan should help conserve these resources and foster responsible stewardship by its residents.

With this perspective, it is recommended that selected land and water areas of Johnson County be conserved. These areas include existing federal wildlife management and study areas; crucial winter range, habitat and migration areas for elk and other wildlife, county, state and federal recreational areas, the Bighorn National Forest, the Bozeman Trail corridor and related historical sites, drainage courses within the Powder River drainage, and agricultural lands.

The recommended approach to land and water conservation is a compatible set of land uses in selected land and water areas that promote resource conservation, as well as provide educational and other opportunities to residents and visitors. Recreational activities and conservation are frequently compatible land uses depending upon the type of resources being conserved. Livestock grazing in many areas of Johnson County also facilitates land, wildlife and water conservation.

The conservation of timber resources in non-wilderness areas of the Bighorn National Forest is also essential to long-term forest health. Future timber harvests in greater portions of existing non-wilderness areas are recommended for the purpose of fuel reduction and improving forest health. The harvest of timber from non-wilderness areas is also essential to help sustain local sawmill operations.

#### *Use a More Balanced Approach to Future Resource Conservation*

Many federal resource management activities, during the past two decades, have been oriented toward the preservation of specific species and habitats. The protection of wolves and grizzly bears in Wyoming are examples of this management approach. Efforts to preserve single species were initially prompted by various federal agencies in response to requirements of the Endangered Species Act, Clean Water Act, and other federal environmental laws.



Federal resource management policies in Johnson County must be planned, established and managed in the context of local land uses, the customs and culture of Johnson County residents, and the viability of the Johnson County economy. For example, policies to protect wolves and grizzly bears, and the "listing" of selected wildlife, e.g., prairie dogs, in areas of Wyoming must consider the consequences of the conservation activities on the predation of livestock and the viability of ranching operations. Many people have a stake in the National Forest, but the people who live here, who endure the hardships and have built their livelihoods around resources derived from the Forest, should not have to compromise those values for the benefit of people who do not live in the area.

In view of limited precipitation and the importance to agricultural operations in Johnson County, it is essential that livestock grazing activities be sustained in non-wilderness areas of the Bighorn National Forest, on public rangelands that are administered by the U.S. Bureau of Land Management, and along drainage courses within the Powder River drainage. Future access to surface water resources is essential to sustain the economic viability of commercial livestock operations. Livestock grazing also provides an effective resource tool that can be used to manage the vegetation in rangelands, riparian areas, and wildlife habitat.

#### *Expand Recreational Opportunities*

Expansion of recreational opportunities and access to public lands can facilitate public education and awareness about natural resources. Resource management agencies should pursue pertinent educational programs.

### **13.3.3 Application of General Land Use Categories**

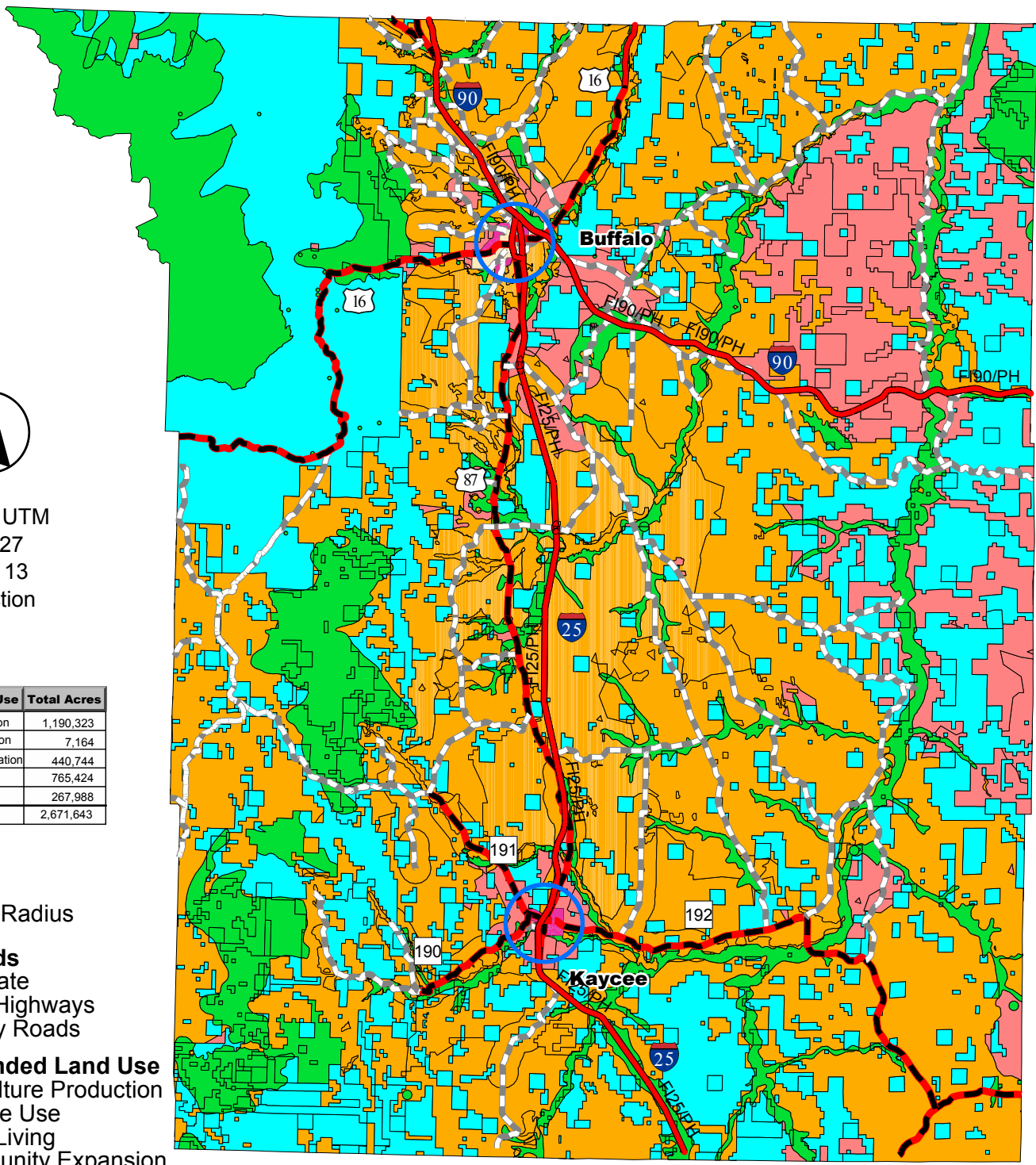
The recommended land use pattern for Johnson County was developed by applying the general land use categories and related criteria (presented in section 13.2) to all lands in the unincorporated area of Johnson County (Figure 13-1). Areas of the unincorporated portion are assigned one general land use category, (e.g., Rural Living). It is important to recognize that each of the five general land use categories provides for a combination of land uses. These definitions are presented in section 13.2.

The correlation of cultural, economic, natural resources, land use and infrastructure considerations in Johnson County identified recommended locations for each of the general land use categories. The rationale used in designating the general land use categories and recommended land use development guidelines, are discussed in the following paragraphs.

#### **13.3.3.1 Community Expansion Areas**

##### *General*

Community Expansion is defined as a combination of residential, commercial, industrial, public facilities, community facilities, and recreational and conservation uses. Appropriate locations for Community Expansion areas are close to Buffalo and Kaycee and near paved roads (Figure 13-2 and Figure 13-3).



Data in UTM  
Nad 27  
Zone 13  
projection

Recommended Use	Total Acres
Agriculture Production	1,190,323
Community Expansion	7,164
Recreation/Conservation	440,744
Multiple Use	765,424
Rural Living	267,988
Total	2,671,643

○ 5 Mile Radius

**Major Roads**  
 Interstate  
 State Highways  
 County Roads

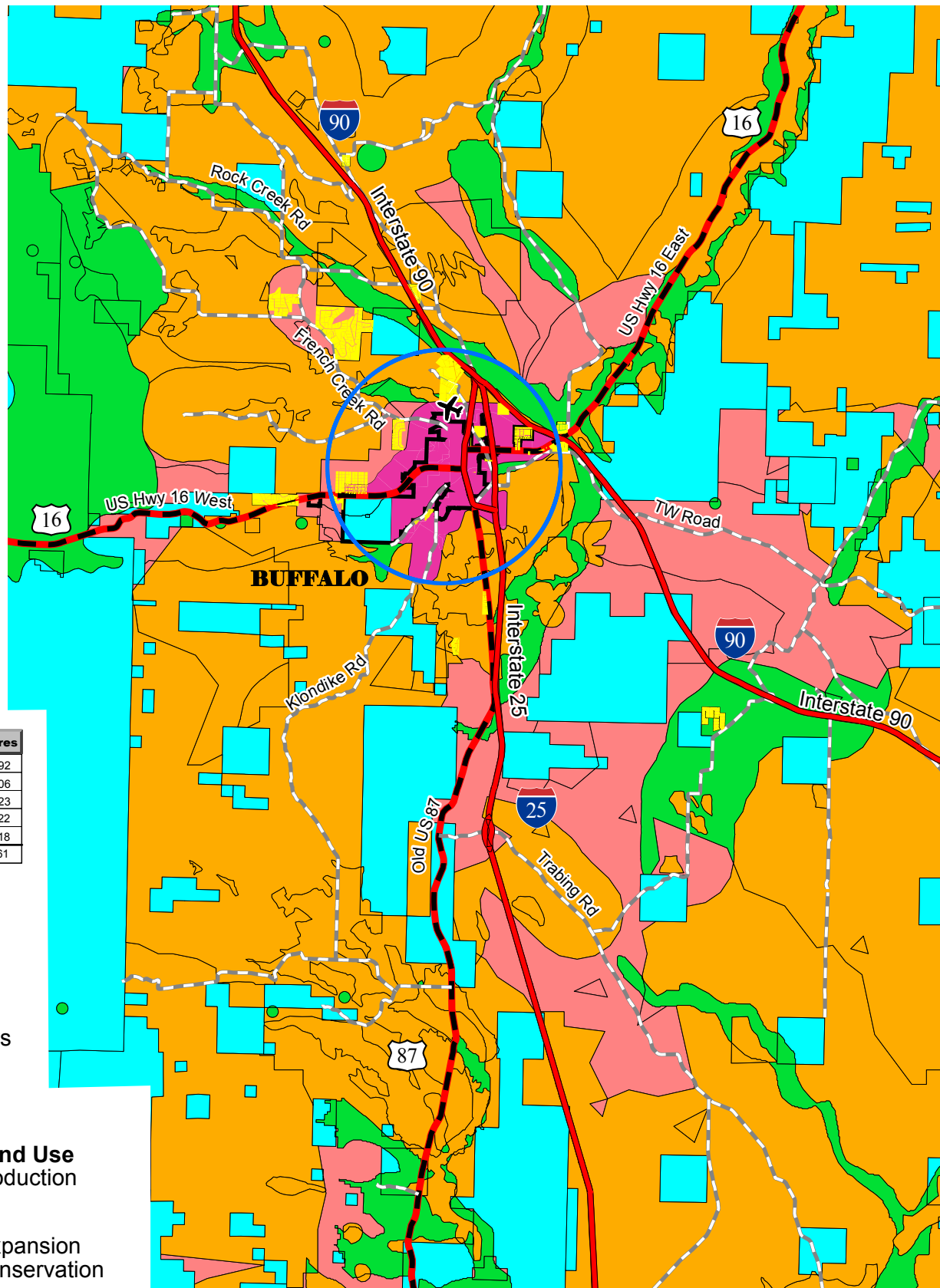
**Recommended Land Use**  
 Agriculture Production  
 Multiple Use  
 Rural Living  
 Community Expansion  
 Recreation/Conservation

# Johnson County Land Use Plan

# Recommended Land Use Pattern Johnson County 2003-2012

Prepared by Pedersen Planning Consultants  
P.O. 66, Encampment, WY 82325  
307-327-5434

Figure 13-1

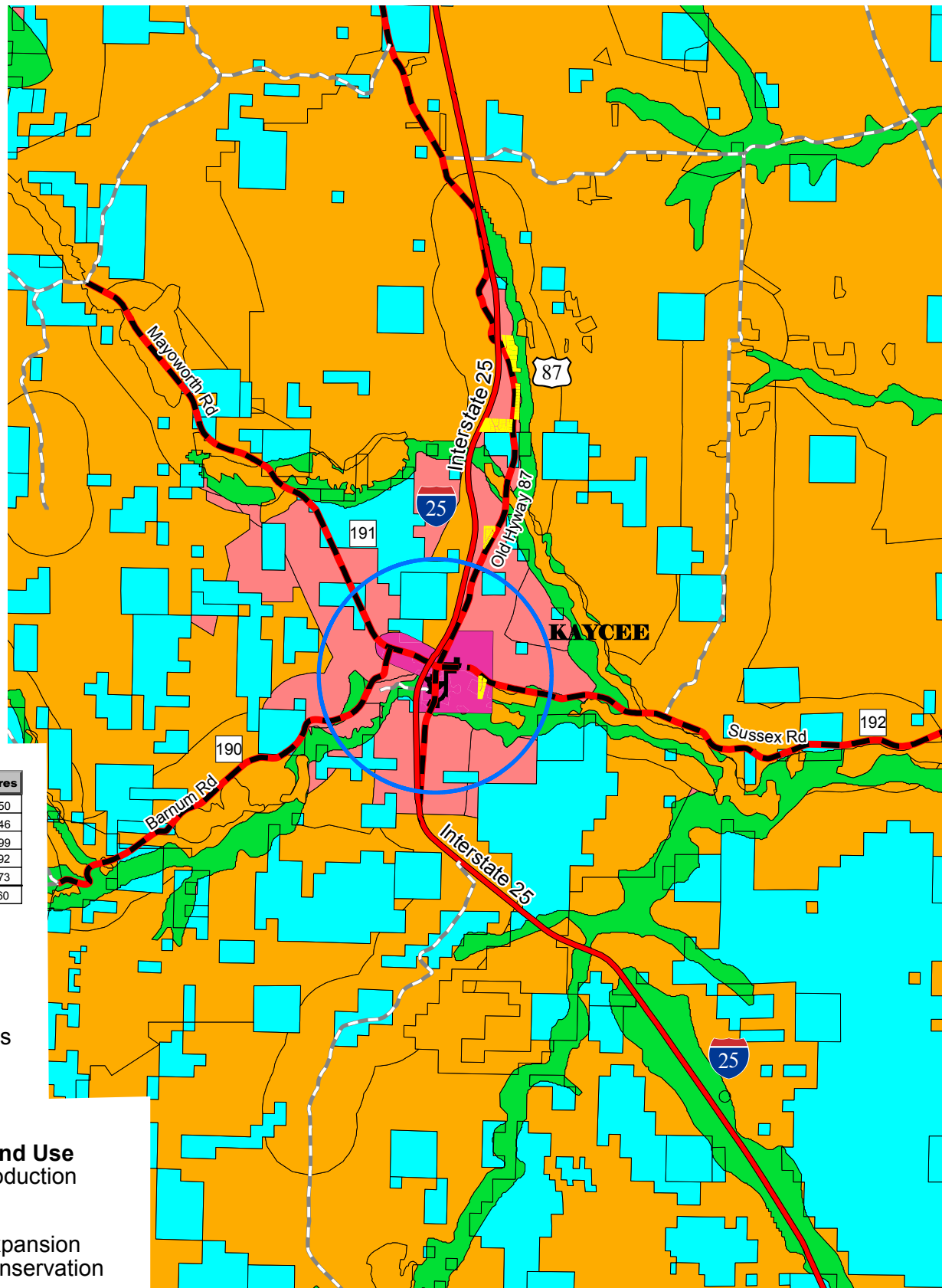


# Johnson County Land Use Plan

# Recommended Land Use Pattern Buffalo Vicinity 2003-2012

Prepared by Pedersen Planning Consultants  
P.O. 66, Encampment, WY 82325  
307-327-5434

Figure 13-2



# Johnson County Land Use Plan

# Recommended Land Use Pattern Kaycee Vicinity 2003-2012

Prepared by Pedersen Planning Consultants  
P.O. 66, Encampment, WY 82325  
307-327-5434

Figure 13-3

Land use expansion in these areas is desirable because:

- A closer proximity to Buffalo and Kaycee allows residents greater accessibility to commercial activities, public schools, other public facilities, and community facilities such as churches, the YMCA, and daycare centers.
- Access to expansion areas may already be available via paved or improved gravel roads. Access to new developed areas within the vicinity of Buffalo and Kaycee can generally be provided more feasibly via an extension of existing roads.
- A close proximity to law enforcement, emergency medical and fire services enables faster and more cost effective responses. It also allows those services and their assets to remain in the area where most people reside.

### *Residential Uses in Community Expansion Areas*

#### Rural Subdivisions

The developers of new rural residential subdivisions should be encouraged to locate these subdivisions in Community Expansion areas near Buffalo and Kaycee. The extent of future subdivision development in these areas will depend on market demands, land values and market prices, site development costs, and the suitability of sites for water and wastewater systems. Increasing land prices and demand for rural properties will likely lead to the development of subdivisions containing smaller land parcels.

Clustered residential subdivisions near Buffalo and Kaycee are desirable for sensible site development that conserves scenic vistas, drainage areas, existing topography, open space and recreational opportunities. Residential developments could also be constructed to incorporate supporting land uses, (e.g., community facilities, horse and pedestrian trails) within planned residential communities.

Market demands, site locations and characteristics will not always warrant clustered residential development. However, developers should be encouraged to effectively use topographic features to achieve effective site design of rural residential subdivisions and to conserve scenic vistas. Ridge top development should be discouraged to maintain scenic views for all residents and visitors of the county.

Rural subdivisions should ideally be connected to municipal water systems. If this is not feasible, subdivisions should be located on sites that have a potential to obtain ground water at economical depths, i.e., less than 400 feet. This recommendation should be applied with discretion since the availability of groundwater is never known until a well is actually drilled. Developers should be encouraged to carefully evaluate groundwater quantity and quality in areas where connection to a municipal water system is not feasible.

#### Higher Density Single-Family Residential Development

In the vicinity of the Buffalo and Kaycee, the housing market will eventually generate a demand for single-family residential subdivisions containing higher densities, e.g., four to five dwelling units per acre. It is recommended that higher density single-family residential subdivisions be close to Buffalo and Kaycee to be connected to municipal water and wastewater systems. At higher densities, the use of onsite wastewater disposal systems and individual groundwater wells would be inappropriate due to possible impacts on individual groundwater supplies.

Topography in the vicinity of Buffalo and Kaycee will require careful site planning and design to:

facilitate efficient subdivision municipal water distribution and sewage collection systems;

construct reasonable road grades, safe vehicular access and efficient circulation;

construct effective on-site drainage systems; and,

preserve important scenic vistas.

#### Multi-Unit Residential Development

Multi-unit residential developments such as apartments and housing complexes are also recommended for Community Expansion areas. These facilities are ideally located adjacent to or within single-family residential areas and in close proximity to shopping areas and community facilities.

Adequate parking and convenient access to primary roadways is important for compatibility of new multi-unit structures with adjoining uses.

#### *Commercial Uses in Community Expansion Areas*

Retail services are recommended for sites that are within or adjacent to Kaycee and Buffalo, since they would serve both resident and visitor markets.

Commercial expansion in Buffalo should be directed primarily to undeveloped properties along commercial corridors of Main Street, Hart Street and Fort Street. The expansion of retail and food services along Lobban Avenue is recommended in Buffalo's old downtown area to strengthen existing businesses and attract new commercial investments (see Chapter 6).

Nolan Avenue is the primary corridor in Kaycee where future commercial expansion is desirable. Despite the availability of some vacant properties, future commercial expansion along this corridor will be limited due to the risk of flood damage. A second commercial expansion opportunity near Kaycee is along State Highway 191, immediately west of Interstate 25. Other sites for commercial expansion may be identified during future community planning efforts.

As new residential subdivisions are developed near Buffalo and Kaycee, demand will increase for new commercial enterprises, e.g. gas stations, convenience stores, and food establishments. While such uses may help boost retail sales, it is recommended that these enterprises be carefully planned to avoid unattractive commercial strip development.

Some commercial facilities may be appropriate within residential neighborhoods. Such activities might include retail services such as grocery stores, barber shops, and other retail activities. Adequate parking is essential to ensure that commercial uses within residential neighborhoods do not adversely impact traffic circulation.

### *Industrial Uses in Community Expansion Areas*

The establishment of desirable industrial facilities is recommended within a reasonable distance of Interstate 25 and Interstate 90. As discussed in Chapter Eight, at least two sites are located east of Interstate 25 in the vicinity of Buffalo.

The regular movement of larger vehicles on municipal streets can generate adverse traffic conflicts, hamper local circulation, and cause unnecessary safety issues. Therefore, industrial sites should be located within a reasonable distance of primary roadways.

Most of the demand for other types of industrial activity, e.g., mining and coal bed methane development is expected to be for lands east of Interstate 25 and beyond a 5-mile radius of Kaycee and Buffalo.

Industrial uses within a close proximity of Buffalo and Kaycee should be carefully considered. Light industrial activities that generate no significant air emissions and noise levels are generally compatible with commercial facility development. It is recommended that these enterprises have convenient access to primary roadways.

In contrast, industrial operations that generate significant air emissions and noise levels should be discouraged to avoid impacts upon residential, commercial, and public and community facilities. In some areas, it may be difficult to achieve reasonable setbacks from industrial buildings, coal bed methane wells, quarries, or other industrial operations that satisfy adjoining landowners and mitigate impacts. The exclusion of these types of industrial activities within Community Expansion areas will help reduce undesirable conflicts between industrial operators and adjoining landowners.

### *Public Facilities in Community Expansion Areas*

Public facilities such as schools, offices, administrative facilities and other uses may also be compatible with Community Expansion areas. However, these facilities should have convenient access to primary roads to reduce traffic noise and impacts upon vehicular circulation. Adequate parking should also be provided to avoid overflow on-street parking in adjoining residential or commercial areas.

The location of heavy equipment storage yards should be carefully considered. These areas should not be sited adjacent to residential and commercial areas because of their potential adverse impact upon land values and the generation of higher noise levels. Visual screening of storage yards is also recommended.

### *Community Facilities in Community Expansion Areas*

Community facilities such as churches, daycare centers and non-profit organization offices also complement Community Expansion areas. The proximity of these facilities to primary roads and adequate parking are important aspects of community facility development. These provisions ensure traffic will have nominal impacts upon adjoining residential and commercial areas.

## *Recreational Facilities in Community Expansion Areas*

Small recreational areas, e.g. neighborhood or community parks, recreational facilities, as well as pedestrian, bike and horse trails, generally complement other land uses in expanding suburban areas. Small recreational parks and facilities generally cause limited impacts upon adjoining residential and commercial areas when care is exercised in the planning and design of vehicular parking and circulation, as well as general facility lighting. Adequate parking is necessary to ensure that parking on adjoining streets in neighboring residential and commercial areas does not become a serious problem. The use of shielded light fixtures is recommended to avoid the intrusion of bright lights into nearby residences, commercial facilities, or community facilities.

### **13.3.3.2 Rural Living**

#### *General*

Rural Living areas include a combination of land uses such as single-family residential, agriculture, smaller home-based occupations, and/or resource development operations, e.g., oil and gas production, mining, and other resource development activities. Rural single-family residences would not be in new rural residential subdivisions.

#### Groundwater Considerations

The preceding combination of land uses would most desirably take place where the depths of new groundwater wells are expected to be within 400 feet. These areas are considered to have a "higher groundwater development potential".

One prominent well drilling company, which has completed a large number of wells in Johnson County, indicates that the total cost of drilling, casing, and pump installation for a groundwater well is roughly \$25 per foot (Ruby, 2003). At 400 feet, the cost of groundwater well development for an individual rural residential application would be about \$10,000. This cost is believed to be within an affordable range of most new landowners.

In many locations throughout the unincorporated area, groundwater wells had to be drilled at depths exceeding 400 feet to produce adequate potable water supplies. Consequently, land uses associated with Rural Living are more appropriate where reliable water supplies are already available and the cost of new groundwater development is more economical.

Where the depth to groundwater is expected to be greater than 400 feet, these Rural Living areas are considered to have a "lower groundwater development potential". It is recommended that the land use combinations in these areas be the same as those areas considered to have a "higher groundwater development potential". New landowners need to be advised of the possibility that groundwater depths in some areas of Johnson County may exceed 400 feet.

#### Vehicular Access Considerations

Access to Rural Living areas should be from existing improved roads. Where access across private lands is required, landowners would negotiate deeded easements to their property.



### *Rural Living Areas East of Interstate 25*

A combination of single-family residential, agriculture, smaller home-based occupations, and resource development operations, e.g., coal bed methane wells, quarries, mining, are recommended for Rural Living Areas in the unincorporated areas of Johnson County east of Interstate 25. Development east of Interstate 25 should be carefully planned to protect scenic views.

Demand for new industrial sites can be expected for private and public lands east of Interstate 25. Recent evaluations by Pace Global and available suggest that the future interests of mineral development companies will be located in the central and east portions of Johnson County.

### *Rural Living Areas Within a 5-Mile Radius of Buffalo and Kaycee*

Rural living areas outside of existing subdivisions are recommended within a 5-mile radius of both Buffalo and Kaycee to accommodate future suburban or rural single-family residential demand. These residential properties would also support home occupations, workshops, and agricultural activities.

Oil and gas wells, or mining operations, are not recommended within Rural Living areas within a 5-mile radius of Buffalo and Kaycee. This is recommended to avoid impacts from these operations. Industrial facilities such as coal bed methane wells, quarries, or other industrial operations often generate impacts such as dust, noise, and increased vehicular traffic. Nearby landowners who own residences, operate home businesses, and engage in agricultural activities, may be less receptive to industrial operations, particularly if they receive no economic benefit from such operations.

### *Rural Living Areas West of Interstate 25*

One of Johnson County's primary natural resources is the Big Horn Mountains. One of the attractions of the Big Horn Mountains is the incredible mountain views from many parts of Johnson County. These views remain in the minds of both residents and visitors. These views are the "lure" that brings many new residents and visitors into the area.

Land uses that obstruct or diminish these values will compromise the quality of life for Johnson County residents. Significant changes in these views would also impact the attractiveness of the county to the visitor market. In 2002, the Wyoming Business Council, State Office of Travel and Tourism, reported that it was estimated that visitor expenditures for accommodations in Johnson County were \$6.3 million. An additional \$25.0 million was expended by visitors for food and beverages, fuel, recreational services, and other retail items (Dean Runyan Associates, 2003). With this perspective, it is recommended that development activities that significantly impact views of the Big Horn Mountains, should not take place within Rural Living areas west of Interstate 25.

#### **13.3.3.3 Multiple Use**

Multiple Use areas are envisioned for public lands located throughout Johnson County. An exception would be designated wilderness areas within the Bighorn National Forest. However, the remaining portions of the Bighorn National Forest are recommended for multiple uses such as livestock grazing, timber harvesting, and recreation.

The development of community and public facilities, as well as recreational areas, is recommended for public lands within a 5-mile radius of both Kaycee and Buffalo.

Multiple Use areas, in other portions of Johnson County, are recommended for land uses such as livestock grazing, oil and gas exploration and production, mining activities, commercial visitor accommodations, and recreation. Recreational uses include activities such as camping and lodging, horseback riding, use of off-road vehicles in appropriate areas, hunting, fishing and hiking.

#### **13.3.3.4 Agriculture**

Agriculture is recommended where cropland production and livestock grazing already takes place. In order to encourage the conservation of these agricultural lands, a combination of land uses is recommended to help sustain agricultural activities. It is envisioned that future crop or livestock production would be supported by uses such as residences, home-based occupations, barns, as well as storage and processing facilities.

#### **13.3.3.5 Recreation and Conservation**

Recreation and Conservation land uses are recommended for various areas of Johnson County. These uses are important for providing recreational opportunities to residents and visitors, providing access to significant historical sites and trails, and conserving various natural resources.

##### *Existing Recreation and Conservation Areas*

Recreation and Conservation areas are recommended for existing wilderness areas within the Bighorn National Forest, wildlife management areas administered by the U.S. Bureau of Land Management, state recreational sites, and Lake DeSmet. A combination of recreational activities can take place with ongoing resource management, public education, and conservation efforts of public agencies.

##### *Riparian Areas*

The conservation of riparian areas is important to preserve surface water quality and natural drainage courses. Wildlife habitat is also provided by riparian areas such as Piney Creek, Clear Creek, portions of the Upper Powder River, Crazy Woman Creek, as well as the South and Middle Forks of the Powder River.

While careful livestock management is necessary in these areas, livestock grazing operations in riparian areas should continue on both private and public lands, since it is an effective resource management tool that can be used to sustain or enhance the quality of riparian vegetation.

Local conservation districts and the Wyoming Agricultural Extension office can provide valuable information regarding various conservation practices that can achieve proper livestock management in riparian areas.

### *Bozeman Trail Corridor*

A recreational opportunity that may be further developed, interpreted, and promoted is the Bozeman Trail corridor. An important part of Johnson County's history could be revealed to both residents and visitors through the establishment of a vehicular tour route along state and county roads that are near the Bozeman Trail.

The tour would enable residents and visitors to drive along a designated route that could begin northeast of Kaycee and continue to a point near Buffalo. Along this route, fort sites could be visited; interpretative markers could be improved to facilitate a greater understanding of history associated with the Bozeman Trail, various American Indian tribes, the U.S. Cavalry, and early settlers. Recreational access to historical sites would be limited to interpretative areas to avoid impacts upon livestock, agricultural facilities and rural residences.

### *Wildlife Habitat*

The conservation of elk and other wildlife habitat areas are important to ensure the availability of adequate crucial winter range and yearlong habitat necessary to sustain various wildlife populations in Johnson County

While the conservation of wildlife habitat is important, properly managed livestock grazing should continue in these areas to insure the quality of vegetation.

Properly managed livestock grazing has little adverse impact on wildlife habitat and most wildlife species. Wildlife benefit from sustaining a viable agriculture industry and the maintenance of open space to support free ranging wildlife populations.

## CHAPTER FOURTEEN

### FUTURE LAND AND RESOURCE MANAGEMENT

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#### 14.1 GENERAL

Various land and resource management actions are necessary to pursue and encourage the implementation of the recommended land use development opportunities, land use pattern, and transportation policies outlined in Chapters 11, 12 and 13.

Federal land and resource management policies influencing Johnson County need to be closely coordinated with various federal agencies that administer public lands in Johnson County. Land, resource management, and economic development policies and programs that are pursued by the State of Wyoming also need to be closely coordinated with various State agencies. In both cases, an adopted land use plan for Johnson County can provide a substantive starting point for future discussions and coordination with federal and State agencies. However, a basic framework for agency coordination needs to be established by Johnson County to ensure that:

1. Johnson County meets periodically with appropriate representatives of state and federal agencies;
2. future federal land and resource management policies are consistent with the Johnson County Land Use Plan and other policies of Johnson County.
3. future state land, resource management, economic development, and transportation policies are consistent with the Johnson County Land Use Plan and other policies of Johnson County.

Local land management processes of Johnson County need to be improved to facilitate a more coordinated planning process with the municipalities of Buffalo and Kaycee. The adoption of an updated Johnson County Land Use Plan can help encourage and facilitate this coordination. The potential preparation of new or updated municipal master plans by the City of Buffalo and Town of Kaycee can also be instrumental in helping these communities and Johnson County determine a general community consensus toward future land use development.

The Johnson County Land Use Plan recommends a general vision for future land use development, a general land use development pattern, as well as general development guidelines for various types of land development. However, the Land Use Plan cannot be used by Johnson County to mandate or require development requirements for any future land development project. The establishment of a more structured county land use management process can enable future homeowners, investors, small businesses and land development companies to anticipate the potential location of future land uses in a given area of Johnson County, the general quality of construction, infrastructure and setback requirements, as well as the general level of supporting public services they can expect.

Other conclusions and recommendations in the Land Use Plan point to potential community and economic development opportunities that can be voluntarily pursued by private enterprise or encouraged by various community organizations.

## 14.2 U.S. FOREST SERVICE

### 14.2.1 Management of the Bighorn National Forest

The U.S. Forest Service has responsibility for the management of lands and natural resources within the Bighorn National Forest (BNF). The Forest contains approximately 1.1 million acres of land; roughly 676,000 acres are forested (Rideout and Hessein, 2000).

The Region 2 office of the U.S. Forest Service, which is based in Denver, Colorado, administers the Bighorn National Forest. The forest supervisor, who holds primary responsibility for the Bighorn National Forest, is based in Sheridan, Wyoming. Under the supervisor's direction, there are four ranger districts that are each managed by a district ranger. One of the four districts, the Powder River Ranger District, is based in Buffalo.

### 14.2.2 General Authority for Land and Resource Management

The land and resource management responsibilities of the U.S. Forest Service are generally guided by the Forest Service Directive System that includes the Forest Service Manual and the Forest Service Handbook. In addition, there are some 200 different federal statutes and regulations that influence various management activities of the agency. Federal statutes and agency regulations provide authority and responsibility for the management of, at least, the following resources within the Bighorn National Forest (BNF).

- recreational, cultural and visual resources;
- wilderness areas designated under the federal Wilderness Act of 1964;
- fish and wildlife habitat;
- rangeland resources;
- timber resources; and,
- water quality.

Other resource management responsibilities include a variety of related issues such as public access, timber harvests, forest health and restoration, fire suppression, the preservation of endangered species, as well as erosion and sedimentation.



The administration of the national forests are primarily guided by four federal statutes:

1. the Multiple Use-Sustained Yield Act, which established the multiple-use and sustained yield policies for management of the national forests;
2. the National Environmental Policy Act, which committed the federal government to a policy of creating and maintaining "conditions under which man and nature can exist in productive harmony;
3. the Forest and Rangeland Renewable Resources Planning Act, which called for preparation of a strategic plan for all Forest Service activities every five years based on an assessment of renewable natural resources on all land ownership every ten years; and,

4. the National Forest Management Act, which provided standards and guidelines for national forest planning and management (U.S. Forest Service, Legislative Affairs Office, 1993).

Other federal legislation is frequently introduced and eventually brought into federal law by the U.S. Congress and the President of the United States. Consequently, management responsibilities of the U.S. Forest Service are frequently modified to reflect changing approaches and attitudes toward national forest management.

Once authorized by the executive and legislative branches of the U.S. Government, legal interpretations are subsequently made by Forest Service personnel in Washington, D.C., to determine how existing Forest Service management policies need to be changed. Required or desired changes in management are generally implemented through the Forest Service's preparation of new agency regulations that are published in the Federal Register. Once adopted, the Forest Service distributes new regulations to its regional and district offices in the form of manuals or handbooks. Regional and district offices are permitted and encouraged to make regulations more specific and/or more stringent. However, new regulations cannot be modified to make them less stringent.

### **14.2.3 Land and Resource Management Concerns of Johnson County**

#### **14.2.3.1 Bighorn National Forest Plan Amendments**

The National Forest Management Act of 1976 requires each National Forest System unit to prepare an integrated, comprehensive land management plan, at least, once every 15 years. The current land and resource management plan for the Bighorn National Forest was adopted in 1985.

Since adoption, the U.S. Forest Service has made 15 amendments to the 1985 Forest Plan. The processing of an additional proposed amendment is underway at the time of this report. These amendments include:



- Northern Rockies Lynx Amendment. About three years ago, The U.S. Fish and Wildlife Service listed the Canada lynx as a threatened specie in 14 northern states, including Wyoming. USFWS concluded that a primary threat to the lynx in the continental United States is the lack of guidance in federal land management plans. The U.S. Forest Service made the same conclusion in 57 forest plans around the country. The amendment would authorize the Bighorn National Forest and 17 other national forests to establishment measures to conserve the Canada Lynx (U.S. Forest Service, Bighorn National Forest, 2002).

A primary concern of Johnson County is the potential establishment of new measures to conserve the Canada lynx. There is no significant concern for the Management Indicator Species amendment unless this amendment indirectly imposes limits on livestock grazing within the Bighorn National Forest.

Should this Canada lynx be conserved throughout the Bighorn National Forest, it is possible that this mammal will gradually establish habitat and roam in portions of Johnson County.

While no formal studies have been conducted of the lynx in Wyoming, some community leaders and residents are concerned that the lynx may become a predator to commercial livestock in portions of Johnson County if the abundance of hares and mice are inadequate to support the diet preferences of the lynx.

The lynx is a medium-sized, short-bodied cat that has long legs and an overall stocky build. The lynx has been observed primarily in west and northwest Wyoming, northern Albany County, as well as portions of Bighorn and Washakie counties. The lynx is dependent upon the snowshoe hare as its primary food source. Secondly, the lynx seeks other foods such as mice, grouse, and squirrels. In Wyoming, the habitat of the lynx has been observed to be in higher mountainous areas in dense coniferous forests and/or occasional bogs, thickets and rocky outcrops (Clark and Stromberg, 1987). However, the U.S. Fish and Wildlife concluded in March 2000 that "...available evidence is inadequate...to clearly determine whether a resident population currently exists" (in Wyoming).

In view of the potential impacts of the lynx upon livestock and uncertainty of the lynx population, it is recommended that Johnson County oppose the proposed Northern Rockies Lynx amendment. Further, Johnson County should oppose any efforts of the Forest Service, BLM, or the Fish and Wildlife Service to encourage the introduction of this mammal into Johnson County or other nearby areas in Wyoming.

It should be noted that concerns about impacts from predators are not just constrained to the lynx. Wolves, grizzly bears, wolverines, mountain lions, and other predators can impact agriculture and the livestock industry in particular in Johnson County.

#### **14.2.3.2 Bighorn National Forest Plan Revision**

The Bighorn National Forest is in the midst of completing various land, natural resource and economic evaluations that are necessary to prepare an update of its 1985 Land and Resource Management Plan. Through this process, the U.S. Forest Service has made efforts to coordinate with representatives of local government, as well as the general public.

However, Johnson County has serious concern for a growing imbalance in resource management for public lands and natural resources that are contained within the Bighorn National Forest. The U.S. Forest Service is giving considerable attention to the preservation of "endangered" or "threatened" plants and animals, biological diversity, the establishment of new roadless areas, the use of motorized recreational vehicles on public lands, the designation of special management areas, and increased recreational management. In contrast, limited attention is given to the availability of historic timber supplies to support regional and local sawmills or the amount of lands traditionally available for livestock grazing.

The growing imbalance in resource management suggests an intention of the U.S. Forest Service to:

- reduce the amount of public lands that will be available for selected types of public recreation;
- reduce the amount of land available for future timber harvesting; and,
- gradually reduce livestock grazing areas to accommodate future special management area programs, as well as the conservation of habitat for endangered or threatened plants and animals.

In the preparation of its ongoing revision of the Land and Resource Management Plan, the U.S. Forest Service must consider its recommended plans and policies in the context of what economic activities make the Johnson County economy sustainable, as well as historical uses

of the Bighorn Mountains that occurred before the national forest was established. Agriculture, accommodations, and retail trade are significant sectors of the Johnson County economy. Recommended plans and polices that generate significant impacts upon these economic sectors can threaten the sustainability of the overall Johnson County economy.

Title 36, Chapter II, Part 219 of the Code of Federal Regulation provides guidance to the U.S. Forest Service for National Forest System land and resource management planning (Subpart A) and timber management planning. Sections 219.19 and 219.21 of Subpart A clearly require analyses and plan decisions that attempt to balance ecological, social and economic sustainability. For example, Section 219.19 states the following:

*"Sustainability, composed of inter-dependent ecological, social, and economic elements, embodies the Multiple-Use Sustained-Yield Act of 1960 (16 U.S.C. 528 et seq.) without impairment to the productivity of the land and is the overall goal of management of the National Forest System. The first priority for stewardship of the national forests and grasslands is to maintain or restore ecological sustainability to provide a sustainable flow of uses, values, products, and services from these lands."*

Based upon its review of the draft Johnson County Comprehensive Land Use Plan report, a Bighorn National Forest representative clarified that preparation of the Land and Resource Management Plan adhered to an earlier version of Title 36, Chapter II, Part 219. A review of the 1982 administrative rule clearly states that regional and forest planning activities will be based, in part, upon a review of the planning and land use policies of local governmental agencies. Section 219.7 of the 1982 rule requires that the review of local governmental plans and policies will:

- consider the objectives of local governmental plans and policies;
- assess the inter-related impacts of local plans and policies;
- determine how the Forest Service plan should deal with the impacts identified; and,
- consider alternatives that will resolve conflicts with Forest Service planning.

#### **14.2.4 Future Coordination with the U.S. Forest Service**

A more balanced approach to future land and resource management should be reflected in the future drafts of the revised Land and Resource Management Plan for the Bighorn National Forest.

In order to encourage this approach, the Johnson County Commissioners and/or other designated representatives of Johnson County need to meet periodically with Bighorn National Forest representatives. During these meetings, U.S. Forest Service representatives should be requested to present an overview of their preliminary conclusions and recommendations that are developed for the revised Land and Resource Management Plan. Bighorn National Forest representatives should welcome this opportunity for meaningful coordination with Johnson County.



Particular attention should be given to those conclusions and recommendations that influence livestock grazing, public recreation, timber harvests. Johnson County Commissioners and their representatives should work constructively with the Forest Service to incorporate recommendations in the Land and Resource Management Plan that expand future



opportunities for livestock grazing and public recreation, as well as increase annual sales quantity levels for timber harvests. These objectives are essential to sustaining the economic viability of the Johnson County economy.

### **14.3 U.S. BUREAU OF LAND MANAGEMENT**

#### **14.3.1 Management of Other Public Lands in Johnson County**

The U.S. Bureau of Land Management (BLM) is a federal agency within the U.S. Department of Interior. BLM manages all federal lands that have not been assigned to other federal agencies. In Johnson County this includes all federal lands that are not administered by the U.S. Forest Service.

The headquarters of the Bureau of Land Management are located in Washington, D.C. However, most of its employees work in field offices that are located in 12 western states. In Wyoming, there is one state office in Cheyenne, four district offices, and 10 resource management areas.

The BLM field office in Buffalo maintains a staff of about 68 persons. This office manages almost 800,000 acres of public land in Johnson, Sheridan, and Campbell counties. Roughly 92 percent of these lands are rangelands that are managed for private livestock grazing. The remaining lands are used for other resource uses (Bureau of Land Management, Buffalo Field Office, 2003).



#### **14.3.2 General Authority for Land and Resource Management**

The U. S. Bureau of Land Management (BLM) was established in 1946 during a re-organization of the U.S. Government. BLM is a successor to two former federal agencies, the General Land Office and the U.S. Grazing Service.

Various federal statutes guide the management activities of BLM. Some of these statutes, e.g, the U.S. Mining Law of 1872, the Mineral Leasing Act of 1920, and the Taylor Grazing Act of 1934, preceded the establishment of the agency. For example, the Mineral Leasing Act authorized the leasing and exploration of selected commodities such as coal, oil, gas, and sodium on public lands. The Taylor Grazing Act established the U.S. Grazing Service to manage public rangelands.

The U.S. Congress unified its mandate and responsibilities for BLM in the Federal Land Policy and Management Act of 1976 (FLPMA). All policies, procedures and management actions of BLM must be consistent with FLPMA and other federal law that govern the use of public lands.

The term "multiple use" management was introduced in this statute. Multiple use was defined in FLPMA as: "...the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people." (U.S. Bureau of Land Management, 2003).

### **14.3.3 Land and Resource Management Concerns of Johnson County**

#### **14.3.3.1 Continued Availability of Public Lands for Livestock Grazing**

Rangeland managers at the Buffalo Field Office administer over 400 grazing leases in Johnson, Sheridan and Campbell counties, as well as slightly fewer grazing units or allotments. The Buffalo Field Office believes that public lands in its Northeast Wyoming region are some of the more productive rangelands in Wyoming (U.S. Bureau of Land Management, Buffalo Field Office, 2003). Informal discussions with rangeland managers in Buffalo in October 2002 suggest there is a good working relationship between private livestock ranchers and BLM representatives.

*"The management intensity of allotments varies depending primarily on the acreage and continuity (of) public land acreage. Livestock is closely managed and monitored on about thirty larger allotments. BLM manages the grazing use under allotment management plans on thirteen of these high-priority allotments. BLM applies less intensive monitoring of livestock use and rangeland health on another seventy mid-priority allotments"* (U.S. Bureau of Land Management, Buffalo Field Office, 2003).

One of the primary public land concerns of Johnson County is the continued availability of public lands for livestock grazing. The concern for the continued availability of public lands for future livestock grazing stems from the Bureau of Land Management's growing efforts associated with natural resource management. The potential designation of more wilderness areas and wildlife management areas, as well as increasing efforts devoted to the conservation of threatened and endangered species, suggest a potential gradual decline in the amount of public lands and/or the number of animal unit months (AUM) that may be available for future livestock grazing. Any significant decline in the amount of grazing area on public lands or the number of AUM will adversely impact the economic viability of livestock operations.

In April 2001, the Buffalo Field Office completed an update of the Buffalo Resource Management Plan. Appendix B presents BLM standards for healthy rangelands and guidelines for livestock grazing. The Introduction to this section generally explains BLM's approach to livestock grazing. BLM also recognizes that Wyoming's rangelands should be managed in consideration of Wyoming's historical development and in a manner that contributes to a diverse, balanced, competitive and resilient economy. However, since many of the rangeland standards represent physical and biological conditions of the land, BLM also concluded that *".....it is very difficult to provide measurable socioeconomic indicators that relate to the health of rangelands"*.

One recommended approach to future socio-economic assessment is for BLM to evaluate and calculate the financial impact of standards and guidelines upon several individual ranch operations. The recommended indicator should be: Can a livestock operation in Johnson County continue to operate profitably if additional labor or material costs are incurred to meet a proposed rangeland standard? If ranch operations can sustain profitability despite new or revised standards, it is likely that livestock operations will continue to operate. However, if

future standards impose requirements that cannot sustain reasonable profitability, the potential consequences can be significant, particularly if a discontinued livestock operation results in a change in land use.

#### **14.3.3.2 Proposed BLM Modifications to 1995 Grazing Regulations**

The Bureau of Land Management is presently considering some modifications to its existing grazing regulations that were issued in 1995. The policy changes under consideration would:

- provide greater flexibility for resource managers, ranchers and conservation groups to work in partnership to promote conservation and healthier grazing allotments; and,
- authorize BLM's creation of an administrative process that would help permittees meet mitigation requirements for the protection of threatened and endangered species (U.S. Bureau of Land Management, Office of Public Affairs, 2003).

More specifically, the regulatory changes under consideration would:

- Extend the time for a grazing permittee's temporary nonuse of a permit from the current three-year limit to five years. Such an extension would enhance the Bureau's ability to cooperate with ranchers who want to temporarily rest the land to allow for forage recovery; the five-year limit would also enable the BLM to meet the needs of those ranchers who temporarily cannot use their permits because of business or personal needs.
- Authorize the BLM to designate a new type of grazing unit called "Reserve Common Allotments." Ranchers could use these allotments for livestock forage while their normal allotments undergo range improvement treatment. This will provide an alternative forage source for those ranchers who are engaged in a range-recovery effort that requires a temporary resting of the land from grazing. Reserve Common Allotments will thus enable ranchers to maintain their herds while their allotments recover.
- Reinstate an earlier provision that allows the BLM and a grazing permittee to share title of certain range improvements -- such as a fence, well, or pipeline -- if they are constructed under what is known as a Cooperative Range Improvement Agreement. This potential rule change envisions the BLM and a permittee sharing title in proportion to each party's contribution to the initial cost of constructing the improvement.
- Streamline the administrative appeals process relating to grazing decisions.
- Clarify which non-permit violations the BLM may take into account in penalizing a permittee.
- Distinguish between access on public and private land.
- Revise administrative fees for permit applications, billings, and preference transfer. (The BLM is not considering any change to the existing grazing fee formula, which Congress established in 1978 and has continued by Executive Order since 1986.)
- Clarify that the BLM will follow state law in the acquisition of water rights.
- Re-emphasize that reviews under the National Environmental Policy Act will consider the economic, social, and cultural impacts of the BLM's decisions.

- Eliminate, in keeping with recent Federal court rulings, existing regulatory provisions that assert the BLM's authority to issue long-term "conservation use" grazing permits. These permits were introduced in 1994" (U.S. Bureau of Land Management, Office of Public Affairs, 2003).

The advisability of these proposed amendments is best determined by those who actually manage livestock operations on BLM allotments in Johnson County. Any position that may be taken by Johnson County concerning these regulations should be based significantly upon the insights of those livestock operators who operate, in part, on BLM allotments in Johnson County.

#### **14.3.3.3 Special Interest Group Proposals for U.S. Government to Purchase Public Grazing Rights**

The proposed amendments to BLM grazing regulations come at an interesting time. The proposed amendments are, in part, being provided to enable *"....greater flexibility for resource managers, ranchers and conservation groups to work in partnership to promote conservation and healthier grazing allotments"*.

Concurrently, there is an ongoing National Public Lands Grazing campaign that has been mounted by several environmental organizations based in the American West. This campaign has formulated a federal legislative proposal that would allow federal grazing permittees (or lessee) to voluntarily relinquish their interest in public lands grazing to the U.S. Government in exchange for compensation of \$175 per animal unit month (AUM). For example, a permittee with 300 cow/calf pairs, who grazed public lands for five months of every year, would receive \$262,500 (National Public Lands Grazing Campaign, 2002).



These efforts provide another confirmation that a relentless effort continues to be made by various environmental and special interest organizations to remove private livestock from public lands. It is equally evident that there is a significant misunderstanding of livestock operations, as well as their relationship and impact upon natural resources such as soils, vegetation, streams, and other water resources. The presumption of these organizations is that natural resources on public lands would be in a more favorable environmental condition if they were not used.

#### **14.3.4 Future Coordination with the Bureau of Land Management**

Similar to the U.S. Forest Service, the U.S. Bureau of Land Management (BLM) has responsibility to coordinate its resource and land use management planning processes with local land use plans. 43 CFR 1610.3 requires, in part, that the Bureau of Land Management to:

- prepare plans that are consistent with officially adopted local land use plans;
- identify inconsistencies with proposed BLM plans and local plans to the Governor.
- take practical steps to resolve conflicts between federal and local plans;

- provide local government with the opportunity to review and provide recommendations concerning issues and topics that might influence local government programs;
- provide a notice of intent to prepare, amend or revise a resource management plan to county boards of commissioners and other governmental agencies;
- provide opportunities for local government to review and comment on resource management plans.

However, 43 CFR 1610.3 also makes clear that Bureau of Land Management has no responsibility to make its plan consistent with a local land use plan if the BLM is not notified by local government that a local land use plan has been adopted (Budd-Falen, 1997). In view of this requirement, the Board of County Commissioners should also formally transmit a copy of the Johnson County Comprehensive Land Use Plan when this document is adopted.

In this context, it is important that current and future amendments to federal grazing regulations are carefully monitored by Johnson County. Further, the Johnson County Commissioners need to periodically meet with local ranchers and BLM rangeland managers to keep abreast of rangeland regulations and other potential issues that may influence future livestock grazing on public lands administered by BLM.

It is recommended that the Board of County Commissioners schedule periodic meetings with local ranchers to gain the insights of local ranchers concerning potential grazing issues. Similarly, the Commissioners should hold a separate meeting with BLM rangeland managers to discuss rangeland conditions in Johnson County, related economic, land use, and natural resource issues, and any potential recommendations.

## **14.4 U.S. FISH AND WILDLIFE SERVICE**

### **14.4.1 General Management Organization**

The U.S. Fish and Wildlife Service (USFWS) is a federal agency under the U.S. Department of Interior. The agency is responsible for conserving, protecting and enhancing fish, wildlife and plants and their habitats for the continuing benefit of the American people.

Wyoming is within USFWS Region 6, the Mountain-Prairie Region, that also encompasses the states of Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, and Utah. The U.S. Fish and Wildlife Service maintains national wildlife refuges near Jackson and Green River, as well as national fish hatcheries near Jackson, Lander and Saratoga. Ecological services are based in the Wyoming Field Office in Cheyenne, the Cody Field office, as well as the Black-Footed Ferret Conservation Center in Laramie.

### **14.4.2 General Authority for Resource Management**

The authority for resource management and conservation efforts of the agency are primarily provided in the Endangered Species Act, Bald and Golden Eagle Protection Act, the Convention on International Trade in Endangered Species, the Lacey Act, Marine Mammal Protection Act, Migratory Bird Treaty Act, and the Wild Bird Conservation Act. These authorities enable the U.S. Fish and Wildlife Service to enforce Federal wildlife laws, administer the Endangered Species Act, manage migratory bird populations, restore nationally significant fisheries, as well as conserve and restore wildlife habitat such as wetlands.

### **14.4.3 Land and Resource Management Concerns of Johnson County**

The primary objective of the Endangered Species Program of the U.S. Fish and Wildlife Service is to protect endangered and threatened species, remove threats to these species, and restore listed species to a secure status in the wild. Program staff regularly evaluates information concerning fish and wildlife populations and potential threats to determine whether or not a particular specie should be listed as a threatened or endangered specie. These evaluations are also frequently prompted by petitions from special interest groups that desire to have one more plant or animal specie listed or de-listed.

*“Under the Endangered Species Act, an “endangered” species is in danger of extinction throughout all or a significant portion of its range; a “threatened” species is likely to become endangered within the foreseeable future”* (U.S. Fish and Wildlife Service, 2004).

USFWS program managers also coordinate specie recovery efforts with state and local governments, as well as private entities. Once the recovery of a threatened or endangered specie is achieved, a species may be removed from the list of threatened or endangered species.

As of January 2005, the black-footed ferret is listed by the U.S. Fish and Wildlife Service as an endangered specie. The bald eagle and Canada lynx, as well as the Ute Ladies'-Tresses, are listed as threatened species In Johnson County,

The U.S. Fish and Wildlife Service has expressed its desire to de-list the gray wolf as wolf populations now exceed the numerical recovery goals in the northern Rocky Mountain states of Montana, Idaho and Wyoming. However, the USFWS has indicated that it will not de-list the gray wolf until USFWS approves wolf management plans for each of the three states. Wolf management plans for Montana and Idaho have already been approved (U.S. Fish and Wildlife Service, Mountain-Prairie Region, 2005). The proposed plan for Wyoming and related state wolf law was not approved by the USFWS. This decision led to the State of Wyoming suing the U.S. Department of Interior. This court case is pending at the time of this report.

As stated earlier, the listing of specific plant and animal species, as well as related specie recovery efforts, represent serious concern of Johnson County in view of potential adverse consequences upon the economic viability of local ranch and farm operations.

### **14.4.4 Future Coordination with the U.S. Fish and Wildlife Service**

Johnson County desires to coordinate its land use plans and policies with the U.S. Fish and Wildlife Service. Johnson County believes that this coordination needs to take place early in the decision-making process so that the U.S. Fish and Wildlife Service can make effective decisions that consider, in part, the context of the Johnson County environment, economy, and related land uses.

Portions of the Code of Federal Regulations, which are applicable to the U.S. Fish and Wildlife Service, outline the listing process. The consultation with local governmental entities is stipulated as part of the listing process in 50 CFR, Chapter 1, Part 17, Section 16.81(d):

*“The Fish and Wildlife Service shall consult with appropriate State fish and wildlife agencies, local governmental entities, affected Federal agencies, and affected private landowners in developing and implementing experimental population rules. When appropriate, a public meeting will be conducted with interested members of the general public”.*

In view of the significance of potential listings, the U.S. Fish and Wildlife Service will likely prepare an environmental impact statement for any proposed regulatory action. Title 40, Chapter V, Part 1502, provides requirements for the preparation of environmental impact statements by all federal agencies. In Section 1502.16(c), the evaluation of project consequences is to include a discussion of the potential conflicts between the proposed action and the objectives of Federal, regional, State, and local land use plans, policies and controls for affected areas.

However, the Code of Federal Regulations does not necessarily require this type of analysis for the preparation of environmental assessments. Consequently, Johnson County will need to coordinate with the U.S. Fish and Wildlife Service and monitor the progress of internal agency evaluations. In addition, Johnson County needs to be prepared to provide documented Johnson County concerns regarding any potential listing action, as well as a formal request that a full environmental impact statement is prepared for the proposed listing action.

In the preparation of environmental impact statements, it should be noted that the Code of Federal Regulations also provides considerably leeway to federal agencies when evaluating significant adverse effects on the human environment. Title 40, Chapter V, Part 1502.22 states, in part:

*“When an agency is evaluating reasonably foreseeable significant adverse effects on the human environment in an environmental impact statement and there is incomplete or unavailable information, the agency shall always make clear that such information is lacking”.*

For this reason, Johnson County should also be prepared to make its own analysis of potential significant impacts, e.g., impacts upon the Johnson County economy, and transmit the information to the U.S. Fish and Wildlife Service.

## **14.5 WYOMING GAME AND FISH COMMISSION**

### **14.5.1 General Management Organization**

The Wyoming Game and Fish Commission (WGFC) is an agency of the State of Wyoming. The Commission includes seven members who are appointed by the Governor, confirmed by the Wyoming State Senate, and who serve six-year terms.

The Wyoming Game and Fish Department (WGFD) administers and implements the policies and regulations that are adopted by the Wyoming Game and Fish Commission. The Department is organized into seven regional management areas. Johnson County is situated within Region 3, which is managed and serviced by the WGFD's Sheridan Region Office.

The regional management areas are further segregated into more specific fish and wildlife management areas. A game warden and wildlife biologist are based in Buffalo and a game warden is based in Kaycee.

Within Johnson County, there are two wildlife habitat management areas, i.e., Bud Love and Ed Taylor, which are managed by the Game and Fish Department for conservation objectives, but concurrently provide outdoor recreational opportunities for hunting,



fishing, camping, and hiking. In addition, the Game and Fish Department also manages five public access areas that provide recreational access to additional public fishing, boating, hunting, hiking and wildlife observation opportunities (see Chapter 10).

#### **14.5.2 General Authority for Fish and Wildlife Management**

Title 23 of the Wyoming State Statutes authorizes the Wyoming Game and Fish Commission and Wyoming Game and Fish Department to provide an adequate and flexible system of control, propagation, management, protection and regulation of most wildlife in Wyoming. The range of management responsibilities in W.S. 23-1-302:

- a. Fix season and bag limits, as well as open, shorten, or close hunting seasons for wildlife.
- b. Establish zones and area where trophy game animals may be harvested.
- c. Acquire lands and waters to:
  - develop, improve, operate and maintain fish hatcheries, rearing ponds, game farms, and bird farms;
  - manage game animals, protected animals and birds, fur bearing animals, game birds, fish, as well as public hunting, fishing, or trapping areas.
  - acquire easements and construct access roads.
- d. Sell or exchange lands, water area, or other property that is no longer of any practical use.
- e. Capture, propagate, transport, buy, sell, or exchange game and forbearing animals, bird, or fish.
- f. Direct the capture of any wildlife in Wyoming in localities where species are abundant, as well as transport and distribute any wildlife.
- g. When necessary, kill wildlife in Wyoming, or when wildlife generates substantial damage to property.
- h. If necessary, make provisions for the feeding of fish and wildlife in selected localities.
- i. Promote wildlife research.
- j. Enter into cooperative agreements for wildlife management and demonstration projects.
- k. Supervise the protection, management, and propagation of fish.
- l. Grant licenses for the capture and transport of wildlife, nests, or eggs of non-predacious birds.
- m. Issue licenses.
- n. Open game reserves for hunting when they are overstocked, or a serious shortage of feed exists.
- o. Designate the protection of game, predatory, or other species that are not identified in Wyoming Statutes 23-1-101.
- p. Collect and distribute statistics and information.
- q. Establish hunter check stations.
- r. Regulate the use of power vehicles on lands that are administered by the Wyoming Game and Fish Commission.
- s. Regulate or prohibit the importation of exotic species; small game animals; forbearing animals; game, migratory, and protected birds; and fish into the State of Wyoming.
- t. Designate individual bison, or herds of bison, as wildlife when approved by the Wyoming Livestock Board.

The scope of these responsibilities suggests that the Wyoming Game and Fish Department is primarily a game management authority. At the same time, the scope of management responsibilities also includes other authority to establish fish and wildlife management areas and work with other individuals, agencies and organizations to manage these resources. Consequently, the mission of the agency combines responsibilities for fish and wildlife management, as well as resource conservation.



### **14.5.3 Land and Resource Management Concerns of Johnson County**

#### **14.5.3.1 Conservation of Wildlife Habitat Areas**

Seasonal wildlife range areas, which have been mapped on a statewide basis for several decades, are based upon Wyoming Game and Fish Department (WGFD) observations. An annual review of these seasonal wildlife range areas are made during the preparation of annual herd unit reports for various wildlife. The Wyoming Game and Fish Department incorporates this spatial data into a statewide geographical information system (GIS) and periodically revises the boundaries of various seasonal wildlife range areas.



In order to make effective land management decisions, Johnson County needs to be aware of land areas that are important to the long-term maintenance of wildlife resources in Johnson County. Otherwise, the habitat of elk, white-tailed and mule deer, moose, and antelope populations may be unnecessarily impacted by some future land uses.

During the preparation of the Land Use Plan revision, PPC incorporated available spatial information for big game seasonal ranges. This information included locations of crucial moose habitat, crucial elk winter range and yearlong habitat, as well as general habitat locations for white-tailed and mule deer. Since this information is periodically updated by WGFD, it is important that Johnson County should secure updates of this spatial data when it becomes available. Johnson County should make a written request for this information in order that the Johnson County Planning and Zoning Commission can make appropriate use of this information during its review of residential subdivisions. Correspondence from the WGFD wildlife biologist in Buffalo, which was received by the Johnson County Planner in May 2002, expressed both cooperation and a willingness to share this information with Johnson County in the future (Thiele, 2002)

Particular attention should be given to crucial winter range for elk. The Wyoming Game and Fish believes that these areas are important to sustain an elk population that can survive winter conditions and maintain average reproductive rates 8 out of 10 years.

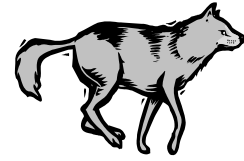
While big game seasonal range information provides useful insights to wildlife habitat, it is important to remember that this information should represent only one of various considerations made during Johnson County's subdivision review process. Using this approach, Johnson County is better able to make land use decisions that balance a number of relevant considerations.

#### **14.5.3.2 State Intervention Concerning Endangered Species**

Various branches of the U.S. Department of Interior have made efforts to enhance the survival and recovery of various threatened and endangered plant and animal species, e.g., prairie dog, wolf, and lynx. An important concern of Johnson County is that little attention is focused upon potential conflicts between people, livestock, and other rural property.

Recognizing this dilemma, the State of Wyoming is seeking to implement its own resource management plan for endangered species. The Game and Fish Department would be responsible for implementation. This plan is being reviewed by the U.S. Department of Interior.

A portion of Wyoming's resource management plan includes proposals for the dual listing of the gray wolf as a predatory animal and a trophy game animal. Under this program, the Wyoming Game and Fish Department would be responsible for maintaining seven wolf packs. Wolves would remain under federal protection in Yellowstone and Grand Teton National Parks. In selected wilderness areas adjoining these parks, wolves would be classified as trophy game. Outside of these selected areas, people could kill wolves as predators if the number of wolf packs exceeded seven. This proposal has drawn criticism from the U.S. Department of Interior, particularly the U.S. Fish and Wildlife Service.



Under the Endangered Species Act that was amended in October 1988, state and local governmental agencies have the opportunity to participate and influence decisions concerning proposed endangered specie listings and proposed designations of critical habitat. Upon receipt of a letter from the U.S. Fish and Wildlife Service, local governmental agencies such as Johnson County can comment on the proposed specie listings or proposed critical habitat designations. It is recommended that Johnson County notify all federal agencies that Johnson County desires to participate in all federal decision-making activities within Johnson County (Budd-Falen, 1997).

#### **14.5.4 Future Coordination with the Wyoming Game and Fish Department**

The resource management efforts of various federal agencies can be expected to expand programs that are aimed at the survival and recovery of various threatened and endangered plant and animal species, e.g., prairie dog, wolf, and lynx. This trend will require increased efforts by the Wyoming Game and Fish Department to expand conservation programs for various threatened and endangered species in Wyoming.

In view of potential implications upon Johnson County residents and their property, Johnson County will need to remain in close coordination with the Wyoming Game and Fish Department to ensure that conservation programs do not generate adverse impacts upon Johnson County, livestock, and other property, or decrease the economic viability of local livestock operations. It is recommended that periodic meetings be held with representatives of the Wyoming Game and Fish Department. The Johnson County Commissioners should request the Wyoming Game and Fish representatives to present information concerning the status of ongoing conservation programs and issues that may be significant to Johnson County.

As stated earlier, Johnson County should annually request revised spatial information for big game seasonal ranges from the Wyoming Game and Fish Department. Johnson County should ensure that this information is incorporated into the geographical information system for Johnson County.

### **14.6 STATE CONSERVATION DISTRICTS**

#### **14.6.1 General**

There are 34 conservation districts established in the State of Wyoming. Two of the 34 districts operate within Johnson County. These districts are:

- Lake DeSmet Conservation District; and,
- Powder River Conservation District.

The Lake DeSmet Conservation District contains over 1.4 million acres of public and private land in the northern half of Johnson County. The Powder River Conservation District encompasses roughly 1.2 million acres of private and public lands in the southern half of Johnson County.

Five district supervisors manage each conservation district. Two of the supervisors must be landowners within the geographical boundaries of their district. The remaining three supervisors are required to be residents of the district.

Full or part-time staff supports both of the Conservation Districts in Johnson County. Staff members work at the direction of their respective board.

#### **14.6.2 Statutory Authority and Responsibilities**

Under the authority provided by Title 11, Chapter 16, of the Wyoming Statutes, the Conservation District board has considerable authority to:

- conduct research and investigations and provide useful information concerning range management; soil conservation, flood protection, the use and disposal of water, and any related improvements;
- conduct demonstration projects on lands within the district to demonstrate desirable range management, soil conservation, and water conservation practices,
- carry out preventive and control measures, as well as improvements, within the district that are associated with range management, methods of cultivation, the growing of grass or other vegetation, as well as changes in the use of land or other conservation measures;
- cooperate, or enter into agreements with, any governmental or private agency, landowner, other residents in the district;
- make available machinery and equipment, fertilizer, seeds and seedlings, breeding animals, and other livestock supplies to landowners within the SER district;
- develop comprehensive plans for range improvement and stabilization, as well as the conservation of soil and water resources;
- present plans and information, and bring them to the attention of landowners and residents of the district;
- manage and enter into agreements with federal, state, and local agencies to effect cooperation with the United States concerning land utilization, soil conservation, erosion control, flood prevention, water use and conservation projects, the disposal of water in watershed areas, and other water projects; and,
- act as a representative for local groups in dealing with various federal agencies, e.g., U.S. Forest Service and Bureau of Land Management, concerning various soil and water conservation matters.

### **14.6.3 Land and Resource Management Concerns of Johnson County**

#### **14.6.3.1 Participation of Conservation Districts in Future Land Use Decisions**

In accordance with W.S. 18-5-306(b), Johnson County requires subdivision applicants “to obtain a review and recommendations from the local conservation district regarding soil suitability, erosion control, sedimentation and flooding problems.”

Conservation district supervisors and the professional staff associated with each district have extensive experience and knowledge of local agricultural, natural resource, and related land use development issues. In addition, both districts work in close cooperation with the U.S. Department of Agriculture, Natural Resources Conservation Service.

The experience of both Conservation Districts is supplemented by a wealth of information that has been developed by both districts. For example, the Lake DeSmet Conservation District completed an inventory of natural resources and related issues within 43 watershed areas in 1998.

In view of these resources and Wyoming state law, Johnson County must continue to receive and evaluate comments from both Conservation districts. The input of the Conservation districts will enable the Johnson County Planning and Zoning Commission to continue its consideration of a broad range of relevant issues associated with each subdivision application.

#### **14.6.3.2 Sharing of Spatial and Tabular Information**

The objectives and functions of the Johnson County Planning and Zoning Commission and the two Conservation Districts vary. However, both organizations often need to review and work with similar land use and natural resource information.

With the recent development of a geographical information system (GIS) for Johnson County, there is an opportunity to develop, share, update and maintain various types of spatial and tabular information. At the time of this report, mutual opportunities are being explored by Johnson County and the Lake DeSmet Conservation District.

#### **14.6.3.3 Adoption of Existing Plans**

The Powder River Conservation District developed and adopted its own Resource Conservation and Land Use Management Plan in 1998. This plan provides valuable information concerning land use and resource management issues in the Powder River Conservation District. Based upon a community planning process, this Plan also contains various goals of the District concerning public education and information, soil and water conservation, rangeland management, and tree plantings. A number of the goals of the Powder River District have been reflected into various aspects of the Johnson County Land Use Plan.



### **14.6.4 Future Coordination with the State Conservation Districts**

As stated earlier, it is essential for Johnson County to consider comments from the Powder River and Lake DeSmet Conservation Districts concerning proposed rural subdivisions. Their participation in the subdivision process will help ensure that the Johnson County Planning and Zoning Commission and Board of County Commissioners consider a broad range of issues that are relevant to the review and approval of rural subdivisions.

Other future land use development issues may also require coordination with the Conservation Districts. For example, the two Conservation District representatives are participating in the regional Coal Bed Methane Coalition. Through the participation of several counties in Northeast Wyoming, the CBM industry, and various other agencies, this organization has facilitated a greater understanding of coal bed methane development opportunities, issues, mitigation measures, and relevant solutions to development issues.

## **14.7 JOHNSON COUNTY**

### **14.7.1 Current Responsibility for Land Use Management**

#### ***14.7.1.1 Johnson County Planning and Zoning Commission***

Land use planning and management activities of Johnson County are generally carried out by the Johnson County Planning and Zoning Commission. The body comprises five members who volunteer considerable time and effort to review and evaluate subdivision applications, as well as guide the direction of county land planning activities. Any decisions reached by the Planning and Zoning Commission are ultimately made in the form of recommendations to the Johnson County Board of County Commissioners for their approval.

#### ***14.7.1.2 Johnson County Planner***

The Johnson County Planner provides professional support to the Johnson County Planning and Zoning Commission. In this capacity, the Johnson County Planner:

- provides information to private landowners, developers of rural subdivisions, and the general public;
- makes technical evaluations of proposed rural subdivisions and insures compliance with Johnson County Subdivision Regulations, Wyoming state statutes and other applicable regulations;
- provides staff reports and recommendations to the Johnson County Planning and Zoning Commission concerning proposed subdivisions; and,
- organizes and coordinates land management and other land use planning activities with the Johnson County Planning and Zoning Commission, the Board of County Commissioners, as well as appropriate municipal, state, and federal agencies.

#### ***14.7.1.3 Johnson County Sanitarian***

##### Wastewater Systems

Another facet of existing land use management in Johnson County is the ongoing inspection of wastewater systems. These inspections are carried out by the Johnson County sanitarian. The State Department of Environmental Quality delegated this authority to Johnson County for small wastewater systems handling up to 2,000 gallons per day.

##### National Flood Insurance Program

Johnson County also participates in the National Flood Insurance Program. Johnson County's participation in this program is based primarily upon the County's desire to remain eligible for federally subsidized flood insurance that can be made available from any property insurance agent.

One of the commitments that are necessary to sustain eligibility for subsidized flood insurance is the availability and application of adequate land use and control measures in flood hazard areas. In 1998, Johnson County adopted Resolution 190, which, in part, expressed the intent of the Board of County Commissioners to:

*"...require the recognition and evaluation of flood, mudslide (i.e., mudflow), or flood-related erosion hazards in all official actions relating to land use in areas having these hazards..."*

#### **14.7.2 General Authority for Land Management**

The primary authority for land management is derived from Title 18, Chapter 5 of the Wyoming Statutes. Title 18, Chapter 5, Article 1 of the Wyoming Statutes provides authority to the Board of County Commissioners in any Wyoming county to establish a county planning commission. Article 2 provides authority to the Board of County Commissioners in any Wyoming county to establish a county planning and zoning commission. Johnson County has established an Article 2 planning and zoning commission. Article 2 also provides authority for the county to *"prepare and amend a comprehensive plan including zoning for promoting the public health, safety, morals and general welfare of the unincorporated areas of the county."*

The regulation of land subdivisions is addressed in Title 18, Chapter 5, Article 3 of the Wyoming Statutes. Article 3 also grants authority to Wyoming counties to "enact resolutions or regulations which are more restrictive" than the provisions of the article.

Title 18, Chapter 5 is poorly organized and reflects a series of statutory amendments that are sometimes confusing. A brief summary of the authorities for land use planning, land use management and the regulation of subdivisions is provided in the following paragraphs to facilitate a better understanding of the authority for county land management.

##### **14.7.2.1 Land Use Planning**

W.S. 18-5-202(b) indicates that county planning and zoning commissions may prepare and amend comprehensive land use plans that promote the public health, safety, morals and general welfare of the unincorporated areas of the county. There is also wording that indicates that the comprehensive plan can be accompanied by zoning.

However, some state land use law precedents, e.g., Baker v. City of Milwaukee (1975), established legal precedent that zoning must conform to a written master plan. A 1996 Wyoming Supreme Court decision, Ford vs. Converse County, reiterated that concept on a county level by clarifying that a "comprehensive plan" is merely a policy statement, which is implemented by zoning enactment. Consequently, the land use plan is a land use policy document that is not intended to be used for regulatory purposes. At the same time, any zoning should conform to the land use policies contained in a comprehensive land use plan.

W.S. 18-5-202(c) indicates that county planning and zoning commissions will certify the comprehensive land use plan to the board of county commissioners. Before certifying its plan or amendments thereto to the board, the planning and zoning commission must hold at least one public hearing. Notice of the time and place of the hearing must be given by one publication in a newspaper of general circulation in the county at least thirty days before the date of the hearing.

Prior to adoption of the comprehensive plan, the board of county commissioners must hold at least one public hearing. Notice of the time and place of the public hearing must be published in one newspaper of general circulation in the county at least fourteen days before the public hearing. After the public hearing, the board must vote on the adoption of the comprehensive plan. A majority vote of the Board of Commissioners is required for the adoption of the comprehensive land use plan.

In those counties where a comprehensive land use plan is officially adopted, W.S. 18-5-208 authorizes the board of county commissioners to participate in efforts to coordinate the local land use plan with federal resource management plans. This section is in clear reference to resource management plans of the U.S. Forest Service, the Bureau of Land Management, the U.S. Fish and Wildlife Service, and any other applicable federal agency plans.

In addition to the federal requirements mentioned above, Johnson County expects cooperation of all Wyoming state agencies in allowing Johnson County's participation in all state planning efforts that affect the county. State agencies should consider the content of the Johnson County Land Use Plan when forming policy decisions.

#### **14.7.2.2 Land Use Management**

W.S. 18-5-202 authorizes any board of county commissioners to create and establish a planning and zoning commission. The county planning and zoning commission may prepare and amend a comprehensive plan and zoning.

W.S. 18-5-201 makes it clear that counties cannot take away any zoning authority of towns and cities. W.S. 18-5-201 also authorizes counties to regulate and restrict the location and use of buildings for residential, agricultural, industrial, commercial, public use and other purposes in the unincorporated area. However, no zoning resolution is to prevent any reasonable land uses that are needed to extract or produce mineral resources.

W.S. 18-5-203 states that it is unlawful to locate, construct, enlarge, re-construct, or use any building with an area that is covered by zoning until a zoning certificate is issued for the proposed building and complies with zoning regulations.

#### **14.7.2.3 Subdivisions**

W.S. Title 18, Chapter 5, Article 3 is the primary State statute associated with the regulation of land subdivisions. W.S. 18-5-303, in part, indicates that the subdivision regulations apply to land subdivisions that contain parcels less than 35 acres in size. However, there are other exemptions related to the division of land that:

- Is a division of land for the purpose of a gift or sale of property to a member of the landowner's immediately family;
- is a subdivision created by any court of the state pursuant to the law of eminent domain, by operation of law or by order of any court in the state;
- is a subdivision created by a lien, mortgage, deed of trust or any other security instrument, easements and rights-of-way;
- concerns land parcels located within incorporated cities and towns;
- is created by the sale or disposition of land to the State of Wyoming or any political subdivisions thereof;
- affects railroad rights-of-way;

- is the sale or other disposition of land for agricultural purposes or affects the alignment of property lines for agricultural purposes;
- is created by boundary line adjustments where the parcel subject of the sale or other disposition is adjacent to and merged with other land owned by the grantee;
- creates cemetery lots; and
- is created by the acquisition of an interest in land in the name of the husband and wife or other persons in joint tenancy or as tenants in common, and the interest shall be deemed as only one interest.

The board of county commissioners is required to issue subdivision rules and regulations, as well as permits for land subdivisions that are applicable to the statute. Minimum requirements are also included for subdivision permits. These requirements outline a) various types of information that the subdivider should provide to the county, b) minimum information for subdivision plat drawings, c) the submission of performance bonds or letters of credit to ensure completion of on-site improvements, and d) numerous other types of documentation that are required for subdivision permit approval.

W.S. 18-5-307 authorizes any board of county commissioners to allow the county planning and zoning commission to receive and review subdivision permit applications. The planning and zoning commission is to prepare its findings and make recommendations to the board of county commissioners.

Required time schedules are provided for the approval or disapproval of subdivision permit applications. If any part of a proposed subdivision lies within one mile of an incorporated city or town, the appropriate city or town council must also approve the proposed subdivision.

The board of county commissioners is to determine and collect permit fees associated with subdivision permit applications. The fees are to be the greater of \$100, or \$10 per lot up to a maximum fee of \$1,000. Johnson County also charges subdivision review fees. The fees collected are to be credited to the county general fund.

W.S. 18-5-315 authorizes the board of county commissioners to adopt subdivision resolutions or regulations that are more restrictive than those outlined in Article 3. Consequently, local subdivision regulations are not superseded by any provisions in Article 3.

### **14.7.3 Land and Resource Management Concerns of Johnson County**

#### ***14.7.3.1 Future Development of Johnson County***

The Johnson County Planning and Zoning Commission and the Board of County Commissioners desire to pursue, and, ultimately, achieve a general land use pattern for Johnson County that enhances the health, safety and welfare of the Johnson County community. The Land Use Plan recommends a range of policies concerning land use combinations, general development guidelines, and a general land use pattern for the unincorporated areas of Johnson County.

The Johnson County Planning and Zoning Commission and the Board of County Commissioners desires to establish a regulatory mechanism that will, in part, enable the future implementation of recommended land use policies without unreasonably infringing upon individual property rights. In the absence of some increased land use regulation, future land use development in Johnson County may occur in a manner that will:



- hamper the future delivery of public services;
- increase the cost of public services such as emergency medical services, law enforcement and county road maintenance;
- generate more land use conflicts between adjoining landowners;
- destroy most productive agricultural land;
- destroy scenic views and tourism revenues;
- diminish the quality of life of county residents provided by our agricultural and rural amenities;
- destroy or diminish wildlife habitat; and
- create stormwater drainage problems.

In contrast, during public meetings concerning the Land Use Plan which were held in Buffalo and Kaycee in October 2003, some Johnson County residents expressed their continued concern about increased land use regulation and the potential loss of individual property rights. These residents point out, in part, that a significant proportion of Johnson County is held in federal ownership. As a result, some residents of the County are already burdened by excessive federal regulations that particularly impact livestock grazing and the use of public lands.

#### ***14.7.3.2 Potential Approach to Zoning***

Should zoning be pursued by Johnson County, any proposed zoning resolution should be limited to provisions that are essential to basic land use management. Such provisions could address:

- definitions associated with the resolution;
- the exclusion of existing buildings and land uses to the requirements of the new resolution;
- the purpose of each zoning district;
- the types of permitted land uses within each zoning district;
- density, e.g., number of dwelling units per acre;
- building setback and height requirements;
- vehicular parking area requirements for commercial and industrial facilities;
- nuisances;
- incompatibility of land uses; and
- protection of lands adjacent to Johnson County Airport to qualify for state and federal funding.

It is also important that the type of land uses permitted in each zoning district include a range of land uses that are consistent with the recommended land use combinations outlined in the Johnson County Land Use Plan. The number of zoning districts should be limited to facilitate community understanding of permitted uses.

The establishment of reasonable building setbacks would reduce land use conflicts between neighboring landowners, and provide greater building safety.

A zoning map should be prepared to identify the location of each zoning district within the unincorporated areas of Johnson County. This would enable landowners to conveniently identify which zoning district(s) applies to any future development on their lands.

Zoning Resolutions can be modified to meet changing county conditions or needs. In accordance with Wyoming Statute 18-5-202, any person may petition the Planning and Zoning Commission to amend any adopted zoning plan.

### **14.7.3.3 Historical Preservation**

As mentioned previously, Johnson County is very rich in history. Historical sites include, but are not limited to, Fort Phil Kearny, the Fetterman Battlefield, the Hole-in-the-Wall area, Dull Knife Battlefield, the Crazy Woman Battlefield, the Fort Reno Historic Site and a portion of the Bozeman Trail. Several of these sites lie on privately owned property.

Any future zoning regulations adopted by Johnson County should include Historic District requirements to provide a mechanism for the preservation of sites, structures, and districts of historical, archaeological, or architectural significance. This is important to:

- Safeguard the heritage of the county by preserving sites, structures or districts which reflect elements of the county's cultural, social, economic, political, architectural or archaeological history;
- Stabilize and improve property values of such sites, structures, or districts;
- Foster civic beauty;
- Strengthen the economy of the county;
- Preserve and enhance the quality of life;
- Promote the preservation and appreciation of the sites, structures, and districts for the education and welfare of the residents of the county;
- Develop an awareness among property owners of the value of preserving, protecting, and restoring areas of historical, archaeological or architectural significance; and
- Enable the county to identify and officially designate sites, structures and districts of historical, archaeological or architectural importance to the county in order to make such sites, structures and districts eligible for specific benefits that may be available from various local, state or federal programs.

### **14.7.3.4 Incentives for Future Agricultural Land Uses**

Incentives need to be explored to assist those in agriculture to keep their land in agriculture. Incentives include conservation easements, transfer of development rights, purchase of development rights, density bonuses, cluster development and other conservation tools. Where development is to occur on a portion agricultural land, efforts should be made to minimize the area used by development and maximize the land retained for agriculture. Agricultural land provides much of the quality of life, tourism income, wildlife habitat and other amenities that all citizens enjoy in Johnson County.

### **14.7.3.5 Health and Safety Associated with Future Land Uses**

#### Issuance of Building Permits

The health and safety of Johnson County residents is, in part, dependent upon the availability and effective delivery of public services such as fire suppression, law enforcement and emergency medical care. An essential component of public service delivery is knowing where private homes, businesses, and community and public facilities are located. Unanticipated emergencies bring this reality to the forefront.

The issuance of building permits for all private facilities is one of the more effective ways to determine the type and location of new land use development that is occurring in Johnson County. General landowner and building information can be derived from building permits. Using available maps, persons obtaining building permits could help Johnson County personnel locate where new buildings are being constructed. County personnel could subsequently incorporate such information into the Johnson County GIS.

A significant step toward the development of this information was made through the past efforts of Grizzly Engineering to develop a rural addressing system for Johnson County. The issuance of building permits would facilitate the update of this information and the distribution of relevant information to fire suppression, law enforcement and emergency medical personnel.

It is recommended that Johnson County issue building permits at the Johnson County Courthouse in Buffalo and the Town Hall in Kaycee.

### Building Inspections

In most American communities, the construction of new buildings and renovations or additions to existing buildings is inspected by governmental agencies. These inspections are typically made for the purpose of insuring compliance to nationally recognized codes.

If the construction is deemed to meet the requirements of these codes, a certificate of completion is issued. Commercial and residential mortgage lenders, as well as insurance brokers, often require a certificate of completion as part of their due diligence before closing loans or issuing insurance policies.

The government building inspection process is thought by some to be desirable to obtain a quality structure and to ensure the health, safety and comfort of future occupants. However, the performance of these inspections can represent a significant expenditure. Also, an owner may not consider these inspections adequate to obtain the desired quality and will pay for duplicate inspections.

Especially in the case of renovations and small additions to existing homes, the costs associated with complying with code provisions can discourage making improvements.

The Johnson County Board of County Commissioners held a public meeting concerning building inspections and building standards in November of 2002. Various local building contractors and others, for the most part, expressed opposition to the adoption of new building standards and building inspections. In view of this, three options for building codes are presented below. It should be noted that other options could also be developed.

Option 1: Adopt all of the requirements of a national building code, electrical code, mechanical code, fire code and plumbing code. Johnson County could concurrently adopt exceptions to the codes that local contractors considered irrelevant or inappropriate for Johnson County.

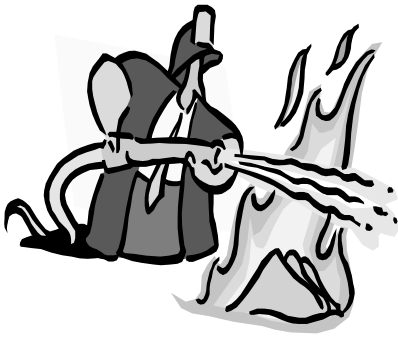
Option 2: Adopt all of the requirements of the above codes, but make no inspections. Johnson County could concurrently adopt exceptions to the codes that local contractors consider irrelevant or inappropriate for Johnson County.

Option 3: Adopt a simplified local building code that incorporates basic health and safety requirements of the above codes, but make no inspections. This option enables Johnson County to establish a more basic set of building standards. For example, the City of Rawlins prepared a simplified set of local building codes to facilitate the understanding and application of relevant building standards by local contractors. These standards were based upon the experience of a former city building inspector and his thorough review of various building codes. A similar ordinance could be developed for Johnson County.

Under options 2 and 3, local building, electrical, mechanical, and plumbing contractors would work on the honor system. Johnson County would not make any inspections of any structures, electrical or mechanical systems unless requested. However, the adoption of code requirements would provide a standard that is expected for future construction. This would provide some assurance to local mortgage lenders, prospective homeowners, and the business community that locally adopted building standards are being adhered to.

#### **14.7.3.6 Electrical and Work Safety Associated With Coal Bed Methane Exploration and Production**

In its consideration of both options, Johnson County should also remember that any adopted code requirements would help improve the future quality of construction by all contractors who work in Johnson County, not just those who live and work in Johnson County. The anticipated resurgence of coal bed methane exploration and production will undoubtedly use a combination of both local and out-of-state tradesmen.



During the recent coal bed methane production boom in Campbell County, the Fire Chief of the Campbell County Fire Department observed that few safety standards were applied in coal bed methane exploration and production areas. His department responded to a number of accidents that were caused by electrical and work safety issues at various coal bed methane wells and compressor stations. Most of the larger CBM companies have adopted operational and safety standards. However, subcontractors do not necessarily follow them, nor are subcontractors adequately monitored to ensure that standards are followed (Scott, 2001).

Only one electrical inspector from the State Fire Marshall's office makes electrical inspections in all of northeast Wyoming. Johnson County should work with State legislators from Johnson County to ensure that a greater number of qualified electrical inspectors are available to inspect electrical installations at CBM wells and compressor stations on private lands. Otherwise, the safety of private landowners and their property may be compromised.

#### **14.7.3.7 Development Criteria for Future Oil and Gas Exploration and Production**

Oil and gas development are very important to the State of Wyoming and Johnson County because of the significant mineral tax revenues derived from these activities. However, some general development criteria for future oil and gas exploration and production activities on private lands is appropriate. Reasonable development and operational criteria should be established by Johnson County to address issues such as:

- noise, light and dust impacts near residential areas
- potential aquifer depletion
- vehicular speeds and other safety factors on county roads
- avoiding damage to roads, bridges, culverts and other county facilities
- minimizing and properly constructing new accesses onto county roads
- shielding equipment yards in highly visible and residential areas
- consolidating transmission lines, utility trunks, access roads and other infrastructure to minimize effects on the landscape
- controlling emissions and air pollution

- controlling discharges and water pollution
- reclaiming areas disturbed during construction and restoring areas back to their original land use upon completion of industrial activities
- controlling existence and spread of noxious weeds

Such criteria will help minimize adverse impacts upon local landowners, rural residences, agricultural operations, and other land uses. These criteria should be addressed more specifically and incorporated within any future zoning regulations for Johnson County.

#### **14.7.3.8 Subdivisions**

In 2001, Johnson County adopted minor subdivision regulations for Johnson County. These regulations were prepared and adopted to facilitate the review and approval of minor lot splits that were previously allowed under the 1975 Wyoming Real Estate Subdivision Act.

##### Subdivisions Containing Parcels Less Than 35 Acres in Size

The concern for subdivisions containing parcels less than 35 acres in size is to process subdivision applications efficiently and effectively. In the subdivision review and approval process, it is important for Johnson County to:

- Clearly identify the information requirements that are required for the subdivision permit application and the preparation of subdivision plats. Information requirements should recognize that there are various types of subdivisions that have different types of issues and complexity. If information requirements are unreasonable, developers and decision-makers will lose faith in the subdivision review and approval process.
- Identify specific elements of the review and approval process so that applicants seeking to subdivide land are aware of the scope and timing of the review by the Johnson County Planner, the Johnson County Planning and Zoning Commission, and the Board of County Commissioners. This description should also include statements that clarify what general considerations will be made during the project review. One of various elements of the subdivision review should be Johnson County's determination of the consistency of the proposed subdivision with the policies in the adopted Johnson County Land Use Plan.
- Give adequate attention to significant project issues. Permit stipulations should continue to be used to ensure that specific project issues are adequately addressed. However, any stipulations tied to subdivision approval should be consistent with those required for subdivisions with comparable site conditions or characteristics.
- Provide flexibility in site layout and subdivision design. General topography in the vicinity of Buffalo suggests that subdivision developers may elect to design more clustered residential subdivisions if the regulatory process remains flexible.
- If zoning is established, this aspect of regulatory approval can be accomplished concurrently during the subdivision review and approval process.

It is recommended that Johnson County revise subdivision regulations to incorporate requirements for other types of subdivisions that include parcels less than 35 acres in size. Johnson County should consider developing variable application and plat requirements for different types of subdivisions. The subdivision application and plat requirements for each type of subdivision would vary and be consistent with the complexity of issues involved.

### Subdivisions Containing Parcels 35 Acres or Larger in Size

Future subdivisions containing parcels, which are 35 acres or more in size, are exempt from Title 18, Chapter 5 of the Wyoming State statutes. Under W.S. 18-5-315, Johnson County can impose more restrictive requirements than those outlined in the statute, but it is highly doubtful that this section could be interpreted to remove the exemptions relating to the size of parcels.

In its consideration of subdivision requests, Johnson County should consider the recommendations outlined for future land use combinations and the recommended land use pattern. As stated in Chapter 11, the development of new residential subdivisions is recommended within proposed community expansion areas in the immediate vicinity of Buffalo and Kaycee.

In view of the 1996 Wyoming State Supreme Court decision, Ford vs. Converse County, the Johnson County Land Use Plan cannot represent the sole basis of any land use decisions since the county land use plan provides no regulatory authority.

Johnson County should make reasonable efforts to encourage subdivision development within close proximity to Buffalo and Kaycee. If the review process for subdivisions containing parcels less than 35 acres in size is efficient and reasonable, developers and investors may be less attracted to the development of subdivisions with parcels 35 acres or larger.

All costs associated with subdivisions should be internalized and borne by the developer and residents of the subdivisions so as not to become a burden on all taxpayers.

#### **14.7.3.9 Noxious Weeds**

The Johnson County Weed and Pest District advocates the following voluntary general guidelines for the control of any State-designated or county-declared noxious weed species.

- “1. Prevention is the most effective and economical tool in controlling unwanted weeds. This can be achieved by washing vehicles, using certified weed free forage for mulch, inventorying and monitoring weed infestations, and treatment of insipient infestations.*
- 2. Enter into an effective treatment program on established weed problems, with eradication the exception, not the rule.”*

By Statute, if the District Board finds that a landowner or entity is responsible for any weed infestation that is *“...liable to spread and contribute to the detriment of others”*, they *“...may set forth minimum remedial requirements for control of the infested area”*. If the said landowner or entity fails, or refuses, to perform the remedial requirements, they are subject to a fine. The ultimate goal for successful weed management is cooperation, land stewardship and being good neighbors. The Johnson County Weed and Pest District office should be contacted for more specific information and management recommendations.

## **14.7.4 Recommended Tools for Future Land Use Management**

### **14.7.4.1 Geographical Information System**

Pedersen Planning Consultants established a geographical information system (GIS) for Johnson County using ArcView GIS software. The Johnson County GIS includes a wide variety of spatial data relating to the following:

- existing groundwater wells (2003)
- potential groundwater vulnerability
- precipitation
- streams and drainage areas
- 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> order hydrologic units
- general soil classifications
- seasonal ranges for various big game animals
- Bighorn National Forest boundary
- USFS and BLM grazing allotments
- existing federal, state, and county recreation and conservation areas
- residential, commercial, industrial, public facility and community facility land uses
- lands used for production of crops in 1991-1992
- Interstate and State highways, Johnson County roads, and other trails
- general land ownership: federal, State, and private
- coal bed methane wells in February 2002
- location of coal resources at various ranges of depth
- most rural residential subdivisions
- a recommended land use pattern for Johnson County

A considerable amount of tabular data is available in attribute tables that are associated with the available spatial data.

However, there are a number of rural residential subdivisions that are not yet incorporated into the GIS. In addition, polygons of private lands in the unincorporated area are also not included. This information was originally to be provided to Johnson County by the State Department of Revenue; however, the commitment of the State Department of Revenue to provide this information is uncertain.

Nevertheless, existing information contained in the GIS enables Johnson County to make a number of useful applications relating to future land management. The availability and access to this information will, for example, enable the Johnson County Planning and Zoning Commission to more effectively and efficiently review subdivision applications.

A valuable and important source of information contained in the GIS is a wealth of land use data. While not all private land parcels and rural subdivisions are incorporated in the GIS, Johnson County should make every effort to update this information, at least, annually. The establishment of a county building permit system will greatly facilitate the update of this information.

# **APPENDIX A**

## **Public Meetings and Comments**

Buffalo      October 22, 2002

Kaycee      October 23, 2002

Buffalo      August 24, 2004

Kaycee      August 25, 2004

## **Public Agency Comments**



Insert Public meeting comments from October 22 and 23





## **PUBLIC MEETING SUMMARY JOHNSON COUNTY LAND USE PLAN**

**DATE:** October 22, 2002

**LOCATION:** Johnson County Fairgrounds, Buffalo, Wyoming

### **NUMBER OF ATTENDEES:**

The following summary was prepared by Pedersen Planning Consultants. The summary is based upon the information documented by Johnson County Planner Rob Yingling and Sandy Pedersen of Pedersen Planning Consultants during the October 22 public meeting.

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### **Welcome**

Meeting attendees were welcomed by Commissioner Marilyn Connolly. She subsequently introduced Rob Yingling, Johnson County Planner.

### **Introduction**

Rob Yingling described the purpose of the meeting and outlined ground rules that would be used for the subsequent discussion of land use issues. He introduced meeting participants from the Johnson County Board of County Commissioners, members of the Johnson County Planning Commission, as well as Jim and Sandy Pedersen from Pedersen Planning Consultants. He requested meeting participants to provide their names and where they lived so that the Planning Commission could later refer to comments during the course of the land use plan process, and know if the comments were from Johnson County residents.

### **Discussion of Land Use Issues and Recommendations**

Jim Pedersen invited meeting attendees to participate in a discussion of land use issues and recommendations that could be used by the Johnson County Planning Commission and its consultant, Pedersen Planning Consultants (PPC), during the preparation of a draft Johnson County Land Use Plan. Jim Pedersen said that the discussion would go through a series of discussions for each general type of land use such as residential, commercial, industrial, public facilities, community facilities, and agriculture.

Jim Pedersen facilitated this discussion. Meeting participants usually provided their names and place of residence prior to identifying a land use planning issue. The order of comments presented in this summary is not necessarily in the order that comments were received during the meeting.

## *Residential*

Margaret Smith: There is a lack of housing that is affordable for single parents, families on fixed incomes, those with minimum wage jobs, as well as elderly residents.

Julie Baker: The boundaries of the City of Buffalo need to expand to allow people to live within the city rather than having to move into the unincorporated area of Johnson County.

Nadine Gross: With a growing aging population, there is a need for more assisted living housing and related health care facilities.

Don Conklin: Efforts to develop affordable housing should be approached by both the private sector and government. However, government intervention into affordable housing development does not always help.

Fred Wallace: The updated Land Use Plan may change what people originally understood and accepted when they purchased lots in a given residential subdivision. Wallace is concerned that new rules and policies in the Land Use Plan could change what happens in existing subdivisions. People should have the right to make their own decisions about how they use their land.

Steve Forsman: Governmental regulations may interfere with affordable housing developments. Forsman had some related information that he said he would provide to the Planning Commission.

Dennis Bateman: How is the Johnson County Land Use Plan going to designate specific land use areas? Bateman is concerned that the general public will have the opportunity to address specific recommendations that are eventually presented in Land Use Plan. He also concerned that existing agricultural operations are protected from the views of new residents that may emerge from future land use development in the unincorporated area.

Lisa Yingling: Lisa Yingling indicated that the Norm Lewis Law in Carod County, Maryland was an effective tool that helped protect existing agricultural operations. This local ordinance apparently protected local agricultural operators from the efforts of new incoming residents who attempt to get local planning commissions to reduce odor and other impacts from existing agricultural operations.

Steve Forsman: Forsman believes that agricultural operations are already protected via existing Wyoming State statutes. He has a similar concern for the protection of other economic enterprises that new residents might attempt to thwart.

Diane Pettyjohn: Pettyjohn would like to see expanded land use development within the City of Buffalo. She also believes that Johnson County should allow residential development on smaller 5, 10 and 20-acre parcels outside of Buffalo. The elimination of rural development will hurt residential developers and builders. Further, not everyone wants to live in town; some prefer to live on rural 5 to 20-acre parcels.

## *Commercial*

Julie Baker/Steve Forsman: Baker believes that Johnson County should consider permitting mixed uses in various areas of Johnson County. The traditional approach to identifying one use on one parcel is not practical to sustain the viability of lifestyles and businesses in portions of the unincorporated area.

Ross Elliott: Preserve downtown Buffalo. Keep the downtown area viable and thriving to support existing and future commercial activities.

## *Industrial*

Margaret Smith: Communication between the Johnson County Planning Commission and energy development companies is essential. Incorporate strategies into the land use plan that will facilitate this communication.

Steve Forsman: Provide incentives that will encourage industry to come and invest in Johnson County. Have less governmental regulations.

Don Conklin: The Land Use Plan should have potential to encourage industrial development in Johnson County.

Steve Forsman: The Land Use Plan should reflect the potential labor force that might be attracted to Johnson County.

Margaret Smith: It would be useful for the Land Use Plan to identify potential types of industrial investment that are needed or feasible in Johnson County.

Dennis Bateman: Bateman and his wife moved to Wyoming from Colorado, but left Colorado because of the significant population that resulted from the establishment of a brewery. Would not like to see too much industrial activity. Wants Johnson County to keep its "small community" flavor, but recognizes that some change is inevitable.

Bruce Hepp: Community needs to identify what we want in terms of industry/commercial development

Jim Mader: Mader desired to know what types of industrial and commercial development were acceptable to meeting attendees. Pedersen subsequently asked meeting participants to identify types of industrial activities that were not acceptable and desirable. The responses of meeting participants were as follows:

### **Don't want:**

- Prostitution, strip joints and smelters.
- IBM/Kodak/Coors/BNDW type of industry
- Large hog farms (greater than 5 acres in size)

- Unstable or larger companies that come in, leave suddenly, and generate a significant decrease in unemployment.
- State penitentiary
- Companies that generate significant volumes of air pollutants.
- Government germ factory
- Nuclear plant
- To be a Gillette
- Casinos
- More bars
- Nuclear waste facility
- Heavy industry

**Desire to have:**

- Resource-based activities such as ranching and tourism. Build on what Johnson County already has.
- Regional museum that describes area history
- High-level academic preparatory school
- Services for elderly/seniors/retirees
- Indoor arena/event center at Johnson County Fairground that will bring in more horses
- Stuff for kids – that will allow Johnson County kids to be involved in
- Horses, cattle, and lots of land
- Let area grow on its own merits. Let the market decide.
- High-speed train
- A larger retail store e.g. Walmart, even though Walmart has destroyed the downtowns of every town they've moved into
- Refrigeration storage facility that supports ground transportation of various food products within and outside of Wyoming. Laramie has one that it is being developed within new industrial area

***Public Facilities***

1. There is a need to expand the Johnson County fairgrounds.
2. Existing schools need to be accessible to handicapped residents.
3. There is a need to expand public and private medical facilities.
4. Buffalo needs a convention center that could support greater visitor traffic.
5. The present County Courthouse is inadequate. The County should consider greater centralization of facilities to make more effective use of our public facilities more effective. The upgrade and expansion of existing public facilities should be considered..
6. The establishment of greater public transportation opportunities should be provided. An expansion of the community airport is needed. The establishment of bus transportation should also be considered.

## *Community Facilities*

A teen center is needed in Buffalo. Such a facility is needed to provide recreational opportunities for youth, especially those kids that can't afford to be a member of the YMCA in Buffalo.

## *Recreation and Conservation*

G. Strom: More playgrounds are needed for Johnson County youth. Consider the development of greater opportunities at Lake DeSmet,

Ross Elliott: Buffalo/Johnson County is recreational paradise. Our strengths should be enhanced and improved on.

Nadine Gross: Increase/improve recreational areas. It is these resources that draw people here.

Bruce Hepp: Do not impede the vistas of the Big Horn Mountains.

Don Conklin: Vistas are subjective. Johnson County should be careful in its potential limiting of where and what type of land uses are permitted to protect important vistas.

Margaret Smith: City has developed two large steel buildings that detract from the existing scenic byway. The Elk Ridge subdivision and related housing development also detract from the views along the scenic byway.

In addition, the 1975 land use plan proposed that everything above Clear Creek should be preserved. This policy has not been followed.

## *Land Use Management*

Steve Forsman: RS2 477 law that allows Johnson County to retain rights to existing County roads. Forsman also provided related information to Jim Pedersen of PPC.

Johnson County has Status with federal agencies based on the adoption of the current Johnson County Land Use Plan.

Scott Gall: The development of rural residential subdivisions is occurring on lands that are viable for agriculture.

Julie Baker: Johnson County does not need to re-create existing regulations. Septic tanks are already regulated by Wyoming Statutes. Don't re-create laws that already exist under Wyoming Statutes and federal law.

Steve Forsman: Sheridan County's recent Land Use Plan sets aside agricultural lands for preservation. This approach did not work and portions of the land use plan had to be redone.



Julie Baker: Include specifics in Land Use Plan that identify open spaces, important vistas, preservation areas, or other special areas.

Margaret Smith: Need to also include what County could realistically afford to do, and balance needs with the desires of the community

### *Johnson County Land Use Plan Process*

Julie Baker: Baker wondered how existing plans in Johnson County will be incorporated into the Johnson County Land Use Plan update. Pedersen explained that the existing Johnson County Land Use Plan until a revision is adopted. Typically, a county would repeal the previous plan in conjunction with the adoption of a new land use plan.

Diane Pettyjohn: Pettyjohn wanted to know if a consultant contract had been established for the preparation of a new county land use plan.

Don Conklin: Conklin wanted to know the cost of the contract for Pedersen Planning Consultants to update the Land Use Plan.

Steve Forsman: Forsman inquired whether or not the ongoing land use plan would replace the existing county land use plan adopted by Johnson County, or adopt portions of the existing Land Use Plan.

Joan Crowe/Steve Forsman: How often are land use plans updated?. What changes occur that prompt a land use plan update?

Jim Mader: Public should have input to the Land Use Plan. The methods available for public input should be identified in the Johnson County Land Use Plan.

**BOARD OF JOHNSON COUNTY COMMISSIONERS  
PUBLIC MEETING ON THE JOHNSON COUNTY LAND USE PLAN  
OCTOBER 22, 2002**

**PUBLIC COMMENT FORM**

Please write your comments and suggestions on the future of Johnson County and the Johnson County Land Use Plan on this form so that your comments may be reviewed and considered by the Johnson County Planning Commission and Board of County Commissioners. Thanks very much for your participation.

Name: MARGARET M. SMITH

Address: P.O. Box 1003

City/State/Zip: BUFFALO, WY 82834

Comments: After sitting through the public meeting on Oct. 22 and listening to comments made, the thing I heard was "we're all very different and we want many divergent things." The other thing I noticed was how ill represented a large contingency of people ~~was~~ <sup>was</sup>. After visiting with people in the community the sense I had was they were unaware of the meeting ~~or~~ or were perhaps how disenfranchised people feel from the process: "what good is my input when 'they' are going to do whatever 'they' want?" A couple of solutions pose themselves: 1) do a BETTER MORE INCLUSIVE advertisement of this - Get ahold of the Wyo. NPR station to profile & "advertise" the next meeting, do a bigger "sell" w/ downtown merchants [door-to-door solicit their presence & leave flyers in their stores] - don't just depend on one or two posters in public places that blend in with all the other public service announcements. ] Where were the merchants, banks, grocers, motel owners - how were they communicated with? The other group Not present were the agricultural folks - why not communi-

*Use reverse side if necessary*

cate with leaders of stockgrowers' associations, (Wool Growers & Cattlemen/Cowbells) and the County Coop? Where were service industries like Powder River Power Corp the propane providers? The other industrial folks - ~~oil~~ <sup>CBM</sup> & oil, ~~gas~~ coal? the hunting & fishing repr. - contacting Game & Fish. These people are all part of the process and targeting them requires some direct communication - phone calls, post cards w/ <sup>awareness</sup> remind of meetings. The targeting needs to recognize that existing political posturing within various groups and should attempt to mitigate the sense that only a few will be heard.

Second BIG AREA NOT really ever mentioned. (Other than Mr. Milhouse's reference to the city's water projects.)

What kind of broad based water development plans are expected?

I've talked to a few people about the idea of watershed district boards that could help monitor and do some planning for underground water.

There is also a need to examine long term priorities as they affect the totality of our lives - food production, human use, industrial use, <sup>regional</sup> state-wide relationships based on water flow AND IMPACTS on aquifers. ~~on a long term~~

In my mind there needs to be a community-based planning & supervisory board <sup>(county & city wide)</sup> just dealing with water issues.

This should be among the highest on the lists of priorities - and should affect the communities of Kaycee and Buffalo - BUT it should address needs of even those in non incorporated areas as well.



## **PUBLIC MEETING SUMMARY JOHNSON COUNTY LAND USE PLAN**

**DATE:** October 23, 2002

**LOCATION:** Kaycee School, Kaycee, Wyoming

### **NUMBER OF ATTENDEES:**

The following summary was prepared by Pedersen Planning Consultants. The summary is based upon the information documented by the Johnson County Planner Rob Yingling and Sandy Pedersen of Pedersen Planning Consultants during the October 23 public meeting.

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### **Welcome**

Meeting attendees were welcomed by Commissioner Tracy Rhodes. He subsequently introduced Rob Yingling, Johnson County Planner.

### **Introduction**

Rob Yingling described the purpose of the meeting and outlined ground rules that would be used for the subsequent discussion of land use issues. He introduced meeting participants from the Johnson County Board of County Commissioners, members of the Johnson County Planning Commission, as well as Jim and Sandy Pedersen from Pedersen Planning Consultants. He requested meeting participants to provide their names and where they lived so that the Planning Commission could later refer to comments during the course of the land use plan process, and determine if the comments were from Johnson County residents.

### **Discussion of Land Use Issues and Recommendations**

Jim Pedersen invited meeting attendees to participate in a discussion of land use issues and recommendations that could be used by the Johnson County Planning Commission and its consultant, Pedersen Planning Consultants (PPC), during the preparation of a draft Johnson County Land Use Plan. Jim Pedersen said that the discussion would go through a series of discussions for each general type of land use such as residential, commercial, industrial, public facilities, community facilities, and agriculture.

Jim Pedersen facilitated this discussion. Meeting participants usually provided their names and place of residence prior to identifying a land use planning issue. The order of comments presented in this summary is not necessarily in the order that comments were received during the meeting.

### ***Residential***

Ray Winsor: There is no room for residential expansion in Kaycee.

John Hanson: Residential development should not be a function of government. Property owners must decide to take their own risks to pursue residential development.

Ray Winsor: The RCD resource plan, which was completed 6 years ago, would provide useful information for the Johnson County Land Use Plan update.

### ***Commercial***

Wally Ramsbottom: The Johnson County Land Use Plan should consider the potential development of natural gas lines and other utilities. There is considerable potential for development in Johnson County.

John Hanson: Government should not be involved in commercial development.

Ray Winsor: During the recent flood in Kaycee, floodwaters took half of the commercial area in Kaycee. Consequently, there is little area available for potential commercial expansion. A grocery store is needed.

### ***Industrial***

John Hanson: A proper county plan should protect its citizens rather than restrict their activities.

Kenneth Koch: Johnson County needs to be careful about restricting potential development through land use designations. Restrictions upon industrial development could impact potential employment opportunities for our youth.

### ***Public Facilities***

Ray Winsor: The physical condition of Kaycee School is inadequate. The high school is being condemned.

John Hanson: We have overbuilt and provided too many public facilities.

### ***Community Facilities***

Kenneth Koch: Volunteers are needed to staff the museum in Kaycee.

John Hanson: More volunteers are needed to support the volunteer fire district in Kaycee. In terms of potential areas that might support future community facilities, most of high ground in Kaycee is owned by government.

Kelly Lawrence: The Land Use Plan needs to identify potential sites for future commercial development. Hopefully, the Kaycee community will examine this question.

John Hanson: The development of community facilities should occur spontaneously. It takes a degree of privacy for this type of effort to be accomplished.

### ***Recreation And Conservation***

Julie Haines: A number of repairs were made to Kaycee Park in the aftermath of the recent flood. For example, the bathroom at the Park was damaged by floodwaters.

Ray Winsor: Conserve agricultural base through government policy

John Hanson: The Land Use Plan should ensure the government doesn't interfere with community, culture and the desires of community. There is already an over proportion of lands in the County that are designated for conservation. Johnson County should insulate a property owner from being forced by the Wyoming Game and Fish Department to provide easements, or authorize "walk-ins", e.g. Taylor's Hole in the Wall area.

Paul Millhouse: Would like to see existing recreation and conservation areas on a map.

Ray Winsor: Tourism does little to enhance the Johnson County economy. This and other relevant information is presented in a report prepared by the Big Horn Coalition about 10 years ago.

John Hanson: In the long run, tourism costs Johnson County more than the economic benefits it derives from tourism.

### ***Land Use Management***

Wally Ramsbottom: Johnson County has Sec. 15 lands that represent isolated public land tracts. Johnson County does not need to get federal agencies fired up about the regulation of land uses on those properties. In contrast to other counties, there is considerable less scrutiny. It is nice to be left alone.

John Hanson: The U.S. Bureau of Land Management, the U.S. Fish and Wildlife Service, as well as the Wyoming Game and Fish Department, are putting on more "heat" on Kaycee and Johnson County. The preservation of custom, culture, economic stability, and people's rights represent significant land use management concerns.

John Hanson: The State of Wyoming needs to recognize that school lands are "trust" lands and treat them that way. Hanson also fears that the potential for land use zoning is hanging over their heads.

Wally Ramsbottom: Would not favor a recommendation for zoning in the updated Land Use Plan.

Jason Williams: Land use zoning is an infringement upon private property rights.

John Hanson: Land use zoning brings permitting, inspectors, licensing fees, etc. The Johnson County Land Use Plan should protect people from that.

Wally Ramsbottom: The conversion of agricultural lands into other land uses is a concern. He wants to be able to do what he wants with his land when commercial agricultural opportunities are no longer viable.

John Hanson: Hanson concurred with the previous comment from Mr. Ramsbottom.

Ray Winsor: Johnson County needs to sustain its natural resource and agricultural base.

John Hanson: It is not a function of government to determine size of land parcels for residents of Johnson County.

Wally Ramsbottom: We need to change federal inheritance laws. It is difficult for ranching families to keep lands in the family. The Johnson County Land Use Plan should enable ranch owners to keep their options open.

Ray Winsor: The Johnson County Land Use Plan should integrate plans of the County and local conservation districts, to present common strategies and goals for Johnson County. The integration of local policies may enable Johnson County to obtain cooperating agency status concerning future federal actions that may impact Johnson County.



**BOARD OF JOHNSON COUNTY COMMISSIONERS  
PUBLIC MEETING ON THE JOHNSON COUNTY LAND USE PLAN  
OCTOBER 23, 2002**

**PUBLIC COMMENT FORM**

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Name: Brock Hanson

Address: 299 Brock Rd.

City/State/Zip: Raycee Wyo 82639.

Comments: "A vision of where we want to be." Judging from the past (which is 2020 vision) this is impossible to know. Why limit ourselves by our antiquated present-day visions. We can do better than that by not planning. The natural evolution <sup>of development</sup> at no cost to the public, would best serve the citizens. Anything else would be a restriction or a form of punishment. "One man's vision of utopia is another's enslavement."

If a plan is drawn up, it should protect the citizens from abuses by the government, not from other individuals. We already have many laws protecting us from abuses from the private sector. A good plan would limit government regulations, growth, taxes, fines, <sup>penalties</sup> and other forms of punishment. Probably the Constitution, if taught in school, and observed, would suffice.

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Respectfully Submitted

KW

**BOARD OF JOHNSON COUNTY COMMISSIONERS  
PUBLIC MEETING ON THE JOHNSON COUNTY LAND USE  
PLAN  
OCTOBER 23, 2002**

**PUBLIC COMMENT FORM**

Please write your comments and suggestions on the future of Johnson County and the Johnson County Land Use Plan on this form so that your comments may be reviewed and considered by the Johnson County Planning Commission and Board of County Commissioners. Thanks very much for your participation.

Name: O. John Hanson

Address: 1145 Mayoworth Rt.

City/State/Zip: Kaycee, WY 82639

Comments: Any County Land Use Plan should be drafted to protect the in-place citizens of the county. This plan should not restrict or diminish any existing rights on the property of these citizens.

This plan should not be used as a stepping stone toward zoning within a county.

The primary reason for a county plan is to protect the custom, culture, and economic stability of a county from federal, state, and county factions that wish to impose restrictions on property owners, or on state, federal and other public lands.

There are presently, in place, at state and federal levels, adequate sanitary and nuisance laws, which should not be duplicated at the county level, nor be expanded at any level of government.

There have been several good land plans submitted by citizens of this very county to the county planners and county commissioners. There are several good land plans that could be adapted to our local use that other Wyoming counties have implemented. Overpaid experts from somewhere else will not draft the best plan for our area. As far as I can tell, these documents have never been considered in this county by anyone elected or appointed or hired.

It is not right that the people who have little or nothing to lose, and much to gain monetarily through paperwork, bureaucratic jobs, legal work, and under the table payoffs will be the ones to form and administer any land plan in this county.

It is not right that the citizens who have the most to lose are not able to be elected or appointed to represent land plan development and implementation.

It is not right that our only elected county officials live within the county seat metropolitan area, which is enjoying their own elected body in addition to the county officials; a double opportunity over the rest of our county.

O. J. (John) Hanson  
1145 Mayoworth Rt.  
Kaycee, WY 82639  
307-738-2215



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**BOARD OF JOHNSON COUNTY COMMISSIONERS  
PUBLIC MEETING ON THE JOHNSON COUNTY LAND USE PLAN  
OCTOBER 23, 2002**

**PUBLIC COMMENT FORM**

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Name: Kenneth + Emma Koch

Address: 1561 Sussex Rd

City/State/Zip: Layce, WY 82639

Comments: We would like to comment a little more on the  
sub division rules. We know the State has made  
some changes that make it harder and more expensive  
to sell small parcels of land (that state change was  
unnecessary) We would hope that the County  
does not make rules that interferes more  
with private property rights. It not only  
makes it more expensive for the county but makes  
it so expensive for the property owner that it  
is impractical to sell small parcels. Acreage  
over 35 acres should not be considered as  
sub dividing.

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**BOARD OF JOHNSON COUNTY COMMISSIONERS  
PUBLIC MEETING ON THE JOHNSON COUNTY LAND USE PLAN  
OCTOBER 23, 2002**

**PUBLIC COMMENT FORM**

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Name: JASON WILLIAMS

Address: 1046 MAYOWORTH RD

City/State/Zip: KAYCEE, WY 82639

Comments: It is my belief that any kind of  
land use plan must protect private property  
rights and not be an infringement on  
them.

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# **PUBLIC HEARING COMMENTS**

## **JOHNSON COUNTY COMPREHENSIVE LAND USE PLAN**

**Johnson County Fairgrounds Building  
Buffalo, Wyoming**

**August 24, 2004**

PUBLIC HEARING  
COMMENTS

JOHNSON COUNTY  
COMPREHENSIVE LAND USE PLAN

Johnson County Fairgrounds Building

Buffalo, Wyoming

August 24, 2004

## Meeting Attendees

### *Johnson County Commissioners*

Marilyn Connolly  
Gerald Fink  
Jim Mader

### *Johnson County Planning and Zoning Commission*

Harvey Crowe, Chairperson  
Wayne Graves, Vice Chairperson  
Mike McKinley  
Bob Ruby  
Margaret Smith  
Rob Yingling, Johnson County Planner/Project Manager

### *Johnson County Residents*

Fred Wallace, Buffalo  
Linda Reed, Buffalo  
Kate Holt, Buffalo  
Nadine Gross, Buffalo  
Sally Ramsbottom, Buffalo  
Wally Ramsbottom, Buffalo  
Don Gregory, Buffalo  
Michael Bennett, Buffalo  
Roy Olaveson, Buffalo  
Larry Gerard, Buffalo  
Rick Verplancke, Buffalo  
Richard Zander, Buffalo  
Sue and B.W. Wagner, Buffalo  
Jeremy Grimm, Buffalo  
Joan Crowe, Buffalo  
Kirk Kavanaugh, Buffalo  
Jean Bjorksen, Buffalo  
Dave and Sandy Todd, Buffalo  
Val Long, Buffalo  
Donald Conklin, Buffalo  
Dan Thiele, Buffalo  
Rob Pfister, Buffalo  
Nikki Lohse, Buffalo  
Phil Gonzales, Buffalo  
Fred Lacey, Buffalo  
Nadine George, Buffalo  
Ed and Wanda Archer, Buffalo  
Gordon and Sandy Taylor, Buffalo  
Al Weeden, Buffalo  
Bruce Hepp, Buffalo  
Brent Braten, Buffalo

### *Planning Consultants*

Jim and Sandy Pedersen, Pedersen Planning Consultants, Encampment, WY

## Public Comments

- | <u>No.</u> | <u>Name/From</u>                                | <u>Comment(s)</u>  |
|------------|---|--|
| 1          | John Jenkins/Bufalo                             | <p>Prioritize what you work on. Look at coal bed methane (CBM) development and rural residential development. CBM different from oil and gas. CBM has lots more potential/magnitude. Investigate areas that have dealt with similar situations, e.g., south of the Front Range of Colorado. Get real clear on the experiences of these places that have been on the cutting edge of this type of development.</p> <p>Rural Residential – any radius is a mistake. Look at each entity, e.g., County road and bridge, that provides public services, identify their locations, and ultimately calculate the cost of delivery of services. This information will tell you what you really have.</p>  |
| 2          | Kurt Kavanagh/Bufalo                            | <p>The Planning and Zoning Commission must look at the potential incompatibility of future land uses, e.g., potential confined livestock operations near residential areas.</p>  |
| 3          | Don Gregory/unincorporated area north of Bufalo | <p>There is a need for zoning regulations. There is an accumulation of junk cars near his rural residence. He has a problem with this and other unregulated land uses. If Johnson County had regulations, it would help alleviate these types of situations.</p>   |
| 4          | Brent Braten/Bufalo                             | <p>People’s arrogance is based on ignorance. Johnson County needs to make the effort to hear from local residents. It is important that information such as the draft Johnson County Comprehensive Land Use Plan (JCCLUP) is made readily available.</p> <p>PZC Wayne Graves: The draft JCCLUP is available on the internet and hard copies of the report are available at local libraries.</p>  |
| 5          | Roy Olaveson/Bufalo                             | <p>Concerned with the potential impact of CBM development upon local ground water. Will the JCCLUP look at potential impacts on ground water? The JCCLUP needs to address this as this issue will impact a lot of people in Johnson County.</p> <p>County Commissioner Marilyn Connolly: There is some groundwater information contained in the JCCLUP. However, we cannot get into too much detail because the JCCLUP is not a regulatory document.</p> <p>Jim Pedersen: The JCCLUP examined available data on all existing groundwater wells in Johnson County. Spatial analysis was used to analyze the potential location of groundwater resources within 400 feet of ground elevation.</p> <p>County Commissioner Marilyn Connolly: In Chapter 14 of the JCCLUP, there are recommendations that propose the incorporation of appropriate regulations for oil and gas development into proposed zoning regulations. The U.S. Bureau of Land Management also addressed this issue in its environment impact statement for the Powder River Basin. The JCCLUP says we have to be aware of these types of issues. Johnson County will do what we can to help mitigate those problems.</p> <p>Jim Pedersen: If zoning were to ever be adopted, oil and gas regulations could be included in a potential zoning resolution.</p> <p>PZC Wayne Graves: Cannot see why Johnson County can’t look into this issue further.</p> <p>Roy Olaveson: Individual residents need recourse.</p> |



PZC Wayne Graves: Johnson County may not resolve Olaveson's individual situation, but will include his comments. Federal officials will need to consider the recommendations contained in the JCCLUP.

PZC Mike McKinley: This is not a county jurisdictional issue, but rather an issue to the Wyoming State Engineer's Office that govern private water rights in the State of Wyoming.

6 Val Long/Kaycee: Believes that a bill was passed in the last legislative session to help protect water rights. He expressed concerned about land use changes and related impacts upon water resources. Migratory birds are protected, but developers don't realize that the State of Wyoming needs to take a hard look at water issues. Land developers don't look at what's happening on land before they start developing.

7 Jeremy Grimm/Buffalo: He is the new City Planner for the City of Buffalo. Where he came from in the State of Maine, his home community was in trouble. The community needs to make infrastructure improvements but has no funds available to address infrastructure issues. Recommends permit and review fees (p. 13-14). Future growth should not cost Johnson County money on the paperwork end. Recommends the development of storm water regulations. We need to deal with this issue as we grow, not after it becomes a problem

8 Bruce Hepp/Buffalo: The Mayor is concerned about the public costs associated with rural subdivisions. Private developers expect counties to pay for the provision of public services and road maintenance. When subdivisions are developed further from the municipal limits, it gets more costly and longer to respond to public requests. We need building structures that are constructed well. More and more roads being built and greater county resources are expected to cover costs. In view of tax revenue distribution realities, Johnson County cannot receive revenues to cover infrastructure improvement costs before the County is impacted.

9 County Commissioner Jim Mader: How do you measure "incompatible" land uses (comment made in response to question from Kurt Kavanaugh)? The City of Buffalo's lack of control concerning where things go. For example, the location of an animal shelter in a residential area is clearly incompatible. Johnson County's planning process could resolve many of these situations if areas are designated for appropriate land uses. (Directs question to Don Gregory) Do incompatible land uses impact your property values and lower the quality of life? Land uses need to be more regulated so that property owners don't have to go sue each other to resolve land use issues. It would be a lot better if the County could help this situation.

10 John Jenkins/Buffalo: Real estate appraisal is the market solution for measuring the incompatibility of land uses. It takes away the subjectivity. The cost of development needs to be internalized. In terms of government regulation, we must have some mechanism to maintain some sort of equity.

11 Dennis Bateman/Buffalo: Developers need to be informed that if they develop way out in the country, Johnson County is not going to necessarily provide public services. People should be advised of this policy when they start moving into those kinds of areas. Various public services may eventually become available when the County can afford to provide them. Develop an informational brochure that the County or developer can provide to potential new residents. Make it official.

12 Nadine George/unincorporated area of JC: One of key solutions is disclosure. As long as potential residents know during their purchase of real property. If there's a link between Johnson County and the Johnson County Board of Realtors, it will eliminate many misunderstandings.

13 Don Conklin/unincorporated area of JC: The unintended consequences of the JCCLUP and recommended zoning will drive up the cost of housing. Anticipated permit costs, building permit fees unnecessarily meddles in the market place and the establishment of price. Is that something we want down the road? He cautions against it. If Johnson County is concerned about housing costs, why pursue the adoption of the JCCLUP and future land use regulations? At the same time, Conklin commends the inclusion of recommendations in the JCCLUP to facilitate legal standing with various federal agencies.

14 Bruce Hepp/Buffalo: City & County government are not in the business of real estate. Government does not have a lot of say about the costs of housing. Local government can provide the infrastructure and facilities that are needed. Costs are passed on to users. How do we assess taking care of our community residents who live in town and, at the same time, pursue providing public services to unincorporated areas outside of Buffalo?

15 Brent Braten/Buffalo: Communication is the key.

16 Al Weeden/Buffalo: Why is one particular area designated rural living in the Crazy Woman Creek drainage? The JCCLUP looks like it is aimed at zoning. More serious effort should be given to laying out the maps. The recommended land use pattern maps don't appear to match with existing land uses.

Jim Pedersen: If zoning is eventually established in Johnson County, zoning maps would be much more specific. The JCCLUP describes general land use combinations and not intended to be specific as a zoning map.

17 Rick Verplancke/French Creek: Describe p. 13-2 rural living. Concerned that the recommended land use pattern map is not a regulatory map. Satisfied that it is not. He is familiar with the Sheridan Growth Management Plan which presents a more restrictive land use concept. He believes that the JCCLUP is a more positive plan that is going in a different direction.

18 County Commissioner Gerald Fink requested Jim Pedersen to clarify the general land use designations of the recommended land use pattern map, particularly rural living. He added that he understood that the land use designations were not mutually exclusive.

Jim Pedersen: The Sheridan Growth Management Plan was more specific in its designation of land uses. JCLUP suggests a combination of land uses in designated areas to encourage a lifestyle that is more consistent with the custom and culture of Johnson County residents.

19 John Jenkins/Buffalo: There are two types of land use planning: antiquated zoning and planning practices which everybody hates. The other type of planning incorporates reasonably thought-out planning concepts.

20 Brent Braten/Buffalo: Look at Ft. Collins, CO and learn from their mistakes.

21 Fred Wallace/Buffalo: Laws should come from the people, not from the top down.

22. Brent Braten: Good job!

# PUBLIC HEARING COMMENTS

## JOHNSON COUNTY COMPREHENSIVE LAND USE PLAN

Harold Jarrard Park  
Kaycee, Wyoming  
August 25, 2004

**Meeting Attendees**

*Johnson County Commissioners*

Marilyn Connolly  
Gerald Fink  
Jim Mader

*Johnson County Planning and Zoning Commission*

Harvey Crowe, Chairperson  
Wayne Graves, Vice Chairperson  
Mike McKinley  
Bob Ruby  
Margaret Smith  
Rob Yingling, Johnson County Planner/Project Manager

*Johnson County Residents*

Diana Cornthwaite, Kaycee Town Clerk, Kaycee  
Allison Engle, Kaycee  
Steve Haines, Kaycee  
Brock Hanson, Kaycee  
Allen Streeter, Kaycee  
Rod Odenbach, Kaycee  
Dwayne Christiansen, Kaycee  
Lorrene Collins, Kaycee  
Wendy Wagoner, Kaycee  
Sue Jarrard, Kaycee  
Kathy Williams, Kaycee  
R. Cleveland, Kaycee  
Bob Thompson, Kaycee  
Paula Hanson, Kaycee  
Leif Hanson, Kaycee  
Jason Williams, Kaycee  
Margaret Smith, Buffalo  
Sally Ramsbottom, Buffalo  
Wally Ramsbottom, Buffalo

*Planning Consultants*

Jim and Sandy Pedersen, Pedersen Planning Consultants, Encampment, WY

**Public Comments**

No.    Name/From                      Comment(s)

1 Randy Cleveland/Kaycee: Impressed with the Johnson County Comprehensive Land Use Plan (JCCLUP) and agrees with its contents. However, Cleveland is unclear how Johnson County will enforce the recommended policies or make them happen.

Jim Pedersen: Should the JCCLUP be adopted by the Johnson County Commissioners, it does not become a regulatory document. Commissioners and the Johnson County Planning and Zoning Commission will pursue specific actions/recommendations that are outlined in the JCCLUP.

County Commissioner Marilyn Connolly: Johnson County must implement zoning in order to enforce the recommendations.

2 Randy Cleveland/Kaycee: If building codes are implemented, what can the general public do to control the extent of future changes to local building code requirements?

County Commissioner Marilyn Connolly response: Certain steps must be taken before any changes can occur. Public hearings, for example, provide an opportunity for the general public to respond to proposed changes to building code requirements.

County Commissioner Gerald Fink: Federal agencies are required to take the JCCLUP into consideration as they develop their operating plans. The adoption of zoning is not required for the purpose of federal agencies reviewing local plans.

Margaret Smith: The value of the JCCLUP is for Johnson County to set goals and obtain community input to determine what we want in the future.

3 Dwayne Christiansen/Kaycee: Uncertain how far Kaycee and Buffalo can influence land use decisions for development projects that extend beyond their city limits.

County Commissioner Marilyn Connolly/JC Planner Rob Yingling: Wyoming Statutes authorize municipalities to take authority up to one mile outside of their city limits for subdivision approval.

4 Leif Hanson/Kaycee: If you have a land use plan, can you get rid of it 20 years down the line? Which has jurisdiction, the JCCLUP or the State Conservation District Plan?

County Commissioner Marilyn Connolly: The JCCLUP can be revised.

JM: The draft JCCLUP mentions that coordination must occur between County and CD.

5 Brock Hanson/Kaycee: Was the local CD plan considered in the JCCLUP?

JC Planner Rob Yingling response: A direct reference to the conservation district plans is included in the JCCLUP.

Brock Hanson/Kaycee: Can the JCCLUP include a recommendation to eradicate prairie dogs in the section concerning wolves and other predators?

6 Jason Williams/Kaycee: Was impressed and surprised with the JCCLUP. The plan uses lots of common sense. The Planning and Zoning Commission did a good job. One of his concerns, when he hears the word “zoning”, is his private property rights. It is important that we don’t infringe on personal property rights.

The JCCLUP mentions encouraging businesses in the home. Williams does not view encouraging home occupations as a role of government.

Jim Pedersen: The JCCLUP indicates that it is important that home occupations are important to sustaining lifestyles in Johnson County that often include residents having two or more jobs and/or small businesses.

7 PC Margaret Smith: The JCCLUP does not identify any industrial development opportunities in Kaycee. Residents may want to consider that. She would appreciate learning of any further recommendations that residents might have.

8. Ken Graves/Kaycee: US Fish & Wildlife should be included in JCCLUP as far as cooperating status and future coordination.

9 Wally Ramsbottom/Kaycee: Ramsbottom expressed disappointed that there weren't bigger crowds that attended both public hearings. He believes that the public comments have been good and think the Johnson County Planning Commission has done a good job.

10 Allen Streeter/Kaycee: (response to question concerning the potential industrialization of Kaycee) Streeter does not know of any plan from Town of Kaycee for industry in Kaycee.

11 Sally Ramsbottom/Kaycee: Is there a way to regulate building rural subdivisions without having zoning?

Response: No

12 PZC BR: how do you stop some of these concerns without establishing zoning?

MM: if zoning comes up, we have to direct

13 Bob Thompson/Kaycee – The perception of some local residents is that once zoning is in place, it can never be changed. That's an incorrect perception

JC Planner Rob Yingling: Any potential zoning requirement can be changed, but any recommended revisions must petitioned to the Johnson County Planning and Zoning Commission

14 Wally Ramsbottom: If zoning is established, does that mean that you must have building codes?

County Commissioner Marilyn Connolly: Zoning can be established as we want it

Jim Pedersen: Zoning can be simplified so that requirements exert reasonable requirements and not become intrusive. It is the general public's responsibility to inform the Planning and Zoning Commission when zoning regulations become unnecessarily intrusive burdensome.

Wally Ramsbottom: People who've been in Johnson County for a long time have a difficulty with new codes when they have successfully built homes, barns, and other improvements without them.

Jim Pedersen: Buildings and other existing improvements are typically "grand-fathered" in county zoning resolutions and would not be subject to the new codes unless existing land uses are significantly modified or replaced with new improvements.

15 County Commissioner Gerald Fink: Nothing will be clearly black and white. Johnson County will need lots of public input to ensure that the Johnson County Commissioners know what people want.

16 Randy Cleveland/Kaycee: Spell things out for people clearly. Tell people they need to provide input if zoning is recommended. Let it be zoning, but allow people to respond to your specific recommendations.

17 Wally Ramsbottom: If the federal government designates an area on your property as an endangered habitat and we can't use the land anymore, the only thing we've got left is to dispose of the land.

18 Jason Williams/ : Any zoning or land use plan needs to protect private property rights. The Planning and Zoning Commission and County Commissioners have done a good job of doing that.

19 Kenny Graves: The JCCLUP does not say how often LUP needs to be revised.

Jim Pedersen The Plan should be revised about once every three to five years. However, the timing of the revision depends primarily upon the land use issues that are confronting each community.

JC Planner Rob Yingling It is the responsibility of the Planning and Zoning Commission to keep tabs on what's happening in the county, and, at some point, recommend when a revision needs to be made.

# **PUBLIC AGENCY COMMENTS**

U.S.D.A. Forest Service - August 5, 2004  
Lake DeSmet Conservation District - September 7, 2004  
Wyoming Game and Fish Department - September 10, 2004





United States  
Department of  
Agriculture

Forest  
Service

Bighorn National Forest

2013 Eastside 2<sup>nd</sup> Street  
Sheridan, WY 82801-9638  
307-674-2600  
TDD 307-674-2604

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File Code: 1920

Date: August 5, 2004

Rob Yingling  
Johnson County Planner  
76 N. Main Street  
Buffalo, WY 82834

Dear Rob:

Thank you for the opportunity to provide comments to the Draft Johnson County Comprehensive Land Use Plan. My comments are enclosed.

As we are currently revising our Forest Plan, this is an opportune time to coordinate our efforts. We are especially pleased with the participation of Commissioner Marilyn Connolly in our Revision effort, and hope that the ongoing dialog will continue after our Plans are in place.

Please call me or Bernie Bornong, Planning Staff, if you have questions.

Sincerely,

WILLIAM T. BASS  
Forest Supervisor

Enclosure



**Comments to Johnson County Land Use Plan – June 2004 Draft  
Bighorn National Forest**

1. Page 2-8, Consultation with Others

Thank you for the opportunity to comment on your draft plan. We hope that our response will begin a dialog between our respective planning departments. In fact, our draft revised Forest Plan includes the following strategy: “Recognize and coordinate with County Land Use and Conservation District Plans as part of Forest management activities.”

2. Page 5-5, Section 5.2.4.1:

*“The concern for the continued availability of public lands for livestock grazing stems from increasing efforts by the U.S. Forest Service to reduce the amount of livestock grazing within the Bighorn NF.”*

***What is this statement based on?*** There is no effort by the Forest Service to reduce the amount of livestock grazing on the Forest. We have strived to achieve desired resource conditions and multiple use objectives, which combined with drought, market forces, ranching economics, and other factors beyond Forest Service control, have led to reductions in the amount of livestock grazing.

Our current Forest Plan has Goals and Objectives for providing for livestock grazing in support of local operators and communities. And, although the current permitted number of AUMs is less than the 1985 Forest Plan stated as an Objective, we have stated that that reduction is largely due to forces beyond Forest Service control:

- a) Market declines; difficulties to get herders; foreign competition, etc. that have caused the sheep industry to decline,
- b) Permittees choices in investments they were willing to make in order to achieve overall multiple use requirements for wildlife forage, residual ground cover, and water quality.

While some reductions have occurred due to permit actions, that has been because of permit non-compliance.

Contrary to the hypothesis that the Forest Service is making an effort to reduce grazing is a draft plan strategy that has been much discussed by our steering committee: “Provide up to 118,000 AUMs on suitable rangelands to achieve desired conditions.”

3. Page 5-5, Section 5.2.4.2:

As you point out, managing for certain threatened and endangered species can have trade-off impacts to other users and resources.

4. Page 11-9, Section 11.2.1.1

*“...it is clear that the U. S. Forest Service desires to set capacities for future recreational use in the Bighorn National Forest.” .... “In the absence of*

*reliable statistics, a question relevant to future recreation in Johnson County emerges: How does current recreational use correlate with intended recreational capacities for the Bighorn National Forest.”*

In general, the Forest Plan and our subsequent project level planning will not set predetermined “use levels”. That said, there are exceptions, and those exceptions will be used to maintain the type and quality of recreation experience that is selected for an area through collaborative, public input-driven processes. For example, if through our Forest Planning, the decision, based on public input and legal requirements, is to manage an area for user solitude and a pristine environment, it will be the intent of Forest managers to maintain or enhance those values through direct or indirect means. An example of this is in the Wilderness, where a “wilderness” experience may not be achieved in the future if use levels continue to rise. On the other hand, there are recreation areas, such as developed campgrounds, ski areas, lakes, and other attractions, where facilities are constructed and the environment hardened to invite and support higher numbers of visitors. Balancing the ‘proper’ amount of different intensities of recreational use is an iterative, public-driven process, as it is revisited every 10-15 years as Forest Plans are revised.

We have not monitored specific density levels of forest users, because we do not believe that our user densities are exceeding, or, for that matter, approaching, the levels suggested in the Forest Plan guidelines.

Concerning our intent to develop new recreational sites, the Bighorn NF currently does not have the budget to maintain and operate additional National Forest System developed recreation facilities. If the American public at large, through their Congressional delegates, chose to allocate a larger budget for recreational operation and maintenance, we can respond positively. Given our budget history and anticipated future budget levels, I would suggest that the county expect the current level of developed recreation facilities over the next decade or so.

5. Page 11-10, Section 11.2.2:

As stated in response number 1, we would encourage this collaboration on planning efforts, as evidenced by Johnson County’s Cooperating Agency status for Forest Plan revision.

6. Page 11-11, Section 11.4.2:

*“The development of additional conservation areas by the US Forest Service, ....., will generate increased recreational opportunities.”*

I am unclear as to what a ‘conservation area’ is. If it is a Research Natural Area, it would, at best, anticipate maintaining existing use levels, if the values for which the area was established were not compromised. If it is elk and deer winter range, which would have seasonal travel restrictions, the recreation opportunity may be *different* (non-motorized as opposed to motorized), but it is not clear recreation, in

terms of visitor numbers, would increase. Please contact Bernie Bornong of my staff, 307-674-2685, to clarify what conservation areas are, and to discuss the potential implications.

*“Depending on its assessment of recreational needs, it is possible that the US Forest Service may develop some new recreational areas in the Bighorn National Forest.”*

As stated above, because of budget realities and expectations, we do not foresee development of additional developed recreation facilities (campgrounds, picnic grounds, etc.) in the next decade.

7. Page 12-1, Section 12.2.1.2

Just a note on usage: we are the Bighorn National Forest, but the convention is Big Horn County, Big Horn Mountains and Big Horn River.

8. Page 13-2, Section 13.2.1, bullets on inter-dependent examples:

*“The Bighorn NF conserves wildlife habitat and surface water resources, ....”*

This statement is completely compatible and consistent with the existing and proposed revised Draft Forest Plans.

9. Page 13-8, Section 13.3.2.3

*“Federal resource management policies in Johnson County must be planned, established, and managed in the context of local land uses, the customs and cultures of Johnson county residents, and the viability of the Johnson County economy.”*

This statement is true, and we believe those are important considerations, but there are two other items that must be considered as part of this equation. These are Federal lands, so national laws and policies apply. And, non-local people have a stake, albeit more remote and indirect.

10. Page 14-3, Section 14.2.3.1

The Management Indicator Species Amendment has been adopted, so there are 15 Forest Plan amendments currently. The Lynx amendment is still in the process.

11. Page 14-4, Section 14.2.3.1, Lynx discussion

As a *National* Forest, there are obligations at a larger scale to provide for species under the Endangered Species Act.

12. Page 14-4, Section 14.2.3.2

*“However, Johnson County has serious concern for a growing imbalance in resource management....” Considerable attention to preservation of “endangered” or “threatened” plants and animals, biological diversity.... In*

*contrast, limited attention is given to the availability of timber supplies or the amount of lands available for livestock grazing*

This “imbalance”, in our view, is not an imbalance, but a recognition of the legal requirements National Forest System lands are subject too. If plants and animals, and their habitat, are not conserved to at least the legally required minimum, there will be *no* timber or grazing outputs. An example is the Sourdough timber sale, located along Sourdough Creek about 15 miles west of Buffalo. This 1 million board foot timber sale was approved in 1999 was appealed on the basis of violations of National Forest Management Act provisions for species viability. This case is still in court, with no resolution in sight, while the timber opportunity remains unrealized. The goal of the Revised Forest Plan must be to find the proper balance between meeting legally required species needs and people’s desires for outputs and uses.

One other item to note in the statement is that the amount of lands available for livestock grazing varies very little, if at all, by Draft Forest Plan Revision alternative.

13. Page 14-5, Section 14.2.3.2

*“...these intentions must also be considered in the context of economic sustainability of the Johnson County economy...”*

We attempted to do this in the communities section of the Draft Environmental Impact Statement – the number of jobs and the total economic impact, in dollars, is considered for each alternative, and background information (setting the context) about the Johnson County economy is explored in the Johnson County Economic Assessment.

14. Page 14-5, Section 14.2.3.2

The 36 CFR 219 citation is incorrect for the Bighorn Plan. We have elected to use the 1982 Planning Rule, not the 2000 Rule, which is what is cited in the Draft County Plan. I should say that we agree with the sentiments expressed, and believe that is exactly what the Draft Revised Plan strives for. Bernie Bornong can provide you with a copy of the 1982 Rule version of 36 CFR 219.

15. Page 14-5, Section 14.2.4

*This section presents a ‘suggested’ method for County-Forest interaction, and states “Bighorn National Forest representatives should welcome this opportunity for meaningful coordination with Johnson County.”*

In fact, the Bighorn NF has a cooperating agency agreement with Johnson County for Forest Plan Revision, and we have met with the ‘steering committee’ about 10 times per year in order to give local county governments a say in the process. We have repeatedly stated that we hope that the interactive dialog between the County and the Forest will continue beyond the Revision of the Forest Plan. This

section of the Draft County Plan could recognize this important, and active, vehicle for interaction.

16. Concerning the Section 14.6.4.1 discussion pertaining to Geographical Information System data, the Bighorn NF would be happy to share information we have with the County, and we believe there may be some layers the county may have that may prove beneficial in our planning processes. Please call David Anderson, Bighorn NF data manager, 674-2659, if you have data layer needs that the Forest may have.

***LAKE DeSMET CONSERVATION DISTRICT***

760 West Fetterman  
Buffalo, WY 82834  
(307) 684-2526, ext. 3

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September 7, 2004

Johnson County Planning & Zoning Commission  
Johnson County Courthouse, Room 204  
Buffalo, WY 82834

Commission Members,

The Lake DeSmet Conservation District would like to thank you for your time and efforts in the development of the *DRAFT Johnson County Comprehensive Land Use Plan*, and the opportunity to make comment. The District appreciates the time you have taken to develop a document that will provide a guide for future land use management decisions, as well as a document that must be considered by federal agencies during their preparation of resource management plans and policies that will influence Johnson County. We recognize the fact that this is a "living" document and provides the County good general information to utilize as a tool while the County assesses growth.

The District is submitting comments as it pertains to their mission to protect, enhance and promote the wise use of natural resources through a responsible conservation ethic, in the *DRAFT Johnson County Comprehensive Land Use Plan*.

First, some general housekeeping of the document –

Page 2-10, **U.S. Natural Resource Conservation Service**, proper title should be United States Department of Agriculture, Natural Resources Conservation Service, Phil Gonzales & Steven Jelden

Page 9-2, **TABLE 9-2, PUBLIC FACILITIES, CITY OF BUFFALO**, under the **Federal** heading, need to include the USDA Service Center, which includes the Lake DeSmet Conservation District, Natural Resources Conservation Service, Farm Service Agency and the J.C. Cooperative Extension Service. Under the **State** heading, Farm Service Department needs to be deleted, as they are Federal. Under **County**, the Lake DeSmet Conservation District needs to be added.

The following comments are being submitted on portions of the document that we feel need to have further research and clarification:

Page 3-13, Future Crop Production, conflicting data within the document leads one to believe that Johnson County is not seeing a loss in agricultural land, however the District is providing the Planning Commission with subdivision reviews, on a frequent base, as well as private treaty sales that are changing grasslands and irrigated lands into residential development.

Page 4-19, **4.4 WILDLIFE RESOURCES, 4.4.1 Big Game Animals**, this section discusses “big game”, a term used by Wyoming Game & Fish in issuing hunting licenses. There are numerous non-game species that are present within the county that are not identified. One particular animal that was left out is the black bear.

Page 4-24, **4.4.1.7 Big Game Animal Issues, Conservation of Big Game Habitat**, there is discussion, in the third paragraph, of the challenges associated between livestock grazing and big game animals, however these challenges overreach into the urban community of Buffalo, as well as the stated unincorporated areas.

Page 4-27, **4.4.5 Waterfowl**, you’ve identified the white-winged scoter as a migratory bird that inhabits the area in summer or winter months. The bird is classified as a rare transient according to Helen Downing, who is a noted birder and author of *Birds of North Central Wyoming*. The white-winged scoter is not a regular migrant.

Page 5-2, **5.2 AGRICULTURAL LAND USE ISSUES**, in this section, there was no mention of coal bed methane development and split estate issues. Due to the increasing development of coal bed methane and demands on our natural resources, we feel that the plan would be remiss if there is no discussion on this impact.

Page 13-9, **13.3.2.3 Conserve Important Natural Resources, Use a More Balanced Approach to Future Resource Conservation**, in the third paragraph you discuss precipitation and the importance of agricultural operations. Livestock grazing provides a management tool for vegetation, it does not conserve vegetation.

Page 13-16, **13.3.3.2 Rural Living, Groundwater Considerations**, second paragraph, it’s been mentioned, throughout the document, that the planning commission would use the rule of “wells less than 400 feet” for consideration of domestic wells. If this is adopted, it will force the majority of development to occur adjacent to stream channels. This would be in conflict with the rest of the document which encourages development away from stream channels.

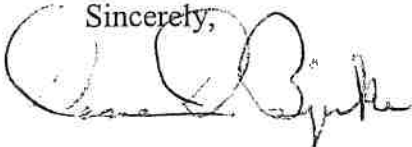


Page 13-18, *13.3.3.5 Recreation and Conservation, Riparian Areas*, second paragraph, it is recommended that you include a discussion on the various conservation practices that will achieve proper livestock management in riparian areas.

Page 14-20, *14.6.3.1 Future Development of Johnson County*, in the second paragraph, the plan discusses that future land development may occur in a manner that will destroy prime agricultural land (4<sup>th</sup> bullet). The document needs to define "prime" agricultural land. NRCS does not recognize any "prime or unique" farmland within the County.

We compliment you for your efforts, and thank you for the opportunity to provide input in the development of the final *Johnson County Comprehensive Land Use Plan*.

Sincerely,

A handwritten signature in black ink, appearing to read "Deane Bjerke". The signature is written in a cursive style with a large initial "D" and "B".

Lake DeSmet Conservation District  
Deane Bjerke, Chair

Cc: Johnson County Commissioners

# WYOMING GAME AND FISH DEPARTMENT

Dave Freudenthal, Governor



Terry Cleveland, Director

*"Conserving Wildlife - Serving People"*

September 10, 2004

WER 10966  
Johnson County Commissioners  
Johnson County Draft Land Use Plan

Johnson County Commissioners  
76 N. Main  
Buffalo, WY 82834

Dear Commissioners:

The staff of the Wyoming Game and Fish Department has reviewed the draft Johnson County Land Use Plan. We commend Johnson County for developing considerations for land use, and offer the following comments.

We recommend the Johnson County planning process incorporate a review of Wyoming Game and Fish Department big game seasonal range maps, sage grouse and sharp-tailed grouse lek maps, and raptor nest site maps into Planning and Zoning Board actions. This will help to maintain the integrity of the habitat supporting area wildlife, and the increase in desirability and property values often associated with that resource. Our agency can provide this specific input for development plans, and consideration of habitat values during early planning actions can avoid unnecessary losses of important habitat.

With regard to subdivision development, developers and homeowners should be made aware of the impacts wildlife, particularly deer and antelope, can have on ornamental landscaping and other horticultural projects such as gardens. Intentional feeding of big game or trophy game animals should be prohibited in subdivision covenants, or at least strongly discouraged. Feeding often leads to damage to landscaping and gardens belonging to neighbors and poses a threat of attracting mountain lions or black bears into conflict situations with humans.

Control of pets is especially important during the winter season when deer and antelope are often closely associated with subdivision development. Lastly, should development occur in areas identified as big game migration corridors, we recommend fencing specifications that allow easy wildlife passage.

SEP 15 2004

Following are some specific comments:

Section 3.3.1.1 - 3.3.1.2 – With regard to agriculture trends, there is no discussion about how the purchase of traditional ranching operations by outside interests affects Johnson County. Some ranches are now bought by nonresidents or corporations who do not need to make a profit from agricultural production. Their interests in ranching may be driven by factors other than profit. While these owners tend to maintain agriculture operations, some have less interest in allowing the public outdoor recreation opportunities such as hunting and fishing.

Section 4.4.1 - The list of big game animals occurring in Johnson County should include the black bear. Mountain lion and black bear are designated as “trophy” game animals by Wyoming statutes.

The elk, mule deer, and antelope seasonal range maps for most of Johnson County have been updated over the last three years. Updates include the delineation of crucial mule deer and elk winter ranges. Geographic Information System (GIS) files with the updated seasonal ranges will be provided to the Johnson County Planner. Additionally, the document did not include dates specific to the seasonal range definitions. A complete list of definitions, including dates, will be provided to the Johnson County Planner with the seasonal range files. Finally, the document should state that seasonal ranges are delineated by the Wyoming Game and Fish Department.

Section 4.4.1.5 - Moose occupy the “northwest” portion of Johnson County.

Section 4.4.4.1 - The list of game birds in Johnson County should include blue grouse, chukar, and mourning dove.

Section 4.4.4.2 - Greater efforts at documenting sage grouse lek sites and seasonal ranges are needed, given the decreasing population trend in recent years. Some survey work prior to developments in the county may be required, and should be included as a possible county-supported requirement. Increased development and potential implications of West Nile Virus may further impact the population. Current development stipulations applied during the BLM oil and gas permitting process help protect sage grouse and sharp-tailed grouse lek sites and nesting areas.

The Wyoming Game and Fish Department oversaw the development of the Wyoming Sage Grouse Conservation Plan. Subsequently, the Powder River Basin Sage Grouse Working Group was formed which will write a local conservation plan, develop habitat enhancement plans, and implement at least one on-the-ground project that benefits sage-grouse and other sagebrush dependent species. Additional information on managing habitat for sage grouse is found in *Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000. Guidelines to Manage Sage Grouse Populations and Their Habitats. Wildlife Society Bulletin 28(4): 967-985.*

Page 4-27 - No mention of “nongame” or protected birds is made in the plan. Most of Wyoming’s approximately 400 species of birds are nongame birds, with riparian and wetland habitats supporting the greatest diversity of species. Sagebrush obligate species are also important in Johnson County. These species should be mentioned, as actions may be necessary, in some cases, to help prevent them from being considered for federal listing as endangered species.

Section 5.2 - The document states, “... Much of Johnson County’s aquatic and wildlife habitat, surface water quality, and other resources exist due to the presence of agriculture operations.” It would be more appropriate to state that keeping viable agricultural operations in Johnson County maintains open space, which is vital to maintaining habitat for free ranging wildlife populations. Wildlife populations existed prior to Wyoming’s agriculture industry. There is no doubt that some wildlife species have benefited from some agricultural enhancements, such as water development and irrigation.

Section 5.2.2 - Most ranches have made hunting a part of their operations. Whether taking fee paying hunters or subleasing to outfitters, income derived from paying clients supplements the traditional agriculture operations and in some cases offset the costs wildlife may have on a ranch operation. Deer, antelope, and elk hunting are the most common types of wildlife related recreation, and some ranches have also leased opportunities for fishing and prairie dog hunting.

Section 8.2.1 - The list of development criteria for future oil and gas development on private lands should include the following:

Noxious weed control

Planned developments should include weed control.

Protecting raptor nesting sites

In the case of federal surface and federal mineral leases, developers are required to address these key wildlife habitats. Unfortunately, on private mineral leases, some landowners may not be aware of these issues or that both impacts and mitigating are possible.

Section 13.1 - The community development objective of conserving important resources only lists one item, productive agricultural lands. This objective should include wildlife and fish habitat as well as recreation opportunity.

Section 13.3.2.3 - The document should state that crucial winter ranges and big game migration corridors are those delineated by the Wyoming Game and Fish Department. Important areas also include sage grouse and sharp-tailed grouse breeding and nesting areas, big game parturition areas, and raptor nesting sites.

With regard to conservation of species of wildlife that can impact agricultural operations, the public needs to be aware that listing a species of wildlife under the Endangered Species Act is not desirable to governmental agencies. Conservation of a species without listing provides

greater flexibility when problems or conflicts occur. If the population of a species has been reduced to the point of needing protection through listing, then the greatest conflicts are likely to occur when federal lands are involved.

There is little doubt that properly managed livestock grazing has little negative impact on wildlife habitat and most wildlife species, and grazing benefits some species. As stated earlier, wildlife benefit from maintaining a viable agriculture industry and the maintenance of open space to support free ranging wildlife populations.

Section 13.3.3.5 (Wildlife Habitat) - Again, properly managed livestock grazing has little impact on wildlife habitat and most wildlife species. However, in some cases, particularly elk crucial winter range, reduced livestock grazing may be needed to maintain adequate forage for wintering elk. Reductions on private land would only occur with the cooperation of the landowner.

Section 14.2.3.1 - The document again addresses the issue of the Northern Rockies Lynx Amendment and the potential impacts of the lynx on the livestock industry. The potential for a significant population of lynx in the Bighorn Mountains does not exist because the Bighorn Mountains provide only marginal habitat. Lynx are best adapted to boreal forest habitats found in Canada and Alaska. Furthermore, there is no evidence in the literature that livestock depredation by lynx is a problem.

There is no doubt that if the wolf or the grizzly bear were to reestablish in Johnson County, livestock depredation would occur. One occurrence of wolverine depredation on sheep has occurred in recent years, but this was a rare occurrence. As with the lynx, the Bighorn Mountains are not likely to support a substantial population of wolverines and livestock depredation by this species would be significant issue. Livestock depredation by wildlife in Johnson County will continue to be attributed primarily to coyote, mountain lion, black bear, and possibly the wolf.

Section 14.4.1 - In addition to the game warden and wildlife biologist position based in Buffalo, a game warden position is also located in Kaycee. Additionally, terrestrial habitat, aquatic habitat, information and education, and fisheries biologists positions cover Johnson County from the Sheridan Regional Office. Although game management receives considerable emphasis, the Wyoming Game and Fish Department is responsible for managing all wildlife.

Section 4.4.3.2 - The document lists the prairie dog as a species on the threatened and endangered species list. The U.S. Fish and Wildlife Service classified the black-tailed prairie dog as a candidate for listing in 2000. Information collected since then on amount of occupied habitat, impact of chemical control, and vulnerability to disease led the Service to determine that the species no longer meets the Endangered Species Act's definition of "threatened" (August 2004).

The resource management plan for endangered species referenced in this section is in all likelihood the Wyoming Gray Wolf Management Plan. The states of Wyoming, Montana, and

Idaho are required by the U.S. Fish and Wildlife Service to have approved wolf management plans in place prior to delisting the gray wolf. The U.S. Fish and Wildlife Service has so far rejected Wyoming's plan, whereas the Montana and Idaho plans were approved.

We look forward to working with Johnson County to ensure the continued conservation of wildlife and their habitats.

We appreciate the opportunity to comment on this document.

Sincerely,



*for* BILL WICHERS  
DEPUTY DIRECTOR

BW::VS:as  
cc: USFWS

# **APPENDIX B**

## **Results Of Buffalo Housing Survey 2002**

# Buffalo Housing Survey Results

## Q1: Number of residents in your household?

Residents in household			
	Counts	Percents	Percents 0 100
two	101	47.0%	
one	68	31.6%	
four	20	9.3%	
three	18	8.4%	
five	5	2.3%	
more than six	2	0.9%	
six	1	0.5%	
Totals	215	100.0%	
Mean	--		

## Q2: What type of housing do you currently reside in?

Housing type			
	Counts	Percents	Percents 0 100
single family dwelling	173	80.8%	
mobile home	13	6.1%	
apartment	12	5.6%	
condominium	6	2.8%	
townhome	3	1.4%	
triplex or fourplex	3	1.4%	
duplex	2	0.9%	
other -Please specify	2	0.9%	
Totals	214	100.0%	
Mean	--		



**Q3: How long have you lived in your community?**

Residency time			
	Counts	Percents	0 Percents 100
Other (Please specify)	157	75.1%	
One to three years	28	13.4%	
Four to six year	23	11.0%	
Less than one year	1	0.5%	
Totals	209	100.0%	
Mean	--		

Length of residency of more than SIX years (see Question #3)			
	Counts	Percents	0 Percents 100
From 0	15	9.7%	
From 10	40	26.0%	
From 20	31	20.1%	
From 30	23	14.9%	
From 40	16	10.4%	
From 50	11	7.1%	
From 60	6	3.9%	
From 70	10	6.5%	
From 80 to 90	2	1.3%	
Totals	154	100.0%	
Mean	30.68		

**Q4: What is your current annual household income?**

Annual household income			
	Counts	Percents	Percents 0 100
\$50,000 - \$74,999	39	20.5%	
\$20,000 - \$24,999	22	11.6%	
less than \$12,000	17	8.9%	
\$15,000 - \$19,999	17	8.9%	
\$12,000 - \$14,999	14	7.4%	
\$25,000 - \$29,999	14	7.4%	
\$30,000 - \$34,999	14	7.4%	
\$75,000 - \$99,999	12	6.3%	
\$45,000 - \$49,999	11	5.8%	
\$100,000 or more	11	5.8%	
\$35,000 - \$39,999	10	5.3%	
\$40,000 - \$44,999	9	4.7%	
Totals	190	100.0%	
Mean	--		

**Q5: Do you own or rent your current housing unit?**

Own or rent			
	Counts	Percents	Percents 0 100
Own	182	87.1%	
Rent	27	12.9%	
Totals	209	100.0%	
Mean	--		










**Q6: What is your current rent or mortgage?**

Amount for rent/mortgage			
	Counts	Percents	0 Percents 100
under \$300	36	26.9%	
\$300-\$399	30	22.4%	
\$600-\$699	15	11.2%	
\$500-\$599	14	10.4%	
\$400-\$499	9	6.7%	
\$700-\$799	7	5.2%	
\$900-\$999	7	5.2%	
\$1,100-\$1,199	5	3.7%	
\$1,200 and over	5	3.7%	
\$800-\$899	3	2.2%	
\$1,000-\$1,099	3	2.2%	
Totals	134	100.0%	
Mean	--		








**Q7: Are you satisfied with your current housing?**

Satisfaction with housing			
	Counts	Percents	0 Percents 100
Yes. If yes, return the survey without answering remaining questions. Thank you.	178	87.7%	
No. If no, please complete and return the survey. Thank you.	25	12.3%	
Totals	203	100.0%	
Mean	--		



**Q8: If you are not satisfied with your current housing, why not?**

Not satisfied with housing			
	Counts	Percents	0 Percents 100
housing unit too small	13	50.0%	
housing unit in poor condition	4	15.4%	
other, Please specify	4	15.4%	
rent or mortgage too high	3	11.5%	
type of housing	1	3.8%	
location	1	3.8%	
not handicapped accessible	0	0.0%	
too far from work	0	0.0%	
no pets allowed	0	0.0%	
Totals	26	100.0%	
Mean	--		




**Q9: If you are not satisfied with your current housing, what type of housing are you currently seeking?**

Seeking housing type			
	Counts	Percents	0 Percents 100
single family dwelling	19	79.2%	
apartment	2	8.3%	
manufactured home or modular home	1	4.2%	
townhome	1	4.2%	
duplex	1	4.2%	
mobile home	0	0.0%	
condominium	0	0.0%	
Totals	24	100.0%	
Mean	--		

**Q10: If the type of housing that you are seeking would be available in the town of Burlington, would you prefer to purchase or rent that type of housing unit?**

Purchase or rent			
	Counts	Percents	Percents 0 100
Purchase	24	92.3%	
Rent	2	7.7%	
Totals	26	100.0%	
Mean	--		

**Q11: If you do plan to purchase or rent available housing, how soon do you intend to purchase or rent that housing unit?**

Time projection			
	Counts	Percents	Percents 0 100
within one year	10	55.6%	
within two years	4	22.2%	
within three to five years	4	22.2%	
Totals	18	100.0%	
Mean	--		

## Comments

- Low income housing meaning low down payment and reasonable monthly payments with stipulation they be maintained and looking well or lose them. Most people are proud to say they own their home and o keep them up. Some don't appreciate the opportunity. Or some multi-family apartments buildings. With some requirements--maintain People need to lern to appreciate the efforts made by others to help them in bettering their life styles.
- I paid high contractor wages (local people) to have a house built in Buffalo. I also paid the high cost to buy the bulk of my materials right here in town. I am offended by any attempt to lower the standards in the city to allow modular or mobile home living in areas that do not allow it. Affordable housing is a problem oll over this state. I know of no city or town that lowers it's standards in existing areas to accommodate low income housing. The result of this wold only lower existing property values now with further de-valuation as the pre-fab/modular/trailer housing deteriorates with age. Perhaps if the city really wanted to bring down the cost of housing, they could drwa as much attention to the cotractors and suppliers in the town as was paid to the prices of gas. But unlike gas prices, that would not help those that have already built their homes.
- Housing is just too high in Buffalo
- Comment beside #7: You betcha, I got lucky...sense of humor survives
- I believe when "low income housing" is used, it should be housing that a \$20,000.00 annual income can afford. That doesn't mean \$150,000 houses. I believe that mobile homes should be acceptable housing.
- More Choices for families that are affordable
- Buffalo needs more low to medium priced single family homes, for "normal" working families. What is being built now will just put us on the road to another "Jackson", raising current property taxes. It also stops me from considering moving to another home. Also, I do not find this a very good questionnaire. IE: Incomplete choices for Question 6. Also, answering Yes to Question 7 precludes me from ansering the rest of the questions. Just because I might be satisfied now doesnt mean I might not want to upgrade or find something different or in another location to go along with lifestyle changes. Also, Most questionnaires I recieve (sic) (and the only ones I respond to) come with return envelopes. I'm breaking my own rule returning this because I wanted to voice my opinion.
- Question 8: Too cold, bugs in kitchen; hiding in walls. Question 9: selected all but sfh and condo. Has a small dog Question 10: would rent with option to buy Question 11: May move to Sheridan. Item 12: Name and I are looking for a place to rent. Heating is terrible. You have to keep heat up to 80 as the people that lived here before messed heating system up. Heat doesn't come through vents in walls as this is a big trail, 3 bedrooms. Another thing, bugs hide in walls and come out at night in kitchen area, so we are looking. so if you know of something, let me know as my rent is \$350.00 and when you have to keep heat up to high 80 deg. and kitchen stove going, its real expensive (included phone number) Please keep confidential as our landlords are sweet people and we want no problems. Note: name and phone number kept confidential.
- Rent is too expensive around here and a lot of the units to rent are old and have no insulation, so heating bills are bad. And we have 2 cats and it is hard to find housing where a pet is allowed. I don't mind being responsible for rug or other damage that is pet caused as long as we can keep the cats. It's not fair to them or to the animal shelter to have to take them because the landlord is a pain. But the worst thing is the rental cost. If you are on a fixed income or make minimum wages, renting for one person is impossible unless you are working 2 or 3 jobs. And alot of people around here are in the low income area. The local banks and present landlords don't want anymore rental housing and they (the banks) don't intend to lend money for any more rental construction, the newspaper has even written this statement in the newspaper a few

years ago. I am 46 and live with my parents because I can't afford to rent a place unless I work 2 or 3 jobs to pay the bills. I would qualify for low income housing, but have 2 cats, one of which is 11 years old and she is my doorbell and telephone indicator when my hearing aid is out. Technically, I'm deaf. There is very little good quality, affordable housing here. Never has been. On a final note, Arizona and the city of Mesa had at least one advantage over Buffalo. They have a law that says if you have existing pets, you can not be turned down for housing rentals because you have them. That's a plus.

- As indicated in the opening paragraph of the Housing Survey recently sent to me, the reason for this survey is to "increase housing availability in Buffalo". This statement in itself indicates there is a housing shortage and the City needs more housing. Additional housing equates to growth. Conventional wisdom says growth is good, yet excessive growth can be like cancer, which eventually consumes the host. My family and I moved to Buffalo in 1998 from Grand Junction, CO. My wife and I were both raised on ranches in southcentral Montana on the face of the Beartooth mountains. Our main reason for moving was to get closer to home. Our choice of Buffalo included: it was a very nice little town, with great schools, slow pace of life, offered almost all the amenities one needs--hospital, shopping etc. and in talking to people, a safe and courteous place to live. My businesses lend me the ability to live most anywhere, and being located in Buffalo serves it well. By contrast Grand Junction used to be similar to Buffalo, before the city fathers decided Grand Junction needed to Grow to be good. Over the 14 years we lived in the Grand Junction area, we watched all the bustling and activity associated with the "oil shale/Exxon" exploration to a major slump--businesses shutting down, people leaving town, etc. when the oil shale came to a screeching halt in May of 1994, to an aggressive campaign by the city to attract businesses to town. Most of the businesses that came to town brought with them their CEO's and top management. They hired local folks at minimum wage to put their widgets together. Fertile valley farmland that used to support peaches, grapes for wine, vegetables, was soon carved up for trophy homes for the CEO's etc. Grand Junction, having a great climate--almost not winter--close proximity to the best skiing, whitewater rafting, mountains, mountain biking, desert scenery, etc and so the news of "job opportunities" lured many out of area folks to town. On the face of it everything sounded good--new business, jobs, new stores, more people, etc. What actually happened is some of the folks that came seeking jobs and a chance to live in an environment with all the amenities were not the kind of people that also "fit and shared" the values I outlined above. While originally, the reason to bring new businesses to town was to decrease the unemployment rate caused by the Exxon shutdown, what actually happened was unemployment increased. Additionally, crime increased dramatically, you had to always lock your car or someone would prowl through it taking whatever valuables were available, a bike left on the lawn was gone the next morning, gang "graffiti" appeared on schools and sides of buildings, shootings became somewhat commonplace, drug use increased, traffic became a snarl, taxes increased, and so on. It became a place I really didn't want to raise a family nor wanted to live as it had lost it's peace, safety, tranquility, and sense of well being. I am not opposed to growth, yet the growth that takes place needs to be in sync with what the town wants to be when it grows up. In the process, it is important to not loose (sic) all the amenities the town currently possesses. I have spoken to my neighbors regarding this subject and their feelings are similar. The neighbors I talked to also have moved here recently basically for the same reasons we did. We purchase older homes (ours built in 1919), and all have done considerable remodeling and will continue to do more to keep the buildings from deteriorating to a condition they become the "slum" part of town, like is very much present in the older sections of many of the cities of America. So before we embark on increasing housing availability, we should be looking at what kind of people we are trying to attract here and not just simply try to meet everyone's needs and just hope that the great amenities and values this City currently possesses are not lost forever. There is probably always going to be a housing shortage in a City like Buffalo, and other rare places that are great places to live. Also, remember,

development costs money and the "hook up" fees rarely pay for the infrastructure necessary to accommodate the growth. Don't get caught up in this "chase the tail" syndrome so many other cities have gotten in to, in that you have to have more growth to pay for the last growth that didn't pay its way. I am writing this letter, as words of caution to assist you in evaluating your endeavor of increased housing. Don't let Buffalo loose (sic) the amenities that it currently possesses, they are almost impossible to regain once lost. At your request, I would offer my time and further thoughts to assist you. Note: Names are not included in this report)

- How can you support a family on low wages in this housing market? I would like to upgrade to a better home, but the current market has made it difficult for locals to upgrade. My children find the housing market and rentals difficult to find something suitable for young families starting out. The housing in Buffalo and outlying area only applies to the wealthy people. The young families have to suffer with undesirable living conditions. I personally feel sorry for young people
- Question 9: other--would rather own.
- Need some housing that young people can afford as wages are much too low.
- One of the largest problems related to housing in Buffalo is the failure to apply appropriate building guidelines to maintaining minimum standards. The failure hurts the values within a whole neighborhood. We need varied types of housing, but all levels need to be held to minimum quality standards
- Question 1: marked more than six and said 25 Question 10: if not too expensive Question 12: I have tried to rent a lot for trailers there isn't any and the rent is too high. We need low cost homes. I am a senior citizen and the noise and confusion is so hard to live with.
- I wonder why the city allows a trailer park (locomotive) in the very, very low land by the creek. It's very trashy looking also. Buffalo should care how the properties look and not allow junky buildings and old cars, etc. parked in the yards. It's a great city and people should take more pride in their properties
- Current rentals too high
- Question 8: additional choices: rent or mortgage too high and no pets allowed
- Need condos and/or town houses
- Question 2: type of housing: assisted living -- B-Hive
- I am satisfied with my condominium and feel it is very comfortable and adequate for older people
- I feel we need more low costs housing in Buffalo. Most of the jobs in our area are low to mid income jobs -- we need housing to accommodate these people
- Question 8: reasons for dissatisfaction: also selected-- rent or mortgage too high and housing unit in poor condition Question 12: I would prefer to purchase a home that is affordable and ready to go. However, what I usually find is a 4 bedroom \$140,000 to \$160,000 that is in desperate need of remodeling (add \$20,000) and ends out of my price range. The houses on the market are ridiculously over prices. It would be nice to find affordable lots that a person could put up a well built modular
- Because of my age (75) I am interested in more assisted living housing. Buffalo does have a large population of retired people and a lot of widows. Thank you.
- Buffalo desperately needs affordable housing for young couples. They presently have no choice except for the older homes that need lots of updating and or costly repairs. With the wages in Buffalo as low as they are--young couples can't afford anything over \$80-\$90,000 and the only houses on that market for that price are old and in disrepair
- All this comes under the heading of "NONE OF YOUR DAMN BUSINESS"!
- I may want to go to a Senior Citizens' apt. some day -- a NICE one, closer to P.O. maybe. Signature (Note: Names are not included in this report)
- There are far too many expensive houses in Buffalo. Decent housing for lower income people is scarce. I think you are forcing lower income families out of the area making it a retirement community. You will soon have insufficient workers to meet the demand.



- Another question could have been asked: "If you wanted/planned to move to another home, could you afford to?" Also: "Would you build a new home as opposed to buying: why
- Satisfied with our current housing except for the cost of housing in Buffalo, which makes mortgage payments so high.
- Even though I live here now, I do have to move soon do to a divorce and finding a suitable, affordable rental here is scary especially when the majority of rentals do not allow pets
- Question 8: dissatisfaction: encroaching development; Question 9: other--home outside city limits Question 12: Housing in Buffalo is adequate. The rich newly retired buy whatever they want and the low income homes built for them isn't filled for whom it was intended
- Question 8: dissatisfaction: Also selected: type of housing; location and rent or mortgage too high Question 12: There is no affordable housing for moderate to low income for families or single women living on one income. Every mobil home court in this town are pure TRASH. Total eye sores. The owners should be very ASHAMED!!!! Getting my point?
- If I could find a home cheap enough and in good condition, I would think about it. Right now I could not buy a house in my price range that is suitable.
- Question 8: dissatisfaction: other: want to build on a family room and bedroom
- How does the city afford "consultants"? By tax increases to promote rent increases. Pretty elementary, hu. Get some cheaper housing built. Everyone's not rich. For now, but when you're done with this survey, I'll bet it sky rockets again. I've resided in three dwellings of which the current rent is ok. Every year the rents are raised by 18 to 23% Why? Taxes only increased 6%. Is this even legal for land---. That's a reason I have to keep moving. Too high and improper increases in rent. I'm looking into the "ceiling limit" on this also. I'd (almost) bet you only sent these surveys out to "new" residents in this area too. Live/longtime residents wold throw this in the garbage. "New" residents must put WY plates on their vehicles..."upon establishing residency"... That's easy enough to obtain mailing addresses from the police records on file of anybody living here. Pretty elementary, isn't it? Duh!?! \* Send this to Pedersen!
- 1. Too expensive to remodel existing home. Also construction/carpenters only interested in jobs that require building new expensive homes. 2. There are several people who are currently living in motor homes or backs of pick up campers because they cannot afford to rent or buy a home in Buffalo. 3. Because of the extravagant prices to buy; build; reconstruct in this area, my plans are to move out of the area.
- Question 8: Dissatisfaction: Also selected: a. location, b other (walk up designed poorly) Question 12: Comments: Spce is over-priced; poorly designed and houses (new) are being built too close together due ot limits on availability of lots and city zoning allows too small per/lot plans + house sites. Really need to encourage remodels and allow for some tax incentives to do so. Older homes need remodel and there is little way when prices are so high.
- Affordable housing is definitely a need in our community
- Work on a volunteer steering committee for Habitat for Humanity. The Triparlite Board did a needs assessment and housing was a prominent issue/need. This is because a lot of people are on a service wage economy and housing costs are high relative to the wages. There are lots of substandard housing units, such as trailers, etc. I wonder about the zoning in some areas of town as the housing units are very delapidated. I know new hires such as peaces as BLM have had a difficult time finding houses.
- The rent prices are entirely too high.
- Housing is way too expensive in Buffalo when you figure most of our working people don't make a lot of money. We have very little industry - jobs here don't pay much but our houses are so expensive our young people just starting out have no hope of owning their own home, so our young people don't stay here - thus we don't attract industry

cause we have no young work force!!!

- Question 2: housing type: motel owner has living quarters
- Question 8: Dissatisfaction: also selected rent or mortgage too high  
Question 12: Comment: The real estate situation in Buffalo is out of control. The same people who complain about high gas prices and groceries are the same people selling their homes for \$100,000 to \$150,000 (for small 3 bedroom home). Just about anywhere else in Wyoming you can get twice the home for the same amount of money. The community of Buffalo makes it so hard for young couples with a family to start a life here. If they want Buffalo to be a retirement community you need to get the retired folks to start working these jobs the younger kids are doing before long all the young working class will move away just so they can do better than paycheck to paycheck. I enjoy living in Buffalo...there's no place better to raise a family...but you can't sell real estate on the bases that there is gold in the Big Horns because there isn't. Something definitely needs to be done for Buffalo to be the thriving town it deserves to be. Also, something needs to be done about the cost to land to buy out in the country. SAME SURVEY; DIFFERENT HANDWRITING/SUBMITTER: I also think that those selling homes in Buffalo (esp. real estate agents) need to realize that not everyone moving into Buffalo has just sold a \$400,000 home in Colorado or Calif. It is so frustrating for a young couple starting a family to afford a home here. Also, more rental property needs to be available for those with kids and/or pets.
- The cost of housing in Buffalo is way too high. It is out of line. Most young families can't make a living here, let alone begin to think about owning a home. We are a mostly retired community and that will never keep our economy going. Since mostly retired people don't shop in town. I see more and more young families going out of town for their household needs as well because we have no industry to keep them in town. The need for affordable housing is at its highest demand in years and that doesn't mean a bunch of low rent trailer parks and that kind of thing.
- We have read that a major concern in Buffalo is low income and/or the lack of "affordable" (under \$100,00) housing. This is a foolish concern. When we were looking for a home, these kind of homes were the majority on the market! What I hear when I hear of the concern of the lack of affordable housing is the lack of "quality" affordable housing!!!! The affordable housing on the market is not quality because the people that live in them (and selling them) do not take care of them and allow them to be in a state of disrepair. This is a choice, nothing is wrong or right about it. Realtors say there is a problem because they want the city to do something about expanding their listings thus making more sales. The city would subsidize the real estate business. Whatever happened to buying a house you can afford, fixing it up and (hopefully) selling it for a profit. And moving up to a nicer, larger home Don't let the realtors and people who want something nice for nothing mislead the city of Buffalo into a black hole! The coal bed methane "boom" is dying as the gas prices continue to fall!!! People will do the best with what they have, unless someone else (the city or state) will "give" them something else.
- 5 or 6 new houses have been built or are in the process just in the past 2 years (North Ridge Patio Homes Condominiums)
- This city could use more 1-2 & 3 bedroom apartments at an affordable price \$350-\$500 range. Not all residents of Buffalo are (well-off) retirees
- The yearly increase in taxes is difficult to cover when on a retirement income. I find it difficult to find people to do small upkeep jobs.
- I feel housing should be ZONED so there are not apartment houses or trailer parks next to expensive well kept-up homes
- In this day and age young families have children and or pets there should be more housing allow them. Maybe a higher cleaning deposit than currently there is. Maybe more affordable and the rent is quite high compare to wage earned here in Buffalo.
- With the number of duplex-condominiums and single family dwellings going in @ this time, it seems adequate at this time.

- Question 8: Dissatisfaction\_ also selected 1. location 2. no pets allowed Question 12 Comment: Two things could hamper this consultation. First I personally do not believe that the methane boom is going to bring a large number of people that are going to stay in this area. Second, the large salaries these people are paid are not indicative and far out of scope for those of us who do live and work here
- Housing costs are too high. There are many who work at low paying jobs and can't afford present rates. Wages are mostly low and real estate for sale is extremely high as are property taxes. There is too large a gap between average workers wages and housing. We don't want to become like Jackson and be priced out of our homes
- Housing costs are way too high! Especially for young families
- Housing prices in Buffalo are unreasonably inflated. I am actively seeking employment elsewhere
- #9 is what we think is needed. (on Question #9, town home and condominium were selected
- We need more "senior apts" based on income. Also we need more low income apts.
- Overall cost of living in Buffalo is very high (i.e. mortgage, property tax, groceries, gas-auto
- Question 8: also selected other: water pressure is nothing; don't care for trailer park. Question 9: stated: can't afford a house Question 12: Comment - Property is way too expensive for the average wage in Buffalo. It is impossible to make a good salary
- No comment
- There is plenty of housing available now of all types. Fixer uppers to expensive. The only problem may be finding housing if your a bum who doesn't pay their rent and cries to the city because they don't live in a mansion.
- This survey is total bull. The city of Buffalo is not interested in "affordable housing". There have been several attempts to provide "affordable housing" and the city has shot down each attempt. There is a prejudicial attitude that affordable housing means "minority" or "white trash" housing and therefore nobody wants it in their neighborhood. The so called "affordable housing" that has been built is a joke. ie the duplexes on Tohban. Since when is \$120,000 + housing affordable to low income persons. Until the attitude of the well-off majority changes, there will not be any affordable housing built in this town. But there will be lots of surveys.
- If building codes, subdivision regulations and zoning didn't increase the cost of building new homes, more people might be building and moving from older homes thus making those available for low income housing.
- I think the housing in Buffalo has improved a great deal since we moved here.
- I am in a disability apartment. Except for the fact that it has a shower (no tub), the rest of the facilities are not accessible from a wheelchair. However, I'm thankful to be here and am relatively independent.
- land taxes are way too high. Quit averaging them with places like Cheyenne and Casper. Thank you.
- The price of homes seems to be rather high
- Question 7\_ Dissatisfaction/Satisfaction: I have had to fix up from the ground up, but it is mine! Question#12: Comment: The house I bought in 1998 wasn't worth the asking price. Now, this same house would really be out of reach. No house in all of Johnson County is worth the asking price. WORTH has nothing to do with price. Price is what you can get worth it or not! Bah! Humbug!
- Question 8--Dissatisfaction: also selected rent or mortgage too high Question 9: housing type: also selected duplex and mobile home. Question 12: Comment: Overly expensive for the availability, type and condition.
- I own my home and feel very thankful, because if I were trying to find a rental or a lot to buy - how difficult it would be. The prices people ask for rentals and lots are so outrageous - young people and set income people have the biggest struggle for housing. It is sad that greed sets the level for "fair market values"- Of course that is the

American WAY! A solution: Reasonable housing for a reasonable price.

- Am happy as is
  - I feel 2-3 bedroom housing is needed-with costs of \$80,000 to \$120,000
  - I am happy in my mobile home because I enjoy its location along side Clear Creek. But if I could have afforded a nice little house for the same price (\$42,000) that I paid for this mobile home, I would have bought the house. This mobile home is nicer than some \$65,000 houses I looked at. So I feel fortunate to have my mobile home. I just pray my landlords do not continue to raise my lot rent to where I don't feel I can afford the lot rent. (Currently \$150 a month)
  - We would like to sell the empty lot on our property - corner of Western & Parmalee. It is big enough for a small house only.
  - 203 is obviously a copy. There is plenty of housing available now of all types. Fixer uppers too expensive. The only problem may be finding housing if your a bum who doesn't pay their rent and cries to the city because they don't live in a mansion
  - I feel there is a need for affordable housing for Sr. and lower income family houses or apt. Buffalo has many Sr. who will need retirement homes or apt when they can no longer take care of their homes.
  - Cost of labor for repairs is too high. (If you can get someone to do the repairs right. We have nice location and large lots but because of age and health its hard to keep up. We'd like a garage and not have to park on public street.
  - County government doesn't know the meaning of the economy
  - Gentleman says he sold his house. "I don't want to live in Buffalo. I did live there for 42 years. They charge for water sewer garb. 6 months a fee and you leave. (NOTE: This report does not contain signatures or identification)
  - Question 8: Dissatisfaction: Also selected 1. Location; 2 Other--A zillion dogs in direct neighborhood Question 12: Housing too exorbitant in this extremely low wages, limited job market, limited culture backwoods mentality town.
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# **APPENDIX C**

## **Results Of Kaycee Housing Survey 2003**

# Kaycee Housing Survey Results

## Q1: Number of residents in your household?

Number of residents in your household?			
	Counts	Percents	Percents
			0                      100
Two	25	40.3%	
One	14	22.6%	
Four	11	17.7%	
Three	7	11.3%	
Five	4	6.5%	
Other	1	1.6%	
Totals	62	100.0%	

## Q2: What type of housing do you currently reside in?

What type of housing do you currently reside in?			
	Counts	Percents	Percents
			0                      100
Single family Dwelling	40	64.5%	
Mobile home	17	27.4%	
Apartment	2	3.2%	
Other	3	4.8%	
Totals	62	100.0%	

### Q3: How long have you lived in your community?

How long have you lived in your community?			
	Counts	Percents	Percents
			0 100
One to three years	8	13.1%	
- 40 years	5	8.2%	
- 30 years	4	6.6%	
Four to six years	3	4.9%	
- 10 years	3	4.9%	
- 14 years	3	4.9%	
- 15 years	3	4.9%	
- 20 years	3	4.9%	
- 25 years	3	4.9%	
- 50 years	3	4.9%	
- 9 years	3	4.9%	
Less than one year	2	3.3%	
- 57 years	2	3.3%	
- 60 years	2	3.3%	
- 8 years	2	3.3%	
Other	12	19.7%	
Totals	61	100.0%	

#### Q4: What is your current annual household income?

What is your current annual household income? (Please consider income from all sources.)				
	Counts	Percents	Percents	
			0	100
\$50,000 - \$74,999	11	22.0%		
\$25,000 - \$29,999	8	16.0%		
\$35,000 - \$39,999	6	12.0%		
\$12,000 - \$14,999	4	8.0%		
\$40,000 - \$44,999	4	8.0%		
Less than \$12,000	3	6.0%		
\$30,000 - \$34,999	3	6.0%		
\$45,000 - \$49,999	3	6.0%		
\$75,000 - \$99,999	3	6.0%		
\$100,000 or more	3	6.0%		
Other	2	4.0%		
Totals	50	100.0%		

#### Q5: Do you own or rent your current housing unit?

Do you own or rent your current housing unit?				
	Counts	Percents	Percents	
			0	100
Own	48	80.0%		
Rent	12	20.0%		
Totals	60	100.0%		



**Q6: What is your current rent or mortgage?**

What is the amount of your current rent or mortgage?			
	Counts	Percents	Percents 0 100
Under \$300	20	50.0%	
\$300 - \$399	5	12.5%	
\$500 - \$599	5	12.5%	
\$400 - \$499	3	7.5%	
\$600 - \$699	3	7.5%	
\$700 - \$799	2	5.0%	
\$800 - \$899	2	5.0%	
Totals	40	100.0%	




**Q7: Are you satisfied with your current housing?**

Are you satisfied with your current housing?			
	Counts	Percents	Percents 0 100
Yes	52	83.9%	
No	10	16.1%	
Totals	62	100.0%	



**Q8: If you are not satisfied with your current housing, why not?**

If you are not satisfied with current housing, why not?			
	Counts	Percents	Percents 0 100
Housing unit too small	4	40.0%	
Housing unit in poor condition	4	40.0%	
Type of housing unit	4	40.0%	
Location	4	40.0%	
Other	2	20.0%	
Totals	10	n/a	




**Q9: If you are not satisfied with current housing, what type of housing are you currently seeking?**

If you are not satisfied with current housing, what type of housing are you seeking?			
	Counts	Percents	Percents 0 100
Manufactured home or modular home	5	50.0%	
Single family dwelling	3	30.0%	
Other	2	20.0%	
Totals	10	100.0%	

**Q10: If the type of housing that you are seeking would be available in the Town of Kaycee, would you prefer to purchase or rent that type of housing unit?**

If the type of housing that you are seeking would be available in the Town of Kaycee, would you prefer to purchase or rent that type of housing?			
	Counts	Percents	Percents 0 100
Rent	1	100.0%	
Purchase	0	0.0%	
Totals	1	100.0%	

**Q11: If you do plan to purchase or rent available housing, how soon do you intend to purchase or rent that housing unit?**

If you plan to purchase or rent available housing, how soon do you intend to purchase or rent that housing unit?			
	Counts	Percents	Percents 0 100
Within two years	4	50.0%	
Within one year	3	37.5%	
Other	1	12.5%	
Totals	8	100.0%	

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