

THE CITY OF ROCK SPRINGS

2012 MASTER PLAN:

TODAY'S PLAN FOR TOMORROW'S FUTURE



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Recommended for Approval By:

Rock Springs Planning & Zoning Commission

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EXECUTIVE SUMMARY

“Rock Springs is more than a growing urban area scratching its way up from the floor of the desert. It is a community made up of hard-working individuals who are always willing to help out a neighbor, or even a stranger, in need. It’s the people who make the City, not the other way around. This 2012 Master Plan is first and foremost for the people of Rock Springs. As Mayor of the City and a native, I want Rock Springs to build upon the rich heritage of our past to develop a quality environment for the future and a unique place that people are proud to call home.”

- Honorable Mayor Carl R. Demshar, Jr.

Executive Summary

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ES.1 Introduction

The City of Rock Springs 2012 Master Plan: *Today's Plan for Tomorrow's Future* was first conceived by the Rock Springs City Council in 2007 when budget set aside began for an update to the City's 1983 Master Plan. In October 2010, the formal planning process began and included community workshops, surveys, a website and other forms of public engagement. This 2012 Master Plan update comes at an ideal time, as the City has recently experienced a decade of high growth and change.

The history of the City of Rock Springs is one of change. From its inception as a fueling stop for the Union Pacific Railroad in 1868 to the present day, the City has gone through a series of booms and busts that are reflective of a resource-based economy. Development standards which the City adopted at



Pilot Butte near Rock Springs, Wyoming.

Source: City-Data.com

This plan seeks not to transform Rock Springs into a city like every other one in America, but rather to incorporate the beauty and uniqueness of our natural environment into the material of our urban fabric.

the end of the last major boom economy of the late 70's and early 80's have helped to transform the community, making it more livable and helping to even out the busts as newcomers invest in a City that they are proud to call home.

Despite the ever-changing urban environment, Rock Springs is located in the midst of an intense geological backdrop that is decidedly rugged, majestic and untamable. Any plans that are made must be done within the natural and geological context of our setting.

"In the Red Desert of southwestern Wyoming, there is a butte called Black Rock. From atop this rock one can see eternity. Not the eternity of philosophers, but the eternity of geological time. From atop Black Rock, the weathered stone of Steamboat Mountain and the sand dunes of the Killpecker field stretch west and east to the setting and rising sun. Throughout Wyoming the vast landscape, unbroken by buildings, conveys a sense of timelessness. Only when man arrived was there an attempt to measure the days. In a land where stony spires scratch the sky, time does not seem that important. Measuring time in terms of hours instead of geological ages often seems senseless in a land broken only by rising hills and uplifted sandstone formations." (Gardner, 1)

Set amidst this Red Desert backdrop, the City of Rock Springs is highly influenced by the surrounding environment. To that end, this plan seeks not to transform Rock Springs into a city like every other one in America, but rather to incorporate the beauty and uniqueness of our natural environment into the material of our urban fabric. By celebrating our individuality and capitalizing upon it, this 2012 Master Plan looks forward to a future of sustained growth that builds upon the successes of the past, provides an improved quality of life for our citizens, and minimizes impacts on our natural environment.

This *2012 Master Plan* is a long-range planning document that looks forward to the next decade and provides guidance for growth and development of our community. The plan is intended to serve as a guide and not as a regulatory document. The plan includes proposed standards for growth, identifies where growth should occur and what type it should be, and contains goals and projects that support the vision and mission of the community.

ES.2 Existing Plans

The City of Rock Springs has made considerable investments developing numerous planning documents since the *1983 Master Plan* was adopted. This *2012 Master Plan* builds on the foundation laid by these plans. A brief summary of each existing plan is included below.

1980 Development Plan—Downtown Rock Springs

In 1980, the City identified the importance of revitalizing its downtown, drawing upon the prevailing urban renewal strategy of the era to demolish large portions of the area for commercial shopping centers and parking lots.

1983 Development Handbook

The development handbook was a companion document for the *1983 Comprehensive Plan* and provided more detailed policies and goals.

1990 Downtown Redevelopment Plan

In 1990, the City completed a redevelopment plan that took a detailed look at the City's downtown core. The plan, based upon a community assessment prepared by the State of Wyoming, identified six major areas of concern:

- ⇒ Appearance
- ⇒ Parking
- ⇒ Public works
- ⇒ Area and directional signs
- ⇒ Public investment financing
- ⇒ Merchants and businesses

1994 Trail System Plan

The objective of the trail system plan was to provide a coordinated and functional system of bikeways and trails throughout the City.

1994 Parks and Recreation Plan

This plan included an analysis and assessment of community parks, neighborhood parks, and playgrounds, and laid out future design guidelines and standards for recreation uses.

1994 Open Space Plan

This document provided a comprehensive approach for long-range open space planning in the City, with a distinction made between visual open space and natural open space.

2006 Urban Renewal Agency District Plan

This plan, which set up the City's Urban Renewal Agency, focuses on the historic downtown, as well as a greater blighted area known as the "pork chop" for its shape.

2007 Branding, Marketing and Development Action Plan

This document contained 36 prioritized recommendations for marketing the City. Roughly one-quarter of the projects have been completed or are underway.

2007 Rock Springs Housing Master Plan

This comprehensive study examined housing in the City from many angles, including demographics, employment and economic conditions, and made projections for future housing needs and growth trends.

2009 Trail System Plan

As an update to the 1994 Trail System Plan, this document is in map form only, without supporting text.

2010 Guide to Historic Structure Renovation

This document contains design guidelines for downtown development and redevelopment.



Cover, 2007 Branding Action Plan.

ES.3 Enabling Legislation

Wyoming Statute 15-1-502 allows for cities and towns to have planning commissions, though having a commission is not a requirement of state statute. For those cities with a planning commission, having a master plan is compulsory. W.S. 15-1-503 provides: “The commission, after holding public hearings, shall adopt and certify to the governing body a master plan for the physical development of the municipality. If the plan involves territory outside the city or town, action shall be taken with the concurrence of the board of county commissioners or county planning commission, or other municipal legislative body concerned.”

State statute further defines the elements needed for a master plan, which include:

- 1) The general location, character and extent of:
 - ⇒ Streets, bridges and viaducts,
 - ⇒ Parks and playgrounds,
 - ⇒ Waterways and waterfront developments,
 - ⇒ Airports, and
 - ⇒ Other public ways, grounds, places and spaces
- 2) The general location of public buildings and other public property.
- 3) The general location and extent of public utilities and terminals, whether publicly or privately owned, for water, light, power, heat, sanitation, transportation, communication and other purposes.
- 4) Plans for changing any public ways, grounds, places, spaces, buildings, properties, utilities or terminal.
- 5) Zoning plan for the regulation of the height, area, bulk, location and use of private and public structures and premises, and of population density.
- 6) General location, character layout and extent of community centers and neighborhood units.
- 7) General character, extent and layout of the re-planning of blighted districts and slum areas.

W.S. 15-1-504 provides: “The plan shall be made for the general purpose of guiding and accomplishing a coordinated, adjusted and harmonious development of the municipality which will best promote the general welfare as well as efficiency and economy in the process of development.”

This *2012 Master Plan* contains most of the above

components, however, it should be noted that the City of Rock Springs has adopted a separate *Zoning Ordinance*, which serves to implement the master plan. In addition, the City has adopted an *Urban Renewal Agency Plan* as a separate document. Further, capital improvement plans detailing specific public projects are adopted on an annual basis and are not a part of this plan.

ES.4 Plan Adoption

State statute provides that the Master Plan shall be adopted by Resolution of the Planning and Zoning Commission. The action taken shall be recorded on the adopted plan and the Secretary of the Commission shall certify adoption to the governing body. The mechanism for adoption of the plan by the governing body is not specified in state statute. Therefore, the City of Rock Springs has elected to adopt the plan as a Resolution of the City Council following a public hearing on the matter.

ES.5 Conformance with the Plan

Once a master plan has been adopted by the governing body, state statute requires: “...no street, park or other public way, ground, place or space, public building or structure or public utility, whether publicly or privately owned, may be constructed until its location and extent conform to the plan and have been approved by the commission.” (W.S. 15-1-506) If a project is disapproved on the grounds that it does not conform to the master plan, an appeal may be made to the City Council, which may overrule the disapproval. The Commission has 30 days to act on a proposal to make a ruling of conformance.

ES.6 Plan Amendments

Amendments to this *2012 Master Plan* or accompanying maps may be made from time to time, provided that the following findings can be made:

- 1) The proposed amendment represents an overall improvement to the character of the community and meets the general intent of the plan; and
- 2) The proposed amendment benefits the community at large and not an individual party or parties; and

- 3) The proposed amendment will not cause adverse impacts on the general health, safety and welfare of the community, nor of neighboring residents; and
- 4) The proposed amendment is in keeping with the plan's vision, mission and goals; and
- 5) The proposed amendment is the minimum amendment necessary and is not of such a scope that an extensive update of the plan is required.

2012 Master Plan text and map amendments shall be made only after first holding a public hearing before the Rock Springs Planning and Zoning Commission, followed by a public hearing before the Rock Springs City Council, and shall be handled in the same manner as Rezonings (see §13-902). However, 2012 Master Plan amendments shall be made by Resolution and not by Ordinance.

ES.7 City Vision and Mission

The City of Rock Springs has an adopted vision which is as follows:

"We envision the City of Rock Springs as a safe and progressive community for individuals to promote their unique heritage, community pride, openness to others, and the area's natural beauty while continually looking toward the future."

The mission of the City of Rock Springs is:

"To provide all individuals, through the combined efforts of City Government and the people it serves, an effective, efficient and productive form of government, while promoting an enhanced quality of life, open communication and economic growth."

This 2012 Master Plan seeks to further the City's vision and mission through specifically identified goals and projects that are tied to both. To that end, the plan is functionally organized around the three key pillars of the City's mission statement:

- 1) Effective, Efficient, Productive Government
- 2) Enhanced Quality of Life
- 3) Community and Economic Growth

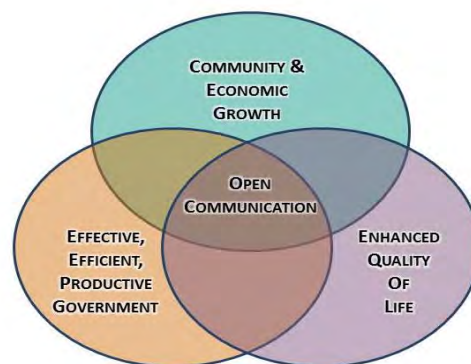


Figure ES.1: Three Key Pillars of the City's Mission Statement.

These pillars are depicted in Figure ES.1 as a series of overlapping ovals, with open communication serving as the centerpiece. Without open communication between the various departments of the City, between the City and its constituents, and between the City and other agencies, the ability to achieve the City's mission and vision are hampered.

ES.8 Mission Based Master Plan Goals

This 2012 Master Plan has three goals which are tied to the pillars of the Plan and the City's mission statement. They are:

1. Become a model city for provision of **effective, efficient, and productive** governmental services.
2. Develop a reliable infrastructure and transportation network, healthy neighborhoods, balanced and compatible land uses, and a strong downtown to promote **community and economic growth**.
3. Preserve environmental, cultural and recreational amenities to offer an **enhanced quality of life** for all citizens.

ES.9 Mission Based Implementation Plan

Each chapter of this 2012 Master Plan is followed by an Implementation Plan comprised of projects that support the mission-based Master Plan goals. Each chapter Implementation Plan includes a rough cost estimate, a timeline for completion and a party responsible for completing each project. Chapter 9, the Hazard Mitigation Plan component, is organized differently, as it is intended to meet federal requirements for form. The 2012 Master Plan Implementation Plan can be viewed altogether in its entirety on the following pages.

IMPLEMENTATION PLAN

*"To achieve great things, two things are needed:
a plan, and not enough time."*

-Leonard Bernstein

"This Plan provides a blueprint for the future of the City of Rock Springs. Since it contains a detailed Implementation Plan, including project managers, budget estimates and anticipated timing, it represents a practical way for the City to grow into the next decade."

- Lisa M. Tarufelli, Director of Administrative Services

2012 Master Plan—Implementation Plan

The City of Rock Springs 2012 Master Plan represents the City's vision for the future and proposes achieving that vision through a list of specifically-defined projects known as an Implementation Plan. Each Implementation Plan project contains a project description, responsible party, budget estimate, and timeline for completion. By including the Implementation Plan projects as part of the City's annual work program, the Plan will be a living document that is actually implementable.

While most chapters of this Plan are tied to a list of Implementation Plan projects, the full Implementation Plan is included below. The Implementation Plan has also been set up as a database that can be sorted in a variety of ways – by year, by department, by project, etc. This should aid with ongoing monitoring of Plan progress. In order to ensure progress toward achieving the 2012 Master Plan goals, the Implementation Plan should be reviewed and updated annually.

Project #	Project Description	Responsible Party	Budget Estimate	Timeline for Completion	Additional Funding Needed?
1.1	Assemble a committee comprised of a wide cross-section of the community in order to develop a slogan for the City.	Mayor	\$	2014	No
1.2	Develop a public art inventory and semi-annual program that will yield a variety of high quality art pieces, particularly those that can be permanently displayed outdoors, to promote the rich heritage of the City.	URA	\$\$	2020	Yes
3.1	As part of the annual budget process, perform an evaluation of Planning & Zoning Division workload and staffing.	Planning & Zoning	\$	Ongoing	Possibly, if new position is warranted
3.2	Prior to development of Sections 21, 16, and future large parcels, require a Conceptual Development Plan.	Planning & Zoning	\$	2014	Yes
3.3.a	Update the City's Zoning Ordinance and Map to include a Holding Zone for undeveloped properties located in future development areas.	Planning & Zoning	\$	2014	Yes
3.3.b	Update the City's Zoning Ordinance and Map to promote Neighborhood Commercial developments.	Planning & Zoning	\$	2015	Yes
3.3.c	Update the City's Zoning Ordinance to protect the City's infrastructure and residential neighborhoods by directing the heaviest Industrial developments toward key arterial roadways and outside of the City.	Planning & Zoning	\$	2016	Yes
3.4.a	Actively promote economic development through either hiring an economic development coordinator/grant writer or paying a consultant to perform this function.	Mayor	\$	2014	Yes - Presently Unfunded

2012 Master Plan—Implementation Plan continued...

Project #	Project Description	Responsible Party	Budget Estimate	Timeline for Completion	Additional Funding Needed?
3.4.b	Conduct an inventory of vacant properties suitable for commercial and industrial uses, and identify/remove barriers.	Consultant	\$	2014	None short-term / part of consultant contract
3.4.c	Attract national chain retailers and restaurants by promoting the larger geographic market area associated with western development patterns.	Consultant	\$	2014	None - part of consultant contract
3.4.d	Meet with manufacturers of alternative energy products to attract these companies to Sweetwater County.	Consultant	\$	2015	None - part of consultant contract
3.4.e	Identify comparable successful cities that can serve as peer case-studies and implement tried and true practices.	Consultant	\$	2017	Yes, including some travel
3.4.f	Support development of an industrial park at the Rock Springs-Sweetwater County Airport.	Consultant	\$	2018	None short-term
4.1	Prioritize and implement the City's proposed roadway network, as shown on the Official Transportation Map, and other infrastructure extensions, through the annual Capital Improvement Program and through private development proposals.	Engineering & Operations	\$\$\$\$	Ongoing	Yes
4.2	Increase mobility for residents who are elderly, low-income or physically disabled through financial support of STAR transit.	City Council	\$\$\$	Ongoing	No
4.3	Complete the Rock Springs-Sweetwater County Airport Master Plan, including stakeholders from the City and County.	Airport	\$\$\$	2014	None
4.4	Partner with Sweetwater County, Green River and other stakeholders to promote expansion of the Rock Springs-Sweetwater County Airport, including development of an Industrial Park and a possible extension of a waterline to meet water needs.	Mayor	\$	2020	No—But additional funding will be needed for projects
4.5	In cooperation with the state, UPRR and other stakeholders determine the feasibility of: 1) attracting passenger rail traffic to Rock Springs; 2) providing facilities for freight traffic to the north and south; and 3) moving freight transfer stations outside of the City Limits.	City Council	\$	2018	Yes—studies could be grant funded
4.6	Develop a Gateway Enhancement program and include key gateways in the annual Capital Improvement Program budget for retrofit. Continue to require right-of-way landscaping in association with new development.	Engineering & Operations	\$\$	Ongoing	Yes
4.7	Implement the Water Master Plan by including recommended projects in the annual Capital Improvement Program and continue to perform Sanitary Sewer and Stormwater system improvements as part of the annual Capital Improvement Program.	Engineering & Operations	\$\$\$\$	Ongoing	Yes—partially rate funded
4.8	Complete and adopt the City's Stormwater Master Plan.	Engineering & Operations	\$	2014	No
4.9	Conduct an annual review of all non-ratepayer supported transportation and infrastructure functions to determine if adequate funding and staffing are available for continued maintenance and operation of the system.	Engineering & Operations	\$	Ongoing	Possible, to keep pace with growth of the system
5.1	Seek grant and low-interest loan funding to assist homeowners with improving housing conditions in older and/or declining homes.	URA	\$	2018	Possibly a Local Match
5.2.a	Revise the City of Rock Springs Zoning Ordinance and Map to include adequate areas of sufficient type to support the proposed dwelling unit mix in the Master Plan.	Planning & Zoning	\$	2015	Yes

2012 Master Plan—Implementation Plan continued...

Project #	Project Description	Responsible Party	Budget Estimate	Timeline for Completion	Additional Funding Needed?
5.2.b	Revise the City of Rock Springs Zoning Ordinance and Map to support neighborhood commercial development and mixed use development types.	Planning & Zoning	\$	2015	Yes
5.2.c	Revise the City of Rock Springs Zoning Ordinance and Map to add one or more existing zoning districts, with reduced setbacks and smaller lot sizes.	Planning & Zoning	\$	2015	Yes
5.2.d	Revise the City of Rock Springs Zoning Ordinance and Map to include regulations for Accessory Dwelling Units and other existing multi-units and allow these where they are existing or practicable.	Planning & Zoning	\$	2015	Yes
5.2.e	Revise the City of Rock Springs Zoning Ordinance and Map to explore options for temporary housing, including an RV Park Ordinance and/or utilization of the Sweetwater County Fairgrounds campgrounds.	Planning & Zoning	\$	2018	Yes
5.3	Perform a comprehensive study of older housing located in the 100-year-floodplain area and designate eligible housing as historic.	URA	\$	2016	Yes—Possible Grant Funding
5.4	Establish an Inter-Departmental Housing Task Force to address housing needs in the City, including identification of missing resources and potential organizational realignments to best take advantage of the full spectrum of federal & state housing programs available.	City Council	\$	2017	Yes—Possible Grant Funding
5.5	Partner with the City of Green River, Sweetwater County and non-profits to ensure adequate housing for the special needs population.	Housing Authority	\$	2016	Possible Grant / Private Funding
5.6	Pursue funding in partnership with the Continuum of Care Board and private entities to procure funding to meet the transitional housing needs of Rock Springs residents.	Housing Authority	\$	2015 & Ongoing	Possible Grant / Private Funding
5.7	Conduct a Neighborhood Assessment for all existing residential development and identify strategies, including changes to the subdivision ordinance, addition of pedestrian connections, construction of parks and removal of zoning obstacles, to encourage the long-term viability and prosperity of the City's unique and varied neighborhoods.	Planning & Zoning	\$	2018	Possible—Assessment Can be Completed In-House
6.1.a	Explore options for alternative Building Code requirements for redeveloping buildings located in the Downtown Focus Zone.	Building	\$	2014	None
6.1.b	Explore options for alternative Fire Code requirements for redeveloping buildings located in the Downtown Focus Zone.	Fire	\$	2014	No
6.2.a	Revise the City's Zoning Ordinance and Map to include a Downtown Zone that specifically addresses development issues confronting downtown properties, including parking, uses allowed, etc.	Planning & Zoning	\$\$	2017	Yes
6.2.b	Revise the City's Zoning Ordinance and Map to include a Downtown Zone that includes provisions for historic preservation.	Planning & Zoning	\$	2017	Yes
6.2.c	Revise the City's Zoning Ordinance and Map to include a Downtown Zone that contains a Mixed Use Zoning District for properties on the periphery of Downtown, as well as those that line the City's arterial roadways.	Planning & Zoning	\$	2017	Yes

2012 Master Plan—Implementation Plan continued...

Project #	Project Description	Responsible Party	Budget Estimate	Timeline for Completion	Additional Funding Needed?
6.3	Expand City Hall, either through the addition of a second story, or through construction of a Police Station Downtown, and evaluate other locations Downtown to be used by City offices.	City Council Building Committee	\$\$\$\$	2018	Yes
6.4	Partner with private industry to convert the First Security Bank Building to a small, specialty hotel.	URA	\$\$\$	2016	Possible grant/private funding
6.5	Expand the types of offerings at the Broadway Theatre, including possible comedy club or dinner theatre performances.	URA	\$	2013	Possibly, to be off-set by ticket sales
6.6	Evaluate potential sites and recruit the state offices currently located at White Mountain Mall to return to Downtown.	Mayor	\$	2015	Possible grant or State funding sources
6.7	Work with Sweetwater County to develop a County Office Annex location in Rock Springs.	Mayor	\$	2017	Possible grant or County funding sources
6.8.a	Develop a Corridor Plan for the Union Square Corridor of the Downtown Focus Zone	URA	\$\$	2014	Yes-possible portions in-house
6.8.b	Develop a Corridor Plan for the South Main-Depot Corridor of the Downtown Focus Zone	URA	\$\$	2016	Yes-possible portions in-house
6.8.c	Develop a Corridor Plan for the North Front Corridor of the Downtown Focus Zone	URA	\$\$	2018	Yes-possible portions in-house
6.8.d	Develop a Corridor Plan for the Governmental Corridor of the Downtown Focus Zone	URA	\$\$	2020	Yes-possible portions in-house
6.9	Develop Corridor Plans for areas of special interest that are historically significant or support Downtown.	URA	\$\$	Post 2022	Yes-possible portions in-house
7.1	Close the gaps in playground/neighborhood parks on the City's west side, in the vicinity of the Umbria, Stonebrook and Oregon Trails subdivisions, as well as on the east side in the vicinity of Century West Park.	Parks & Recreation	\$\$\$\$	2018	Yes
7.2	Using the assistance of a Financial Consultant, establish parks fees that represent the full cost of service for acquiring and developing new parkland, including a methodology for annual updates.	Parks & Recreation	\$	2014	Yes
7.3	Perform an annual review of the City's parkland inventory in comparison to staffing levels and adjust staffing accordingly to ensure that parks and recreation facilities are properly maintained.	Parks & Recreation	\$	Ongoing	No cost for review. Could cost if positions are needed.
7.4	Perform an annual review of parks and recreation facilities, including usage and trends. Plan for renovation of parks as part of the annual CIP.	Parks & Recreation	\$\$	Ongoing	Yes. Renovations should be included as a regular part of the annual CIP.
7.5	Actively engage the public in playground and neighborhood park design and planning through public outreach strategies.	Parks & Recreation	\$	Ongoing	Minimal cost.
7.6	Prepare a detailed Trailway System Plan and Map, including an identification of funding and construction timelines.	Engineering & Operations	\$	2015	Yes
7.7	Upgrade sidewalks in older portions of the City as part of the City's annual sidewalk replacement program and implement the City's Trailway System Plan on an annual basis, both as part of the annual CIP.	Engineering & Operations	\$\$	Ongoing	Possible

2012 Master Plan—Implementation Plan continued...

Project #	Project Description	Responsible Party	Budget Estimate	Timeline for Completion	Additional Funding Needed?
7.8	Perform a detailed analysis and plan for the City's corridors, including the priority corridors identified in this plan, and allocate annual funding, via the City's Capital Improvement Program, toward improving the City's aesthetic appeal.	Engineering & Operations	\$	Ongoing	Some – Partial funding included in Streets budget
7.9	Consider amending the City's ordinances to require maintenance of right-of-way landscaping areas by adjacent private property owners, thereby reducing long-term costs to the City.	Engineering & Operations	\$	2014	None – In House
8.1	Explore training the City's floodplain administrator to become a certified floodplain manager and pursue possible additional floodplain development measures that would both better protect the City's waterways and also give the City lower flood insurance rates.	Planning & Zoning	\$	2016	No – floodplain training is reimbursed by FEMA
8.2	Review and assess the Killpecker Creek drainage, to include ownership, and develop options for managing this drainage.	City Attorney	\$	2018	Yes
8.3	Protect the City's distinctive cliffs from development and encroachment through acquisition of slope easements for areas identified in this Plan.	Planning & Zoning	\$	2022	Costs are unknown at this time, but property owners will likely want to be paid for easements.
8.4	Amend the City's Zoning Ordinance to create a slope overlay zone and associated development standards that require development clustering on smaller lots, while preserving steep slopes as part of the natural terrain.	Planning & Zoning	\$	2022	Yes
8.5	Review data collected by the Wyoming Department of Environmental Quality from its air quality monitoring station to ensure air quality continues to meet established standards.	Wyoming DEQ	\$	2014	None – state funded
8.6	Continue to support non-oil energy sources and revise the City's Zoning Ordinance to development specific standards for compressed natural gas fueling stations.	City Council	\$	2015	None – in house
8.7	Work with Sweetwater County to ensure appropriate viewshed protection measures are taken to preserve and protect the White Mountain viewshed.	Planning & Zoning	\$	2014	Yes-depends upon measure adopted
8.8	Review the Crime Prevention Through Environmental Design (CPTED) principles and incorporate appropriate standards as part of the City's subdivision and zoning ordinances.	Police Department	\$	2016	None – in house
9.1.1.1	Involve media, newspaper, radio, WYDOT, PD, RSFD & digital billboard companies	Emergency Management	\$	2014	No
9.1.1.2	Involve STAR Bus, ambulance services, etc.	Emergency Management	\$	2014	No
9.1.1.3	Establish a local number to call (if phone lines available) for deliveries	Emergency Management	\$	2015	Yes
9.1.2.1	Identify locations to evacuate residents, including Sage View Care Center, Memorial Hospital of Sweetwater County, Young at Heart Senior Center, schools, churches, and local motels	Emergency Management	\$	2016	Yes
9.1.2.2	Expand Meals on Wheels to include the Young at Heart Senior Center as a sheltering service and location	Emergency Management	\$	2014	No
9.1.2.3	Organize emergency responders to provide deliveries of food, medicines, essential food and household needs, medical personnel	Emergency Management	\$	2015	Yes

2012 Master Plan—Implementation Plan continued...

Project #	Project Description	Responsible Party	Budget Estimate	Timeline for Completion	Additional Funding Needed?
9.1.3.1	Coordinate special needs population team with existing Sweetwater County team	Emergency Management	\$	2013	No
9.1.3.2	Inventory special needs population stakeholders and providers as a means of identifying the special needs population in the event of an emergency	Emergency Management	\$	2013	No
9.2.1.1	Replace or improve bridges and culverts impacting drainages and make channel improvements and improve erosion control throughout the City, where needed	Engineering & Operations	\$\$\$\$	2017	Yes
9.2.1.2	Complete construction for Segment 1 of the Bitter Creek Reconstruction Plan	Engineering & Operations	\$\$\$\$	2017	Yes
9.2.1.3	Update the Flood Insurance Rate Map to provide the accurate flood hazard areas, particularly in new growth portions of the City	Planning & Zoning	\$\$	2016	Yes-possible grant funding
9.2.1.4	Create a public education campaign addressing emergency warning system for flooding emergencies and enhance emergency warning system for use during flooding events	Emergency Management	\$	2017	Yes
9.3.1.1	Provide training for emergency response personnel for HAZMAT incidents	Emergency Management	\$	2014	No
9.3.2.1	Map hazardous materials storage locations	Emergency Management	\$	2015	Yes
9.3.2.2	Survey routes within the City for types of hazardous materials being transported	Emergency Management	\$	2015	Yes
9.3.2.3	Designate specific hazardous materials transportation routes so as to reduce the impacts to residents, should a spill occur	WYDOT	\$	2016	No - External Agency
9.4.1.1	Ensure backup generator systems and alternative locations to maintain government functionality before, during and after a hazard event	Emergency Management	\$	2015	Yes
9.4.1.2	Create sustainability plan for government buildings	Emergency Management	\$	2016	Yes
9.4.1.3	Identify facilities for hardening	Emergency Management	\$	2014	No
9.5.1.1	Identify hardening locations for water system	Emergency Management	\$	2014	No
9.5.1.2	Add facilities to create transmission line redundancy	JPWB	\$\$\$\$	2017	Yes
9.5.1.3	Ensure back up power supply for individual pump stations	JPWB	\$\$\$\$	2017	Yes
9.5.2.1	Ensure adequate water supply	JPWB	\$\$\$\$	2017	Yes
9.5.2.2	Create post disaster water supply protocol	JPWB	\$\$	2015	Yes
9.5.2.3	Design treatment for surface water	JPWB	\$\$\$\$	2017	Yes
9.5.2.4	Increase water quality across the system	JPWB	\$\$\$\$	2017	Yes
9.6.1.1	Identify weaknesses in ability to notify all residents	Emergency Management	\$	2014	No
9.6.1.2	Provide public education on notification sirens, NOAA Weather Radio, Highway Advisory Radio (HAR), and the Emergency Alert System	Emergency Management	\$	2015	Yes
9.6.1.3	Provide public education on evacuation	Emergency Management	\$	2015	Yes

2012 Master Plan—Implementation Plan continued...

Project #	Project Description	Responsible Party	Budget Estimate	Timeline for Completion	Additional Funding Needed?
9.6.1.4	Provide public education on sheltering	Emergency Management	\$	2014	No
9.6.1.5	Participate in WYDOT HAR 1610	Emergency Management	\$	2013	No
9.6.1.6	Ensure interagency communication: FD, PD & WYDOT	Emergency Management	\$	2013	No
9.7.1.1	Identify shelter locations for motorists and a system for informing them	Emergency Management	\$	2014	Yes
9.7.1.2	Provide services and resources for stranded motorists	Emergency Management	\$	2014	Yes
9.7.2.1	Develop a program for obtaining crews and equipment, even on a temporary basis, to provide snow removal to all residential areas	Emergency Management	\$	2014	Yes
9.7.2.2	Enlist off- season/non-critical personnel to remove snow on sidewalks in areas where elderly live	Emergency Management	\$	2014	Yes
9.7.2.3	Unblock storm drains to allow for snow melt	Engineering & Operations	\$	Ongoing	No
9.7.2.4	Develop a vegetation management program to keep trees from falling on power lines and interrupting service	Utilities	\$\$	2016	Yes-but not City funded
9.7.2.5	Close non-essential public facilities to limit exposure during extreme weather events	City Council	\$	2014	No
9.7.3.1	Develop an emergency public notification system	Emergency Management	\$\$	2017	Yes
9.7.3.2	Educate the public on the NOAA weather radio program and provide information regarding where the public can purchase weather radios	Emergency Management	\$	2017	Yes
9.7.3.3	Involve media and communication systems	Emergency Management	\$	2017	Yes
9.8.1.1	Conduct training for first responders and health care providers	Emergency Management	\$	2017	Yes
9.8.1.2	Establish a public health emergency response team	Emergency Management	\$	2017	Yes
9.8.2.1	Conduct a public information campaign which would include business and personal plans, sanitation and stockpiling of supplies, etc.	Emergency Management	\$	2017	Yes
9.8.2.2	Develop and distribute multilingual educational information, as needed	Emergency Management	\$	2017	Yes
9.8.3.1	Establish planning review criteria and schedule for disease epidemic plans	Emergency Management	\$	2015	Yes
9.8.3.2	Update plans to include alternatives in the event of lack of transportation, necessary supplies and equipment, rotation and restocking of inventory, quality, etc.	Emergency Management	\$	2016	Yes
9.8.3.3	Exercise the plans and make revisions as necessary	Emergency Management	\$	2017	Yes
9.9.1.1	Enhance ability to notify the public	Emergency Management	\$\$	2014	Yes
9.9.1.2	Develop awareness campaigns	Emergency Management	\$	2015	Yes
9.9.1.3	Provide school education (coloring books, activity books)	Emergency Management	\$	2016	Yes
9.9.2.1	Inventory lines and update contact information	Pipelines	\$\$	2014	No-not City funded

2012 Master Plan—Implementation Plan continued...

Project #	Project Description	Responsible Party	Budget Estimate	Timeline for Completion	Additional Funding Needed?
9.9.2.2	Attend Pipeline Association (GRBPA) meetings and seminars	Emergency Management	\$	2014	Yes
9.9.2.3	Get sponsorship for stronger fines pertaining to One Call violations	Building	\$	2015	Yes

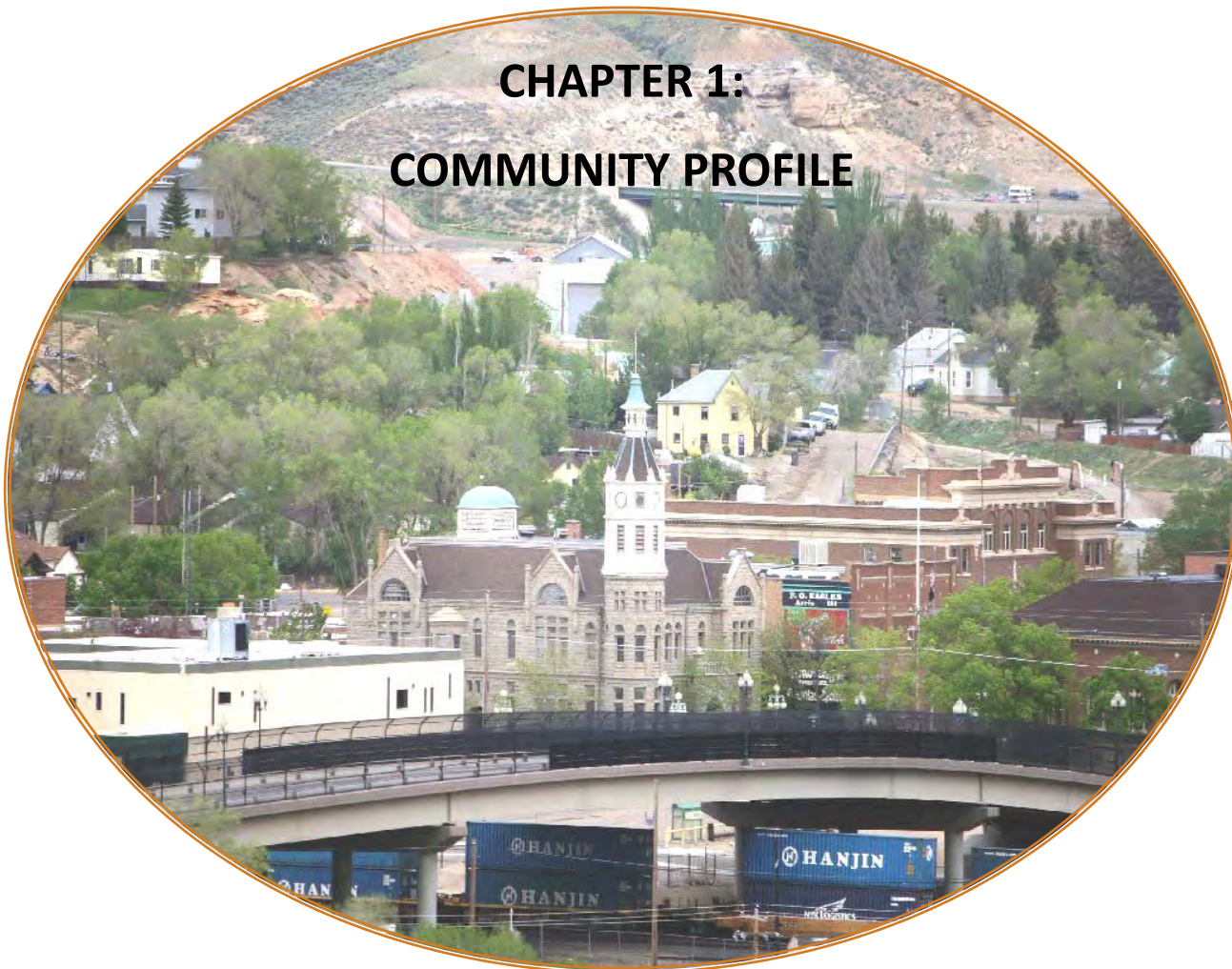
GOAL #1



**BECOME A MODEL CITY
FOR PROVISION OF
EFFECTIVE, EFFICIENT, AND PRODUCTIVE
GOVERNMENTAL SERVICES**



CHAPTER 1: COMMUNITY PROFILE



A Street Over Pass and Rock Springs Historical Museum.

Source: Darcy Lyon.

“Rock Springs has a rich history that is flavored with everything Old West – the railroad, mining, ranching and even outlaws. A master plan for a community should preserve the past and incorporate it into the future fabric of this unique City. It is only through linking the past with the future that a community’s unique identity can be established, enhanced, and maintained.”

- Bob Nelson, Rock Springs Historical Museum Coordinator

Chapter 1: Community Profile

Sections:

1.1 Geographic Context

1.2 Natural Context

1.3 Historical Context

1.4 Community Character

1.5 Present Day Demographics

1.6 Public Services

1.7 Conclusion

1.8 Chapter 1—Implementation Plan

1.1 Geographic Context

As shown in Figure 1.1, the City of Rock Springs is located on the western fringe of the Red Desert, along the I-80 Corridor in southwestern Wyoming. “Hidden away in southwestern Wyoming, the Red Desert consists of approximately six million acres of stunning rainbow-colored hoodoos, towering buttes, swirling sand dunes, vast open spaces and prehistoric rock art which Native peoples have left in the form of petroglyphs and teepee rings that outline ancient campsites. Its emptiness can overwhelm visitors at first, but as you explore and look more closely, the desert has a way of drawing you in.” (“Places to Explore”, 1)

Against this decidedly rugged backdrop, a city may seem incongruous. Yet, here lies Rock Springs, nestled between the vastness of the Red Desert and the impressive height of White Mountain. Traveling from the east, the City seems to spring up suddenly. Approaching from the north and west, visitors find rural development give way to industrial



Figure 1.1: Rock Springs Location Map.



Killpecker Sand Dunes of the Red Desert.

Source: Bureau of Land Management.



White Mountain near Rock Springs, Wyoming.

Source: WLC Engineering, Surveying, & Planning.

development and the eventual higher densities of a city.

Vastness is also apparent in the size of the county where Rock Springs is located. Sweetwater County, which ranks 15th in area amongst all U.S. counties, is 10,425 square miles in area and is also the largest county in the state. Though easily the largest city in the county, Rock Springs is not the county seat. This distinction lies with Green River, which is located some 18 miles to the west and also along the I-80 corridor. Larger cities lie farther away – Salt Lake City, 3 hours to the west, and Laramie, 3.5 hours to the east.

1.2 Natural Context

Despite its lack of rainfall, the Red Desert supports a variety of plant and animal species, including “the largest migratory herd of pronghorn in the lower 48 states and a rare desert elk herd, said to be the world’s largest.” (“Red Desert Wyoming”, 1). Migratory birds frequent the desert, including ducks, trumpeter swans, snowbirds and white pelicans. Herds of deer and wild horses can also be found in the desert, along with prairie dogs and a variety of rabbits and lizards.

“Gallop across the prairie with manes and tails flying and hooves kicking up dust, there is nothing more iconic in the West than a wild horse...”

To the northwest of the City, atop White Mountain, lies the Pilot Butte Wild Horse Scenic Loop Tour. “Gallop across the prairie with manes and tails flying and hooves kicking up dust, there is nothing more iconic in the West than a wild horse...One of the best spots to see wild horses is in southwestern Wyoming, just a tad north of Rock Spring on a landscape of sagebrush, native grasses and rock.” (“Pilot Butte Wild Horse Scenic Loop Tour”, 1). Pronghorn antelope, sage grouse, coyotes and rabbits also can be found on White Mountain, as well as a variety of hawks and eagles.



Wild Horses near Pilot Butte.

Source: Rockspringswyoming.net



Local Sagebrush.

Wyoming big sagebrush dominates the landscape in and around Rock Springs. Other species commonly found include: Indian ricegrass, yellow rabbitbrush, thickspike wheatgrass, spiny goldenweed, sandberg bluegrass, greasewood, rubber rabbitbrush, gardner’s saltbush, foothill bladderpod and prickly Russian thistle. These plants seem to thrive in Rock

Spring’s high desert climate, where average annual precipitation is less than 10 inches and winds frequently exceed 20 mph. In the higher elevations, junipers and aspen’s can be found. Most of the developed portion of the City has imported species or xeriscaping.

1.3 Historical Context

Historically, the economy of Rock Springs has been as tied to mining as it is today. The community was initially a watering stop on the Overland Stage Route until coal was discovered in the area. The first coal mine opened in 1866 and a mining settlement known as “Blairtown” developed southwest of present day Downtown. The Blairtown mine drew the attention of the Union Pacific Railroad (U.P.), which was working on a coast-to-coast connection for the railroad system. The original route for the railroad followed a more northern path along the Oregon Trail, but was realigned to travel through Rock Springs and Hanna, where coal was found, thereby reducing the costs of shipping coal from the east. Additional mines were opened throughout the greater Rock Springs area in the late 1860s to fuel the railroad.

U.P. completed the railroad through southern Wyoming in 1868 and Rock Springs became known as a “melting pot” due to the large number of immigrants that came to work in the mines. At least 47 different nationalities were employed, including Chinese, Austrians, Greeks, Italians, Irish and Russians. Many of these nationalities were brought in as a result of strikes. Tensions between laborers grew until, on September 2, 1885, mobs of striking white workers attacked Chinese workers, killing 28 and wounding 15. This became known as the Rock Springs Massacre. Federal troops were brought in to keep the peace but the use of Chinese workers gradually declined.

On October 6, 1888, the City of Rock Springs was officially incorporated. The influence of mining on the City’s development is still evidenced today by the alignment of many of the City’s roadways. Rather than being laid out on a grid system, most of the older roads in town follow the paths the miners took to work, winding around the City’s unique topography of cliffs and creek beds. These roadways may cause confusion for newcomers, but they are a part of the City’s charm.



Rock Springs Coal Sign and Union Pacific Train.

Coal mining peaked as a local industry in the mid-1950s, when the City's population had grown to just over 10,000. At that time a second phase of industrial growth began with the advent of trona (soda ash) mining west of Green River. Three existing trona mines were substantially expanded during the 1960s, and the industry continues to employ a significant number of local residents today.

Oil and gas are two other natural resources that contribute to the local economy. Booms occurred in the mid-1970s and early 1980s. A recent boom in the 2000s has seen increased production, particularly in natural gas. These extraction industries employ almost 20% of local citizens, making the City highly vulnerable to economic swings.

1.4 Community Character

Many Rock Springs residents can be described as hard-working, outdoor recreationalists. Due to its geographic location, opportunities abound in the surrounding region for hunting, fishing, hiking, camping, snow machining, snowshoeing, cross-country skiing and four-wheeling. Public land is readily accessible and residents take advantage of their excellent geographic location. There are also plenty of activities to be found within the City, including concerts in Bunning Park, the annual International Festival, the Blues and Brews Festival, the Halloween Stroll, a Farmer's Market and a Christmas Parade.



Rock Springs Historical Museum.

Source: City of Rock Springs Historical Museum.

Among the local treasures is the Rock Springs Historical Museum which was built in 1894 from native sandstone and boasts an impressive 14-foot foundation that was made necessary by the presence of "quicksand" at the site. It served as the original City Hall, Police Station and Fire Station until the early 1980's, when the new City Hall on D Street was completed. In 1991-1992, the building underwent a 1.7 million dollar restoration to bring it back to its 1890's condition. The museum now houses many exhibits on the history of Rock Springs with special emphasis on coal mining and the City's multi-national heritage.

Rock Springs also boasts two publicly owned recreation centers, including an ice arena, aquatic center, and indoor pools, as well as a 27-hole golf course. Numerous parks have outdoor pools that are open during the summer and one of the latest parks to be completed is the "Bitter Creek Bark Park", a dog park that is frequented by the City's canine residents.

Since the 1983 *Comprehensive Plan* was written, the City has made large strides to move beyond its reputation as a wild and woolly frontier town. Rock Springs citizens genuinely care about their community and are dedicated to making it

an inviting place to live. Numerous programs have been launched to approve the City's appearance, as well as to make it easier for newcomers and visitors to find their way around. These include offering façade grants for downtown buildings, installation of way-finding signage and the addition of right-of-way landscaping.

1.5 Present Day Demographics

Population

Figure 1.2 depicts the historic population trends for Rock Springs from its inception in 1870, while Wyoming was still a territory of the United States, to the population from the 2010 Census.

The decade from 2000 to 2010 was one of high growth for the City of Rock Springs, as well as much of the state. Rock Springs grew 23% from 2000 to 2010 to a population of 23,036. This amounts to more than 4,300 new residents and approximately 1,200 new dwelling units. That rate of growth was among the highest in Wyoming, with only Gillette and some small towns experiencing a higher percentage of growth (see Figure 1.3). By comparison, the state grew 14.1%

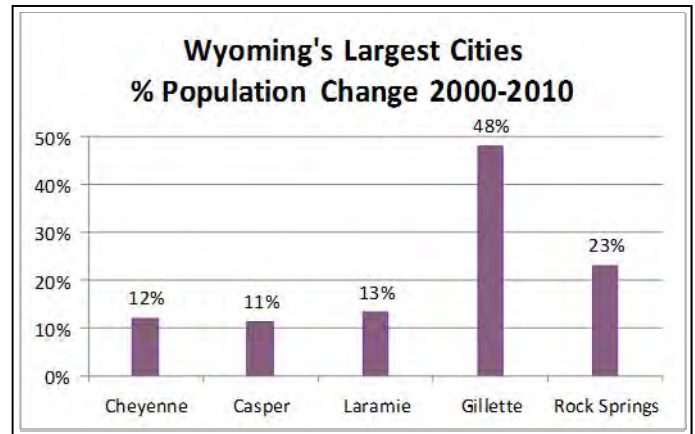


Figure 1.3: Population of Wyoming Cities by % Change.

Source: U.S. Census Bureau.

and the nation grew 9.7% over the last decade. "Wyoming's population increased from 493,782 in 2000 to 563,626 in 2010, which was still the least populated state in the country." (Liu, 1) Much of the growth in Rock Springs, as well as in the rest of the state, can be attributed to an energy boom in the latter half of the decade. "In fact, Wyoming ranked at the top of the nation in three consecutive years in terms of job growth rate, 2006, 2007, and 2008." (Liu, 1)

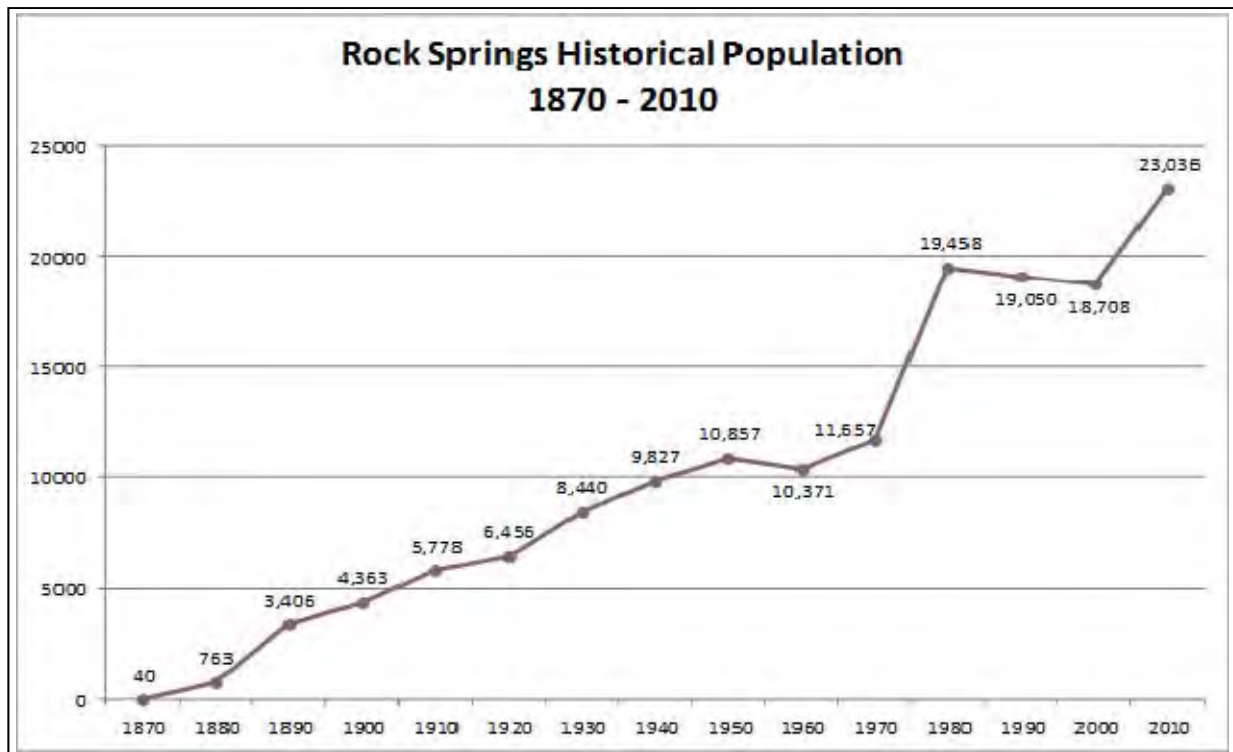


Figure 1.2: Rock Springs Historical Population 1870-2010.

Source: U.S. Census Bureau.

Race & Ethnicity

Despite being known as the “Home of 56 Nationalities”, most Rock Springs residents trace their roots to Eastern and Western Europe, which is evidenced by the fact that 86.4% of the population is white. However, diversity is on the rise in Rock Springs. By 2010, 16.4% of the City’s population was of Hispanic or Latino origin. This compares with a state average of 8.9% (2010 Census: Wyoming Profile, 1) and a national average of 16%. Like the rest of the country, a large portion of the increase in population over the last decade can be attributed to the Hispanic sector. “Between 2000 and 2010, the Hispanic population grew by 43 percent, or four times the nation’s 9.7 percent growth rate.” (“2010 Census Show...”, 1). In fact, for Rock Springs, 2,095 of the City’s 4,300 new residents were Hispanic. This represents a 44% increase over the 2000 level.

Age & Sex

While both the nation and the state grew older during the past decade, Rock Springs saw a decrease in median age from 34.5 in 2000 to 31.5 in 2010. In fact, almost 30% of the City’s population is under 20 years old. Statewide, the median age increased from 36.2 to 36.8 years in the past decade, which is comparable to the national average median age of 37.2 (up from 35.3 in 2000). Not only is Rock Springs younger than the nation and the state, but it also has a higher percentage male population, with 52.1% of residents being male. Statewide, 51% of the population is male, while the national average is 49.2% male (Liu, 9).

Employment

According to 2006-2010 Census Bureau estimates, Rock Springs also differs from the state and the nation with respect to major employment sectors, as 19.3% of all

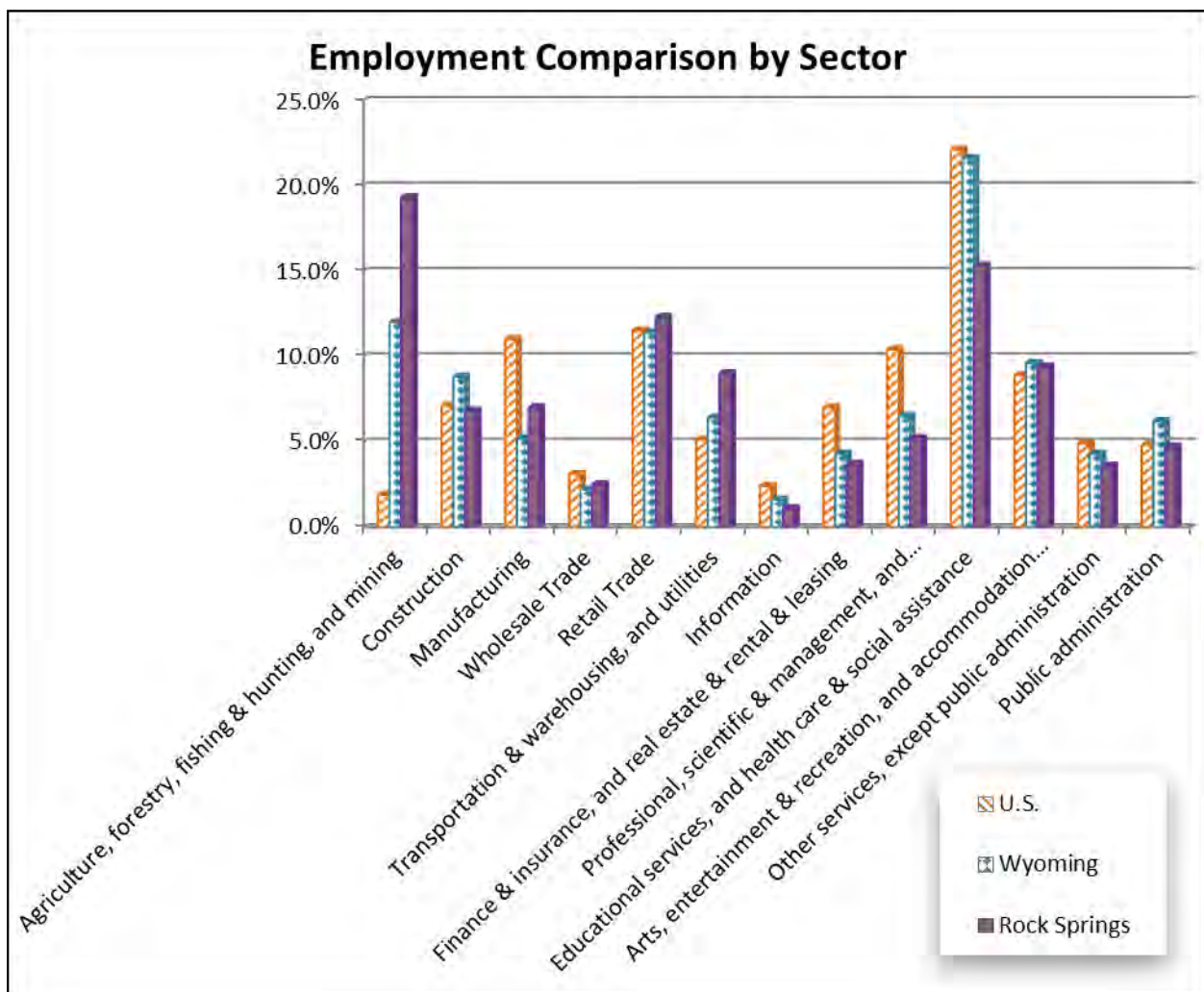


Figure 1.4: Employment Comparison by Sector.

Source: “Selected Economic Characteristics...” 2, 5 & 8.

workers are employed in the combined economic sectors of agriculture, forestry, fishing, hunting, mining, and extraction. Statewide, this percentage is much lower, at 12%, and, significantly lower for the nation as a whole, with only 1.9% of all employed citizens working in this sector (see Figure 1.4).

Housing & Households

Most (67.9%) of the City's 10,070 housing units were owner occupied in 2010. This is similar to the state rate of 69.2%. Both the City and the state are higher than the national average of 65.1% owner occupancy (Liu, 10). The average household size for Rock Springs in 2010 was 2.43, which is similar to the state average household size of 2.42 but lower than the nation's average household size of 2.58.

Income

In Rock Springs, the average, or mean, household income for 2010 was \$80,259, which was substantially higher than both the national average of \$70,883 and the state average household income of \$68,283 ("Selected Economic Characteristics...", 1, 6).

1.6 Public Services

The City of Rock Springs and Sweetwater County offer a variety of services for the public. Some services, including parks, the golf course and the airport, are featured in other portions of this *Master Plan*. This section highlights public amenities that are not discussed elsewhere in this document.

Education

Rock Springs is part of Sweetwater County School District #1. The district has the following schools located within the City Limits:

- ⇒ 7 elementary schools (K-4)
- ⇒ 1 elementary school (5-6)
- ⇒ 1 junior high school
- ⇒ 1 high school
- ⇒ 1 alternative high school

Enrollment in the District has been steadily increasing, and the District has recently built two new elementary schools to accommodate growth, with a third one presently under



New Sage Elementary School Entrance.

"We are proud of our students and we are proud of the faculty and staff who create opportunities for students to learn and succeed."

- Karla Leach, WWCC President

construction. In addition, a significant building addition was made to the Rock Springs Junior High School, including new track and field facilities. Plans are also underway for construction of a new alternative high school. As of September 2012, enrollment for the 2012-2013 school year was 5,363 students in Rock Springs schools, which is an increase of 303 students from the 2011-2012 level.

Rock Springs also offers post-secondary education at Western Wyoming Community College (WWCC), which offers associate degrees in arts, fine arts, science, applied science and nursing. Numerous certificate programs are also available, as well as some distance education bachelor's and master's degree programs. Enrollment for Fall 2012 was 1,310 full-time students and 2,703 part-time students, with a total enrollment of 4,013 students. An additional 1,417 students attend non-credit classes. While a majority of WWCC's students (52%) are from Sweetwater County, there are students who attend from throughout the region, as well as a significant number of international students. Students are attracted to the campus by its excellent programs, as well

as the ability to live in dormitory housing, an amenity typically not available at the community college level. In 2010, the college was ranked 15th in the nation for community colleges by *Washington Monthly* magazine and was the only community college in the mountain region to make the top 50 list.

Library and Community Fine Arts Center

Sweetwater County also has an excellent library system, comprised of the Sweetwater County Library, in Green River; Rock Springs Library, in Rock Springs; and White Mountain Library, also in Rock Springs. The library system offers traditional books, audio books, e-books, music CDs and DVDs for checkout. Internet access is offered on computers available to the public for use. The library system also has regular programming for children and special interest groups. Patrons may obtain books from throughout the state and beyond using the inter-library loan program.

Adjacent to the to Rock Springs Library, the Community Fine Arts Center is a collaboration of the City of Rock Springs, Sweetwater County and Sweetwater County School District #1. The Fine Arts Center features a variety of art exhibits. The Center also offers classes for local residents, as well as a schedule of performing arts programs. Annually, more than 6,000 persons visit the Center, whose mission is to promote the arts in Sweetwater County.

Memorial Hospital of Sweetwater County

Rock Springs is also home to Sweetwater County's only hospital – Memorial Hospital of Sweetwater County. The 99-bed facility provides acute care for residents throughout southwest Wyoming and has recently completed a \$52 million expansion and remodel project. Memorial is a non-profit, charitable corporation. A medical office building that will feature a cancer treatment center is presently under construction. This will enhance the hospital's ability to provide a broader range of healthcare benefits to the community.

Sweetwater County Events Complex

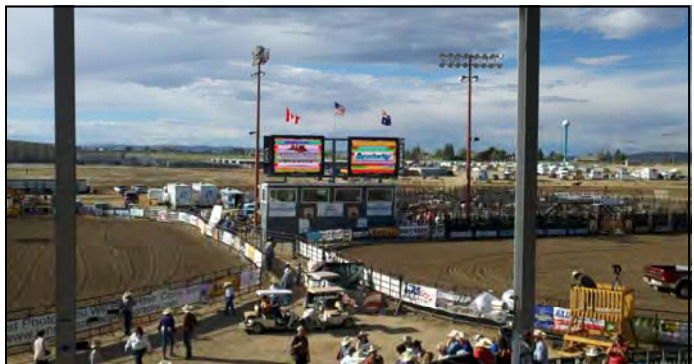
Located south of the City of Rock Springs' Golf Course, the Sweetwater County Events Complex offers a 20,000 square foot exhibition building and a 42,480 square foot agricultural complex. The complex hosts the Sweetwater County Fair, the



White Mountain Library on Sweetwater Drive.



Memorial Hospital of Sweetwater County.



Sweetwater County Events Complex Arenas.

National High School Rodeo Finals (through 2015), the Mountain States Circuit Finals Rodeo and the Red Desert Roundup Rodeo. In addition, the complex features motocross, bmx, stock car and horse racing, as well as demolition derbies. A variety of fairs, shows and expos are also held at the complex, which draws visitors from across the state, county and nation.

1.7 Conclusion

The City of Rock Springs has a strong cultural heritage and a variety of community amenities. Built upon a foundation of coal mining, the City has grown into a thriving community with a strong sense of place.

To that end, the projects listed in Table 1.1 are recommended for implementation. Implementation Plan project 1.1 recommends celebrating the City's unique character by developing a motto or slogan that can be used to market and identify Rock Springs. For example, New York City is "The Big Apple". Chicago is "The Windy City". One suggestion circulated back in 2007 was "Two Wheeled Sports Capitol of the World" (Destination Development, 15). Although this slogan was not widely accepted, there are other potential slogans or identifiers that might better typify Rock Springs, including the following:

- ⇒ High Desert Country ⇒ Gateway to Yellowstone
- ⇒ Frontier Country ⇒ Gateway to the Gorge
- ⇒ Home of the Wild Horse ⇒ Wild Horse Country

Implementation Plan project 1.2 recommends developing a semi-annual public arts program that will yield a variety of



Monument to those who have died in Sweetwater County Mines, Downtown Rock Springs.

high quality art pieces throughout the City (particularly those that can be permanently displayed outdoors), to promote the City's rich heritage.

The future of Rock Springs depends largely on continuing past efforts to bring a high quality of life for all residents. As the City grows, it is imperative to maintain its friendly, welcoming atmosphere. In this way, the City can build on its past with an eye to the future.

1.8 Chapter 1—Implementation Plan

TABLE 1.1

Goal: Become a model city for provision of effective, efficient and productive governmental services.

Project #	Project Description	Responsible Party	Budget Estimate	Timeline for Completion	Additional Funding Needed?
1.1	Assemble a committee comprised of a wide cross-section of the community in order to develop a slogan for the City.	Mayor	\$	2014	No
1.2	Develop a public art inventory and semi-annual program that will yield a variety of high quality art pieces, particularly those that can be permanently displayed outdoors, to promote the rich heritage of the City.	URA	\$\$	2020	Yes

Budget Estimate: \$ - <50,000; \$\$ - 50,000 - 100,000; \$\$\$ - 100,001 - 500,000; \$\$\$\$ - >500,000

CHAPTER 2: PUBLIC PROCESS

Today's Plan For Tomorrow's Future 2012 MASTER PLAN

2012 Master Plan Slogan

"The City of Rock Springs is strongly committed to involving the public in all of its planning processes, but particularly in development of the 2012 Master Plan. Plans that have the support of the community have the best chance of being implemented. I am very excited about this Master Plan for our future, and thankful for each and every member of the community who took the time to participate. Working together, we can build a quality City that everyone can enjoy."

- Mary Manatos, Rock Springs Planning and Zoning Commission Chair

Chapter 2: Public Process

Sections:

2.1 Introduction

2.2 Public Awareness

2.3 Public Education

2.4 Public Partnerships

2.5 Public Involvement

2.6 Public Input

2.1 Introduction

Engaging the public in the development of a new Master Plan is critical. A plan needs to reflect the desires and goals of the public at large, and not just City staff members or elected officials. In developing this *2012 Master Plan*, several methodologies were utilized for informing and engaging the public, including:

- ⇒ Public awareness – letting the public know about the project through media, newspaper ads, etc.
- ⇒ Public education – informing the public about planning and the importance of master planning
- ⇒ Public partnerships – developing support for the plan from public and private entities
- ⇒ Public involvement – fostering public participation through workshops, presentations and open houses
- ⇒ Public input – gathering public opinion through surveys, keypad polling and workshops

Each of these methodologies is described in greater detail in subsequent sections of this Chapter.

2.2 Public Awareness

The *2012 Master Plan* public awareness component included a three-month notification strategy which was comprised of newspaper ads, a plan website, library bookmarks, posters, and news releases.

2.3 Public Education

The *2012 Master Plan* public education component included development of a website, education for high school students, several forms of public media, information included on a social media page and meetings with internal City departments. All of these were intended to both educate the public about planning, as well as to gather information about future needs of the community.

2.4 Public Partnerships

Public partnerships are a key component to the success of any Master Plan. No project is an isolated venture, and support and collaboration are needed between the public sector, the private sector, and other agencies/entities to ensure success. The *2012 Master Plan* public partnership component included a high degree of coordination amongst various entities. Projects requiring collaboration with other agencies and the public have been reviewed by those involved. As one example, please refer to Figure 2.1 on the following page, a letter of support from the Sweetwater County Board of County Commissioners.



Bookmark to Raise Public Awareness—Distributed at Rock Springs Libraries.

BOARD OF COUNTY COMMISSIONERS

SWEETWATER

C·O·U·N·T·Y

- WALLY J. JOHNSON, CHAIRMAN
- JOHN K. KOLB, COMMISSIONER
- GARY BAILIFF, COMMISSIONER
- REID WEST, COMMISSIONER
- DON VAN MATRE, COMMISSIONER

80 WEST FLAMING GORGE WAY, SUITE 109 -
 GREEN RIVER, WY 82935
 PH: (307) 872-3890 - FAX - (307) 872-3992

Tuesday, February 22, 2011

Mayor Carl Demshar
 212 D Street, City of Rock Springs
 Rock Springs, WY 82901

RE: Sweetwater County support for the Rock Springs Master Plan 2011 Update

Dear Mayor Demshar:

The Sweetwater County Board of County Commissioners (Board) supports the City of Rock Springs' (City) program to update the Rock Springs Master Plan. As reflected in your draft plan, the Board believes that positive planning that encourages infill is essential to providing cost effective public services and sustainable infrastructure that meets the current and future needs of our communities.

The goals of the City's draft plan, stated in the section entitled the "Relationship with Surrounding Jurisdictions", encourages the coordination of infrastructure, services, and land use development with surrounding local governments. These goals compliment the direction of the Wyoming Land Use Planning Act and the Sweetwater County's 2002 Comprehensive Plan which state:

Land Use Planning Act: Wyoming State 9-8-301:

- All counties shall develop a countywide land use plan which shall incorporate the land use plans of all incorporated cities and towns within the county; and,

2002 Sweetwater County Comprehensive Plan:

- Encourage County and community partnerships and coordination in planning and economic development activities consistent with Wyoming State Statutes; and,
- Encourage County/community planning and cooperation for (growth) areas. Ensure compatible uses. Support/encourage land uses within potential annexation areas that are consistent with adjacent community regulations.
- Balance future growth and development with facility/service capacity
- Encourage infill development within existing communities and service areas

To support the City's Master Plan Update and to work towards meeting the County's above goals, the Board welcomes the opportunity to discuss, with the City, planning for growth and infrastructure within the City's growth areas. Further, to assist the City with their planning efforts, the Board offers the assistance and support of our County's Department of Engineering and Community Development.

If the City has any questions regarding the County's support for the City's Master Plan Update or would like to initiate joint discussions regarding planning coordination within the City's growth areas, please contact me at 307-872-3897.

Sincerely



Wally J. Johnson, Chairman,
 Sweetwater County Board of County Commissioners



Figure 2.1: Copy of Letter of Support from Sweetwater County Board of County Commissioners.

The public was involved with the *2012 Master Plan* development through a variety of meetings and workshops. In addition, draft chapters of the plan were provided to the Planning & Zoning Commission, City Council and the City's website for review and comment. A brief description of each of the public meetings held for the Plan follows.

The 2012 Master Plan process officially commenced with a large kick off meeting held in October 2010. Approximately 60 members of the public attended this meeting, which was held at the Young at Heart Senior Center. Attendees performed a strengths and weaknesses analysis of the community. The City's listed strengths included:

- The greatest weakness noted was a lack of retail opportunities, with the following needs identified:

- Participants also performed an exercise where they were asked to write down a few words that describe Rock Springs. Responses were arranged into a diagram known as a “Wordle”. A “Wordle” creates a word picture, with larger words representing a higher number of responses. The top ten responses from residents describing the community of Rock Springs were:

- | | |
|----------------------|----------------|
| ⇒ Friendly | ⇒ Home |
| ⇒ Opportunities | ⇒ Quality |
| ⇒ Diversity /Diverse | ⇒ Neighborhood |
| ⇒ Downtown | ⇒ Windy |
| ⇒ Community | ⇒ History |



Poster for Kick Off Meeting.



“Wordle” Describing Rock Springs.

Finally, the group was challenged to develop a slogan for the 2012 Master Plan. There were many suggestions, but participants narrowed it down to:

Today's Plan for Tomorrow's Future!

Potluck Dinners

In November 2010, a second set of meetings was held in the form of potluck dinners. In order to attract the widest range of residents possible, there were two meetings conducted on consecutive evenings on opposite sides of the City. During these meetings, a series of questions were presented to attendees which were answered in the form of keypad polling. In addition, attendees participated in a mapping exercise where they were asked to identify areas of future



**Today's plan for tomorrow's future
MASTER PLAN 2011 UPDATE**

**POT-LUCK DINNER
& WORKSHOP**

November 17 OR **November 18**
6:00 - 9:00 pm **6:00 - 9:00 pm**
Rock Springs **Sage Elementary**
Community Center **School Cafeteria**
538 Pilot Butte Avenue **903 Summit Drive**

We had a successful and enlightening day of workshops in October during the Kick-Off Meeting! We hope to continue the great conversations about planning for our community in a fun and energetic atmosphere.

To do this, we are inviting you to come out to one of the potluck dinners we are holding in November!

We will provide the main course each night and you bring the sides or a dessert. This is a great way to meet your neighbors, be involved in the future of your city, and make a positive impact.



friendly home
Rock Springs
 Opportunities
 Community
 Diversity
 Quality
 Vision
 Neighborhood
 Diverse
 History
 Downtown

If unable to attend, information packets may also be requested by contacting the City of Rock Springs Planning Department (Jana McCarron: Jana_McCarron@rswy.net) or WLC Engineering Survey and Planning (Jeff Hosea: jhosea@wlcwy.com).

Poster for Potluck Dinners.

growth, current bottlenecks or problems and possible future transportation routes.

Final Visioning Meeting

The final visioning meeting was held in December 2010, with several members of the public in attendance. The meeting included a summary of the community survey results and a second keypad polling exercise. In addition, the public was informed about the format and development of the draft Master Plan document.

City Council Workshop

To solidify the direction of the Master Plan, a City Council workshop was held in September 2011. A primary outcome of the workshop was the development of several key concepts for incorporation in this *Master Plan*, which are



Potluck Dinner at Sage Elementary School.



Carlo Harryman/Rocket-Miner

Instant Public Feedback

ROCK SPRINGS: Members of the public use hand-held devices to register their opinion about how Rock Springs should grow during a meeting to gather input about the Rock Springs master plan. Another meeting is scheduled for 6-9 p.m. Thursday at Sage Elementary School. The public is invited to share their views on future development.

Potluck Dinner at R.S. Community Center.

Source: Rock Springs *Rocket-Miner*.

summarized as follows:

- ⇒ Downtown: Building/fire codes, absentee landlords, and focal area
- ⇒ Zoning: Default holding zones, balanced zoning between uses
- ⇒ Aesthetics: Weeds, streetscape design, landscaping, wayfinding, community pride
- ⇒ Airport: Industrial Park, water line, 6th penny tax

2.6 Public Input

Public input was obtained in the keypad polling, potluck dinners, and meetings discussed above, as well as through community surveys distributed in various formats to reach as much of the Rock Springs community as possible. A full report of each of these surveys can be found in the Rock Springs Planning Office. A summary of each survey follows.

"Long Form" Survey

A "long form" survey with 25 detailed questions was made available on the Master Plan website as well as at the local libraries, with 212 completed surveys submitted. A summary of the most highly supported statements (60% or greater) is included on this page, with the percentage of support for each statement listed in the column to the right of each statement.

"In the foreseeable future focus your efforts to be the best regional SERVICE center/destination we can be."

- "Long Form" Website Survey Comment

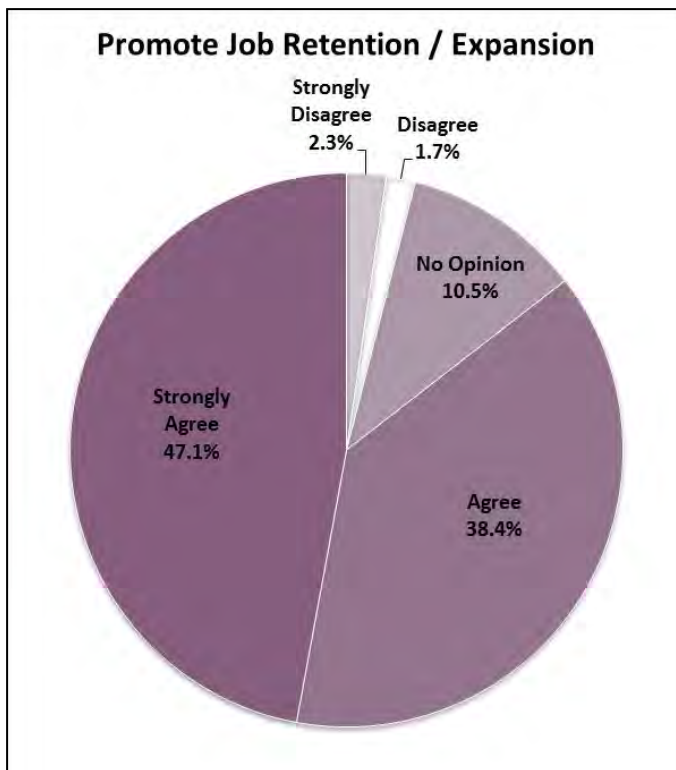


Figure 2.2: Support for Job Retention / Expansion Chart.

"Long Form" Survey Summary	
	% Support or Strongly Support
⇒ Top three kinds of places that would make Rock Springs a better place to live:	
• National restaurants (Red Lobster, etc.)	
• Large retail stores (Target, Kohls, etc.)	
• Places to hang out (coffee shops, etc.)	
⇒ Promote job retention and expansion efforts	86%
⇒ Increase health care opportunities	78%
⇒ Include energy conservation in municipal facilities	77%
⇒ Support the development of elderly housing	76%
⇒ Support bicycle paths and greenways to link neighborhoods and open space	75%
⇒ Increase college and university opportunities	75%
⇒ Retain young people (18-28 years old)	74%
⇒ Develop design standards for downtown	72%
⇒ Pursue sustainable zoning and building code revisions	71%
⇒ Support a mixture of uses downtown with a variety of housing options and commercial developments	71%
⇒ Limit development to what our water supply can support	69%
⇒ Improve technology infrastructure within the City	67%
⇒ Encourage new commercial development in the Downtown area	67%
⇒ Satisfied with their current housing situation	64%
⇒ Support addressing traffic congestion and busy	63%
⇒ Favor pursuit of renewable energy development	63%
⇒ Single family detached housing is the top housing need	61%
⇒ Are not likely to use public transportation	61%

"Short Form" Survey

A "short form" survey with 10 questions was distributed through the City's December 2010 utility bill, with 405 completed surveys submitted. A summary of the most highly supported statements (60% or greater) is included on this page, with the percentage of support for each statement listed in the column to the right of each statement.

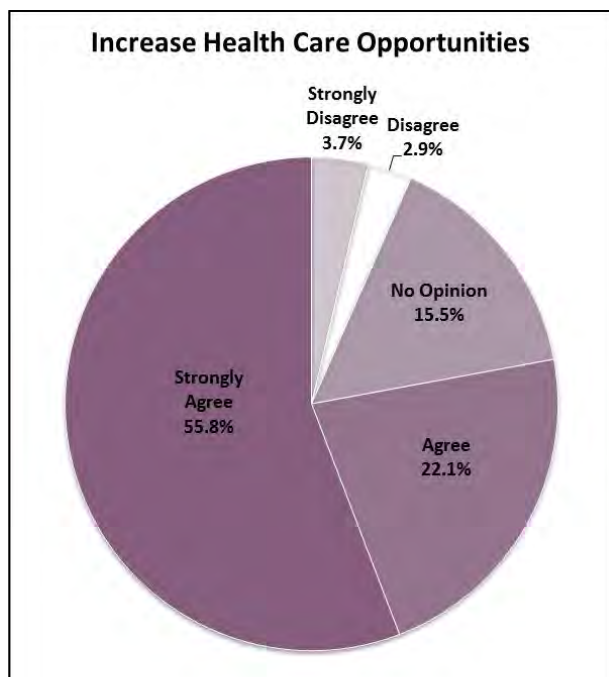


Figure 2.3: Increase Health Care Opportunities Chart.

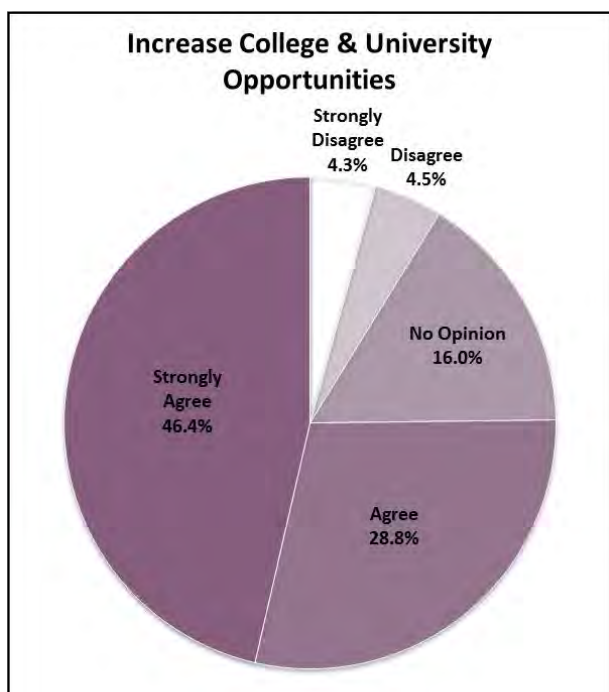


Figure 2.4: Increase College & University Opportunities Chart.

"Focus on retaining young people. Educate with useful skills."

- "Short Form" Survey Comment

<u>"Short Form" Survey Summary</u>	
	% Support or Strongly Support
⇒ Satisfied with their current housing situation	81%
⇒ Promote job retention and expansion efforts	81%
⇒ Increase health care opportunities	78%
⇒ Increase college and university opportunities	75%
⇒ Limit development to what our water supply	73%
⇒ Develop design standards for downtown	70%
⇒ Include energy conservation in municipal	69%
⇒ Support addressing traffic congestion and busy	69%
⇒ Retain young people (18-28 years old)	63%
⇒ Single family detached housing is the top	63%
⇒ Pursue sustainable zoning and building code	63%
⇒ Are not likely to use public transportation	62%
⇒ Improve technology infrastructure within the	60%
⇒ Value preservation of open space resources	60%
⇒ Favor pursuit of renewable energy	60%

High School Online Survey

In January 2011, an online survey was administered to government class students at Rock Springs High School, with 235 completed surveys submitted. A summary of the most highly supported statements (60% or greater) is included on this page, with the percentage of support for each statement listed in the column to the right of each statement.

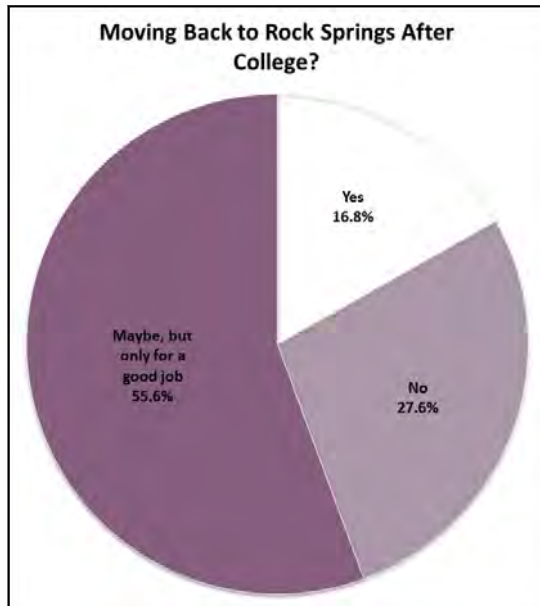


Figure 2.5: Moving Back to Rock Springs After College Chart.

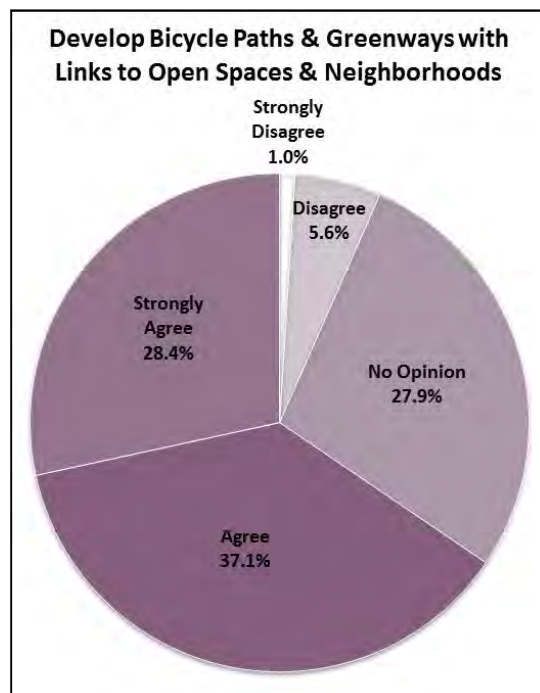


Figure 2.6: Develop Bicycle Paths and Greenways with Links Chart.

"If the downtown area was walkable with more modernized shops, this would increase City revenue and make this City a lot more fun."

- High School Survey Comment

High School Online Survey Summary	
	% Support or Strongly Support
⇒ Top three kinds of places that would make Rock Springs a better place to live:	
• National restaurants (Red Lobster, etc.)	
• Large retail stores (Target, Kohls, etc.)	
⇒ Plan to go to college	94%
⇒ Plan to move back to Rock Springs after college	
• Yes	17%
• No	27%
	56%
⇒ Encourage new commercial development in	76%
⇒ Support development of affordable housing	73%
⇒ Increase college and university opportunities	71%
⇒ Single family detached housing is the top	71%
⇒ Promote job retention and expansion efforts	69%
⇒ Support bicycle paths and greenways to link	66%
⇒ Favor pursuit of renewable energy	65%
⇒ Increase health care opportunities	64%
⇒ Support a mixture of uses downtown with a variety of housing options and commercial	63%
⇒ Develop a program to support first-time home	63%
⇒ Zone some areas for rural and very low density	62%
⇒ Improve technology infrastructure within the	61%

City Council / Department Director Survey

Building upon the public surveys, an internal City survey with 12 key concepts was developed to refine plan goals. The full survey was distributed to City Councilors and City Department Directors in December 2011, with 10 completed surveys returned. A summary of the survey is included on this page, with the percentage of support for each key concept listed in the column to the right of each statement.

“We need to ensure the public is aware zone changes on neighboring properties are possible.”

- City Council Survey Comment

City Council / Department Director Survey Summary	
	% Support or Strongly Support
⇒ Adopt and implement the 2012 Master Plan	100%
⇒ Support a fair, responsive Development Review process	100%
⇒ Revitalize Housing & Neighborhoods through Ordinance and Policy changes	100%
⇒ Develop a Holding Zone for property slated for future development	100%
⇒ Refine Mixed Use Zoning Districts for greater flexibility and a larger mixture of uses	100%
⇒ Utilize the Parks and Recreation Board to accomplish key recreation objectives	100%
⇒ Provide Annual Training for Boards, Commissions & Staff	90%
⇒ Collaborate with Sweetwater County and the City of Green River on projects	90%
⇒ Establish a formal Capital Improvement Planning Process	80%
⇒ Plan for the development of Section 21	80%
⇒ Utilize Economic Development Corporation and/or Staff to expand businesses, evaluate targeted industries and diversify the County's	66%

Key Concepts Survey Question #3:

“The City shall establish a formal capital improvement planning process, which is coordinated among all departments, boards and commissions, as well as the City Council. The capital improvement plan shall include a financial element that coordinates funding of projects through City funds and partnerships within the community and the many grant programs available to the City.”

Comments:

“Great!”

“Should have been done a long time ago.”

“CIP will assist in budgeting process and long range planning.”

Master Plan Surveys Summary

In total, 862 surveys were submitted for this *Master Plan* by a diverse segment of the Rock Springs population. The citizens of Rock Springs were strongly involved during the public participation component of this *Master Plan*, and their responses were a guiding element in the creation of goals and projects which this plan recommends for the future development of Rock Springs.

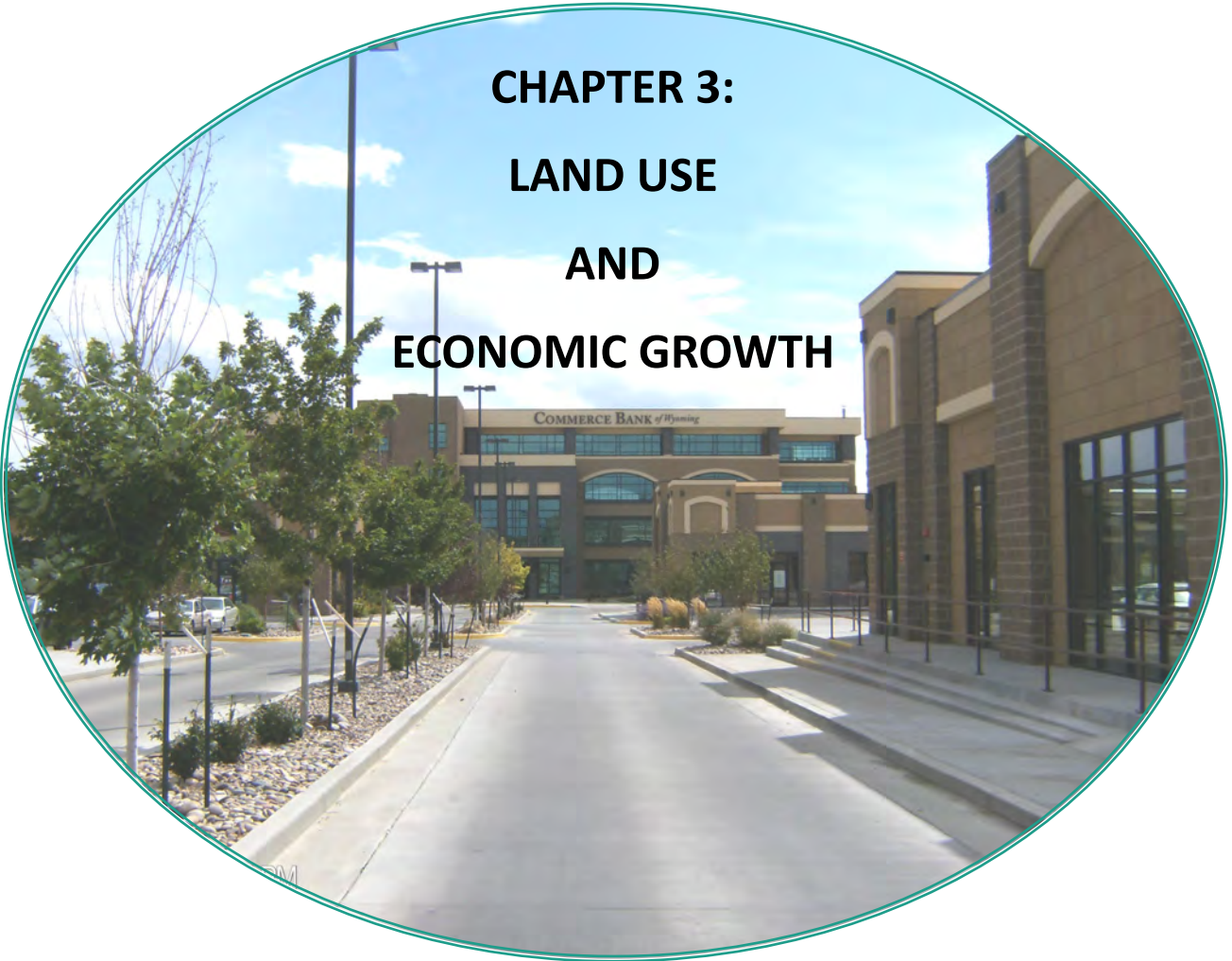
GOAL #2



**DEVELOP A RELIABLE
INFRASTRUCTURE AND TRANSPORTATION NETWORK,
HEALTHY NEIGHBORHOODS,
BALANCED AND COMPATIBLE LAND USES,
AND A STRONG DOWNTOWN
TO PROMOTE COMMUNITY AND ECONOMIC GROWTH**



CHAPTER 3: LAND USE AND ECONOMIC GROWTH



Commerce Centre on Dewar Drive

“Land use and economic growth form the cornerstone of this 2012 Master Plan. This Plan strives to attain sustained economic growth while maintaining quality of life for the citizens of Rock Springs. In this way, we can leave a well-balanced, flourishing community for future generations.”

- Jana McCarron, AICP, Rock Springs City Planner

Chapter 3: Land Use and Economic Growth

Sections:

- 3.1 Introduction
- 3.2 Land Use Overview
- 3.3 Population Projection
- 3.4 Vacant Land Inventory
- 3.5 2012 Master Plan - Official Land Use Map
- 3.6 Sections 21 and 16
- 3.7 Annexation
- 3.8 County Coordination
- 3.9 Zoning Ordinance and Map Changes
- 3.10 Economic Growth Overview
- 3.11 Sector Analysis
- 3.12 Workforce Analysis
- 3.13 Major Employers
- 3.14 Conclusion
- 3.15 Chapter 3—Implementation Plan

3.1 Introduction

This 2012 Master Plan was prepared on the heels of a decade of robust growth, which was facilitated by previous planning efforts. In the public participation component of 2012 Master Plan development, citizens expressed a desire to continue growing, while at the same time preserving quality of life and protecting the surrounding environment.

In addition, economic growth was strongly supported. To that end, this chapter strives to meet the challenge of continued economic growth and physical expansion in a sustainable fashion.

3.2 Land Use Overview

A land use plan is meant to be a guide for the development of a community. It should not be construed as a rigid image of the future of Rock Springs, but rather a mechanism for showing the most advantageous relationships between residential, commercial, industrial and other land use types.

“This 2012 Master Plan aims to allow for more flexibility in the types of zoning allowed within any given area, while still supporting high quality development. The plan also encourages infill development so as to limit the amount of new infrastructure required to support growth.”

This 2012 Master Plan aims to allow for more flexibility in the types of zoning allowed within any given area, while still supporting high quality development. The plan also encourages infill development so as to limit the amount of new infrastructure required to support growth.

3.3 Population Projection

From 2000 to 2010, the City of Rock Springs grew at an average rate of two percent (2%) per year. Among the challenges facing land use planners is predicting future growth rates. Will the high growth of the past decade be sustained into the future? Or, will growth level off? Perhaps the City will even experience declines in population, as occurred in some parts of the nation over the last decade.

The 2007 City of Rock Springs Housing Master Plan predicted a sustained rate of growth of 2% annually through the year 2017 (Pedersen b., 2-19). The plan’s projection for a 2010 population of 23,536 exceeded the actual census population by exactly 500 residents.

This plan uses the 2010 Census figure of 23,036 as a baseline and then assumes a conservative average annual growth rate of 1.8%. While this rate is slightly lower than that used by Pedersen, it reflects the economic uncertainties of a resource-based economy and should adjust for the overage reached by Pedersen. Should actual growth substantially exceed projections, the City will need to update this plan sooner than the 10-year planning horizon. If growth is slower, only portions of the plan may require updating.

TABLE 3.1
Population Projection 2010-2022

Year	Projected Population	1.8% Increase by Year
2010	23,036	-
2011	23,451	415
2012	23,873	422
2013	24,302	430
2014	24,740	437
2015	25,185	445
2016	25,639	453
2017	26,100	461
2018	26,570	470
2019	27,048	478
2020	27,535	487
2021	28,031	496
2022	28,535	505
Total New Residents 2010-2022		5,499
% Growth 2010-2022		23.9%

Using an annual rate of growth of 1.8%, the City can expect an overall growth of 23.9% from 2010 to 2022, with total growth being 5,499 residents. The year 2022 population would be 28,535. Table 3.1 shows the anticipated population increase by year over the next decade.

3.4 Vacant Land Inventory

It is essential to conduct a vacant land inventory when planning for anticipated growth. Is there enough vacant land to accommodate growth? Will annexations be needed? Are there sufficient quantities of differing land use types to support a sustainable future population?

"He who fails to plan is planning to fail."

- Sir Winston Churchill (during WWII)

The land area of the City of Rock Springs is approximately 16 square miles. As of November 2012, there were approximately 4,834.3 developed acres and 5,124.7 undeveloped (vacant) acres in the City's inventory, excluding the Airport and existing right-of-ways, drainage ways and railroad corridors. To put it another way, some 48.5% of the parcels in the City Limits are developed and 51.5% are not. If all of the vacant property within the City Limits were fully developable, the City would be able to support double its current population without having to annex additional property.

However, adjustments need to be made for infrastructure, topography, floodplain and other factors that serve to limit development. For purposes of this *Master Plan*, the following assumptions have been made:

- ⇒ Commercial: 60% of vacant land is developable
- ⇒ Residential & Other: 70% of vacant land is developable
- ⇒ Industrial: 40% of vacant land is developable

Based upon these adjustments, there are approximately 2,025.7 vacant and developable acres available for residential development, 441.2 vacant and developable acres available for commercial development, and 521.9 vacant and developable acres available for industrial development (see Table 3.2).

At the present population density of 11.18 persons per developed residential acre (2011 population estimate), the existing vacant, developable residential property within the City Limits could support an additional 22,655 residents. Since this Plan anticipates a population growth of 5,499 persons over the next decade, annexations are not required to support the City's future residential population needs.

3.5 2012 Master Plan - Official Land Use Map

To support anticipated growth needs, this plan includes an *Official Land Use Map* (see Map 3.1) which is subsequently broken into three zones (north, west, and east) for ease of reading (see Maps 3.2-3.4). The *Official Land Use Map* contains the land use mixes as depicted in Table 3.2.

A description of each of the land use designations in this plan is included in Table 3.3. The primary land use shown on the *Official Land Use Map* is residential (LDR & HDR), with 51.8% of developed + developable properties comprising this land use type.

Commercially designated properties make up 13.2% of the developed plus developable properties, while industrial properties make up 16.7%. The remaining land use types (mixed use; public & institutional; and parks, recreation & environment) comprise 18.3% of the total. This mix of land use types represents an overall increase in residentially and commercially designated properties (8.4% and 0.6% respectively), no change in the overall percentage of industrial properties, and a decrease in other land use types of 9.1%.

Among these other land use types are three new land use designations that were not included in the *1983 Master Plan*. The first of these, Mixed Use (MU), is intended for areas with a true mixture of uses, either vertically (in the same building) or horizontally. This development type encompasses much of the City's historical Downtown area, as well as some areas

“Mixed use development typically includes lower intensity commercial uses – small retail shops and services – and higher intensity residential uses, such as apartments. However, there are cases where single family residential can be found next to neighborhood commercial uses.”

bounding Business 80 / U.S. Hwy. 30. Mixed use development typically includes lower intensity commercial uses – small retail shops and services – and higher intensity residential uses, such as apartments. However, there are cases where single family residential can be found next to neighborhood commercial uses.

The second new land use designation is Public & Institutional (PI). This designation was added to include properties containing public and quasi-public uses. Governmental administration centers, schools (including Western Wyoming Community College), and Memorial Hospital of Sweetwater County are all designated PI.

TABLE 3.2
2012 Master Plan - Official Land Use Map
Land Acreage

Land Use Designation	Existing Developed Acres	Vacant and Developable Acres	Total Acres	% of Total Acres
Residential (LDR & HDR)	2,096.8	2,025.7	4,122.5	51.8%
Commercial (C)	611.0	441.2	1,052.2	13.2%
Industrial (I)	802.7	521.9	1,324.6	16.7%
Other (MU, PI, & PRE)	1,323.8	133.5	1,457.3	18.3%
Total	4,834.3	3,122.3	7,956.6	100.0%

The third new land use designation is Parks, Recreation, & Environment (PRE). This designation includes such areas as public parks, cemeteries, the Sweetwater County Events Complex, the Rock Springs Golf Course, and the Rock Springs Family Recreation Center.

As stated previously, this plan projects continued growth into the next decade. As the City grows, the ability of planning staff to efficiently respond to inquiries, process applications, update Ordinances, make necessary updates to the Master Plan and perform enforcement is eroded. For this reason, this plan recommends an annual review of Planning staffing in comparison with workload, as well as benchmarking against comparable cities, be performed in order to ensure appropriate levels of service are achieved. See Implementation Plan project 3.1.

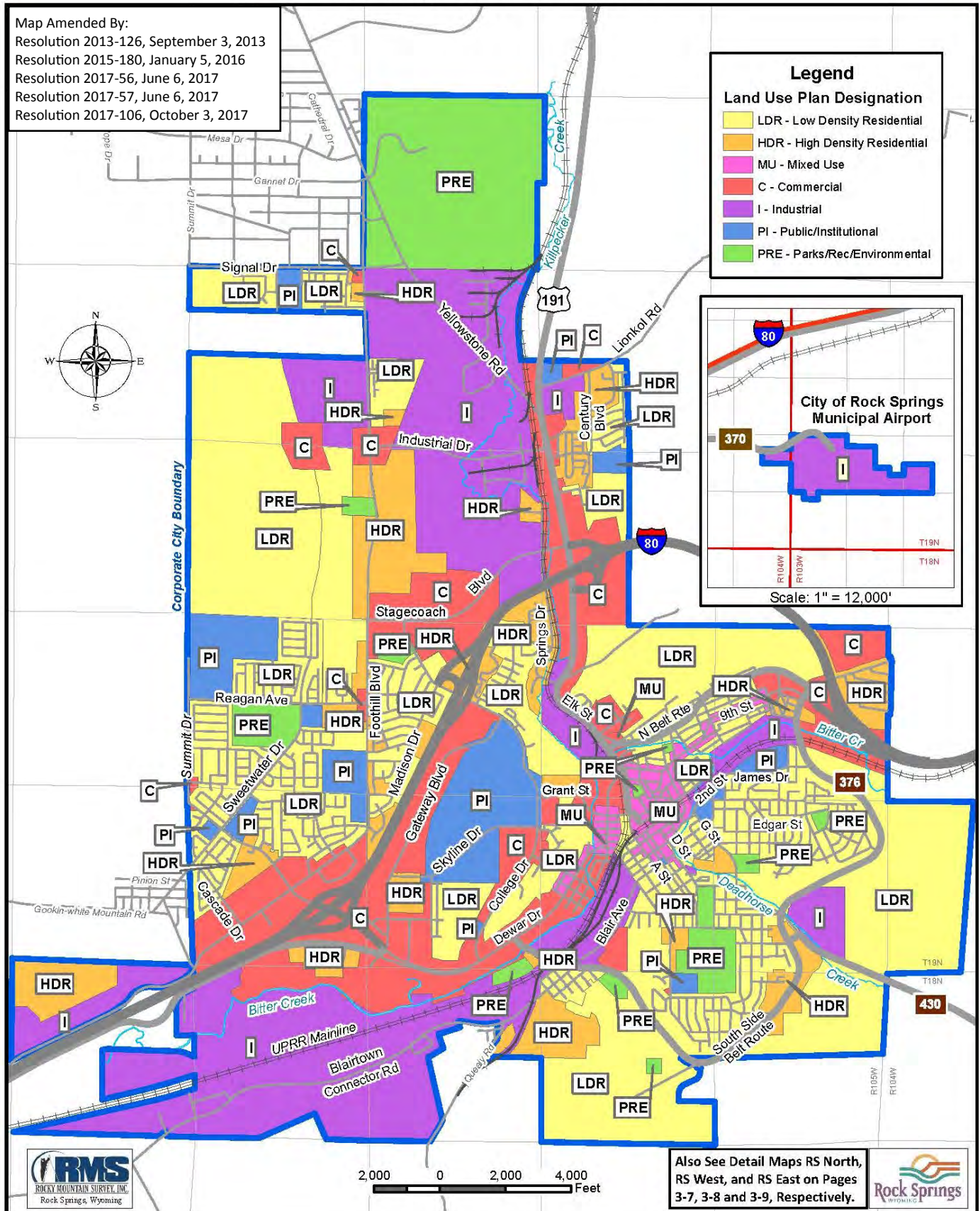
“As the City grows, the ability of planning staff to efficiently respond to inquiries, process applications, update Ordinances, make necessary updates to the Master Plan and perform enforcement is eroded. For this reason, this plan recommends an annual review of Planning staffing...”

TABLE 3.3
2012 Master Plan - Official Land Use Map
Land Use Designations

Land Use Designation	Definition	Compatible Zoning Districts
LDR – Low Density Residential	Low intensity residential development at densities ranging from 0.5 to 7 dwelling units per acre.	R-E, R-1, R-2 & R-3
HDR – High Density Residential	High intensity residential development at densities ranging from 7.1 dwelling units per acre to 22 dwelling units per acre, as well as supporting small commercial development.	R-4, R-5, R-6 & B-1
MU – Mixed Use	A mixture of office, retail and residential development, with uses often mixed vertically in the same building. Commercial developments are typically of a small scale and are oriented toward pedestrians.	B-3 & B-R
C – Commercial	Automobile-oriented commercial development, as well as high intensity residential development.	B-2 & R-5
I – Industrial	Areas of light and heavy industrial development, including manufacturing, warehousing, and other, similar uses.	I-1 & I-2
PI – Public & Institutional	Development consisting of buildings for public uses, including government office buildings, fire stations and schools.	All residential and commercial zoning districts.
PRE – Parks, Recreation, & Environment	Areas devoted to public parks, cemeteries, open space and other, similar uses.	O-1 & all residential and commercial zoning districts.

MAP 3.1

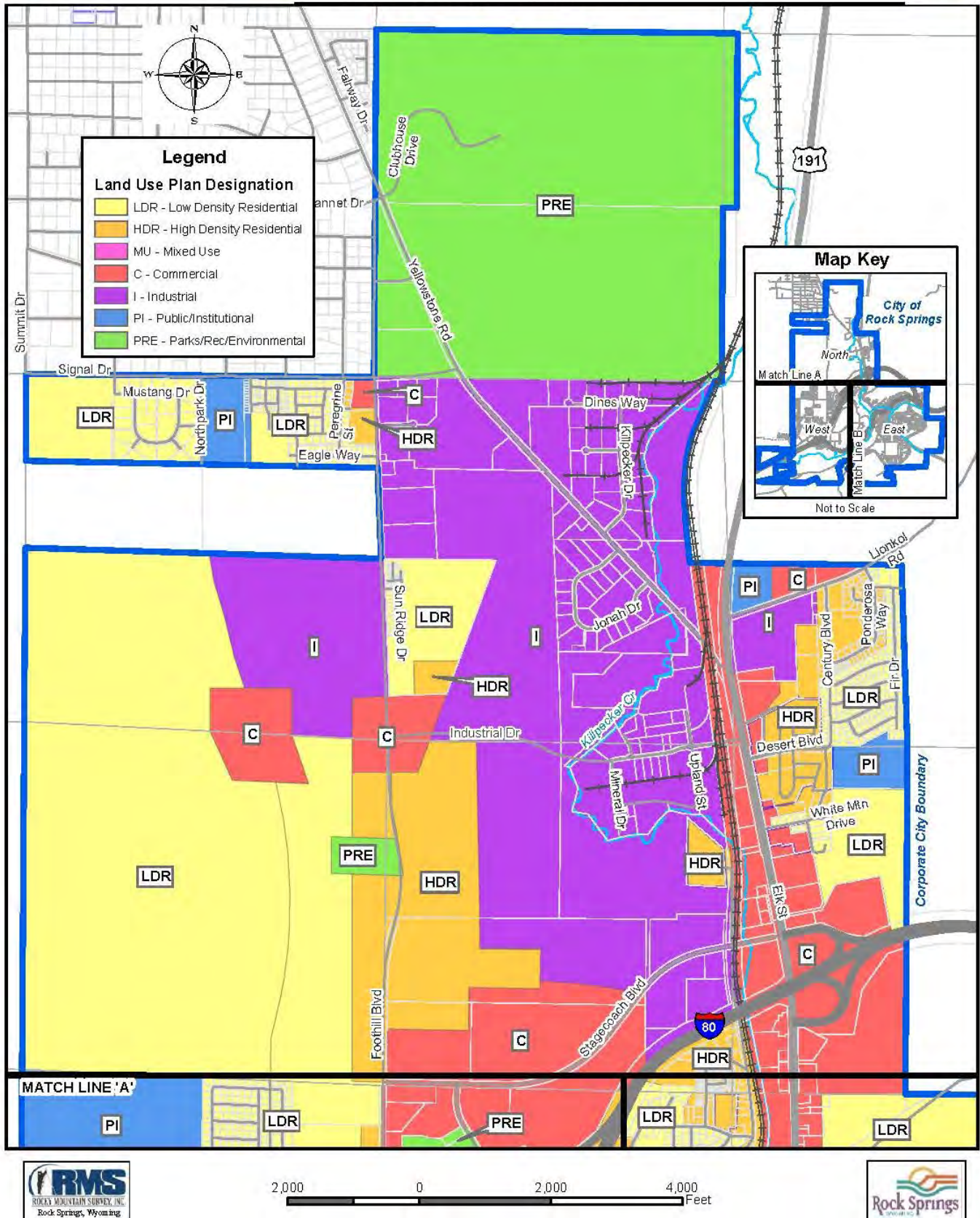
2012 Master Plan - Official Land Use Map



Notice: This map is intended for illustrative purposes only. Users are advised to verify the information shown hereon by consulting the City of Rock Springs Planning Office.

MAP 3.2

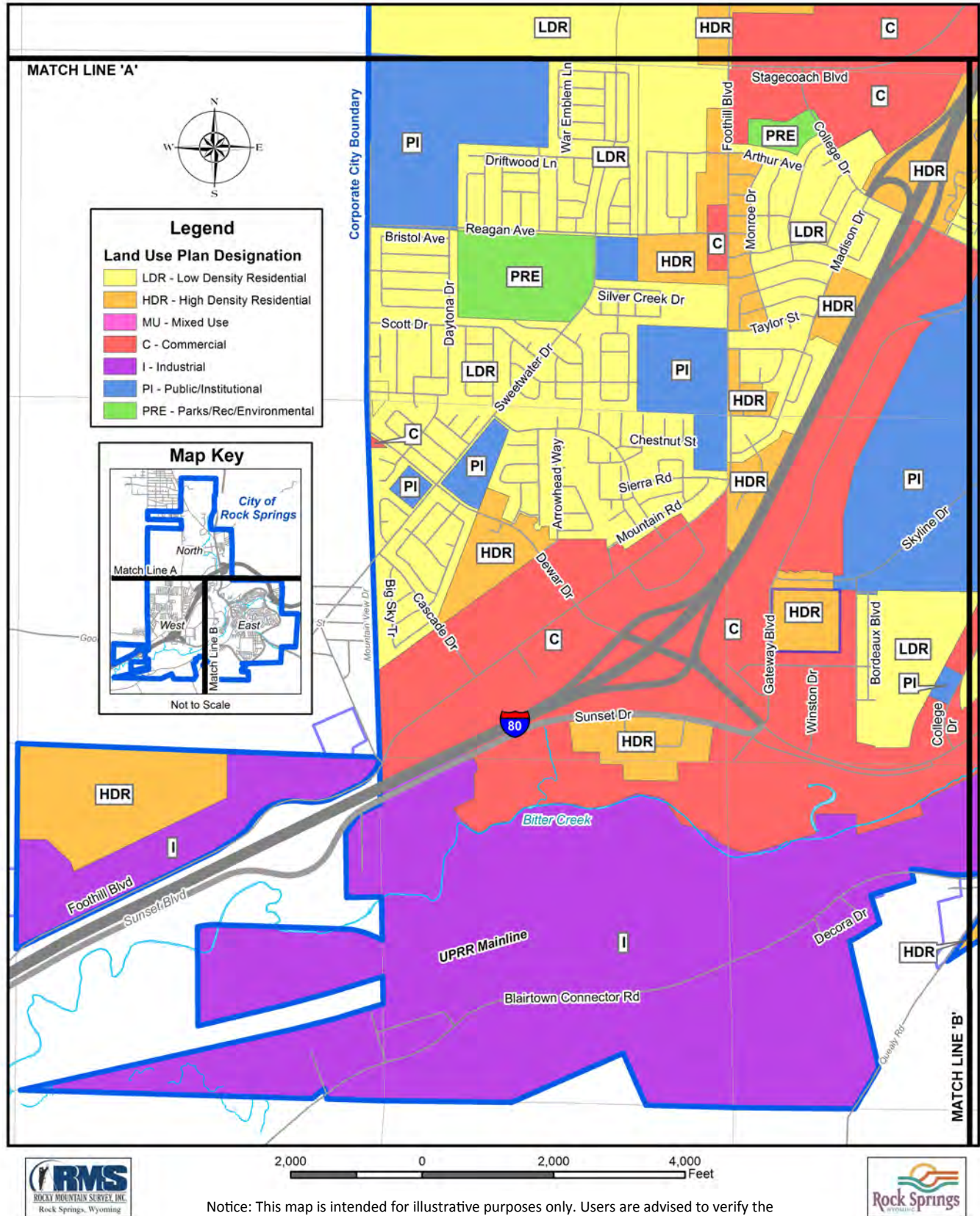
2012 Master Plan - Official Land Use Map - NORTH DETAIL



Notice: This map is intended for illustrative purposes only. Users are advised to verify the information shown hereon by consulting the City of Rock Springs Planning Office.

MAP 3.3

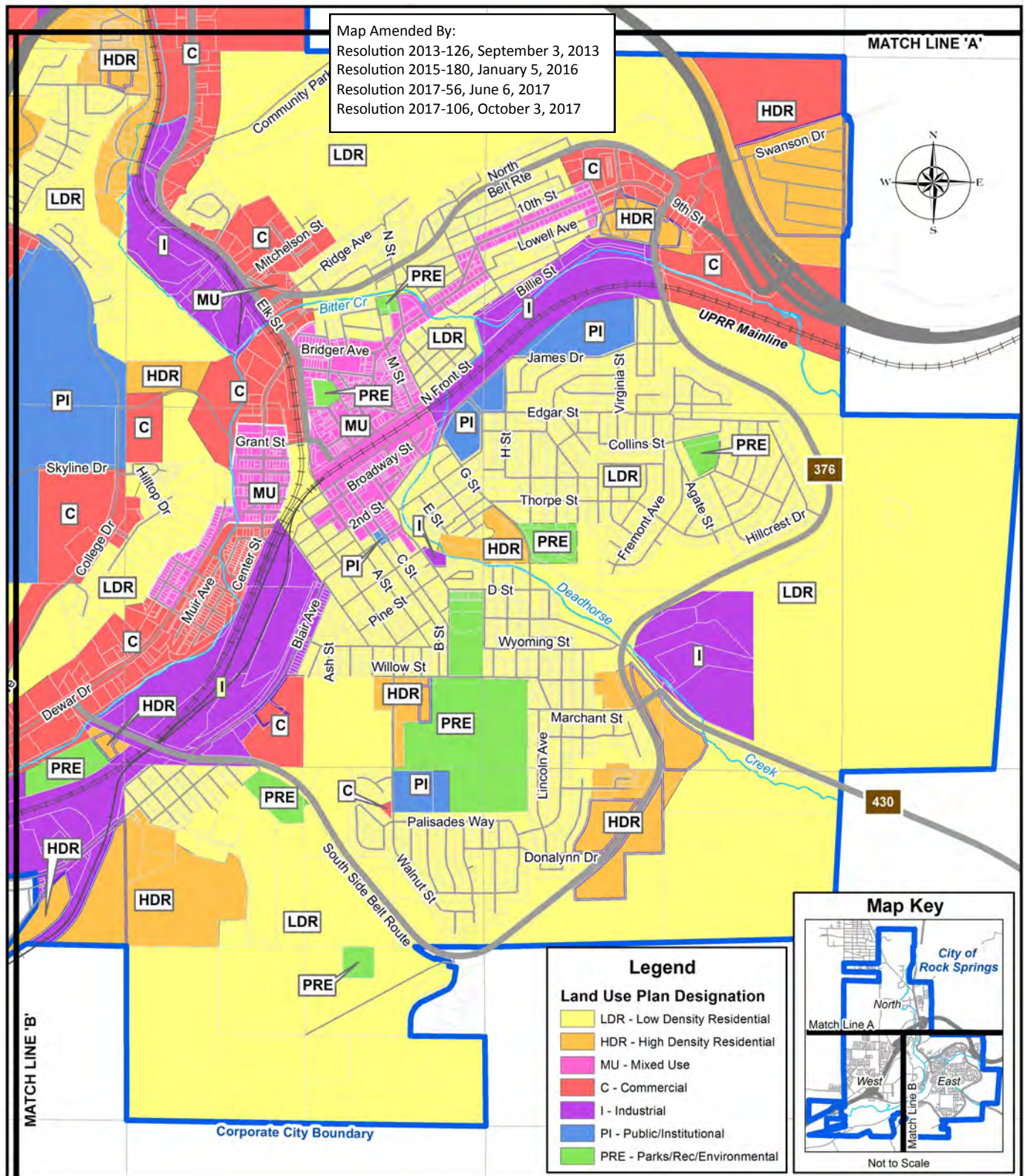
2012 Master Plan - Official Land Use Map - WEST DETAIL



Map Amended by Resolution 2017-57 Dated June 6, 2017

MAP 3.4

2012 Master Plan - Official Land Use Map - EAST DETAIL



Notice: This map is intended for illustrative purposes only. Users are advised to verify the information shown hereon by consulting the City of Rock Springs Planning Office.



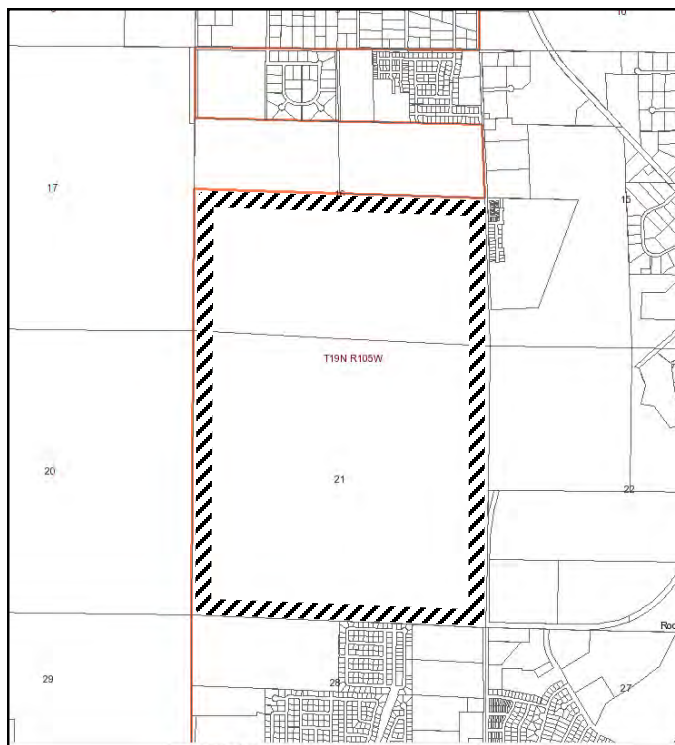


Figure 3.1: Sections 21 and 16, northwest Rock Springs.

3.6 Sections 21 and 16

This *2012 Master Plan* projects continued growth of 1.8% per year over the next ten years. While some of this growth can be absorbed within existing subdivisions and on other infill properties, it is likely that vacant properties located on the City's west side will need to be developed in order to handle all of the projected growth. The primary new development area identified by City Council and Planning staff is Section 21 and the southern portion of Section 16, both of which lie within the existing City Limits (see Figure 3.1).

Section 21 contains 663.67 acres owned by Anadarko E&P and is presently for sale. Located directly north of existing development – Sweetwater Downs and Pronghorn Estates subdivisions – this area is a prime area for future development.

Just north of Section 21 is Section 16, the southern portion of which has already been annexed and which is owned by the Bureau of Land Management. This approximately 320-acre property is less likely to develop in the timeframe of this plan, however, it should be considered as potential

development property, particularly given its proximity to Section 21.

In order to ensure development of Sections 21 and 16, and future large parcels of 40 acres or more, in a logical fashion that includes connected and efficient infrastructure and an appropriate mix of land uses, a conceptual plan for development is needed. Implementation Plan project 3.2 includes preparation of a Conceptual Development Plan prior to development of Sections 21 and 16, as well as for future large properties.

3.7 Annexation

Given the high amount of vacant, developable land located within the existing City Limits, this Plan does not anticipate the need for annexations within the 10-year planning horizon. However, there may be cases where a proposed annexation would be desirable.

One area the City should consider for possible annexation is the approximately 80 acres in Section 16 that lies just south of Sweetwater Station, Northpark and Skyview Estates subdivisions. While it appears there is adequate property within the City to accommodate growth needs, this property is substantially encompassed by the City and would make both a logical and desirable addition. As this property is presently owned by the Bureau of Land Management, imminent development is unlikely. However, the City will want to ensure this property is annexed prior to development.

Another potential annexation area lies between the Airport and the City's easternmost boundary. There have been discussions about annexing sufficient property between the City and the Airport to allow for installation of a water line to the Airport. While this Plan supports installation of the waterline and development of an Industrial Park at the Airport, it does not recommend annexation of the intervening property, as this would not meet the State of Wyoming's requirements for annexation, which include:

- ⇒ An annexation of the area is for the protection of the health, safety and welfare of the persons residing in the area and in the city or town;

- ⇒ The urban development of the area sought to be annexed would constitute a natural, geographical, economical and social part of the annexing city or town;
- ⇒ The area sought to be annexed is a logical and feasible addition to the annexing city or town and the extension of basic and other services customarily available to residents of the city or town shall, within reason, be available to the area proposed to be annexed;
- ⇒ The area sought to be annexed is contiguous with or adjacent to the annexing city or town, or the area meets the requirements of W.S. 15-1-407; and
- ⇒ If the city or town does not own or operate its own electric utility, its governing body is prepared to issue one (1) or more franchises as necessary to serve the annexed area pursuant to W.S. 15-1-410.

Finally, in order to promote efficient infrastructure and services, and to limit the negative impacts of sprawl and leapfrog development, this Plan recommends that, in addition to the required State findings, the following local findings be made prior to City Council approval of future annexations:

- 1) There does not exist, within the existing City Limits, sufficient undeveloped, but developable, property designated for the proposed development type to meet the growth needs of the City;
- 2) The annexation request, if made by a private party, is accompanied by an approvable application for development – Subdivision, Site Plan, etc. – and is not purely speculative; and
- 3) The annexation does not create a “flagpole” or a “donut” shaped area of the City.

3.8 County Coordination

The City of Rock Springs and Sweetwater County have met numerous times to develop an agreement for the Growth Management Area, the Future Annexation Area and the Sphere of Influence Area surrounding the City. Discussions are ongoing, although a specific project has not been identified in this Plan. This plan does not include any specific strategies nor does it look beyond the City’s current boundaries. It is anticipated that *2012 Master Plan* amendments will be needed once these discussions are complete and an agreement has been reached.



Rock Springs Zoning Map Excerpt.

3.9 Zoning Ordinance and Map Changes

Implementation Plan projects 3.3.a - 3.3.c include numerous updates to the City’s Zoning Ordinance and Map. These changes reflect comments received from the public and City Council during the public participation process for plan development. Each of these updates is discussed briefly below:

- a. Develop a holding zone for undeveloped properties. The City’s existing Zoning Map designates virtually all undeveloped properties as R-1 (Single Family Residential). This is a common practice for communities, as the R-1 Zone is typically the most restrictive. Unfortunately, using the R-1 Zone as a holding zone requires a lengthy, and sometimes heavily-contested, public hearing process to rezone properties prior to development. Even in cases where R-1 development would not be compatible – i.e., along arterial roadways, at heavily-trafficked intersections, and adjacent to industrial development – rezones are frequently opposed by neighboring property owners claiming these properties were always intended to be single family. This implementation project would create a holding zone so as to eliminate “single family only” claims by adjacent property owners. While rezones would still be required prior to property development, they would be streamlined, as long as they are compatible with the 2012 Master Plan. Only those rezones requiring amendments to both the 2012 Master Plan Land Use Map and the Zoning Map would be required to go through a full, lengthy public hearing process.

- b. Allow for a mixture of land uses within older neighborhoods. Historically, many of the City's residential neighborhoods included corner stores, dry cleaners and other, neighborhood related establishments. The City's current Zoning Ordinance does not allow for continuation of this development type, which leads to dependence upon the automobile for even the smallest of products. In order to promote complete neighborhoods, this Plan proposes modifying the Zoning Ordinance to allow for a mixture of land use types, particularly at key intersections, and encouraging neighborhood commercial development. Presently, the City's neighborhood commercial zoning district is limited to a few, given uses. This project would also include an investigation into compatible uses and amendments to the Zoning Ordinance to allow for these uses, with the objective of creating more complete neighborhoods that are not as automobile dependent.
- c. Promote high quality industrial development and target future heavy industrial development for key arterial roadways, including areas outside of the City. Heavy industrial land uses are extremely intense and include such undesirable side effects as heavy truck traffic, noise, dust and visual blight. Heavy trucks are particularly taxing on a community's roadways, requiring resurfacing to be performed more frequently. In addition, when heavy trucks mix with regular vehicles, they pose a traffic hazard. This project proposes concentrating future heavy industrial development in appropriate areas and limiting this use type to areas with sufficient supporting infrastructure.

3.10 Economic Growth Overview

Economic development of a community is intrinsically linked to its land use plan. Cities without adequate land designated for commercial, industrial and even residential growth struggle to meet the growth demands of private industry. This does not mean that the City of Rock Springs can afford to adopt an, "if we plan for it, it will come" mentality. But, without the land use plan in place, there will be no place for economic growth to occur.

"While there are significant vacant properties located on the City's western side, there are also several vacant infill properties that are surrounded by development which, for a variety of reasons, have never been developed or are under-developed."

Promoting economic development is a function that cannot be accomplished by the Mayor alone. The City needs to make a policy decision to either hire an economic development coordinator or pay a consultant / organization to do this work (see Implementation Plan project 3.4.a).

Every City employee – from street sweepers, to police officers, to the Mayor – is essential to the economic prosperity of the City. Companies have made decisions to move or expand based upon their experiences with City staff and their impressions of the community. Are staff friendly and helpful? Is graffiti and litter kept to a minimum? Are road signs missing or faded?

Clean, well-maintained communities project an image of civic pride that is attractive not only for new businesses, but also for new employees and tourists. In summary, economic development is not something done in isolation; it is a collaborative effort.



Underdeveloped Infill Property Along Elk Street.

3.11 Sector Analysis

Mining & Extraction

According to 2010 County Business Patterns data from the Census Bureau, 20.7% of workers in Sweetwater County are engaged in the mining, quarrying, and oil/gas extraction sector. This compares with 11.5% statewide and less than one percent (0.5%) across the nation (see Table 3.4).

These high resource extraction employment statistics reflect rich mineral and gas deposits existing in the region, including the world's largest deposit of trona ore (a sodium carbonate compound). Trona is processed into soda ash, which is used in the production of glass, kitty litter, baking soda, paper and detergents. According to the Wyoming Mining Association, Wyoming contains "the world's largest deposit of trona, and supplies about 90% of the nation's soda ash." ("Wyoming Trona", 1)

Other local mining and extraction industries include coal mining— Jim Bridger mine (384 employees in 2011) and the Black Butte mine (197 employees in 2011) – and oil and natural gas production. "Nationally, Wyoming ranked 7th in



Jim Bridger Plant, Point of Rocks, Sweetwater County.

production of crude oil and 2nd in natural gas production during 2010." ("Oil and Gas Facts", 2). Sweetwater County was the third highest producer of natural gas in the state in 2010, with Sublette County ranking first. So prevalent is the industry that 50.27% of the total property tax assessed in Sweetwater County in 2010 came from the oil and gas industry ("Oil and Gas Facts", 6).

TABLE 3.4
Detailed Comparison of Economic Sectors - 2010

Economic Sector	Sweetwater County	% of Total	State of Wyoming	% of Total	United States	% of Total
Agriculture, forestry, fishing and hunting	-	-	209	0.1%	156,055	0.1%
Mining, quarrying, and oil and gas extraction	3,295	20.7%	23,581	11.5%	581,582	0.5%
Utilities	-	-	2,492	1.2%	638,058	0.6%
Construction	774	4.9%	17,797	8.7%	5,389,271	4.8%
Manufacturing	1,718	10.8%	9,746	4.8%	10,862,838	9.7%
Wholesale trade	767	4.8%	7,632	3.7%	5,598,507	5.0%
Retail trade	2,541	16.0%	30,608	14.9%	14,496,625	12.9%
Transportation and warehousing	944	5.9%	9,115	4.4%	4,011,989	3.6%
Information	223	1.4%	3,957	1.9%	3,124,036	2.8%
Finance and insurance	357	2.2%	6,932	3.4%	5,298,696	4.7%
Real estate and rental and leasing	391	2.5%	4,293	2.1%	1,946,424	1.7%
Professional, scientific and technical services	454	2.9%	8,999	4.4%	7,822,417	7.0%
Management of companies and enterprises	-	-	846	0.4%	2,832,953	2.5%
Administrative, support, waste management, and remediation services	394	2.5%	5,862	2.9%	8,977,265	8.0%
Educational services	34	0.2%	2,063	1.0%	3,273,527	2.9%
Health care and social assistance	1,143	7.2%	31,820	15.5%	17,787,859	15.9%
Arts, entertainment and recreation	126	0.8%	4,290	2.1%	2,003,595	1.8%
Accommodation and food services	1,691	10.6%	26,089	12.7%	11,312,122	10.1%
Other services (except public administration)	557	3.5%	8,648	4.2%	5,204,445	4.6%
Other, not specified	495	3.1%	276	0.1%	651,831	0.6%
Total	15,904	100%	205,046	100%	111,970,095	100.0%

Source: 2010 County Business Patterns (NAICS), U.S. Census Bureau.

Given the abundant local resources, it is not surprising that mining and oil and gas extraction employ such a high percentage of local residents. However, one of the keys to continued economic prosperity in the future will be diversification of the economy into other sectors.

Retail Trade

Another economic sector where Sweetwater County exceeds the national and state average is in retail trade. According to the 2010 County Business Patterns report, 16% of the county's workers are employed in retail trade. This compares to 14.9% across the state and 12.9% nationwide (see Table 3.4).

This high level of retail trade employment likely reflects the City of Rock Springs' location as a regional trade center. The City boasts several national chains, including Walmart, K-Mart, JC Penney, Home Depot and Staples, as well as

TABLE 3.5
Economic Market Area By Population

City	Population	City	Population
Rock Springs	23,036	Wamsutter	451
Green River	12,515	Superior	336
Kemmerer	2,656	Farson	313
North Rock Springs	2,207	Fort Bridger	301
Lyman	2,115	Eden	281
Pinedale	2,030	Granger	139
Mountain View	1,286	Opal	96
Clearview Acres	795	Little America	68
Diamondville	737	Arrowhead Springs	63
Reliance	714	McKinnon	60
Jamestown	536	Washam	51
Purple Sage	535		
Total Regional Economic Market Area Population			51,321

Source: U.S. Census Bureau, 2010.



Figure 3.2: Southwest Wyoming, Rock Springs Economic Market Area.

numerous other retailers. Among the retailers that residents would like to attract are Bath & Body Works, Target and Cabela's.

In the west, where distances are vast, the actual market area for a city can be far beyond what is typical in more populated areas. Rock Springs' market area goes 100 miles to the north and at least 70 miles to the east and west and includes the cities listed in Table 3.5 and illustrated in Figure 3.2. The City should find ways to market its regional population of more than 51,321 people in order to attract additional national chains (see Implementation Plan project 3.4.c).

Manufacturing

Another strong component of the local economy is manufacturing. With 10.8% of workers employed in this sector, Sweetwater County exceeds the national average of 9.7% and the state average of 4.8% (see Table 3.4). Given the high amount of employment already in this sector primarily related to mining and resource extraction, this Plan recommends diversifying this sector to include renewable, "green" energy components such as solar panels, windmills, etc. (see Implementation Plan project 3.4.d).

Accommodation and Food Services

The fourth highest employment sector in Sweetwater County is accommodation and food services. This sector accounts for more than 10 percent of local employment (see Table 3.4).

While a higher percentage of persons are employed in this sector in Sweetwater County than throughout the nation, the county lags behind the state (2.1% lower) in accommodation and food services employment. Due to the City's location along the I-80 / US 191 corridor and the abundance of outdoor recreation opportunities available, there is a possibility that tourism efforts could be increased to provide additional employment in this sector.

According to the *Branding, Marketing and Development Action Plan*, "Visitors will travel to a destination if there are enough activities that appeal to them that will last four times longer than their travel time...getting visitors to stay overnight is the primary goal, since they spend three times the amount of money a day visitor will spend." (Destination Development, 10) To that end, this Plan recommends strong support for the Sweetwater County Joint Travel and Tourism Board.

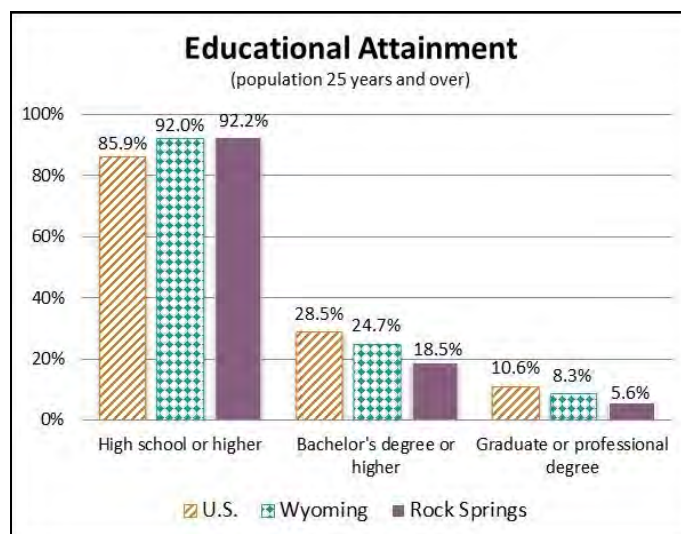


Figure 3.3: Educational Attainment.

Source: U.S. Census Bureau, 2011.Am. Community Survey.

In summary, there are opportunities for diversification of the local economy that will, hopefully, even out the booms and busts associated with resource extraction dependent economies. The goals and projects included at the end of this chapter will reflect this sector diversification.

3.12 Workforce Analysis

One measure to consider when attracting new employers to a location is educational attainment. Rock Springs has a high percentage of workers who have a high school education. At 92.2%, this is higher than both the state average of 92.0% and the national average of 85.9% (see Figure 3.3).

The City, however, lags behind the state and the nation in the percentage of the population 25 years and older with a bachelor's degree. When graduate/professional degrees are considered, the national average is almost double that of the City.

One way to increase educational attainment is to expand local opportunities for Bachelor and Graduate degrees through cooperative agreements and programs with four year universities. Encouraging local employers to partner with their employees to fund continuing education is another way to increase educational attainment in the community.

3.13 Major Employers

Major employers in Sweetwater County reflect the area's dependence upon resource-based companies. Of the top 25 local employers, more than half of them (14) are resource extraction, manufacturing or related support companies. Combined, these companies employ more than 4,900 local residents and comprise 63% of the workforce for businesses in the top 25 (see Table 3.6). Some of these companies have expressed a desire to expand, however, their existing sites are severely restricted in size and sufficient developable properties within the City Limits are not readily available. Several projects need to be conducted to facilitate expansion of existing businesses, as well as attraction of new businesses, including:

- ⇒ Conduct an inventory of vacant properties suitable for commercial and industrial uses, and identify/remove barriers (see Implementation Plan project 3.4.b). Among the recommendations made by economic expert Ed McCallum in 2010 (McCallum) was to develop an inventory of shovel-ready properties. While public funds cannot be used to benefit private properties, the City can work toward removing regulatory and other obstacles to development, while, at the same time, having a ready-made list of properties for prospective companies.
- ⇒ Identify comparable successful cities that can serve as peer case-studies and implement tried and true practices (see Implementation Plan project 3.4.e). Rock Springs is not unique in terms of its economic balance. Other cities, both within the state and outside of it, have struggled with diversifying their economies to make them more robust and less susceptible to booms and busts. By examining other cities, a portfolio of tried and true economic policies, programs and practices can be developed and implemented. In this way, the City can capitalize on the successes of others while avoiding the pitfalls.
- ⇒ Support development of an industrial park at the Rock Springs-Sweetwater County Airport (see Implementation Plan project 3.4.f). Some of the heavy industrial development within the City is located on properties that are geographically, topographically or otherwise constrained. There is sufficient land at the Airport to support several industrial companies and, though infrastructure obstacles presently exist, by supporting efforts to develop an industrial park near the Airport,

some of the larger companies would have room for expansion. At the same time, smaller companies needing to expand could move onto these vacated properties, thereby leaving marginal industrial properties available for commercial development and/or redevelopment. Tax-sharing agreements may be needed to fully implement this project.

3.14 Conclusion

In summary, this *Master Plan* builds upon the efforts of the *1983 Master Plan* and includes some projects that will help move the City away from automobile dependence, as well as foster economic growth and facilitate rezones of property when in conformance with the *Official Land Use Map*. The Plan does not foresee the need for annexations within the ten-year planning horizon and recommends infill development, along with development of Sections 16 and 21 to accommodate projected growth.

TABLE 3.6

Top 25 Major Employers in Sweetwater County

Company	# of Employees
FMC Wyoming	888
Halliburton	720
Sweetwater Co. School Dist. 1	578
Tata Chemicals (formerly General Chemical)	520
Jim Bridger Coal	443
OCI	430
Solvay Minerals	426
Pacificorp	426
Memorial Hospital of Sweetwater Co.	322
Schlumberger	335
Sweetwater Co. School Dist. 2	319
City of Rock Springs	218
Questar	208
Simplot	205
Union Pacific Railroad	200
Western Wyoming Community College	197
BJ Services	188
Basic Energy Services	180
Black Butte Coal	178
Church & Dwight	165
Bunning Transfer Company	160
Little America	150
BP American	123
City of Green River	121
Williams Energy Services	105

Source: www.Livability.com

3.15 Chapter 3—Implementation Plan

TABLE 3.7

Goal: Develop a reliable infrastructure and transportation network, healthy neighborhoods, balanced and compatible land uses, and a strong downtown to promote community and economic growth.

Project #	Project Description	Responsible Party	Budget Estimate	Timeline for Completion	Additional Funding Needed?
3.1	As part of the annual budget process, perform an evaluation of Planning & Zoning Division workload and staffing.	Planning & Zoning	\$	Ongoing	Possibly, if new position is warranted
3.2	Prior to development of Sections 21, 16, and future large parcels, require a Conceptual Development Plan.	Planning & Zoning	\$	2014	Yes
3.3.a	Update the City's Zoning Ordinance and Map to include a Holding Zone for undeveloped properties located in future development areas.	Planning & Zoning	\$	2014	Yes
3.3.b	Update the City's Zoning Ordinance and Map to promote Neighborhood Commercial developments.	Planning & Zoning	\$	2015	Yes
3.3.c	Update the City's Zoning Ordinance to protect the City's infrastructure and residential neighborhoods by directing the heaviest Industrial developments toward key arterial roadways and outside of the City.	Planning & Zoning	\$	2016	Yes
3.4.a	Actively promote economic development through either hiring an economic development coordinator/grant writer or paying a consultant to perform this function.	Mayor	\$	2014	Yes - Presently Unfunded
3.4.b	Conduct an inventory of vacant properties suitable for commercial and industrial uses, and identify/remove barriers.	Consultant	\$	2014	None short-term / part of consultant contract
3.4.c	Attract national chain retailers and restaurants by promoting the larger geographic market area associated with western development patterns.	Consultant	\$	2014	None - part of consultant contract
3.4.d	Meet with manufacturers of alternative energy products to attract these companies to Sweetwater County.	Consultant	\$	2015	None - part of consultant contract
3.4.e	Identify comparable successful cities that can serve as peer case-studies and implement tried and true practices.	Consultant	\$	2017	Yes, including some travel
3.4.f	Support development of an industrial park at the Rock Springs-Sweetwater County Airport.	Consultant	\$	2018	None short-term

Budget Estimate: \$ - <50,000; \$\$ - 50,000 - 100,000; \$\$\$ - 100,001 - 500,000; \$\$\$\$ - >500,000

CHAPTER 4: TRANSPORTATION & INFRASTRUCTURE



Grant Street Extension

“The City has spent a great deal of time studying our transportation and infrastructure systems and planning for future growth. Growth, however, cannot occur at the expense of the existing system. Maintenance and upgrades have to be performed so that each system functions cohesively and effectively as a whole. By including Transportation and Infrastructure in the 2012 Master Plan, the City of Rock Springs is showing its commitment to comprehensive planning.”

- Paul Kauchich, PE, Rock Springs Director of Engineering and Operations

Chapter 4: Transportation and Infrastructure

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4.1 Overview

No Master Plan can be complete without an analysis of the City's transportation and infrastructure system. Growth and development of a community require more than the appropriate land use designation and zoning. Without the necessary underlying infrastructure – water, sewer, and storm drainage – properties cannot be developed.

Likewise, properties lacking roadway access are not developable. This chapter contains a discussion of the City's water, sewer and storm drain systems, as well as roadways and other transportation modes, including transit, air travel and rail. Bikeways and pedestrian pathways are included in Chapter 7, Parks, Recreation, and Open Space.

4.2 Capital Improvement Program

Critical to ensuring development of the system in a logical manner and consistent with this plan is preparation of an annual Capital Improvement Program (CIP). This CIP should be prepared as part of the City's annual budget and adopted in a similar fashion, except that the City's Planning and Zoning Commission would need to review the CIP in comparison with the *Master Plan* and make an annual finding of conformance. Proposed projects that do not



Figure 4.1: Irregular Intersections in the Older Areas of Rock Springs.

conform with the *Master Plan* need to be removed, or a *Master Plan* amendment made. Implementation Plan projects 4.1, 4.6, 4.7, and 4.10 pertain to including transportation and infrastructure projects in the annual CIP.

4.3 Transportation—Roadways

Effective transportation systems are central to the economic development and health and safety of a community. Due to its topography, Rock Springs has roadway connectivity challenges. Historically, roadways were built along the winding paths miners took from home to work, creating a number of irregular intersections (see Figure 4.1). The City has worked to overcome these challenges in many ways, most recently through construction of two connector roadways – Grant Street Extension, connecting Business 80 / U.S. Hwy. 30 with College Drive, and Industrial Drive Extension, connecting Elk Street with Foothill Boulevard.

Based upon existing traffic counts provided by the Wyoming Department of Transportation, the City's Engineering and Operations Department indicates that the existing street network functions above average norms for a city of its size. Busier intersections have been reconfigured to accommodate more vehicles, such as the Dewar Drive-Gateway Boulevard intersection. The current practice is to complete reconfigurations and expansions on an "as-needed" basis.

TABLE 4.1

2012 Master Plan—Official Transportation Map
Roadway Designations

Existing Roadway	Functional Classification
Foothill Boulevard	Arterial
Dewar Drive	Arterial
Industrial Drive (including extension)	Arterial
Elk Street	Arterial
Center St./Bridger Ave./Pilot Butte Ave./9 th St.	Arterial
College Drive (existing)	Arterial
Stagecoach Boulevard (existing)	Arterial
Yellowstone Road	Major Collector
Lionkol Road	Major Collector
Gateway Boulevard	Major Collector
Reagan Avenue	Major Collector
Blair Avenue	Major Collector
North Belt Loop	Major Collector
South Belt Loop	Major Collector
Cascade Drive	Major Collector
Summit Drive (existing)	Major Collector
Sweetwater Drive (existing)	Major Collector
Grant Street extension (existing)	Major Collector
Interchange Road (existing)	Major Collector
Desert Boulevard (existing)	Major Collector
Second Street	Minor Collector
James Drive	Minor Collector
Blairtown Road	Minor Collector
Skyline Drive	Minor Collector
Highway 430	Minor Collector
Proposed Roadway	Functional Classification
Stagecoach Boulevard (extension)	Arterial
Industrial Drive (2nd extension)	Arterial
College Drive (extension)	Major Collector
DeCo Property	Major Collector
Desert Boulevard (extension)	Major Collector
East Belt Loop	Major Collector
Grant Street (2 nd extension)	Major Collector
Interchange Road (extension)	Major Collector
Summit Drive (extension)	Major Collector
Sweetwater Drive (extension)	Major Collector

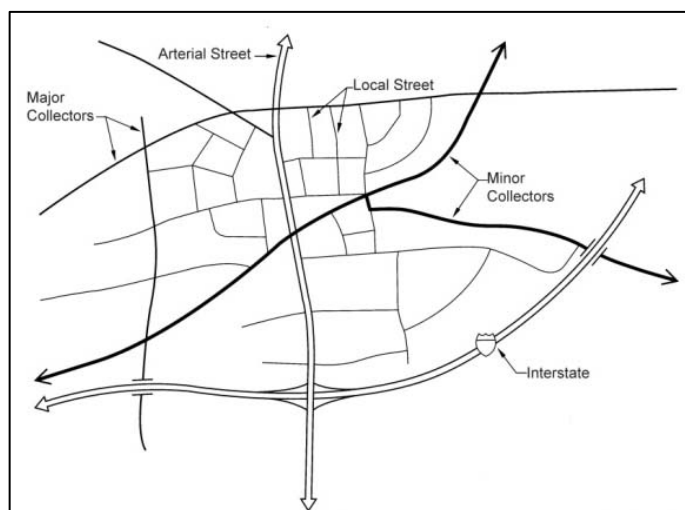


Figure 4.2: Functional Classifications and Their Relationships.
Source: Walter Kulash.

Since the adoption of the *1983 Master Plan* almost thirty years ago, there have been numerous amendments made to the original Transportation Map contained within that Plan, most recently in 2009. While no roadway amendments are proposed at this time, Map 4.1 within this Plan is intended to be the City's newly adopted Official Transportation Map. The map contains a hierarchy of roadway types that are known as functional classifications. A list of classifications and the corresponding roadways is included in Table 4.1 and illustrated in Figure 4.2

Interstate 80

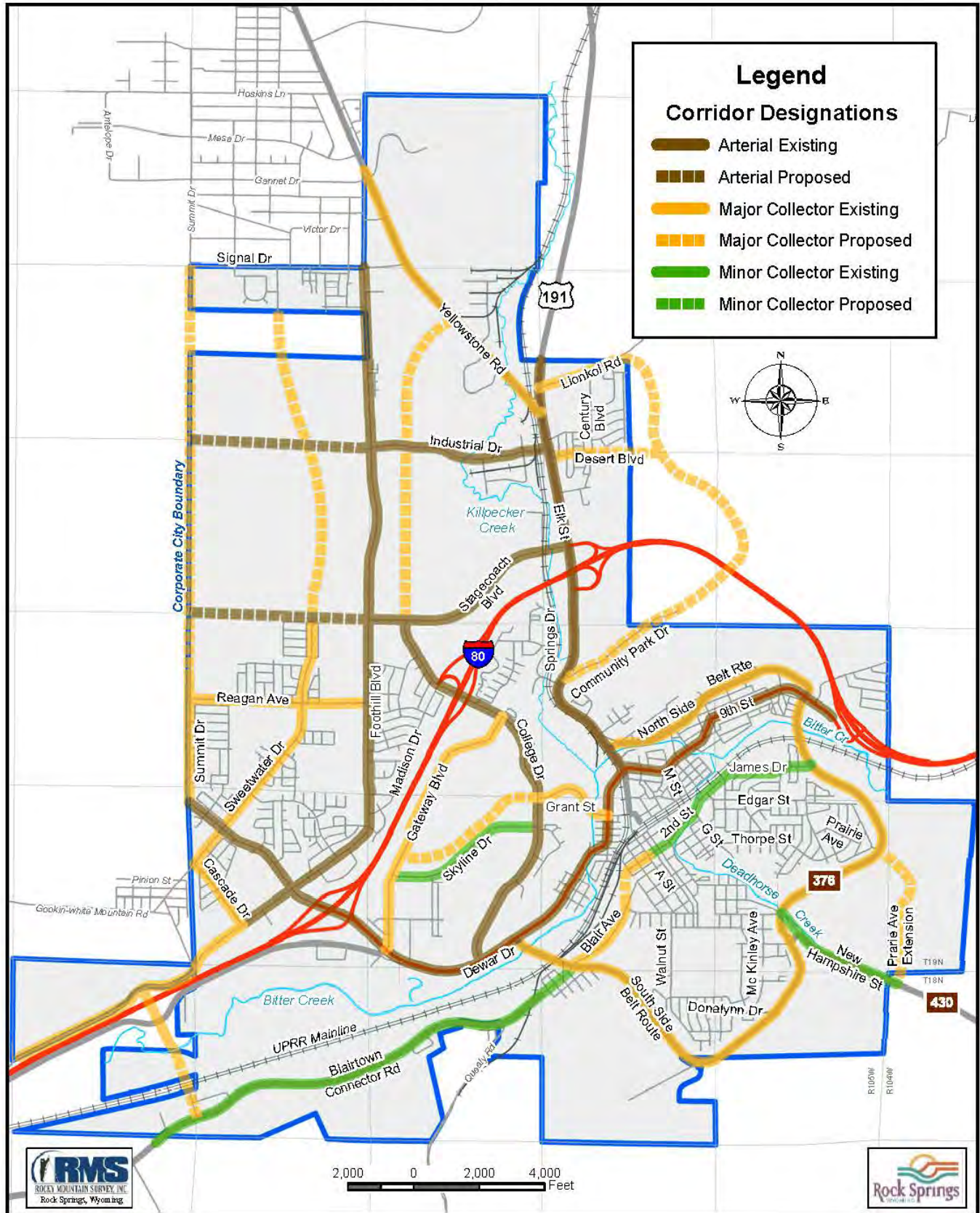
Interstate 80 is the primary community and economic connector in Sweetwater County. The roadway carries large volumes of traffic, including interstate truck traffic. The City has four interchanges to allow I-80 traffic to exit for local services. One of the busiest of these, I-80 and Elk Street, has average traffic counts of 14,990 vehicles per day, including



Exit Sign on Interstate 80.

MAP 4.1

2012 Master Plan - Official Transportation Map



Notice: This map is intended for illustrative purposes only. Users are advised to verify the information shown hereon by consulting the City of Rock Springs Planning Office.

6,500 trucks (Pederson a., 2-17). While not all of these trucks stop, there is a truck stop at this interchange that significantly impacts local traffic. Among the proposals received at the Master Plan potluck dinners was one to relocate this truck stop to an area outside of the City Limits, or, alternately, on the east end of town where truck traffic would not conflict with local traffic. Although this is not a specific project listed in this Plan, the City should seek opportunities to encourage relocation of this facility.

Arterial Streets

Arterial streets form the backbone of the City's infrastructure and roadway system. These streets are designed to carry large amounts of traffic and normally comprise about 10 percent of the total roadway system. Arterial streets are normally installed as part of the City's Capital Improvement Program and are financed through a variety of mechanisms, including the Sixth Penny Tax, Development Impact Fees, and State/Federal funding sources. Once installed, arterial streets are maintained by the City's Street Division unless they are part of a county, state or federal facility.

Oftentimes, arterial roadways are controlled by more than one governmental entity. Examples of arterial roadways that have inter or extra jurisdictional authority in Rock Springs are Business 80 / U.S. Hwy. 30 and Elk Street. Other arterial roadways include Stagecoach Boulevard, College Drive and Foothill Boulevard.

Planned future arterial roadways include:

- ⇒ A second extension of Industrial Drive west to Summit Drive
- ⇒ Stagecoach Boulevard west to Summit Drive



Industrial Drive Extension, Completed 2012.

Major Collectors

Major collector streets gather traffic from smaller, residential roads and deliver it to arterials. These streets are typically not as wide as arterial streets and normally have lower travel speeds and more access points. Like arterial streets, major collector streets are installed as part of the City's Capital Improvement Program, or by developers as part of new subdivisions, and are financed in a similar manner. Once installed, major collector streets are maintained by the City's Street Division unless they belong to another jurisdiction.

Existing major collector streets include Summit Drive, Sweetwater Drive, Yellowstone Road, Gateway Boulevard, Reagan Avenue, Grant Street Extension, Lionkol Road, Gookin-White Mountain Road, Blair Avenue, Cascade Drive, Interchange Road, Desert Boulevard, and the Belt Route.

Planned future major collectors include:

- ⇒ Lionkol Road to Community Park Drive connector
- ⇒ Summit Drive extension north to Signal Drive
- ⇒ Sweetwater Drive extension north
- ⇒ State Hwy. 430-South Side Belt Route connector
- ⇒ Interchange Road extension to Blairtown Road
- ⇒ College Drive-Gateway Boulevard connector
- ⇒ College Drive extension north to Yellowstone Road

Minor Collectors

Minor collector streets are typically specialized roadways that serve a specific purpose. Like major collectors, these roadways distribute local traffic to arterial streets. Existing minor collector roadways are maintained by the City's Street Division unless they belong to another jurisdiction.

There are only four minor collector roadways in Rock Springs, including:

- ⇒ Skyline Drive (connecting College Drive to Gateway Boulevard)
- ⇒ Second Street to James Drive (connecting the South Side Belt Route with Blair Avenue)
- ⇒ State Hwy. 430 (extending southeast to the City Limits from the South Side Belt Route)
- ⇒ Blairtown-Flaming Gorge Road (extending southwest to the City Limits from the South Side Belt Route)

No new minor collector streets are planned during the timeframe of this Master Plan.

Local Streets

Local streets make up the majority of any city's roadway system, both in terms of number of streets and total surface area, and Rock Springs is no exception. The City's local streets run the full spectrum from new to old and wide to narrow and include a variety of pavement types and conditions. New local streets are typically installed by developers as part of subdivision or other developments. Once accepted by the City, local streets are maintained by the City's Street Division.

As the City continues to grow, additional street funding and personnel will be required in order to maintain acceptable levels of service for snow removal, street sweeping, sign replacement, restriping and roadway maintenance. Alternately, the City could contract out some of these functions with private vendors if cost savings can be realized. Implementation Plan project 4.9 discusses the need for an annual review of personnel as the system expands.

4.4 Transportation—Transit

Public transit throughout Sweetwater County is provided by STAR (Sweetwater Transit Authority Resources). STAR provides door-to-door bus service within the county and has recently established fixed-route bus service in Rock Springs. The system and ridership are growing and will continue to serve the function of transporting those who have no other form of transportation. STAR's mission is, "To contribute to the well-being of the community by providing safe transit service at efficient cost levels with a friendly and courteous level of customer service."

Although public transit was not ranked as a high priority by Master Plan survey respondents, the transit service is heavily utilized by seniors, lower income and disabled persons. At the time of this publication, the fare for door-to-door service is \$2.00 and the fare for fixed-route service is \$1.00. These fares are subsidized by grants from WYDOT, as well as by funding from the County and the City. The average true cost of door-to-door rides is \$18.16 and fixed route rides is \$9.85.

STAR's door-to-door service has been in place since 1989. In order to reduce costs and increase efficiency, the fixed-route service was added in 2009. Many riders who formerly used the door-to-door service have switched to the fixed-route



STAR Transit Bus.

TABLE 4.2
STAR Transit—Total Ridership

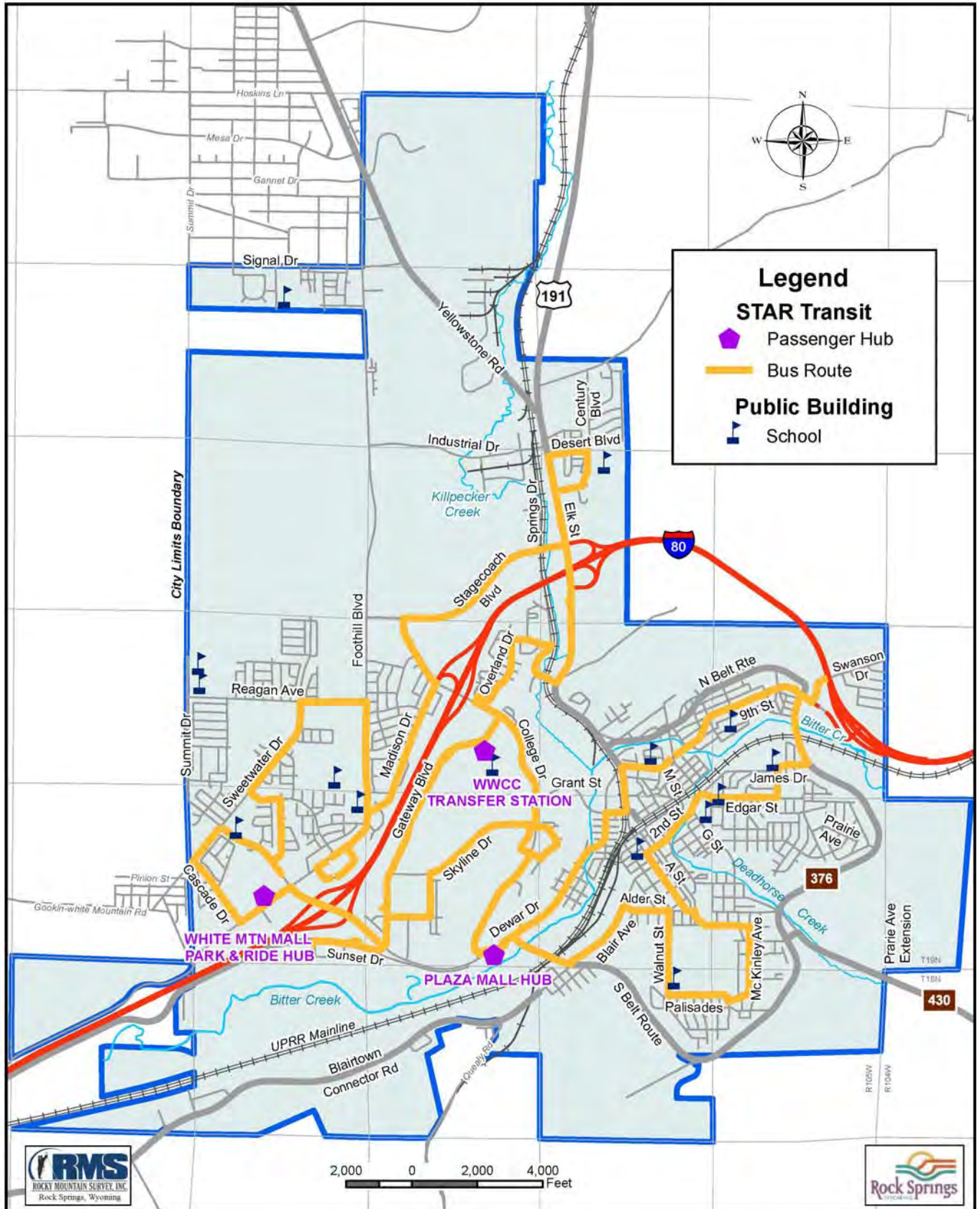
Year	Ridership (includes fixed route)
2011-2012	59,423
2010-2011	62,152
2009-2010	55,040
2008-2009	57,533
2007-2008	57,752

Source: STAR Transit.

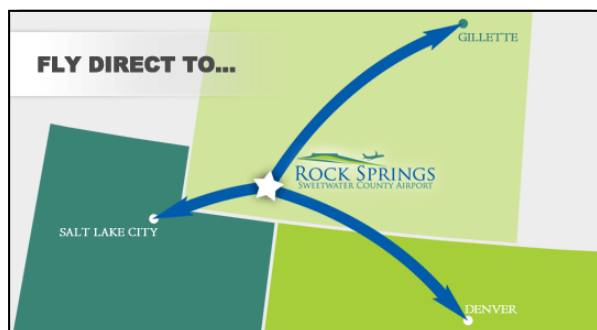
service because they do not have to make an advance reservation and it is less expensive. Ridership is between 200 and 250 individuals per year across the entire system, with a notable 13% increase realized from 2009-2010 to 2010-2011 (see Table 4.2). Ridership on the fixed system saw a substantial increase in ridership of 53% from 11,281 rides to 17,252 between 2009/2010 to 2010/2011.

In response to these increased ridership figures, STAR recently installed bus shelters around the City. Another forthcoming project is development of a larger bus storage and maintenance facility for STAR's expanding fleet. Implementation Plan project 4.2 calls for continued financial support of the STAR system by the City of Rock Springs, and Map 4.2 shows existing STAR routes throughout the City.

MAP 4.2 STAR Transit Routes



Notice: This map is intended for illustrative purposes only. Users are advised to verify the information shown hereon by consulting the City of Rock Springs Planning Office.



4.5 Transportation—Airport

Located seven miles east of Rock Springs, the Rock Springs-Sweetwater County Airport contains 1,166 acres of property that this Plan designates as Industrial. The Airport connects the City with two major airline hubs – Denver and Salt Lake City. From these hubs, connections can be made to destinations throughout the United States and beyond. Air service is also available to Gillette, Wyoming. The Airport is located on land owned by the City and is, therefore, part of the physical City Limits and governed by the City's rules and ordinances. Operation of the Airport, however, is overseen by a five-member board.

Ridership is strong and is increasing. While leakage to Denver and Salt Lake City are concerns, the Airport has managed to keep costs reduced so that it is oftentimes cheaper to fly from Rock Springs through Denver or Salt Lake City than it is to drive to either of these cities for travel, particularly when the cost of gasoline, lodging and parking are added to the price of the ticket.

The Airport is in the process of developing a master plan for expanding runways, the terminal and hangars. One limiting factor for economic sustainability of the Airport is the amount of water available. The Airport has been awarded a Wyoming Business Council grant to construct a 300,000 gallon water tank for domestic and fire flows. This will provide adequate fire flow for the Airport to begin to construct new hangars, update the terminal facility and make other improvements. The grant also includes funding for replacement of an existing 75,000 gallon water tank used for potable water to meet the needs of the hangars and other buildings located on the site. Water to fill both tanks will have to be trucked to the Airport.

There have been frequent discussions with community leaders about extending the City's water supply to the



Passengers Boarding an Airplane at the Airport.

Airport. The complexity of this project and the cost to extend water approximately seven miles east has limited this expansion; however, City and County officials have indicated this is still a priority once funding becomes available. Development of an Industrial Park at the Airport will also hinge on the availability of water.

Hangars are another concern for the Airport, as occupancies are presently at 100%. The Airport has one hangar, now used by emergency service providers Guardian Air and Air Methods. Other regular users of the Airport include Halliburton, BP, Chevron, U.S. Fish and Wildlife, FedEx, UPS and several private individuals; all of these would utilize hangar space if it were available. Updating the existing hangar and providing new hangars after the water tanks are completed are major projects for the Airport.

The runways and terminal are also in need of improvements. Currently there are two runways, a main runway and a crosswind runway. The Airport recently received grant funding from the Federal Aviation Administration in the amount of \$3,721,959 for construction of a taxiway parallel to the crosswind runway. This project is expected to be completed by July 2013. In addition, the terminal building is currently 30-years old and at maximum capacity, with both TSA and SkyWest as the current occupants. Space is limited and valuable. With the increase in passengers and the desire for future businesses to locate at the Airport, these facilities will need to be expanded. City Departments, particularly those involved in land use and development, should be stakeholders in preparation of the Airport's Master Plan (see Implementation Plan project 4.3).

In addition, Implementation Plan project 4.4 calls for the City to partner with Sweetwater County and other entities to promote expansion and future development of the Airport.

4.6 Transportation—Rail and Freight

The history and development of Rock Springs are intrinsically tied to the railroad. The Union Pacific Railroad was more influential in the City's development patterns than possibly any other factor. In fact, several of the City's older subdivision plats were actually filed by the railroad.

While in the past, the City had both freight and passenger rail service, only freight service remains. Re-establishment of passenger service to Rock Springs is a recurring topic of discussion, but there are obstacles due to the lower passenger base present in Wyoming versus that in Colorado, where the closest passenger service presently runs. It is possible that, through a collaborative effort with impacted cities, Amtrak's northernmost passenger route (Empire Builder), which currently goes through sparsely populated areas of Montana and North Dakota, might be moved south to connect Sioux Falls, Cheyenne, Rock Springs and Boise with west coast lines, however, this would require travel over tracks owned by Union Pacific Railroad and the feasibility of this option is unknown at this time (see Figure 4.3).

Freight continues to move into, out of and through Rock Springs, with multiple tracks bisecting the Downtown. These tracks parallel I-80 both to the west and east. An additional Union Pacific spur line runs a short distance north into Reliance. Connectivity to the north and south of Rock Springs is generally lacking, as can be seen in Figure 4.4. Market access could potentially be increased by construction of a



Figure 4.3: Amtrak West Passenger Routes.
Source: Amtrak.com.

north-south connector line. Pedersen mentions the lack of choice in rail carriers as a limiting factor for economic development of the region (Pedersen a., 3-2). The state of Wyoming Rail Plan mentions a proposal to expand rail service in the western and southwestern portions of the state (Wilbur Smith Associates, 2-26). This proposal was dropped, but it is possible the City could partner with other entities to attempt to revive this or a similar project that would provide better rail connectivity.

One problem the City needs to address if it does attempt to attract additional freight opportunities is the impact of freight traffic upon local neighborhoods. The City has recently completed a project to reduce the amount of truck traffic in Downtown by obtaining a long-term lease of property that was being used as a freight transfer site. A large freight transfer facility – Bunning Pipe Yard -- is presently located just west of Downtown. Public comments made during the Master Plan potluck dinners suggested the possibility of moving this rail transfer facility to the east of the City Limits in the vicinity of State Highway 370. This is a long-term project with the actual role of the City as yet undetermined. Exact quantities of trucks that operate in and near Downtown should be reviewed on a regular basis, particularly those transporting hazardous materials. A discussion of hazardous materials is included in Chapter 9, Hazard Mitigation, with Implementation Plan projects 9.3.1 and 9.3.2 specifically related to hazard materials transportation. Implementation Plan project 4.5 includes refining railroad and freight priorities of the City and developing a plan of action.

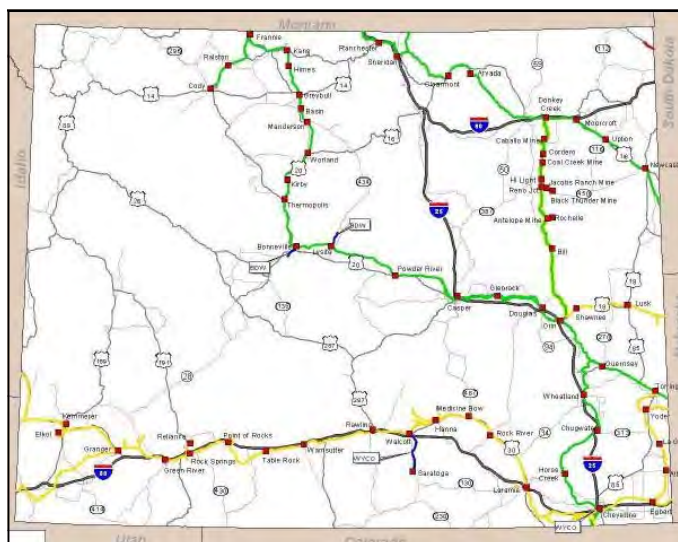


Figure 4.4: Wyoming Rail Network Routes.
Source: State of Wyoming Rail Plan.

4.7 Transportation—Gateways

Will Rogers is credited with saying: “You never get a second chance at a first impression.” Since the vast majority of visitors to Rock Springs arrive via vehicles, the first impression they receive comes from the visual appearance of roadway corridors and gateways. Gateways are the key entrance points to a City and include such locations as interstate interchanges and highway entrances.

If gateways are unkempt, overridden with weeds or strewn with litter and debris, the impression is that of a community that lacks civic pride. Rock Springs has made great improvements in its gateways, including recent visual enhancements to the Dewar Drive / I-80 gateway.

However, there are still several opportunity areas within the City where visual enhancements can improve the City’s curb appeal (see Figures 4.5 and 4.6, and Implementation Plan project 4.6). The College Drive / I-80 interchange, as well as the 9th Street / I-80 interchange, should be high priority projects.

Finally, the City has recently completed a wayfinding signage program that will assist visitors in finding their way to key City attractions.

4.8 Infrastructure—Water

Existing System

The City’s domestic water supply comes from the Green River located in Green River, Wyoming. The water is treated there and pumped 13 miles east to Rock Springs where it is stored, pumped, or consumed.

The Rock Springs water supply system is owned by the Joint Powers Water Board (JPWB) and leased back to the City who operates, maintains and improves it (see Map 4.3). A water system master plan, the *Green River-Rock Springs-Sweetwater County Joint Powers Water Board Water System Master Plan* (Water Master Plan), was completed in 2009 by Nelson Engineering. That document provides a detailed description of the system and includes maps and a list of future projects needed for redundancy and growth. A brief summary of the plan is included herein.



Figure 4.5: I-80 at 9th St. Interchange—Existing.
Source: WLC Engineering, Surveying & Planning.



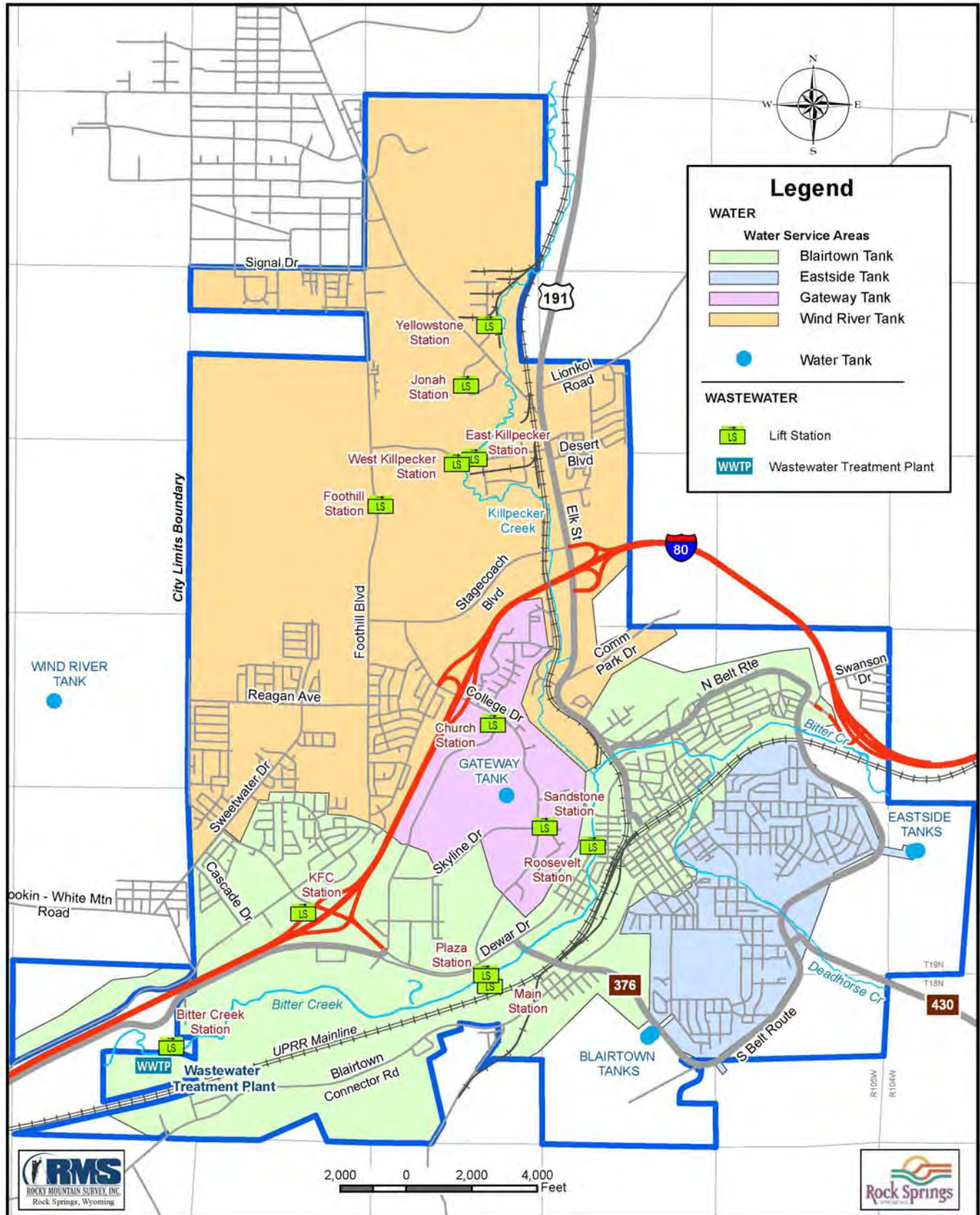
Figure 4.6: I-80 at 9th St. Interchange—Proposed Landscaping.
Source: WLC Engineering, Surveying & Planning.

The Rock Springs Water Division is responsible for seven water storage tanks. The water system also includes five pump stations and almost one million feet of pipe ranging in size from 4” to 30” in diameter. There are several outlying districts/users adjacent to the City who are supplied from City pump stations or tanks, including:

- ⇒ White Mountain
- ⇒ Ten Mile
- ⇒ Westside
- ⇒ Clearview
- ⇒ Reliance
- ⇒ Simplot Phosphates

Of these, only the Reliance system is operated, maintained and improved by the City.

MAP 4.3 Water and Sanitary Sewer Facilities



Notice: This map is intended for illustrative purposes only. Users are advised to verify the information shown hereon by consulting the City of Rock Springs Planning Office.

Projected Growth and System Needs

The Water Master Plan estimates future needs of the system for two milestone dates plus full build out. Population and development potential were estimated from the City's Zoning Map. Generally speaking, future demand is projected in the Wind River tank service area, located on the western side of town in the vicinity of Section 21. Additional demand is also projected in the Eastside Tank Service Area, primarily due to the possibility of Simplot Phosphates increasing their operations. The undeveloped land in the White Mountain tank service area is for the most part located outside of the current City Limits and is not predicted to be annexed in the timeframe of this planning document. It is, however, planned for eventual annexation by the City.

The majority of the existing water system is relatively new and in good condition, however there are places where improvements are needed. The Water Master Plan contains a prioritized list of recommended projects. Implementation Plan project 4.7 of this Plan proposes including Water Master Plan projects in the annual Capital Improvement Program.

Fire Protection

Supplying potable water to consumers is the primary purpose of the City's water infrastructure. However, ensuring there is sufficient water available to fight fires is also a major design consideration. In fact, fire flow usually represents a higher demand on water infrastructure than daily consumer demands. This higher demand typically drives the amount of water storage volume, pipe size and distribution pressure needed. The higher the fire flow demand is the higher construction and maintenance costs for the overall water infrastructure system. These costs include the "hidden" maintenance costs all ratepayers must pay to maintain water quality throughout the system. Water quality is an imperative and the regulations associated with them are becoming more stringent.

In certain areas of Rock Springs, the existing water infrastructure may have fire flow limitations. Developers will need to remain cognizant of the maximum available fire flow when designing projects on these properties. In some cases, new development may need to utilize other fire protection or construction methods to stay within the fire flow limitations.

In addition, the Water Master Plan contains recommended fire flows for use in the design of future service areas. These recommended flows have been evaluated as optimal for allowing flexibility in design and construction methods while still providing the highest level of water quality and system efficiency and minimizing infrastructure costs. This Plan strongly encourages the City to use these recommended fire flows when considering development proposals in these future service areas.

4.9 Infrastructure—Sanitary SewerExisting System

The Rock Springs sanitary sewer system consists of twelve lift stations, almost 100 miles of pipe of various sizes and a 4.2 million gallon per day (MGD) capacity Wastewater Treatment Plant. This system currently serves outlying districts as well as the City of Rock Springs, including:

- ⇒ White Mountain
- ⇒ Clearview

There are two primary lift stations which supply almost all of the flow to the treatment plant, Bitter Creek lift station and the Main lift station (see Map 4.3). There is the potential for sewage to be delivered through two additional lift stations prior to the two mentioned above, resulting in a significant delay in delivery to the treatment plant.

Projected Growth and System Needs

Future growth calculations for the sewer system have been



2012 Miscellaneous Sewer Rehabilitation Project.

“The sanitary sewer system is continuously being improved but still has a number of inadequacies, some of which are critical in nature. The City’s wastewater treatment staff has developed a prioritized list of system inadequacies and improvements are made to the system as funding becomes available.”

closely linked to the growth predictions from the Water Master Plan. One area of sanitary sewer system growth that is not presently handled by the Rock Springs Wastewater Division is Reliance. It is, however, predicted that the City will be handling Reliance’s sanitary sewer discharges, along with downstream users, within the timeframe of this Plan.

Sanitary sewer system planning anticipates future growth areas to be primarily concentrated on the western side of the City. To that end, two supplemental lift stations, Foothill Boulevard and Industrial Drive, have been recently installed. These stations will assist with handling the additional sanitary sewer needs in the west-side growth area. However, both of these lift stations deliver flow to the Bitter Creek lift station which will need to be upgraded to handle additional flows.

The sanitary sewer system is continuously being improved but still has a number of inadequacies, some of which are critical in nature. The City’s wastewater treatment staff has developed a prioritized list of system inadequacies and improvements are made to the system as funding becomes available.

The wastewater treatment plant is presently undergoing a project to improve its overall operation, although this will likely not substantially increase capacity. Average flows reaching the plant are 2.4 MGD but a significant precipitation event can increase the daily treatment requirement to 4.8 or 5.0 MGD, exceeding the plant’s capacity. The treatment plant has found ways to mitigate this problem for short-term occurrences but, as growth continues, this will need to be addressed either with an increase in capacity or reduction of stormwater inflow. Implementation Plan project 4.7

proposes including sanitary sewer projects in the annual Capital Improvement Program.

4.10 Infrastructure—Stormwater

Existing System

Stormwater flows within the City of Rock Springs are handled via a variety of methods, including detention, retention and direct discharge to manmade and natural drainage-ways. While there are portions of the City with steep topography that do not have stormwater drainage issues, there are also numerous places with flatter terrain, and even locations with internal drainage. These lower-lying areas do not effectively discharge water during storm events, causing localized ponding and even flooding. As development occurs and more areas are covered with impervious surfaces, stormwater drainage problems can occur.

Unfortunately, many of the areas with stormwater challenges are located on the City’s western side, which has been identified as the primary growth area. A Stormwater Master Plan is being prepared by JFC Engineers & Surveyors to assist the City in designing a system that effectively and efficiently conducts stormwater flows. This document is underway and is expected to be completed by June 2013.

In the interim, the City has recently completed the following stormwater projects to facilitate drainage within the City:

- ⇒ Summit Channel: Completed in 2006, this channel conducts flows from White Mountain into a manmade drainage channel located on the City’s west side and discharges these flows into the Bitter Creek downstream from the City.
- ⇒ Bitter Creek Reconstruction Project, Dead Horse Canyon Creek Segment: Completed in 2012, this part of the overall Bitter Creek project involved the construction of two detention basins and channel improvements to Dead Horse Canyon Creek to reduce flooding and improve stormwater flows in the southern section of the City, including a portion of the Downtown.
- ⇒ Foothill Wetlands Park: Completed in 2012, this dual-use recreation and stormwater management facility includes two ponds which detain stormwater and other runoff prior to discharging into the Foothill Boulevard storm drainage system.

Projected Growth and System Needs

As mentioned above, the majority of the City's growth is expected to occur on the west side, however, storm drainage system improvement projects are needed throughout the City. Once completed, the Stormwater Master Plan will provide an analysis, prioritization and cost estimate for needed projects.

Until that plan is complete, the City will continue to complete projects as demands arise, growth occurs and/or funding is made available. A partial list of system needs is included below:

- ⇒ Bitter Creek Reconstruction Project, Segment One: This reach extends from the Bitter Creek confluence with Sweetwater Creek to the South Belt Route (west), adjacent to the Plaza Mall and the Bitter Creek Dog Park. The proposal is to lay back the south bank to provide more area for water flows, remove and replace the roadway, and revegetate the upland and bank areas that are disturbed with a combination of seed and containerized plant materials.
- ⇒ Bitter Creek Reconstruction Project, Segment Two: This reach continues upstream from the South Belt Route (west) to Dewar Drive (see Figure 4.7). This reach is primarily on or adjacent to Union Pacific Railroad Property, and involves laying back the slopes to create a wider area for water flow. The north bank is not affected until west of where the creek bed turns north. Walls will be required, sheet piling may be necessary, and historic walls that start at Stevens Park and continue to Mead Street will need to be preserved.
- ⇒ Bitter Creek Reconstruction Project, Segment Three: This reach continues upstream from Dewar Drive to N Street. Most of the improvements are intended to occur on vacant property on the north side of the creek and at the steel recycling business, with the access road occurring on the south side until reaching Elk Street. Historic walls on both sides of the creek will need to be addressed. Along Railroad Avenue, the improvements are intended to take place on the north until just west of the Civic Center to N. Street. Historic walls begin again just west of N. Street before Pearl Park and require preservation.
- ⇒ Bitter Creek Reconstruction Project, Segment Four: This final segment continues upstream from N Street to the

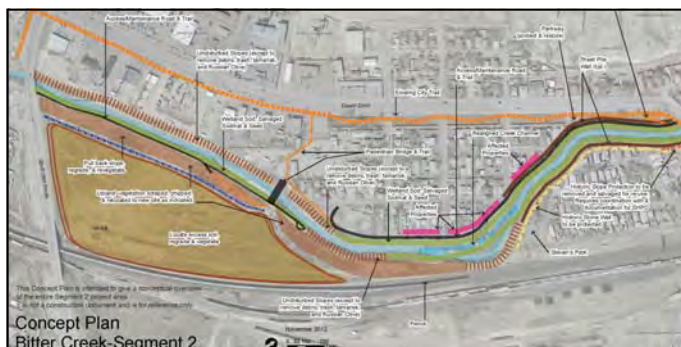


Figure 4.7: Concept Plan for Bitter Creek Segment Two.

Source: Landmark Design / HAL Engineers, 2012.

South Belt Route (east). Historic walls occur on both sides of the creek along Pearl Street to approximately the confluence of Dead Horse Canyon Creek. The intent is to leave the north bank undisturbed and layback the south bank to allow for more flow. Wetlands would remain intact at the existing flowline and the regraded upland slopes will be revegetated.

- ⇒ Reagan Stormwater Detention Basin – This two-acre regional storm detention basin is proposed to detain stormwater flows from new development on the north side of Reagan Avenue and discharge them, as the system can accept inflows, into the Foothill Boulevard drainage system. It is anticipated that new development proposals in the vicinity of the basin will participate in development of the regional basin.

Implementation Plan project 4.7 proposes including Stormwater projects in the annual Capital Improvement Program, while project 4.8 calls for completion of the City's Stormwater Master Plan. As the City grows, maintenance of these facilities will become a concern. Implementation Plan project 4.9 includes an annual evaluation of budget and personnel to determine if adjustments are needed.

4.11 Other Utilities

Other utilities—gas, telephone, electric, etc.—are vital to the economic development and growth of the City. Rocky Mountain Power supplies electrical services to the City's residents; Centurylink is the local telephone service provider; Questar Gas provides gas service; and Sweetwater Television offers cable services. These utilities are included in development planning through weekly Utility Review Committee meetings that are held to discuss specific development proposals.

4.12 Conclusion

Transportation and infrastructure are vital to the health and safety of a community. The City has made great strides toward planning for the future of these important systems while at the same time maintaining existing facilities. One critical project is managing transportation and infrastructure in a logical manner.

Implementation Plan project 4.1 requires all future extensions of public facilities to be reviewed for conformance with the *2012 Master Plan* prior to design and construction.



Rock Springs—Sweetwater County Airport Terminal.



View Looking Up the Newly Constructed Portion of Grant Street.

4.13 Chapter 4—Implementation Plan

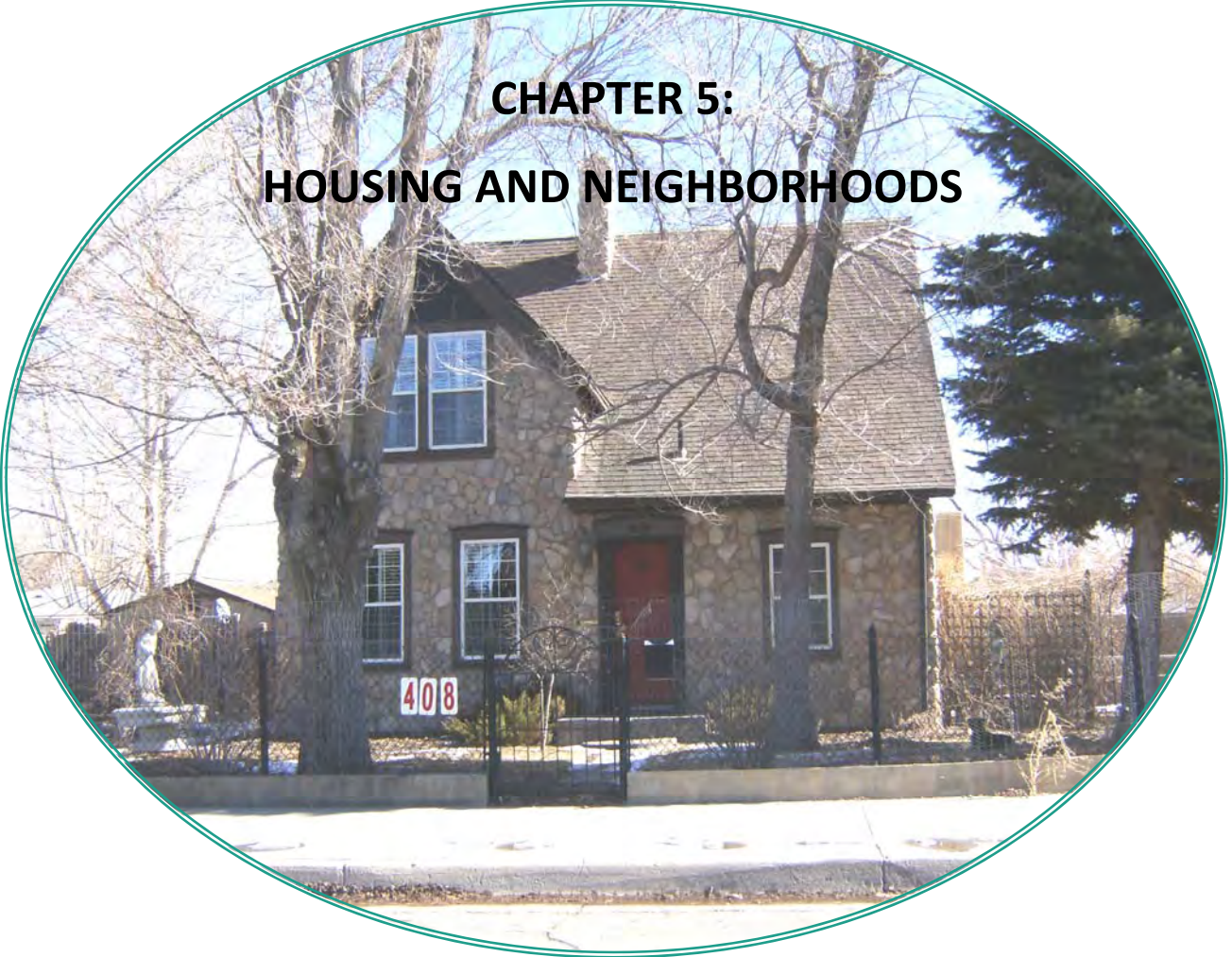
TABLE 4.3

Goal: Develop a reliable infrastructure and transportation network, healthy neighborhoods, balanced and compatible land uses, and a strong downtown to promote community and economic growth.

Project #	Project Description	Responsible Party	Budget Estimate	Timeline for Completion	Additional Funding Needed?
4.1	Prioritize and implement the City's proposed roadway network, as shown on the Official Transportation Map, and other infrastructure extensions, through the annual Capital Improvement Program and through private development proposals.	Engineering & Operations	\$\$\$\$	Ongoing	Yes
4.2	Increase mobility for residents who are elderly, low-income or physically disabled through financial support of STAR transit.	City Council	\$\$\$	Ongoing	No
4.3	Complete the Rock Springs-Sweetwater County Airport Master Plan, including stakeholders from the City and County.	Airport	\$\$\$	2014	None
4.4	Partner with Sweetwater County, Green River and other stakeholders to promote expansion of the Rock Springs-Sweetwater County Airport, including development of an Industrial Park and a possible extension of a waterline to meet water needs.	Mayor	\$	2020	No—But additional funding will be needed for projects
4.5	In cooperation with the state, UPRR and other stakeholders determine the feasibility of: 1) attracting passenger rail traffic to Rock Springs; 2) providing facilities for freight traffic to the north and south; and 3) moving freight transfer stations outside of the City Limits.	City Council	\$	2018	Yes—studies could be grant funded
4.6	Develop a Gateway Enhancement program and include key gateways in the annual Capital Improvement Program budget for retrofit. Continue to require right-of-way landscaping in association with new development.	Engineering & Operations	\$\$	Ongoing	Yes
4.7	Implement the Water Master Plan by including recommended projects in the annual Capital Improvement Program and continue to perform Sanitary Sewer and Stormwater system improvements as part of the annual Capital Improvement Program.	Engineering & Operations	\$\$\$\$	Ongoing	Yes—partially rate funded
4.8	Complete and adopt the City's Stormwater Master Plan.	Engineering & Operations	\$	2014	No
4.9	Conduct an annual review of all non-ratepayer supported transportation and infrastructure functions to determine if adequate funding and staffing are available for continued maintenance and operation of the system.	Engineering & Operations	\$	Ongoing	Possible, to keep pace with growth of the system

Budget Estimate: \$ - <50,000; \$\$ - 50,000 - 100,000; \$\$\$ - 100,001 - 500,000; \$\$\$\$ - >500,000

CHAPTER 5: HOUSING AND NEIGHBORHOODS



Stone House on Paulson Street, Circa 1910

“Housing is a basic need for all individuals, and the inability to obtain safe, secure and affordable housing impacts the health, education, employment and civic participation of that individual, thereby reducing the quality of life of the community as a whole. The role of government is not necessarily to provide this housing, but rather to identify the obstacles and assist in making this basic need obtainable to all residents.”

- Dora Holbert, Rock Springs Housing Authority Supervisor

Chapter 5: Housing and Neighborhoods

Sections:

- 5.1 Overview
- 5.2 Housing Inventory and Condition
- 5.3 Housing Demand
- 5.4 Housing Trends
- 5.5 Housing Affordability
- 5.6 Housing Affordability Obstacles
- 5.7 Temporary Housing
- 5.8 Senior and Other Housing Needs
- 5.9 Neighborhoods
- 5.10 Conclusion
- 5.11 Chapter 5—Implementation Plan

5.1 Overview

The type and quality of housing and neighborhoods in a City have a huge impact on community character. Most people spend more time in their own house and neighborhood than anywhere else. Healthy communities strive to have not only a balanced supply of housing, but also quality neighborhoods where residents can safely live and play. This chapter examines the City's existing housing stock, looks at future demand, and identifies housing trends and affordability. It

also examines the City's ability to meet temporary housing needs and discusses the City's neighborhoods. Drawing heavily upon the work performed by Pederson Planning Consultants in the *2007 Rock Springs Housing Master Plan*, this chapter provides an updated overview of the status of housing and neighborhoods in the City.

5.2 Housing Inventory and Condition

Inventory

The City of Rock Springs has a wide array of housing types and styles, including single family detached homes, a variety of attached housing products (duplexes, triplexes, fourplexes, fiveplexes, sixplexes and townhomes), mobile homes and apartments. The *Housing Master Plan* contains an inventory of the City's housing stock as of January 1, 2007.

Since that time, the City has continued to expand its residential inventory by 15%, adding a total of 1,357 new units. Of the new units added, slightly less than half (670) were single family detached houses. Some 20% (271) were attached homes, which were primarily duplexes. More than one-quarter were new apartment units (358), and only 4% (58) were new mobile home park spaces (see Table 5.1).

TABLE 5.1
Total Housing Units By Type
(As of October 19, 2012)

Housing Unit Type	# of Units As of 2006*	% of Total Year 2006	# of New Units Since 2006**	% of Total Since 2006	# of Units TOTAL	% of TOTAL
Detached Single Family	5,319	60%	670	49%	5,989	58%
Attached Single Family	886	10%	271	20%	1,157	11%
Mobile Home Spaces	1,447	16%	58	4%	1,505	15%
Apartment Units	1,274	14%	358	27%	1,632	16%
Total	8,926	100%	1,357	100%	10,283	100%

* Source: Pedersen b., 3-1.

** Source: Rock Springs Planning & Zoning Division.

As can be seen, the new housing stock constructed since 2007 was built not only to meet the needs of a growing population, but also to provide some adjustments in the overall housing balance. These adjustments included decreases in the total percentage of single family detached and mobile home park units, as well as increases in the total percentage of attached single family housing and apartment units for the City as a whole.

Condition

A significant percentage of Rock Springs' housing stock has been constructed within the past 10 years. From 2004 to 2007, 685 new housing units were added (Pedersen b, 3-5). This housing, plus the 1,357 units constructed from 2007 to October 2012, represents almost 20% of the total housing units in the City. New housing is generally in good, very good or excellent condition. The condition of older housing units depends upon the quality of the original construction and the amount of maintenance and updating that has been performed. According to Sweetwater County Assessor records, 2,098 single family housing units were built prior to 1950. This amounts to 30.8% of the total single family housing stock. See Table 5.2.

TABLE 5.2

Single Family Detached and Attached Housing By Year Built

Years	# of Units* TOTAL	% of TOTAL
Pre-1950	2,098	30.8%
1950-1960	493	7.2%
1961-1970	477	7.0%
1971-1980	1,089	16.0%
1981-1990	890	13.1%
1991-2000	452	6.6%
2001-2010	1,152	16.9%
2011-2012	155	2.3%
Total	6,806	100.0%

* Numbers vary slightly due to methodology.

Source: Sweetwater County Assessor, 10/24/12.



Miner's House on 10th Street, Circa 1901.

The Assessor estimates that, of all of the housing in Rock Springs, 8.5% of the single family housing stock is in fair or poor condition. In combination, some 575 housing units require sufficient investment in maintenance, repairs, and rehabilitation. See Table 5.3.

Implementation Plan project 5.1 calls for the City to seek out grant and low-interest loan funding to assist homeowners with improving housing conditions in older and/or declining homes.

TABLE 5.3

Condition of Single Family Housing

Condition	# of Units* TOTAL	% of TOTAL
Excellent	24	0.4%
Very Good	419	6.2%
Good	1,647	24.2%
Average	4,141	60.8%
Fair	494	7.3%
Poor	81	1.2%
Total	6,806	100.0%

* Numbers vary slightly due to methodology.

Source: Sweetwater County Assessor, 10/24/12.

5.3 Housing Demand

Pedersen's 2007 housing study estimated that future housing demands in the ownership market would include 65% detached single family homes, 30% attached single family homes and 5% mobile homes. In the rental arena, these needs would be 40% townhomes, 30% mobile homes, 20% apartments and 10% detached single family homes (Pedersen b, Executive Summary 2). Aggregating these demands is difficult, since virtually all housing types can be either rented or owned, with the notable exception being apartments, which are always rentals. This *Master Plan* assumes that the adjustments made in the housing stock between 2007 and 2012 reflected a latent demand for multi-family rentals – only one, small apartment complex was built between the early 1980s and 2007 – and projects these percentages into the future when determining how many units of what type will be needed. See Table 5.4.

When the Pedersen housing inventory is adjusted to reflect construction from 2007 to October 2012, the total inventory of housing available is 10,283 units. At an average household size of 2.43 persons per dwelling unit, the City's October 19, 2012 population should be approximately 24,988. This number is higher than the 24,302 estimated 2013 population projection in Chapter 3 by 686 residents. (Note: The 2013 number is used since this chapter is being written in December 2012).

TABLE 5.4
Housing Demand by Type—Year 2022
(Existing Units As of October 19, 2012)

Housing Type	Total # of Units Needed	% of Desired Mix	2012 # of Units Existing	Total # of NEW Units Needed
Detached Single Family	6,811	58%	5,989	822
Attached Single Family	1,292	11%	1,157	135
Mobile Home	1,761	15%	1,505	256
Apartment Units	1,879	16%	1,632	247
Total	11,743	100.0%	10,283	1,460

Source: Rock Springs Planning & Zoning Division.

However, adjustments need to be made for vacant units. When the population overage is divided by the average household size, the result is 282 vacant units either on the market for sale or available for rent. As of October 23, 2012, there were 135 active real estate listings for houses for sale within the City of Rock Springs ("Houses for Sale" 1-3). In addition, industry experts estimated a 7 percent rental vacancy rate, which represents 114 apartment units (Marincic). Finally, the October 21, 2012 *Rocket-Miner* had 34 listings for mobile homes, condominiums or houses for rent. In combination, this represents 283 units that are vacant, a difference of only one unit from projections.

Assuming the vacancy rate accounts for the normal turnover of dwelling units, and not an overage of units on the market, 1,460 new units are needed over the course of the next decade to accommodate population growth. This includes an expected 822 single family detached homes, 135 attached homes, 256 mobile home spaces and 247 apartment units. Table 5.5 shows the total number of units, by type, which were under construction or had building plans submitted and were awaiting a permit as of October 19, 2012.

Based upon population projections and the current housing mix, an additional 772 detached single family homes, 135 attached single family, 256 mobile home spaces and 163

TABLE 5.5
Housing Units Under Construction
Or Awaiting a Building Permit
As of October 19, 2012

Housing Type	Total # of NEW Units Needed	Under Construction or Awaiting Permit	Remaining # of Units Needed
Detached Single Family	822	50	772
Attached Single Family	135	0	135
Mobile Home	256	0	256
Apartment Units	247	84	163
Total	1,460	134	1,326

Source: Rock Springs Planning & Zoning Division.



Figure 5.1: Newly Built, Compact Housing in Rock Springs.

apartment units will be needed to support the projected 2022 population. Given the range of housing types needed, Implementation Plan project 5.2.a calls for the City's Official Zoning Map to be revised to reflect adequate areas suitably zoned for the above-listed dwelling unit mix.

5.4 Housing Trends

Over the course of the last decade, much of the nation moved toward more compact development forms and smart growth development types. The focus was on minimizing the footprint for new housing and making communities more walkable.

In Rock Springs, two developments were approved that offered many smart growth features, including alley approaches to garages, smaller lots, and shorter front and side yard setbacks (see Figure 5.1). Unfortunately, neither of these developments were successful in capturing the Rock Springs housing market and both developments have since re-planned their projects to include larger lots. Small lots with small setbacks are generally not compatible with the lifestyle of the average Rock Springs resident, who may have not only two, larger vehicles, but also a variety of recreational vehicles (boats, snowmobiles, ATVs, etc.). Small side yard setbacks and lots offer no place for parking these vehicles.

While this plan does not anticipate a move toward smaller lot sizes as a viable smart growth option for Rock Springs, it does encourage walkable, connected communities and embraces other neo-traditional design principles, including

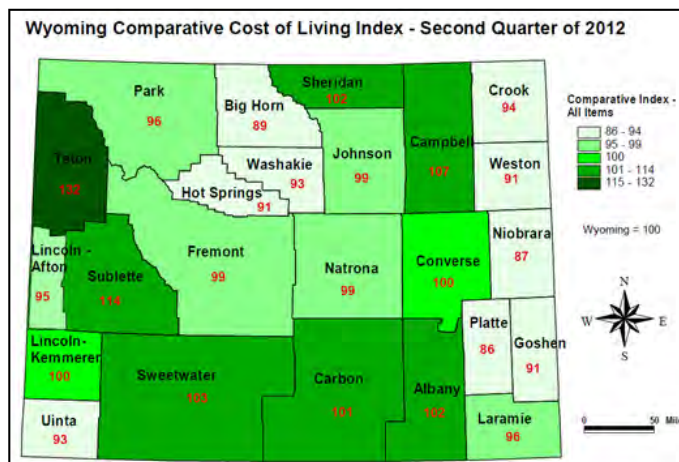


Figure 5.2: Wyoming Comparative Cost of Living By County.

Source: "Wyoming Cost of Living Index", 4.

the development of neighborhood commercial centers. Implementation Plan project 5.2.b proposes revisions to the City's Zoning Ordinance to support neighborhood commercial development and mixed use development types. Another neo-traditional design option this plan supports includes the use of existing second dwelling units and other multiple family dwelling units for affordable housing. A full discussion of this issue is included in Section 5.5 below.

5.5 Housing Affordability

Cost of Living

According to the State of Wyoming Economic Analysis Division, as of the end of the 2nd quarter of 2012 it was more expensive to live in Sweetwater County than it was to live in the *average* Wyoming County ("Wyoming Cost of Living Index", 4). The Division compared counties across the state in six different categories of affordability: food, housing, apparel, transportation, medical, and recreation/personal care. On average, Sweetwater County was 3% more expensive than the rest of the state. Housing was the most expensive category in Sweetwater County, with the County ranking 8% higher than the state average. Apparel was the most affordable category, with the County averaging 7% less than the state. The most expensive county in the state was, not surprisingly, Teton County, at an overall rate of 32% above the rest of the state. Platte County was the least expensive place to live, at 14% below state averages. See Figure 5.2.

This higher cost of housing was echoed during the public

participation component of this *Master Plan* development. Seventy-three percent (73%) of high school students ranked affordable housing as a high priority need. And, the City Council highly supported removing barriers to development / redevelopment of affordable housing units.

Among the goals of the 2007 *Rock Springs Housing Master Plan* was generating a balanced housing market. That study defined a balanced housing market as:

- ⇒ The majority of residents are able to own or rent a home they can afford;
- ⇒ The majority of residents live in a home that generally fulfills their criteria and preferences for a decent place to live and is not overcrowded; and
- ⇒ Housing supply and demand are generally in equilibrium.

As mentioned earlier, the housing units constructed between 2007 and 2012 increased the amount of rental options available for residents, thereby helping to stabilize and balance the market. As this plan is being written, additional single family dwelling units and multi-family units are being planned or are under construction. In order to ensure continued affordability and balance into the future, attached

TABLE 5.6
Cost Burdened Units

Housing Type	Total # of Units	Total # Cost Burdened	% of Type	% of Total Households
Owner Occupied with Mortgage	3,745	694	18.5%	8.1%
Owner Occupied without Mortgage	2,335	145	6.2%	1.7%
Renter Occupied	2,501	683	27.3%	8.0%
Total*	8,581	1,522	—	17.7%

*Excludes households where a cost burden could not be established.

Source: 2010 American Community Survey Data.



Aspen Village Mobile Home Park, Constructed 2007.

units and mobile home units will also be needed. In addition, some of the regulatory obstacles need to be removed.

Cost Burden

When a household expends more than 30% of its income on all housing costs – rent/mortgage, taxes and utilities – it is considered to be cost burdened. According to 2010 American Community Survey data, 694 (18.5%) of Rock Springs owner-occupied housing units with a mortgage were cost burdened. An additional 145 owner-occupied housing units without a mortgage were cost burdened, which equates to 6.2% of the total for this type of unit. Finally, 683 renter-occupied housing units were cost burdened, which equates to 27.3% of all renter households. In total, an estimated 17.7% of all households in Rock Springs were cost burdened in 2010. See Table 5.6.

Owner Occupied Housing

According to the U.S. Census Bureau, home ownership rates in Rock Springs were 68.8% in 2010, compared to 70.2% statewide and 66.9% across the nation. The median value of owner-occupied housing was \$170,600. This compares to a median household income of \$69,351 and a per capita income of \$31,105.

One measure of housing affordability is to triple the annual household income when considering the purchase price for a house. When this rule of thumb is applied to the Rock Springs median family income, the average household could afford a \$208,053 mortgage. To paint the picture a different way, households making less than 1/3 of the median housing cost, or under \$56,867, would be unable to easily afford the average house on the market.

In 2010, the American Community Survey estimated that 34.9% of all households made less than \$50,000 and would, therefore, not be able to easily afford the average house. Since Rock Springs has a variety of houses of differing ages and conditions, some households earning less than \$50,000 are able to afford home ownership, though some 18.5% of all owner-occupied housing with mortgages and 6.2% of owner-occupied housing without mortgages are cost burdened.

Rental Housing

According to 2010 Census data, 8.2% of City residents were considered below the poverty level; however, there is not a simple definition for how the poverty level is derived. Another measure of income level used by the Census Bureau compares family income to the median family income for a given geographic area. Households are classified into three types based upon their relationship to the median income (see Table 5.7). From this table, it can be seen that roughly 947 households, or 10.7% of all households in Rock Springs, fall within the Very Low Income Range. An additional 1,095 households fall within the Low Income Range and 1,492 households are within the moderate income range. In all, approximately 39.7% of all households in the city make 80% or less of the median family income. Generally speaking, persons in the lowest two income classifications would have difficulty purchasing a home and are typically renters, though some elderly persons living in owner-occupied housing could fall into the lower income brackets.

As can be seen in Table 5.6, more than one-fourth (27.3%) of

TABLE 5.8
Average Rental Rate Comparison
in Sweetwater County

Rental Type	2012 2nd Quarter	2011 2nd Quarter	% Change 2011-2012
Apartment (1)	\$716	\$673	6.0%
Mobile Home Lot (2)	\$330	\$319	3.3%
House (3)	\$1,085	\$998	8.0%
Mobile Home (4)	\$815	\$764	6.3%
Average	\$737	\$689	5.9%

(1) Two-bedroom, unfurnished, excluding gas & electric.

(2) Single-wide, including water.

(3) Two or three-bedroom, single family, excluding gas & electric.

(4) Total monthly rental, including lot rent.

Source: "Wyoming Cost of Living Index", 7.

all rental housing units are considered cost burdened. This issue is exasperated when the price of rental housing increases faster than inflation and wages. In 2012, the average cost of rental housing in Sweetwater County as a whole increased over 2011 levels in all categories, with single family home rentals seeing the highest increase at 8%. Average rental costs were \$737 per month, but this included mobile home space rents, which were much lower than other rentals (see Table 5.8). With an average inflation rate of 2.4%

TABLE 5.7
Very Low to Moderate Income

Income Classification	% of Median Family Income for a Given Metropolitan Area	Maximum Income	Estimated # of Households*	% of Total Households
Very Low Income	Up to 30%	\$20,805	947	10.7%
Low Income	31% to 50%	\$34,676	1,095	12.4%
Moderate Income	51% to 80%	\$55,480	1,492	16.5%
Total	—	—	3,504	39.7%

* Number of households is extrapolated. Actual numbers may differ due to income ranges used by the Census Bureau.

Source: 2010 American Community Survey.

statewide, the cost of housing in Rock Springs outpaced inflation from 2011 to 2012.

Since the above costs do not include utilities, monthly household income would have to exceed roughly \$2,600 for a household not to be cost burdened and afford the average apartment. This equates to an annual income of \$31,200. Roughly 19% of all Rock Springs households earn \$31,200 per year or less.

Existing Programs

There are some programs available to residents who fall into the lowest income categories that help provide access to housing. The Rock Springs Housing Authority currently has 100 public housing units that are located in four complexes dispersed throughout the City. In addition, the Housing Authority manages 52 Section 8 housing choice vouchers that are available to low income households for rent of approved market rate apartments. There is a waiting list of 60 qualifying persons or families for public housing and 51 persons or families for Section 8 vouchers.

There are also private entities who offer low-income housing either through vouchers, tax credits or some other form of subsidization. These include 60 units at Carrington Pointe, 102 units at Bicentennial Apartments, and 59 units at Springview Manor. Another tax-credit project is presently under construction. This development – Creekside Apartments – will add 36 additional low-income housing units to the City's inventory.

While people in the low to extremely low income brackets qualify for housing assistance, the greatest challenge in providing affordable housing concerns those working families



Century Square, Rock Springs Housing Authority.

“...the greatest challenge in providing affordable housing concerns those working families who make too much money to qualify for the low-income programs but not enough money to find affordable housing in the City.”

who make too much money to qualify for the low-income programs but not enough money to find affordable housing in the City (Holbert). These cost burdened families could benefit by changes in the City's Zoning Ordinance that would allow for more decent, moderately-priced housing to be placed on the market. Please refer to the following section.

5.6 Housing Affordability Obstacles

As referenced in Section 5.5, a significant percentage of the City's housing stock was built prior to 1950. Most pre-1950 housing units are smaller and are located in areas of the City where rents are the lowest, thereby having the propensity to meet affordable housing needs. There are, however, zoning and other obstacles associated with this housing stock which are discussed briefly below.

Floodplain

A significant portion of the housing located in the older part of the City is situated within the 100-year floodplain, particularly housing located to the north of Sixth Street where the historic Bitter Creek channel flowed. The creek has long since been diverted but the Federal Emergency Management Agency (FEMA) still classifies the old channel as part of the floodplain area. The City began participation in the National Flood Insurance Program (NFIP) in 1979. Virtually all housing surrounding Downtown was built prior to 1979 and is located in the floodplain. While existing owners were grandfathered at the time the City entered the NFIP and did not have to purchase flood insurance, many of these properties are now turning over and are seeing flood insurance (costing as much as \$2,000/year) as a significant barrier for resale of these properties.

Even if flood insurance is affordable, another issue is

renovation. Existing floodplain regulations require compliance with floodplain development requirements if a “substantial improvement” is performed. A substantial improvement is defined as one which totals 50% or more of the market value of the structure only.

Due to the generally poorer condition of many of the houses in the floodplain area, most are in need of sufficient renovations (roofing, siding, foundations, wiring, etc.) that the substantial improvement threshold is triggered. Since NFIP regulations require elevation of houses above the base flood elevation level where there is a substantial improvement, the only way to renovate houses in this area is for them to be elevated as part of the project – in some cases four feet or more. This is not practical or, in many cases, even feasible.

If a house is in very poor condition, one alternative might be to demolish it and build a new house on the property. This can be problematic due to setback requirements (see the discussion following). If a house can be considered historically significant, it is possible that a floodplain exemption might be obtained. An exemption requires designation by the Certified Local Governance (CLG) committee and approval by the Board of Adjustment (BOA). Implementation Plan project 5.3 calls for a study to be performed by the CLG to designate eligible housing as historic. A possible blanket exemption or district exemption could then be applied for, making it easier to renovate these houses located in the floodplain.

A long-term solution for this issue is to remove these properties from the floodplain. The City is working on a project – the Bitter Creek Reconstruction Plan – that will eventually pull most of the impacted houses out of the floodplain. Funding for this multi-million dollar project is the chief obstacle to its completion. See Hazard Mitigation Implementation Plan project 9.2.1.2.

Setback Issues

The City’s current Zoning Ordinance was adopted in 1982. At the time of adoption, the existing single-family detached housing in the City was divided into two basic zoning districts – R-1 and R-2. The R-1 Zone is for site-built housing only and the minimum lot size is 7,000 square feet. The R-2 Zone allows either site-built or modular housing on a permanent

“If a house can be considered historically significant, it is possible that a floodplain exemption might be obtained.”

foundation and has a smaller minimum lot size of 6,000 square feet. However, in the older areas of the City, typical lot sizes range from 4,000 to 5,000 square feet.

Setbacks in both zones are identical – 20’ front/corner; 20’ rear; 6’/10’ sides (see Figure 5.3). This one-size-fits-all approach to zoning left many existing properties, and particularly those in the oldest portions of the City, non-conforming. Lot widths rarely exceed 50 feet (the minimum in the R-2 Zone is 60’) and most existing houses lie much closer to the front property line than the required 20’.

While the Ordinance allows for some flexibility in the form of conditional use permits for adjusted front yard setbacks and does recognize established setbacks to a certain extent,

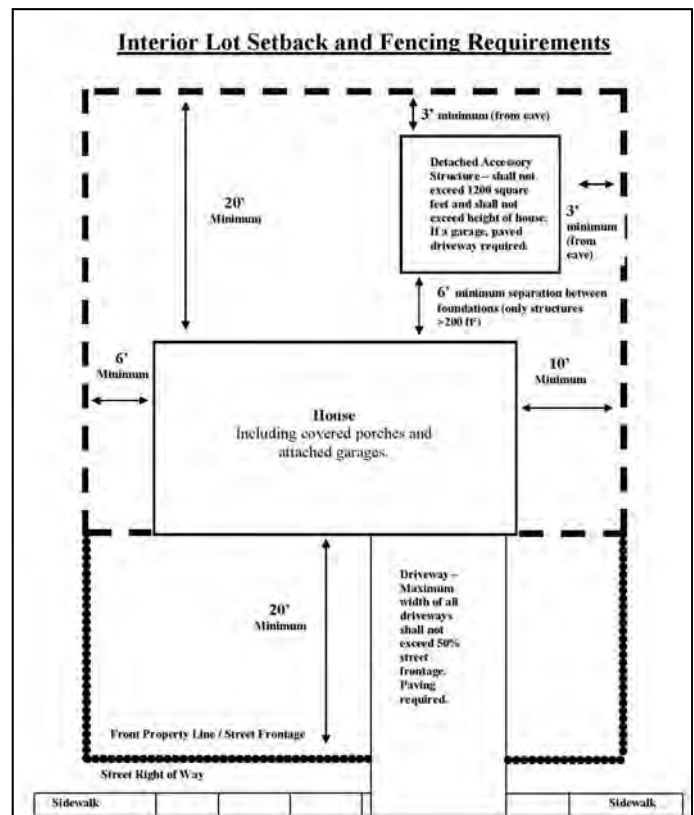


Figure 5.3: Typical Residential Setback Requirements.

these mechanisms are not user-friendly and still amount to trying to fit a square peg into a round hole. New structures are required to meet the R-2 setbacks or seek out expensive variances from the Board of Adjustment. For properties that are marginal, these extra costs are sufficient enough to prevent redevelopment from occurring. Implementation Plan project 5.2.c. calls for revisions to the Zoning Ordinance and Zoning Map to create differing zones for smaller lots, including smaller setback requirements.

Multiple Dwelling Units

Another way for the City to increase the affordability of its housing stock is to change its ordinances pertaining to accessory dwelling units, duplexes and other existing, non-conforming housing types typically located in older neighborhoods. While an exact number is not available, a representative sample of three of the City's subdivisions platted prior to 1950 indicates 19.2% of the lots with residential uses contain 2 or more dwelling units (see Table 5.9) While single-family detached housing – one house per lot – predominates, there are a significant number of lots that contain accessory dwelling units (13.4%). If this percentage is applied to the total number of dwelling units constructed prior to 1950, planning staff estimates that there may be as many as 281 accessory dwelling units in the City.

In some cases, there is a larger unit situated at the front of the property with a smaller unit in the rear. However, there are many properties that have a larger rear unit and some where both units are approximately the same size. The primary zoning for these lots is R-2 (single-family), however, some such lots are zoned B-3 (Central Business) and a handful are zoned B-R (Business Residential). Only the B-R zone would allow for more than one unit on a lot. Because most of these units are considered non-conforming, they cannot be expanded. And, by Ordinance, if the secondary unit is not occupied for a period of one year, it can no longer be used for housing.

There are also some lots that contain houses that have been converted to apartments, duplex housing and other housing types with 2 or more units per lot. These existing multi-unit properties make a valuable contribution toward fulfilling affordable housing needs of the City. Therefore, this Plan calls for revising the Zoning Ordinance to recognize existing units as conforming, wherever feasible. In addition,

TABLE 5.9

**Housing Type Assessment:
UPRR 1st Addition, UPCC 4th Addition, and
CCCC 1st Addition**

Type of Unit	# of Lots	% of Total
1 unit—detached	235	80.8%
2 units—detached	39	13.4%
2 units—attached	9	3.1%
> 2 units—detached	4	1.4%
> 2 units—attached	4	1.4%
Total	291	100.0%

Source: Rock Springs Planning & Zoning Division.

Implementation Plan project 5.2.d recommends adopting regulations allowing for additional, accessory dwelling units where setbacks, lot coverage and off-street parking requirements can be met.

Organizational Obstacles

One final obstacle to increasing housing opportunities for all residents of the City is the City's Organizational structure. The Housing Authority, for instance, is part of the City's Finance Department and deals almost exclusively with Section 8 vouchers and the City's 100 public housing units.

The Planning Division is part of the Public Services Department and, because of workload issues, has operated almost completely as a permit-processing division with little time available to consider housing or other typical planning issues. The Building Division is also part of the Public Services Department. Like the Planning Division, this Division has been inundated with the recent booming economy, and housing quality has not been addressed. The Urban Renewal Agency was recently moved into the Public Services Department. This Agency has been primarily focused on commercial properties and bringing events to Downtown.

Each of these entities has a piece of the housing puzzle. The

challenge is to pool resources and hire the additional staffing necessary to adequately address the City's housing needs. Implementation Plan project 5.4 includes establishment of an Inter-Departmental Housing Task Force to examine the shortcomings of the City's current housing efforts and to make appropriate recommendations for staffing and organizational realignments, if needed, to address these issues.

5.7 Temporary Housing

One typical housing need of resource-based economies is temporary living quarters. In the most recent boom, temporary workers lived in a variety of places, including hotel rooms, apartments, mobile home parks and rented single-family and two-family dwellings. The Sweetwater County Fairgrounds even built an RV Park to handle the influx of workers. In many cases, workers came without their families, which made living in temporary quarters for extended periods of time more palatable.

The impact of these temporary workers on the local housing market is considerable. The generally higher wages of resource industry workers, as well as the lack of sufficient temporary housing to accommodate them, drives up the price of rental housing. In addition, when there are not sufficient units available, local companies pack several workers into the same rented house, thereby adversely impacting otherwise quiet residential neighborhoods.

During the boom of the 1970s, temporary workers were housed in "temporary" mobile home parks that, without paved roads, adequate separation between units or recreational areas, were never meant to become permanent. Many of these mobile home parks remain in place today, and their roadways continue to be unpaved, separations continue to be inadequate and there are no safe places for children to play. For this reason, the City is very sensitive to the establishment of "temporary" uses. Since temporary housing will be an ongoing need, this Plan calls for an exploration of possible solutions, including the addition of recreational vehicle park regulations, utilizing the Sweetwater County Fairgrounds campgrounds as a temporary housing solution, or other alternatives to address this need. See Implementation Plan project 5.2.e.

5.8 Senior and Other Housing Needs

Senior Housing

While the population of Rock Springs is younger than both the state and the nation, there are still some 1,846 City residents (8%) that are 65 years of age and older (2010 Census). These residents, most of whom are retired, have different housing needs than other residents of the City. Many are on fixed incomes and cannot afford to rent in the ever-rising rental market. Those who live in their own homes may not be able to keep up with maintenance, for either health or financial reasons. Some of the housing rehabilitation programs, if implemented (See Implementation Plan project 5.1), could help seniors keep their housing in good condition. For those seniors meeting income thresholds, public housing assistance may be available.

Once seniors lack the mobility to remain in their own homes, there are a few options, but not all of them are affordable for the average resident. These options include nursing home and assisted living care facilities. Rock Springs has one nursing home, with 82 beds, and one assisted living/memory care facility, with 57 beds.

Another option would be to allow for accessory dwelling units, affectionately known as "granny flats", to be conforming uses (see the discussion in Section 5.5 of this chapter). In this way, family members can care for an elderly parent while still providing that parent with a certain degree of independence.



"Temporary" 1970's Housing Site in Rock Springs Today.

“Transitional housing, if properly developed and managed, could fulfill many of the needs of those who are temporarily homeless and assist families in securing permanent housing.”

Special Needs Housing

Special needs individuals include those with mental and physical challenges. One local group has been particularly active in advocating for a housing and training center for the blind and visually impaired to be located in Rock Springs. These efforts are ongoing. Churchill Commons Housing manages 20 subsidized units for persons 62 or older and persons with disabilities; however, the waiting list averages one year.

The Southwest Wyoming Rehabilitation Center (SWRC), which closed in 2010, used to provide housing and other services for special needs individuals. No one group has stepped forward to fill the housing gap for these individuals. In order to maximize efficiencies and prevent duplication of effort, the City should partner with the County, non-profits and the City of Green River to ensure that this housing need is met. See Implementation Plan project 5.5.

Transitional and Homeless Housing

Transitional housing is another housing need identified within Rock Springs and Sweetwater County. Transitional housing provides temporary lodging for people with a variety of issues, including those recovering from substance abuse, victims of domestic violence and even the temporarily unemployed. Development of transitional housing is sometimes an uphill battle due to neighborhood opposition, in spite of federal laws prohibiting discrimination.

Transitional housing can also include affordable housing units, usually subsidized and rented to individuals and families for a limited period of time, sometimes up to 18 months. During this time, education, training and other supportive services are provided to prepare the family for re-entry into fair market housing. This type of transitional housing can be extremely effective in providing temporary

housing while permanent housing is secured, thereby preventing recurring homelessness; however, funding for this type of housing would need to be secured. “I believe transitional housing would be much more useful in Rock Springs than a homeless shelter because it could assist with long-term planning to prevent homelessness and the reoccurrence of homeless episodes.” (Holbert) Implementation Plan project 5.6 calls for pursuit of funding through a partnership with the Continuum of Care Board for the State of Wyoming and private parties in order to meet the transitional housing needs of Rock Springs residents.

Homeless housing or homeless shelters are temporary lodging places for persons who have no other place to stay. Debates abound as to whether homeless shelters encourage or discourage homelessness, and they are more often considered a “band-aid” rather than a solution to the housing problem. Transitional housing, if properly developed and managed, could fulfill many of the needs of those who are temporarily homeless and assist families in securing permanent housing.

5.9 Neighborhoods

Planning in Rock Springs has not generally been at the neighborhood level. The City’s Zoning Ordinance, for example, does not even contain a definition of “neighborhood”. Other cities and the overall planning community have begun to understand the critical nature of neighborhoods as building blocks for a healthy City.

One definition of neighborhood, for example, comes from the City of Renton, Washington: “A subarea of the city in which the residents share a common identity focused around a school, park, community business center, or other feature.” Based upon this definition, it is fairly easy to identify neighborhoods in the older parts of the City.

According to City Councilor David Tate, many of “Rock Springs’ neighborhoods were focused around the mines, rather than parks or schools.” Land development policies of the last three decades, however, have made it difficult to establish new neighborhoods. A brief overview of some of the City’s existing neighborhoods is included in the following narrative.



Figure 5.4: East Flat Neighborhood.

East Flat Neighborhood

The East Flat Neighborhood is arguably the City's most cohesive and recognizable neighborhood. Bounded by Pearl Street and Pearl Park on the east, the neighborhood stretches west to Channel Street, south to North Front Street and north to Business 80 / U.S. Hwy. 30.

Though it is located on the neighborhood's east side, the focal point of the East Flat Neighborhood is Pearl Park, which lies between Pearl Street, Dead Horse Canyon Creek, and Bitter Creek (see Figure 5.4).

True to its name, East Flat is located east of Downtown in a relatively flat portion of the City. Much of the East Flat Neighborhood lies within the FEMA-designated floodplain. The Clark Addition and a few unplatted properties make up East Flat.

A majority of the lots in East Flat (70%) contain houses that were constructed between 1910 to 1919. A few lots were developed in later decades. Housing units are generally smaller, reflecting the smaller lot sizes in this neighborhood. Roughly 10% of the lots contain more than one dwelling unit (see Table 5.10).

TABLE 5.10

East Flat Neighborhood Housing Sample

Decade Constructed	Number	Type
1900-1909	—	—
1910-1919	7	Single
1920-1929	1*	2 Detached Units
1930-1939	3*	Single & 2 Detached Units
1940-1949	1	Single
1950-1959	—	—

*One lot contains 2 detached units, each of which was built in a different decade.



Compact Housing along 6th Street, East Flat Neighborhood.



Second Detached Unit at Rear of the Lot, North Front Street.



Figure 5.5: No. 4 Mine Neighborhood.

No. 4 Mine Neighborhood

Located just east of the East Flat Neighborhood, the No. 4 Mine Neighborhood is a geographically large area bounded by the North Belt Loop on the North, Billie Street on the South, El Rancho Street on the east and Bitter Creek on the west (see Figure 5.5).

The No. 4 Mine Neighborhood is made up primarily of three subdivisions -- UPCC 4th Addition, Lowell Addition and Kruljac Addition – as well as adjacent unplatted properties. Like East Flat, this neighborhood is relatively flat.

The focal point for the neighborhood was the No. 4 coal mine, as well as Independence High School, which used to be Lowell Elementary School.

A representative sample of residential lots in the neighborhood indicates housing with a variety of ages and types. Roughly 10% of the lots contain more than one dwelling unit (see Table 5.11).

TABLE 5.11

No. 4 Mine Neighborhood Housing Sample

Decade Constructed	Number	Type
1900-1909	1	Single
1910-1919	1	Single
1920-1929	1	2 Detached Units
1930-1939	2	Single
1940-1949	3	Single
1950-1959	2	Single



Housing Variety, No. 4 Mine Neighborhood.



Multi-Unit Structure, No. 4 Mine Neighborhood.



Figure 5.6. West Flat Neighborhood.

West Flat Neighborhood

Wedged between the Bitter Creek on the east and the hillside on the west, West Flat is also among the City's oldest recognizable neighborhoods. West Flat generally straddles Center Street (Business 80 / Hwy. 30). See Figure 5.6.

The neighborhood is made up of the Hillside Addition, which was platted in 1923.

In terms of housing composition, 60% of the lots in West Flat were developed during the 1920s and 1930s. See Table 5.12. Of the lots sampled, 20% contained more than one dwelling unit.

As with the East Flat and No. 4 Mine Neighborhoods, the West Flat Neighborhood generally contains small houses. With Business 80 / Hwy. 30 bisecting a significant portion of the neighborhood, there is no neighborhood focal point for this neighborhood.

TABLE 5.12

West Flat Neighborhood Housing Sample

Decade Constructed	Number	Type
1900-1909	—	—
1910-1919	—	—
1920-1929	2 2*	Single 2 Detached Units
1930-1939	1 1*	Single 2 Detached Units
1940-1949	3	Single
1950-1959	1	Single

*One lot contained two units, developed in subsequent decades.



West Flat Corner House, Circa 1939.



Two Houses on the Same Lot in the West Flat neighborhood.

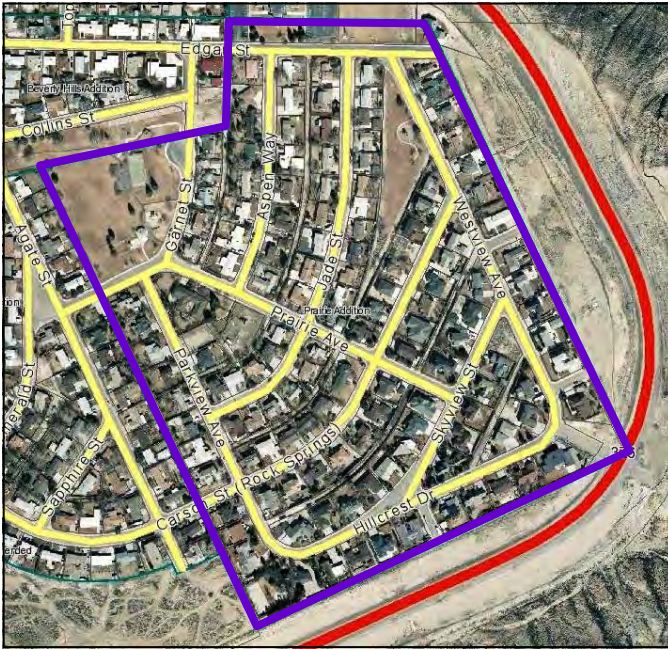


Figure 5.7: Prairie Addition Neighborhood.

Prairie Addition Neighborhood

Situated between the South Belt Loop, Edgar Street, Agate Street and Collins Street, the Prairie Addition Neighborhood is both a subdivision and a well-defined neighborhood (see Figure 5.7).

Newer than the previous neighborhoods, Prairie Addition was platted in 1954 and has Garnet Park as a focal point. Prairie Addition is also located in an area with hilly topography.

Of the lots surveyed, all contained houses constructed later than 1969, with a fairly even split of development occurring in the 1970s and 1980s (see Table 5.13), contributing to a wide range of architectural styles.

Houses in the Prairie Addition Neighborhood are larger, with most exceeding 2,000 square feet. None of the properties inventoried contain secondary units or have been converted into multiple family housing.

TABLE 5.13

Prairie Addition Neighborhood Housing Sample

Decade Constructed	Number	Type
1970-1979	4	Single
1980-1989	5	Single
1990-1999	1	Single
2000+	—	—



2,900 Square Foot Home, Prairie Addition Neighborhood.



Victorian Architectural Features, Prairie Addition Neighborhood.

Neighborhood Analysis

Historically, the City developed with recognizable, distinguishable neighborhoods. Most of these neighborhoods had a focal point, such as a park, school, or mine. However, changes to the City's Zoning Ordinance in the early 1980s, as well as park policies, have made it difficult to create new neighborhoods. Consequently, since 1980, housing has not been organized into neighborhoods, but rather into subdivisions, which are collectively referred to as the "West Side". The West Side contains dozens of subdivisions and thousands of homes, with commercial development clinging to abutting arterial roadways. Neighborhood-scale parks are virtually non-existent. While there are some schools, these have not, for the most part, been tied into the adjoining residential developments. A few areas have been designated for Neighborhood Commercial development, but only one of these has actually developed.

A one-size-fits-all approach to planning will not benefit the long-term viability of the City's neighborhoods. Implementation Plan project 5.7 calls for a Neighborhood Assessment to fully evaluate existing neighborhoods and identify strategies for each of them to encourage healthy neighborhood identification and prosperity into the future. Implementation Plan project 5.2.b, as mentioned earlier, provides for the addition of neighborhood commercial centers and mixed use development. Park development policies are discussed in Chapter 7 of this Plan.

5.10 Conclusion

The City of Rock Springs has a variety of housing types and styles that can appeal to a wide range of residents. For those preferring vintage housing, some 30% of the City's housing stock was constructed prior to 1950s. Large lot residential is available in the northwest portion of the City – Sweetwater Station – where covenants require a minimum house size of 2,000 square feet. A variety of rental housing is also available, ranging from mobile homes to apartments to houses.

The City needs to concentrate on removing obstacles to housing affordability, as well as on identifying neighborhoods and ensuring their survival. Provision of temporary housing is also an ongoing concern, as well as developing a housing team that can bridge across departments and divisions to ensure housing gets the attention it needs in the future.



"Typical" Home on the "West Side", constructed 2009.



1.4 Acre Lot, Rural Estates Zoning District.



Early 1980's Constructed Townhomes.



24-unit Apartment Building, Constructed 2010.

5.11 Chapter 5—Implementation Plan

TABLE 5.14

Goal: Develop a reliable infrastructure and transportation network, healthy neighborhoods, balanced and compatible land uses, and a strong downtown to promote community and economic growth.

Project #	Project Description	Responsible Party	Budget Estimate	Timeline for Completion	Additional Funding Needed?
5.1	Seek grant and low-interest loan funding to assist homeowners with improving housing conditions in older and/or declining homes.	URA	\$	2018	Possibly a Local Match
5.2.a	Revise the City of Rock Springs Zoning Ordinance and Map to include adequate areas of sufficient type to support the proposed dwelling unit mix in the Master Plan.	Planning & Zoning	\$	2015	Yes
5.2.b	Revise the City of Rock Springs Zoning Ordinance and Map to support neighborhood commercial development and mixed use development types.	Planning & Zoning	\$	2015	Yes
5.2.c	Revise the City of Rock Springs Zoning Ordinance and Map to add one or more existing zoning districts, with reduced setbacks and smaller lot sizes.	Planning & Zoning	\$	2015	Yes
5.2.d	Revise the City of Rock Springs Zoning Ordinance and Map to include regulations for Accessory Dwelling Units and other existing multi-units and allow these where they are existing or practicable.	Planning & Zoning	\$	2015	Yes
5.2.e	Revise the City of Rock Springs Zoning Ordinance and Map to explore options for temporary housing, including an RV Park Ordinance and/or utilization of the Sweetwater County Fairgrounds campgrounds.	Planning & Zoning	\$	2018	Yes
5.3	Perform a comprehensive study of older housing located in the 100-year-floodplain area and designate eligible housing as historic.	URA	\$	2016	Yes—Possible Grant Funding
5.4	Establish an Inter-Departmental Housing Task Force to address housing needs in the City, including identification of missing resources and potential organizational realignments to best take advantage of the full spectrum of federal & state housing programs available.	City Council	\$	2017	Yes—Possible Grant Funding
5.5	Partner with the City of Green River, Sweetwater County and non-profits to ensure adequate housing for the special needs population.	Housing Authority	\$	2016	Possible Grant / Private Funding
5.6	Pursue funding in partnership with the Continuum of Care Board and private entities to procure funding to meet the transitional housing needs of Rock Springs residents.	Housing Authority	\$	2015 & Ongoing	Possible Grant / Private Funding
5.7	Conduct a Neighborhood Assessment for all existing residential development and identify strategies, including changes to the subdivision ordinance, addition of pedestrian connections, construction of parks and removal of zoning obstacles, to encourage the long-term viability and prosperity of the City's unique and varied neighborhoods.	Planning & Zoning	\$	2018	Possible—Assessment Can be Completed In-House

Budget Estimate: \$ - <\$0,000; \$\$ - 50,000 - 100,000; \$\$\$ - 100,001 - 500,000; \$\$\$\$ - >500,000

CHAPTER 6: DOWNTOWN



First Security Bank Building

“Downtown is the heart of our City. Through the outstanding efforts of citizens, elected officials, staff and, in particular, the Urban Renewal Agency, we have seen positive revitalization progress. This Plan will help us to continue these efforts in a logical fashion, one corridor at a time.”

- Vess Walker, Rock Springs Director of Public Services

Chapter 6: Downtown

Sections:

6.1 Overview

6.2 Previous Downtown Plans

6.3 Urban Renewal Agency

6.4 Summary of Issues

6.5 Downtown Character

6.6 Rock Springs Main Street Program

6.7 Corridor Identification

6.8 Corridor Plan Preparation

6.9 Conclusion

6.10 Chapter 6—Implementation Plan

6.1 Overview

The health of a city can be linked to its Downtown. A Downtown that is active and bustling with few vacancies is indicative of a City that has a balanced economy, with a place for both large-scale commercial entities and small-scale restaurants, retailers and services. “Downtown Rock Springs is the City’s heritage. It is the bridge between the past and the future. A Downtown is like a living room of a person’s home.” (“Downtown Redevelopment Plan”, 4)

Since the economic boom of the 1970s, the City of Rock Springs has experienced an exodus of businesses and residents from the City’s historic Downtown to greenfields on the City’s fringes. Two malls – White Mountain Mall and Plaza Mall – contain a majority of the City’s retail operations, with a third shopping/office complex – Commerce Centre – presently under construction and partially occupied. K-Mart and Walmart are standalone big box operations.

None of these are located in the City’s Downtown, and the loss of primary retail operations has left portions of Downtown gasping for breath and trying to recover its former health. This Chapter examines the City’s Downtown and makes recommendations for refocusing public efforts to revitalize and strengthen the City’s core.

6.2 Previous Downtown Plans

1980 Development Plan – Downtown Rock Springs

As early as 1980, the City identified the importance of revitalizing its Downtown. In that year, the City prepared a Development Plan for the Downtown that recognized, “Though the Downtown retailing benefited substantially in growth of population and purchasing power in the mid-70’s, triggered by energy-related development in the county, the opening of White Mountain Mall and other strip centers along Dewar Drive weakened the competitive position of the Downtown.” (Bartholomew, et al, 2)

Drawing upon the prevailing urban renewal strategy of the era, the plan called for demolishing a large six block area on the north side of Front Street and replacing it with a commercial shopping center and parking lots (see Figure 6.1). “The City of Rock Springs intends to acquire all the buildings in the reclamation area, relocate tenants and

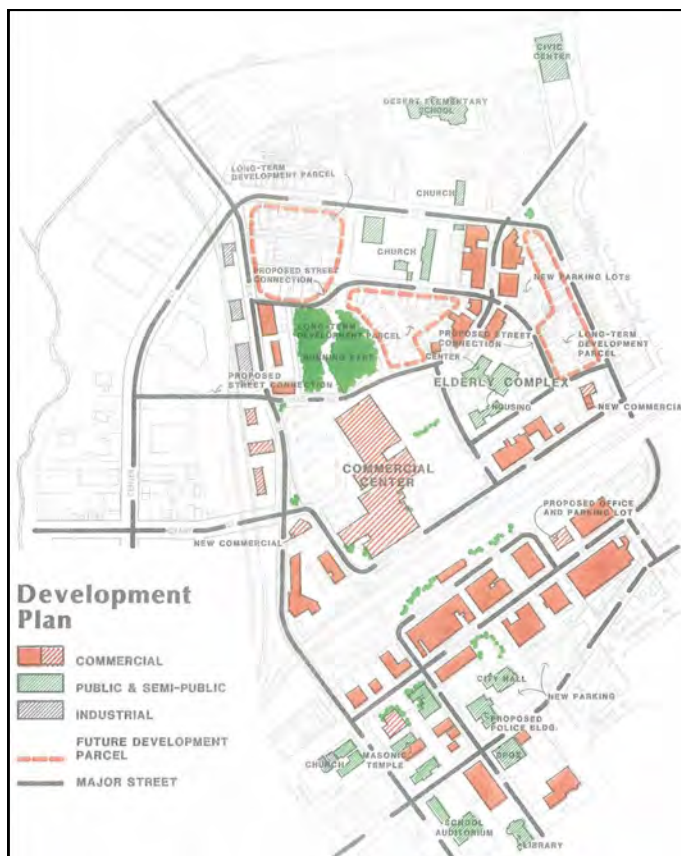


Figure 6.1: 1980 Development Plan “Commercial Center” Concept.

businesses and demolish and clear the area. The reclamation program will be effective only after the area is completely cleared. This area is too congested to allow a feasible study and an effective reclamation program.” (Bartholomew, et al, Summary 1).

This proposal would have been primarily funded with federal monies. A three-year budget accompanying the plan estimated the initial cost to be \$6.7 Million (\$18.7 Million in 2012 dollars), with a total cost exceeding \$15 Million (\$41 Million in 2012 dollars). For obvious reasons, this portion of the plan was never implemented. Other plan recommendations, however, were implemented, including:

- ⇒ Designation of a single department or agency to be responsible for implementation
- ⇒ Construction of a Senior Citizens Center along Pilot Butte Avenue (relocated to Reagan Avenue on the City’s west side in 2008)
- ⇒ Removal of parking meters serving Downtown
- ⇒ Rehabilitation of sidewalks and the addition of planters
- ⇒ Acquisition of the Union Pacific Railroad Depot

Other recommendations that were not implemented but warrant further discussion include:

- ⇒ Expansion of City Hall and construction of a Police Building, including parking areas
- ⇒ Redevelopment of the First Security Bank Building (acquired, not yet renovated)
- ⇒ Strengthen both sides of Downtown
- ⇒ Improve building facades (some have been improved)
- ⇒ Tie together north Downtown with south Downtown

1990 Downtown Redevelopment Plan

In 1990, the City prepared another Downtown plan, the *Downtown Redevelopment Plan*. Guided by an advisory committee of community members, the plan identified a large geographic area as the Central Business District, spanning from Channel Street on the east to Elk Street on the west and from Ahsay Avenue on the north to Second Street on the south (see Figure 6.2).

The plan detailed various reasons for the flight of businesses from Downtown, including a desire for indoor shopping areas



Figure 6.2: 1990 Downtown Redevelopment Plan CBD.

by consumers, growth of housing areas on the west side, neglect by the City of Downtown infrastructure, lack of connectivity to I-80, floodplain, subsidence and hesitancy on the part of banks to make loans against Downtown structures.

The 1990 Plan made a reference to the 1980 plan, while not mentioning it specifically, stating: “...many of the previous studies for the Downtown redevelopment were flawed or unusable. Many contained erroneous information, idealistic and impossibly expensive ideas, or information that was quite simply vague or unclear.” (“Downtown Redevelopment Plan”, 2) Perhaps even more telling is the statement that,

“Plans were often concocted that had little or no regard for Rock Springs or its people.” (“Downtown Redevelopment Plan”, 2)

The Downtown Advisory Committee felt the timing for a new plan was ripe because of recent developments, including the reconstruction of Business Loop Interstate 80; resumption of Amtrak passenger service in Rock Springs; receipt of an AML grant for renovation of the Old City Hall building; and proposed construction of a new banking facility in Downtown.

Many of the plan’s recommendations were implemented, including:

- ⇒ Addressing subsidence issues
- ⇒ Undergrounding utilities
- ⇒ Making improvements to the M Street underpass
- ⇒ Completing improvements to the Pedestrian underpass
- ⇒ Installation of antique street lights
- ⇒ Wayfinding signage installation
- ⇒ Use of Downtown area banners on light poles

Some of the plan recommendations that were not implemented but warrant re-examination include:

- ⇒ Utilize the Historic Preservation Code
- ⇒ Create an Historic District to allow business owners to get a 20% tax credit on improvements
- ⇒ Encourage friendly service by Downtown business owners
- ⇒ Garner participation of Downtown business owners in Downtown events

2006 Urban Renewal Agency District Plan

Sixteen years later, in April 2006, City Council adopted the Urban Renewal Agency District Plan. The Plan includes an identification of the Urban Renewal Project Area, dubbed the “pork chop” for its shape, which is focused both on the Downtown, as well as on a significant portion of the City (see Map 6.1). The “pork chop” is further subdivided into four distinct areas: Old Fair Grounds, East Flat, Historic Downtown and West Flat. Only the Historic Downtown District portion of the plan is examined in this Chapter.

Among the main projects in the plan that have been completed are:

- ⇒ Development of Downtown Design Guidelines and Signage standards
- ⇒ Installation of direction and information signs
- ⇒ Rezone of properties adjacent to Downtown to allow for a mixture of uses
- ⇒ Development of year-round activities and events to support the Downtown
- ⇒ Redevelopment and reuse of The Rock Theater
- ⇒ Develop an entrance and parking lot for Bunning Park

Several projects not completed, but warranting re-examination, include:

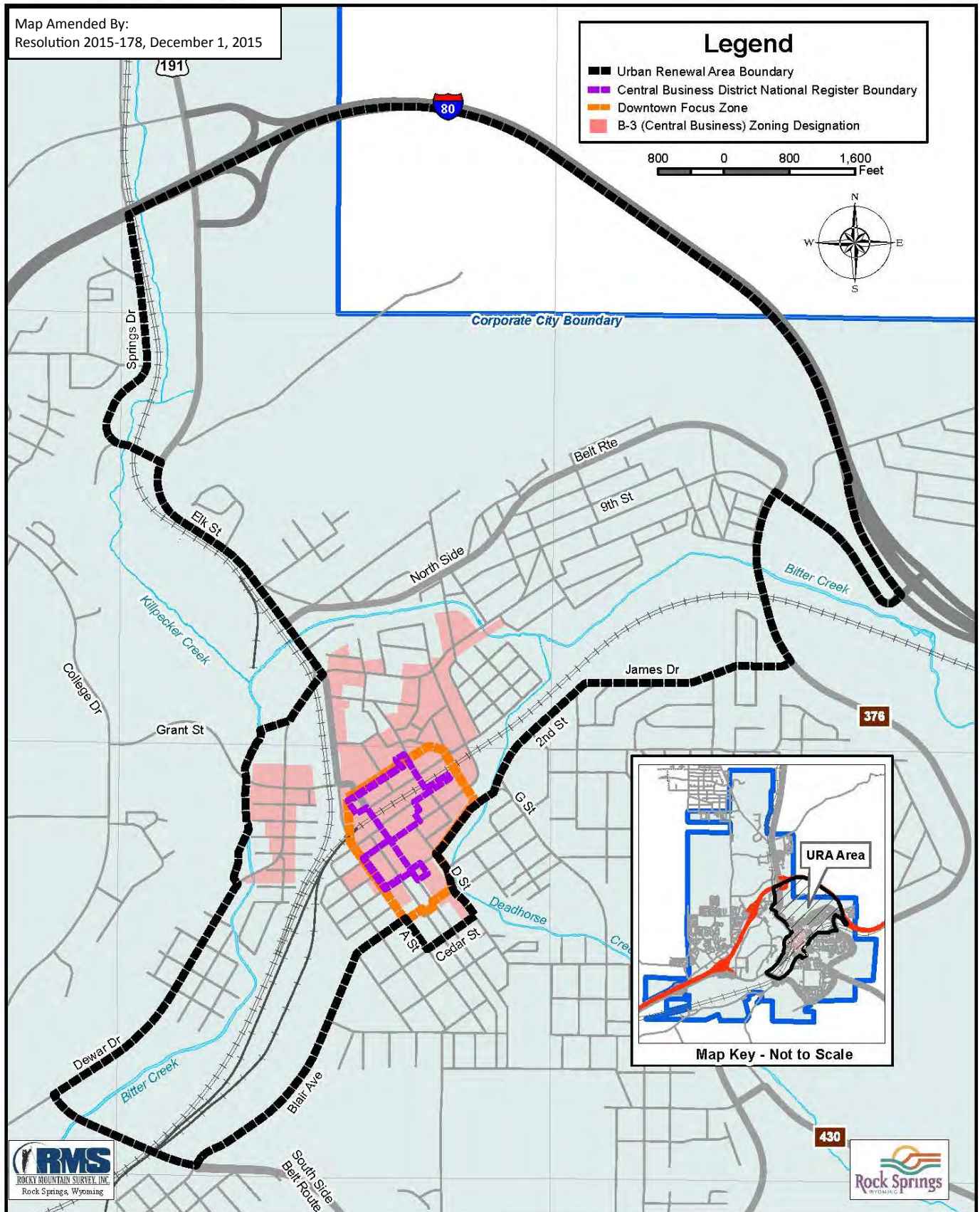
- ⇒ Addition of amenities – public restrooms, benches, shelters, canopies, kiosks, drinking fountains, children’s play areas and art work in and around Downtown
- ⇒ Recruitment of additional businesses to the Downtown area



Façade Improvements and Signage along Broadway.

MAP 6.1

Urban Renewal Project Area



Notice: This map is intended for illustrative purposes only. Users are advised to verify the information shown hereon by consulting the City of Rock Springs Planning Office.

- ⇒ Parking assessment
- ⇒ Screening of trash enclosures (including those for City Hall)
- ⇒ Establishing an Improvement District
- ⇒ Removal of zoning barriers so as to encourage residential uses in and around Downtown
- ⇒ Develop a financial plan for Downtown improvements

2007 Branding, Marketing and Development Action Plan

Following close on the heels of the *2006 Urban Renewal Agency District Plan*, the *Branding, Marketing and Development Action Plan* was completed (2007). The Plan's purpose was to "...help develop a detailed action plan for branding and marketing the City of Rock Springs, and to tie that effort into the branding and marketing of the City's Downtown core to increase visitor spending." (Destination Development, 4)

The plan, which contains 36 specific projects, had an ambitious 5-year implementation timeline. Although the focus area for the plan was broader than Downtown Rock Springs, there were many projects focused specifically on Downtown, which are included in this evaluation (see Figure 6.3). The following projects proposed by the plan have been implemented:

- ⇒ Sponsor Downtown events
- ⇒ Install new signage, including way-finding signage
- ⇒ Develop architectural standards (adopted as guidelines)
- ⇒ Adopt the Downtown District identity of Union Square

The following plan-recommended projects have not been implemented or have been partially implemented, but warrant further discussion/examination:

- ⇒ Create a Downtown dining district
- ⇒ Add visitor information kiosks
- ⇒ Develop free Downtown Wi-Fi
- ⇒ Install convenient public restrooms Downtown
- ⇒ Facilitate storefront design with exciting visual appeal
- ⇒ Develop a high-quality marketing, advertising and management program
- ⇒ Encourage street vendors and entertainers
- ⇒ Add murals and trompe l'oeil



Figure 6.3: 2007 Branding Plan Concept Drawing.

- ⇒ Recruit residential condominium and/or apartment development Downtown
- ⇒ Recruit a Downtown hotel

In summary, the previous Downtown plans contained dozens of projects, most of which had a high price tag. Many of the projects involved considerable public expenditure of funds with little promise of a good return on investment.

Surprisingly, each subsequent plan prepared does not reference or incorporate (and often even fails to acknowledge) previous plans. Planning isn't something to be done in a vacuum or without the benefit of the wisdom of others. Accordingly, this Chapter pulls the best ideas from the past and focuses them on the future, with the goal of revitalizing Downtown a little at a time.



Downtown Way-Finding Signage for Historical Tours.

6.3 Urban Renewal Agency

In 2005, fifteen years after the preparation of the second Downtown plan, the City established an Urban Renewal Agency (URA). Authorized by state statute and local ordinance, the URA is charged with the "...responsibility of revitalizing the Urban Renewal District, which generally encompasses the Downtown central business district and the east entrance to the City of Rock Springs." ("Urban Renewal Agency District Plan", 7)

The URA is comprised of one full-time and one part-time staff member, as well as one part-time theater manager. Together, these employees are tasked with guiding the efforts of community volunteers, private enterprise and government to "...organize, implement, and facilitate the promotion, design, and economic growth of the renewal district." ("Urban Renewal Agency District Plan", 7). For all practical purposes, the URA plays the leading role in Downtown revitalization.

Organizationally, the URA reports to a seven-member Commission that oversees project development. The URA staff members are also City of Rock Springs employees and the URA receives its funding from the City. The ultimate decision-making authority for URA funding and projects is the Rock Springs City Council. In addition to the Commission, the URA has four standing committees comprised of



Former Union Pacific / Bunning Transfer Station.

"Planning isn't something to be done in a vacuum or without the benefit of the wisdom of others. Accordingly, this Chapter pulls the best ideas from the past and focuses them on the future, with the goal of revitalizing Downtown a little at a time."

community volunteers.

Since its inception, the URA has made progress toward completing the myriad of projects recommended in previous plans. Resources are limited and many of the proposed projects are outside the scope of what government can or should do, or are impractical for Rock Springs. This Chapter attempts to synthesize the previous Downtown plans and develop a course of action that is achievable for the URA, in partnership with the City, within the 10-year planning horizon of this Master Plan.

6.4 Summary of Issues

Rock Springs is not unique in terms of what has happened to its Downtown, however, the issues associated with revitalization of the City's Downtown are unique. One of the shortcomings of some previous plans was the lack of recognition of City-specific limiting factors. The redevelopment measures that worked in other cities are not necessarily transferrable to Rock Springs. This Section contains an analysis of the specific issues limiting redevelopment of Downtown Rock Springs.

Geographic Extent

The City of Rock Springs has a Downtown area that is physically large. Even if only commercial development is included, the Downtown extends from several blocks north of the railroad, almost as far as Bunning Park, to Walnut Street on the south. Some of the previous Downtown plans failed to identify the exact location of Downtown – what should be included and what should not be included. Without a specific identification of where Downtown is, it is difficult to plan for redevelopment. Even for those plans that attempted to identify Downtown, the physical task of



National Register of Historic Places Building, the BPO Elks Lodge #624 on the Southeast Corner of 2nd & C Streets.

revitalizing hundreds of buildings located within the Downtown area was overwhelming. To address this issue, this Plan identifies the Downtown in three ways. See Map 6.2.

The first is the *Downtown Focus Zone*, which extends from roughly 5th Street on the north to 2nd Street on the south and from A Street to F Street. While properties outside this area may have historically been considered part of Downtown, and while they certainly may benefit from the projects contained herein, they are not included as part of this plan. This represents the City's first attempt to zero in on a smaller, more manageable project area.

The second division of Downtown is the *National Historic Register area*. A smaller boundary within the Downtown Focus Zone, this area is primarily comprised of properties that are historic in nature. Some 45 buildings within this specific area have been designated as contributing to the historic nature of the district, while three of the buildings are included on the National Historic Register.

Even with this smaller division of Downtown, there are still dozens of structures involved. If all of the structures within this area needed attention and the City were able to accomplish revitalization of one property per year, it would take 56 years for this entire area to be redeveloped. Clearly, even this reduced area is too large.

For this reason, this Plan recommends a third division of the Downtown Focus Zone into four primary *Downtown Corridors*. These corridors run generally east and west as follows:

- ⇒ South Main-Depot Corridor
- ⇒ North Front Corridor
- ⇒ Union Square Corridor
- ⇒ Civic Corridor

In addition, there are three other corridors that lie outside of the Downtown Focus Zone which are of special significance to the City and which should also be examined, including:

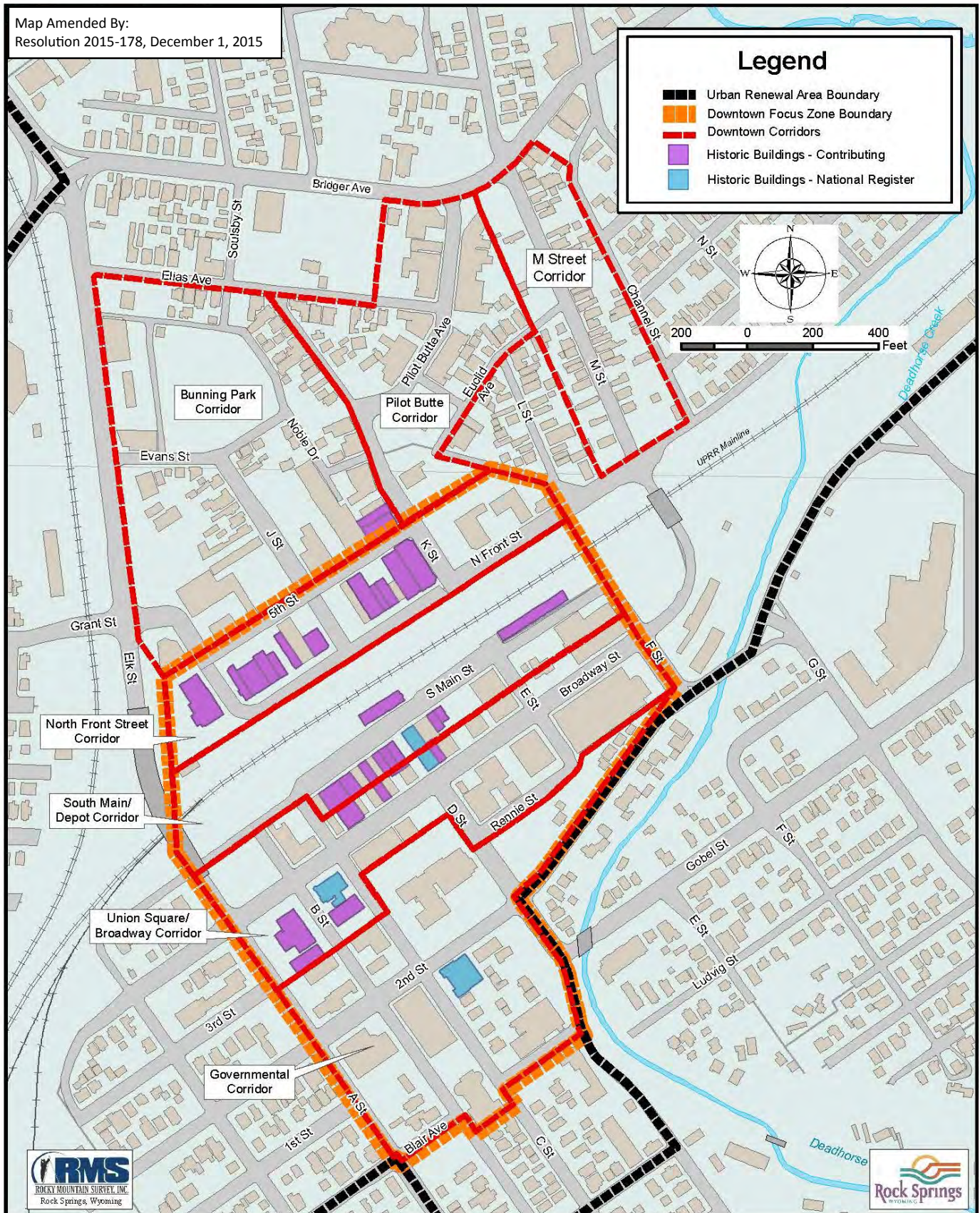
- ⇒ Bunning Park Corridor
- ⇒ Pilot Butte Corridor
- ⇒ M Street Corridor



Historically Contributing Building on South Main Street.

MAP 6.2

Downtown Focus Zone and Corridors



Notice: This map is intended for illustrative purposes only. Users are advised to verify the information shown hereon by consulting the City of Rock Springs Planning Office.

“While many communities were built with a river as their focus, Rock Springs developed around the Union Pacific Railroad. The railroad and associated coal mining operations were the chief economic engine for the City.”

Each of these corridors is described in more detail in Section 6.7 of this Chapter, and the necessary components for corridor plans are included in Section 6.8.

Community Focus

While many communities were built with a river as their focus, Rock Springs developed around the Union Pacific Railroad. The railroad and associated coal mining operations were the chief economic engine for the City.

The railroad also served to divide the community both physically and economically, with more affluent citizens living south of the tracks and poorer miners and their families typically living north of the tracks. The high school, hospital and first Catholic church were located on the south side of the tracks.

In 1910, a second Catholic church parish was established in Rock Springs, making this “...the first community in the entire State of Wyoming to have more than one parish.” (National Register of Historic Places Continuation Sheet, 12). With the railroad alignment, essentially two Downtowns formed--one north of and one south of the tracks (see Figure 6.4).

Originally, connections between the two sides included an at-grade vehicular/pedestrian crossing at C Street (see Figure 6.5) and a pedestrian viaduct between the Railroad Depot building on South Main Street (formerly known as South Front Street) next to the Railroad Depot and North Front Street (see Figure 6.6).

In 1940 the City, in conjunction with the Union Pacific Railroad and the Wyoming Department of Transportation,



Figure 6.4: Google Earth Aerial Photo Showing the Railroad's Division of Downtown Rock Springs.



Figure 6.5: Former C Street Railroad Crossing, Approx. 1920.



Figure 6.6: Pedestrian Viaduct, Circus Day in the City.
Source: Rock Springs Historical Museum.

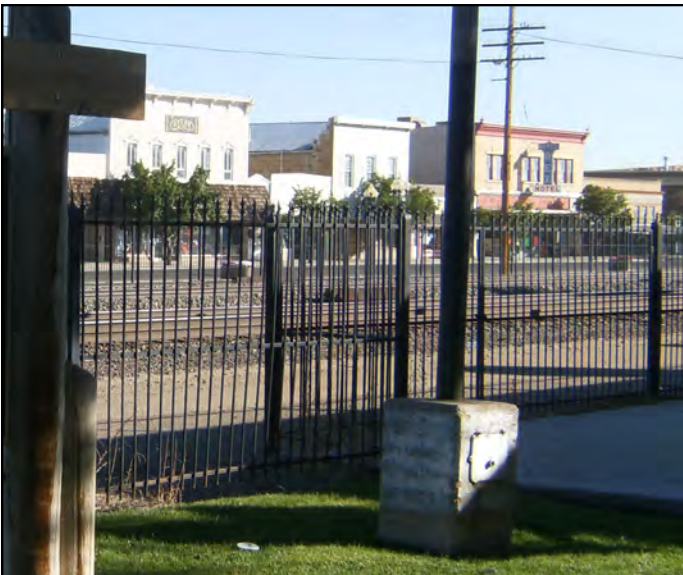
determined to eliminate these two main crossings in favor of safer connections. The three crossings constructed (see Figures 6.7-6.10) are still in existence today and include:

- 1) A vehicular/pedestrian overpass at A Street,
- 2) A pedestrian-only underpass at C Street, and
- 3) A vehicular/pedestrian underpass at M Street.

While these connections improved safety, they essentially divided the Downtown even further by pushing the Downtown's main connection points to its furthest edges and eliminated centrally located, visual connections between the two sides.

Unifying the Downtown as a single entity will be difficult to do. One long-range project is to explore the feasibility of undergrounding the railroad tracks. Another possibility is to lower the grade of the tracks and re-establish centrally located, at-grade crossings. Finally, a pedestrian overcrossing could be pursued at either K or J Street. While not included as a specific project in this Plan, these options need to be explored.

Until such time as the railroad tracks are moved or more connections are established, the City will continue to experience the challenges associated with a divided Downtown.



Iron Fencing Separating North and South Sides of Downtown.

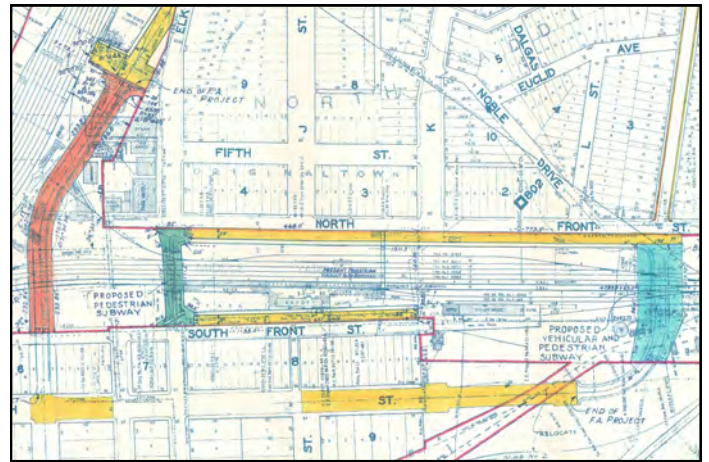


Figure 6.7: Map of New Railroad Crossings, 1940.



Figure 6.8: A Street Vehicular/Pedestrian Overpass.



Figure 6.9: C Street Pedestrian-Only Underpass.



Figure 6.10: Recently Renovated M Street Vehicular/Pedestrian Underpass.

Geographic Location

Another issue the Downtown faces is its geographic location within the City. Unlike many communities, Business Route 80 does not take travelers through Downtown. It is quite easy for visitors to spend an entire weekend in Rock Springs and never actually see Downtown. Way-finding signage has helped, but the Downtown would benefit greatly by being located on regular travel routes.

For locals, the construction of the South Belt Route allowed them to bypass Downtown altogether. While this change was very positive in terms of moving vehicular traffic, it has contributed to the decline of the City Center.

Floodplain

Another limiting factor for revitalization of Downtown is that a large portion of the City Center is located in the Special Flood Hazard Area (100-year floodplain). Properties located within the floodplain have to comply with floodplain development regulations when doing improvements, if the substantial improvement threshold is triggered. Historic structure variances are possible, but few properties have applied for them. The URA needs to actively promote this option with property owners.

On a positive note, in February 2013 a large portion of the Downtown Focus Zone was removed from the 100-year floodplain, thereby fully eliminating this barrier (see Figure 6.11).

Age / Maintenance of Structures

Because the Downtown is the oldest portion of the City, many structures are 70 to 80 years old. Some are even older



Figure 6.11: Downtown Areas Recently Removed From the FEMA 100-Year Floodplain.



Figure 6.12: Age, Maintenance, and Absentee Property Owner Issues on South Main Street.

than that. Older buildings are typically multi-storied and originally contained commercial development at ground level and housing on the upper floors. Historically, shopkeepers lived above or behind their shops. With the advent of the automobile, shop owners moved out, leaving the upper stories as rental properties or abandoning them altogether.

Today, few of the upper stories Downtown have occupied residential units and most have fallen into varying degrees of disrepair (see Figure 6.12). In some structures, the upper floors are completely overrun with pigeons. Significant investment is needed to return these properties to usable condition. While the public sector can offer some design assistance, most of the financing for renovations will have to come from private parties.

Absentee Property Owners

Another obstacle to Downtown revitalization is absentee property owners. Because absentee property owners don't live close to the properties they own, it is easy for these buildings to become "out of sight, out of mind". On one stretch of North Front Street alone, 7 of the 16 properties are absentee owned. Unless absentee landowners utilize reputable property managers, these properties can easily fall into disrepair. Once the properties are in disrepair, they are difficult to rent. If the buildings are not rented, they fall into even more disrepair. The URA is working on an ordinance that would require registration of vacant or abandoned buildings, however, it is unclear whether this will achieve the desired effect of prompting these absentee owners to invest in their buildings.



The Former Park Hotel, Currently a Restaurant on the Lower Level and Vacant Upper Floors.

Building Codes

Yet another challenge for Downtown revitalization is the requirements of the International Building Code (IBC). Under this code, which is adopted by City Ordinance, changes of occupancy type can trigger conformance with minimum code requirements. If a tenant is changing the use of a building significantly, it could require the addition of expensive, unanticipated upgrades.

Further, if upper stories of buildings are now used for storage or offices and are proposed to be converted to residential uses, this represents a change in occupancy and separation requirements are triggered, including the installation of firewalls between commercial and residential occupancies. These types of upgrades can be costly and represent financial barriers to redevelopment.

Fortunately, the 2012 IBC has relaxed some of the requirements for changes in Occupancy. This should help encourage the renovation of Downtown Structures. One possibility the City can explore is offering options to property owners in the Downtown area for portions of projects that do not impact life or safety. Implementation Plan projects 6.1.a–6.1.b call for exploring options for alternative code requirements in the Downtown Focus Zone where life/safety issues are not impacted.

Hours of Operation

One weakness identified in previous Downtown studies is the weekday, 9am to 5pm operation of most businesses. While



Northeast Corner of North Front Street and K Street.

some Downtown businesses have Saturday hours, many do not. Other than a few of the dining establishments, most businesses are not open in the evening. One way to encourage business owners to expand their hours is to increase the number of people in and around Downtown in the evening. This can be accomplished through various mechanisms, including:

- ⇒ Attracting an ice cream, yogurt, candy, bakery or other dessert-oriented shop to locate in the vicinity of existing restaurants open in the evening
- ⇒ Encouraging development of residential uses in the Downtown (see Implementation Plan projects 6.1.a-6.1.b)
- ⇒ Partnering with private industry to convert the First Security Bank Building into a small, specialty hotel (see Implementation Plan project 6.4)
- ⇒ Expanding the types of offerings at the Broadway Theatre, including possible comedy club or dinner theatre performances (see Implementation Plan project 6.5)

Zoning

Most of the Downtown Focus Zone is zoned B-3 (Central Business). This Zone allows for residential and commercial uses to be located in the same building. It also allows for multi-family housing. In 2007, a large number of properties in and around Downtown were rezoned to B-3.

Unfortunately, many of the rezoned areas contained single family residential development, which became non-conforming with the rezone. This Plan (see Implementation Plan projects 6.2.a-6.2.c) recommends changes to the Zoning Ordinance, as follows:

- 1) Downtown Overlay District: Development of a Downtown Zone that specifically addresses development issues confronting downtown properties, including parking. Provisions would be included for historic preservation (see the discussion under Section 6.5). An examination of the types of uses allowed needs to be performed, as, at present, virtually all of the B-2 (Community Business) uses are permissible, including some that are not compatible with the character of Downtown.
- 2) Mixed Use Zoning District: Development of a Mixed Use Zoning District for properties on the periphery of Downtown, as well as those that line the City's arterial roadways. This Mixed Use Zoning might be similar to the City's current B-R (Business Residential) Zone, however, refinements need to be made, including an examination of parking requirements and use types allowed.

In summary, the City of Rock Springs' Downtown is unlike any other Downtown in the State and perhaps even in the Country. Any plan that ignores the specific issues confronting Rock Springs' Downtown will not be fully implementable.

6.5 Downtown Character

Given the unique conditions associated with Downtown Rock Springs discussed above, solutions and designs that have worked for other communities may not work, or may only marginally work, for us. For example, the Destination Development study determined that, "For Rock Springs, what needs to be developed is a downtown that does not revolve around neighborhood retail, but is instead driven by destination retail, entertainment events, and an active nightlife all located in a compact, intimate and beautifully landscaped setting – a true gathering place." (Destination Development, 12).

This "one-size-fits-all" vision is not completely applicable nor

"Given the unique conditions associated with Downtown Rock Springs discussed above, solutions and designs that have worked for other communities may not work, or may only marginally work, for us."

transferrable to Rock Springs because it fails to recognize two important factors: 1) what we are already, and 2) the impracticality of (and even lack of desire for) becoming what we are not.

Nowhere in the Destination Development study is there an acknowledgment of what the Downtown already is, although the strengths section states there are some architecturally significant buildings that could be restored and that Downtown is adjacent to existing, established residential neighborhoods. This Chapter examines the businesses and other operations presently thriving in Downtown, with the goal of describing the character of Downtown.

Governmental Center

First, the Downtown serves as the Governmental Center for the community. City Hall and the Police Station are both located Downtown. Combined, these two facilities bring an estimated 100 employees to work, shop and eat in and around Downtown. Roughly half of these employees have a presence Downtown only from 8 to 5, Monday through Friday.

However, given the rotating shifts of police officers, the actual number of City employees present Downtown is lower depending upon the time of day and week. Hundreds of citizens patronize City Hall and the police station each week, doing everything from paying parking tickets to obtaining building permits. The Museum, which is also owned by the City, also draws visitors to Downtown.

In addition, the Fine Arts Center and Rock Springs Library are both Governmental uses and are also located within the

Downtown Focus Zone. This Governmental presence will be expanding with the recent purchase of the former Rock Springs National Bank building by Sweetwater County (see Figure 6.13). Once renovated, the County will add dozens of employees and a large number of visitors to the Downtown mix. The City should seek to capitalize and expand upon this already-strong Governmental sector, as follows:

- ⇒ City Hall Expansion: The City is outgrowing its existing City Hall building. Because Downtown is the Governmental center for the community, it is imperative that these Governmental functions remain Downtown. Implementation Plan project 6.3 calls for City Hall to expand its presence in Downtown, either through the construction of a second story on the existing City Hall or through relocation of the Police Department or other departments to an underutilized Downtown property and an expansion of the other City offices into that vacated space.
- ⇒ State Office Recruitment: A number of state offices are located at White Mountain Mall. These uses are better suited to the Downtown environment and could benefit from the synergy of having other governmental uses nearby. For example, a person wanting to open a home daycare has to visit both City and State offices. If the State offices were located closer to City Hall, this would be much more convenient for customers. Implementation Plan project 6.6 calls for the City to perform an inventory of existing property, identify potential locations, and recruit the State offices to relocate Downtown.
- ⇒ County Office Annex: Although Green River is the County Seat for Sweetwater County, the majority of the



Figure 6.13: Former Rock Springs National Bank Purchased By Sweetwater County for County Offices.

County's residents live in Rock Springs. This means that residents needing to do County business – licensing their vehicles, obtaining marriage licenses, etc. – must make the drive to Green River to do so. This business model is not customer-friendly and a great deal of money and time (not to mention greenhouse gases) could be saved if the County opened an annex office in Rock Springs. The annex would not provide the full range of services available in Green River, but could provide some of the more common services. Implementation Plan project 6.7 calls for the City to begin discussions with the County to develop an annex office in Rock Springs.

Specialty Retail, Service and Dining Center

Second, the Downtown serves as the Specialty Retail, Service and Dining Center of the City. What Destination Development identified as “neighborhood retail” is really more aptly described as specialty retail. A quick inventory of the types of retail, dining and service opportunities available on Broadway Street alone today includes the following:

Retail Opportunities—Broadway Street

- ⇒ Bike shop / Coffee Shop
- ⇒ Craft store
- ⇒ Jeweler
- ⇒ Copy and office supply store
- ⇒ Newspaper
- ⇒ Thrift store
- ⇒ Hispanic grocer
- ⇒ Gun store

Service Opportunities—Broadway Street

- ⇒ Attorney's offices
- ⇒ Day spa
- ⇒ Hair dressers
- ⇒ Doctors
- ⇒ Realtors

Dining Opportunities—Broadway Street

- ⇒ 50's Diner
- ⇒ Brew pub
- ⇒ Italian deli
- ⇒ Drug store & soda fountain

Other—Broadway Street

- ⇒ The Broadway Theater (see Figure 6.14)



Figure 6.14: Newly Remodeled Broadway Theater.

When the inventory is expanded beyond Broadway Street into the full Downtown Focus Zone, there are more than three dozen specialty shops, service providers and dining establishments located Downtown. Though some of these use types can be found elsewhere in other communities, in Rock Springs, many of these uses are found only Downtown. Further, most of these businesses are well-established and have been operating in the Downtown area for a number of years. It is important to note that these businesses are succeeding without a significant residential or tourist presence in Downtown. Previous plans failed to acknowledge these existing thriving businesses as assets, but recognizing them is essential in order to be better at what we are, rather than trying to become what we are not.

In the public participation component of this Plan's development, residents described some specialty shops they would love to see in the City, including a bakery, a bath and body shop, and Cabela's. The first two of these are perfect uses for Downtown. The third is not, but an outfitter that sells fishing gear would be a similar type of use and would be compatible with the Downtown. While not included as a specific project in this Plan, the URA should target recruitment of additional specialty retail, dining and service providers into the Downtown.

Historic Center

Finally, Downtown serves as the Historic Center of the

"If the Downtown is to remain as the "living room" of our community...then we have to ensure that we have the right decorator."

community. In the Downtown Focus Zone alone, 56 structures are considered historic. If the Downtown is to remain as the "living room" of our community, as envisioned in the 1990 Redevelopment Plan, then we have to ensure that we have the right decorator. As properties redevelop, property owners oftentimes will pick the cheapest and easiest options. In most cases, the cheap and easy way is not compatible with historic preservation. Even when the least expensive route is not selected, some historical building forms are not compatible with modern development. For example, historic facades are not designed to hold modern signage.

The 2006 *Urban Renewal Agency District Plan* called for development of design and sign standards for the City. The City elected to use the "carrot" approach and adopted these as guidelines, rather than standards. Under the City's façade grant program, owners of historic structures seeking to use façade grant monies are required to follow the design guidelines. Property owners who are not using City funds may revamp their exteriors however they see fit.

If the City wants the Downtown to continue to serve as the Historic Center of the City, adopting the Design Guidelines as required standards by Ordinance is essential. This would require all property owners renovating historic properties to make the outsides of buildings, at least, historically accurate. Along with the adoption of these standards, the City will need to invest in consulting services for an architect to perform design review of development proposals. This will require additional funding.

Finally, the City should take the lead and serve as the example when it comes to historic improvements. The City should seek grant funding to restore those historically significant properties it owns. Without the full support of City Council and the residents of the community in requiring historic compliance, the City will continue to see an erosion of the historic character and quality of Downtown.

Character Statement

Based upon the above discussion, the following character statement is the theme for this chapter:

“Downtown is the thriving historic center of the City of Rock Springs, comprised of specialty retail, dining, and governmental services.”

Rather than redesigning Downtown into a totally different place that does not fit with its character and function, the projects proposed in this chapter build upon this character statement and serve to broaden and enhance it.

6.6 Rock Springs Main Street Program

In 2006, the City of Rock Springs became a Wyoming Main Street Community. The main street approach to economic development includes a “...comprehensive strategy (which) fosters incremental improvement in four broad areas:



- 1) Design - Improving downtown's image by enhancing its appearance.
- 2) Economic Restructuring - Strengthening the existing economic base of downtown while diversifying it.
- 3) Organization - Building consensus and cooperation among the groups that play roles in the downtown.
- 4) Promotion - Marketing downtown's unique characteristics to shoppers, investors, new business, tourists and others.” (Rock Springs Main Street website 2012)

This Chapter fully supports the Main Street approach to economic revitalization of Downtown. The intent is to provide a definitive focus and a specific, achievable plan of action for the next ten years.

6.7 Corridor Identification

There’s an old riddle that poses the question, “How do you eat an elephant?” The answer: “One bite at a time.” One of the biggest problems in achieving Downtown redevelopment is that previous plans included an overwhelming project area, an unrealistic number of projects, and no funding for either.

This Plan does not propose that the public sector can or even should single-handedly revitalize Downtown. Rather, it is the City’s role to facilitate redevelopment and remove, wherever possible, barriers to that redevelopment.

Further, this plan suggests that even the narrowed Downtown Focus Zone be reduced into smaller, more manageable areas, each with a 10-year planning horizon. While it may take 40 years for all of Downtown to be revitalized, this methodology will be more effective and more accomplishable than a shotgun approach.

To this end, as mentioned briefly in Section 6.4 of this Chapter, this Plan proposes dividing the Downtown Focus Zone into four distinct corridors, each of which would, eventually, have its own Corridor Plan. An additional three supporting corridors are also identified for future plan preparation.



Bank Court Between South Main Street and Broadway.

Union Square-Broadway Corridor

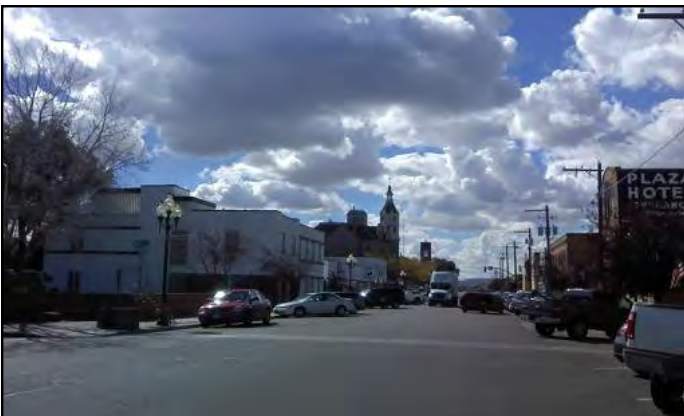
The first priority corridor recognized in this Plan is the Union Square Corridor which extends from the midblock of South Main Street/Broadway Street to 3rd Street/Rennie Street and from A Street to F Street (see Map 6.2 on page 6-9).

It is interesting to note that some of the buildings on the north side of Broadway actually span the entire block to South Main. The South Main side of these properties should be addressed in the South Main-Depot Corridor Plan.

Of the four corridors located in the Downtown Focus Zone, Union Square-Broadway has the highest occupancies. It also has several buildings that are not historic. This Plan recommends this be the first corridor for improvements. See Implementation Plan project 6.8.a.



Newly Installed Union Square Signage.



Looking West Down Broadway Street.

South Main-Depot Corridor

The second priority corridor recognized in this Plan is the South Main-Depot Corridor (see Map 6.2 on page 6-9). This Corridor lies between North Front Street and the midblock of South Main Street/Broadway Street and encompasses all of the intervening property. The City has indicated its own support of this corridor by locating the Farmer's Market along South Main Street and in Depot Park. The recent purchase and planned renovation of the First Security Bank Building will also assist in jumpstarting revitalization in this corridor.

The largest obstacle to incorporating this corridor into the rest of Downtown is the presence of the mainline tracks. As mentioned in Section 6.4 of this Chapter, these tracks could be undergrounded or lowered to re-establish centrally located, at-grade crossings. The City should begin discussions with UPRR early to see if either of these options would be viable. Implementation Plan project 6.8.b calls for the URA to develop a corridor plan for the South Main-Depot Corridor as its second priority plan.



Train Depot on South Main Street.



Example of Lower Grade Railroad Tracks with a Vehicular/ Pedestrian Crossing in Reno, Nevada.

North Front Corridor

The third priority corridor for revitalization is the North Front Corridor (see Map 6.2 on page 6-9). This corridor extends from A Street to F Street and from North Front Street to 5th Street. The corridor contains a high concentration of historic structures. Some issues associated with this corridor are vacancies and the general age and condition of the structures.

Another issue, which could also represent an opportunity, is the fact that this corridor is oriented toward the railroad. Prior to revitalization efforts, a Corridor Plan needs to be prepared, either by a consultant or by in-house staff. This plan should contain a detailed review, as described in Section 6.8 of this Chapter. This Plan recommends that corridor planning for this third corridor commence once 80% of the projects for the South Main-Depot are completed. In this way, the URA will not be overloaded with preparing plans and completing projects simultaneously. See Implementation Plan project 6.8.c.



Northwest Corner of North Front St. and K Street, 1920's.



Northwest Corner of North Front St. and K St., Present Day.

Governmental Corridor

The final priority corridor in the Downtown Focus Zone is the Governmental Corridor (see Map 6.2 on page 6-9). While this corridor contains some non-governmental uses, City Hall, the Police Station, the City Housing Office, the Rock Springs Library and the Community Fine Arts Center are all located in this area.

Issues associated with this corridor include the number of relatively modern-looking buildings, buildings at capacity and continued County funding and support. The City should reinforce its commitment to Downtown by retaining its offices in this corridor and recruiting additional governmental uses. As with the previous corridor, planning for this corridor should commence once 80% of the projects identified in the North Front Corridor are completed. See Implementation Plan project 6.8.d.



Downtown Library and Fine Arts Center.



Police Department Next to City Hall.

Other Corridors of Special Importance

The four corridors above encompass the Downtown Focus Zone, which is the entire scope of work this Plan anticipates can be accomplished within the next 30 plus years, "...but patience is required. The average revitalization program takes 10 to 30 years to complete." (Destination Development, 12) Because of the City's unique history and development patterns, there are other corridors adjacent to the Downtown Focus Zone that reflect the City's character and should be considered for corridor plans, should funding arise (see Figures 6.19 and 6.20). Among these are:

- ⇒ Bunning Park Corridor
- ⇒ Pilot Butte Corridor
- ⇒ M Street Corridor (residential-commercial mix)

It should also be recognized that, should priorities change and the City decides to change its focus from the corridors identified earlier, this Plan will need to be updated accordingly. Any shift in priority should be carefully weighed against the Plan goals.

6.8 Corridor Plan Preparation

As mentioned earlier in this chapter, the URA should, in partnership with other City Departments and a consultant, develop corridor plans for each of the corridors identified in the Downtown Focus Zone, as well as for the corridors of special interest. The timing of preparation should be tied to the completion of the projects identified in the previous plan. In this way, a limited and well-defined work plan can be carried out and the corridor plans will remain current and not become dated prior to implementation.

Analysis

A corridor plan should include a detailed analysis of the following key factors associated with redevelopment/revitalization of the corridor:

- ⇒ Land Use
- ⇒ Infrastructure
- ⇒ Streetscape & Green Space
- ⇒ Market Value
- ⇒ Building Condition
- ⇒ Historical Value
- ⇒ Parking

"It should also be recognized that, should priorities change and the City shifts its focus from the corridors identified earlier, this Plan will need to be updated accordingly. Any shift in priority should be carefully weighed against the Plan goals."

Most of the data for the above can be obtained from the Sweetwater County Assessor and from field inspections. Some specialized assistance from other City Departments or subject area experts may also be required.

Vision

Based upon the analysis performed, each corridor plan should contain its own vision statement that ties into the overall character statement for Downtown. For example, the Civic Corridor would likely have a vision statement that reflects the civic character of that corridor.

Opportunities

Corridor plans should also identify opportunity sites that will help to accomplish the vision established. These may be properties that are either vacant or underutilized or otherwise require some sort of intervention in order to become fully contributing to the corridor. Opportunity sites could even be public infrastructure that is needed in certain locations. Opportunity sites will vary from corridor to corridor and will be based upon the analysis performed. For example, if a particular corridor has an overabundance of parking but very little public green space, parking areas could represent opportunity sites for conversion to green space. Conversely, corridors that lack parking may seek to utilize unused green space for parking. The key is to examine the corridor as a whole and make it as balanced as possible, as well as consistent with the vision.

Projects

Each corridor plan should contain a listing of achievable projects that will further the vision of the corridor. Particular care should be taken to ensure that the City is not doing the work that should be done by the private sector. The City

cannot, for example, purchase every vacant building in a corridor, renovate it and lease it out. The City simply does not have enough money or staffing to accomplish this. But, the City can consider implementation of one or more of the strategies identified in previous plans to further the vision of the specified corridor.

A case in point would be making historic design guidelines mandatory for all historic buildings in a primarily historic corridor, whether or not the building is using public funds for the renovation. Another thing that government can do is remove governmental barriers to redevelopment, as long as these do not compromise the health, safety and welfare of the community.

Each project should be tied to a specific property or properties and it should be concrete and achievable. Each project should have a specific person or group of persons who is charged with accomplishing the project. Projects should also have a timeline and a budget. An example of a “project” that is *not* a project is: “Revitalize South Main Street.” This might be a goal, but it is not a project since it is not specific enough. If the statement is expanded to: “Revitalize the appearance of South Main Street by placing public planters every 100 feet on the City sidewalk”, it becomes a project. Because corridor plans include such a small geographic area, they should be as specific as possible.

Partners

Finally, corridor plans should be prepared with the input of partners. For the South Main-Depot Corridor, all property owners should be invited to participate in the process. Since the plans will depend upon private property owner participation for full implementation, it is vital that they are part of the process. In addition, all City Departments with a stake in the plan need to be involved.

Length

Corridor plans should not be lengthy documents that wind up being placed on a shelf to gather dust. They are implementation plans and, as such, should be relatively brief. If a corridor plan goes beyond 25 pages, it probably needs to be revamped, analyses summarized and projects reduced.

“Rather than adopt a vision that represents a complete digression from the niche our Downtown fills, the City should build upon what the Downtown is, remove barriers to renovation, and work with private partners to achieve positive results. The best way to accomplish this is one street at a time, one project at a time.”

6.9 Conclusion

The City of Rock Springs has a rich and varied history. While some Downtown buildings are vacant or underutilized, many contain thriving businesses. Rather than adopt a vision that represents a complete digression from the niche our Downtown fills, the City should build upon what the Downtown is, remove barriers to renovation, and work with private partners to achieve positive results. The best way to accomplish this is one street at a time, one project at a time. Corridor plans, because of their limited scope and specificity, represent an ideal implementation tool to accomplish incremental revitalization. By taking this approach, the City will see a larger return on investment and will stimulate surrounding properties to renovate. The URA plays a vital role. Their ability to establish partnerships between private and public entities, as well as volunteers, is critical.

6.10 Chapter 6—Implementation Plan

TABLE 6.1

Goal: Develop a reliable infrastructure and transportation network, healthy neighborhoods, balanced and compatible land uses, and a strong downtown to promote community and economic growth.

Project #	Project Description	Responsible Party	Budget Estimate	Timeline for Completion	Additional Funding Needed?
6.1.a	Explore options for alternative Building Code requirements for redeveloping buildings located in the Downtown Focus Zone.	Building	\$	2014	None
6.1.b	Explore options for alternative Fire Code requirements for redeveloping buildings located in the Downtown Focus Zone.	Fire	\$	2014	No
6.2.a	Revise the City's Zoning Ordinance and Map to include a Downtown Zone that specifically addresses development issues confronting downtown properties, including parking, uses allowed, etc.	Planning & Zoning	\$\$	2017	Yes
6.2.b	Revise the City's Zoning Ordinance and Map to include a Downtown Zone that includes provisions for historic preservation.	Planning & Zoning	\$	2017	Yes
6.2.c	Revise the City's Zoning Ordinance and Map to include a Downtown Zone that contains a Mixed Use Zoning District for properties on the periphery of Downtown, as well as those that line the City's arterial roadways.	Planning & Zoning	\$	2017	Yes
6.3	Expand City Hall, either through the addition of a second story, or through construction of a Police Station Downtown, and evaluate other locations Downtown to be used by City offices.	City Council Building Committee	\$\$\$\$	2018	Yes
6.4	Partner with private industry to convert the First Security Bank Building to a small, specialty hotel.	URA	\$\$\$	2016	Possible grant/private
6.5	Expand the types of offerings at the Broadway Theatre, including possible comedy club or dinner theatre performances.	URA	\$	2013	Possibly, to be offset by ticket sales
6.6	Evaluate potential sites and recruit the state offices currently located at White Mountain Mall to return to Downtown.	Mayor	\$	2015	Possible grant or State funding sources
6.7	Work with Sweetwater County to develop a County Office Annex location in Rock Springs.	Mayor	\$	2017	Possible grant or County funding
6.8.a	Develop a Corridor Plan for the Union Square Corridor of the Downtown Focus Zone	URA	\$\$	2014	Yes-possible portions in-house
6.8.b	Develop a Corridor Plan for the South Main-Depot Corridor of the Downtown Focus Zone	URA	\$\$	2016	Yes-possible portions in-house
6.8.c	Develop a Corridor Plan for the North Front Corridor of the Downtown Focus Zone	URA	\$\$	2018	Yes-possible portions in-house
6.8.d	Develop a Corridor Plan for the Governmental Corridor of the Downtown Focus Zone	URA	\$\$	2020	Yes-possible portions in-house
6.9	Develop Corridor Plans for areas of special interest that are historically significant or support Downtown.	URA	\$\$	Post 2022	Yes-possible portions in-house

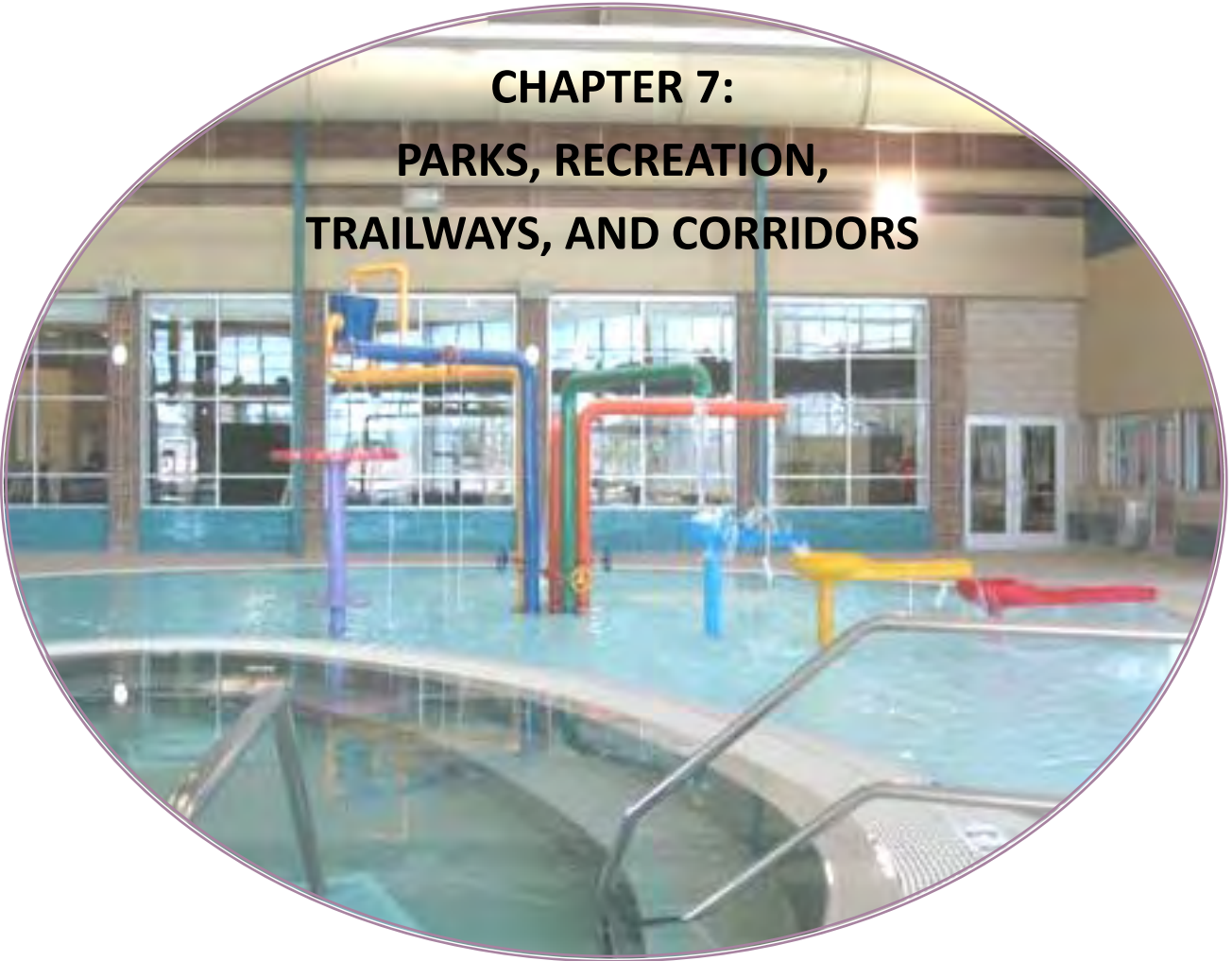
Budget Estimate: \$ - <50,000; \$\$ - 50,000 - 100,000; \$\$\$ - 100,001 - 500,000; \$\$\$\$ - >500,000



GOAL #3

**PRESERVE
ENVIRONMENTAL, CULTURAL AND RECREATIONAL AMENITIES,
WHILE MINIMIZING POTENTIAL HAZARDS,
TO OFFER
AN ENHANCED QUALITY OF LIFE
FOR ALL CITIZENS**

CHAPTER 7: PARKS, RECREATION, TRAILWAYS, AND CORRIDORS



Newly Constructed Aquatic Area at the Family Recreation Center

“Rock Springs is committed to providing high-caliber community amenities. Parks, recreation and trailway amenities increase community health and fitness levels and draw newcomers. Attractive corridors increase community pride and promote tourism. In combination, these amenities enhance the quality of life of our citizens.”

- Dave Lansang, Rock Springs Director of Parks and Recreation

Chapter 7: Parks, Recreation, Trailways, and Corridors

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7.1 Overview

Rock Springs has a strong heritage of commitment to provision of parks and recreation opportunities for its citizens. One of the City's most historic park facilities – Bunning Park – was created in 1925 with the platting of the Bunning Addition.

Since that time, the City has developed a variety of parks, trails and other recreation facilities. The number of parks facilities in Rock Springs far exceeds national standards for most categories. The City also compares favorably with other Wyoming communities in terms of parks acreage.

More recently, the City has begun a trail system program, which represents a good start for connecting recreation facilities. Finally, progress has been made toward visually enhancing the City's corridors. The purpose of this chapter is to provide an update to the 1994 plans addressing parks, recreation, trail systems and corridor enhancements and to provide a vision and a direction for the future, identifying specific projects that can be completed within the 10-year horizon of this Plan.

7.2 Previous Plans

1982 Rock Springs Parks and Recreation Plan

The City's first Parks and Recreation Plan was completed in 1982 by the consulting firm BRW. The plan began with the statement: "Outdoor recreation is an essential element in



Bunning Park Gazebo.

today's lifestyle..." (BRW-3, 1). Future needs were based upon a recreation demand survey sent to residents, which had a strong response rate of 30%. The plan contained a comprehensive park and facility inventory, including schematics. Plan goals, which are still relevant today, include:

- ⇒ Provide for a system of recreational activities and facilities which adequately meets the needs of Rock Springs residents of all ages.
- ⇒ Design, construct and maintain all park facilities in a safe, economical, aesthetic and functional manner.

The following plan policies bear further examination in this Chapter:

- ⇒ Develop and adopt criteria and standards to guide decisions on future recreation facilities (including an analysis of location/size, size and service area, site characteristics and appropriate facilities).
- ⇒ Continue to gain control of potential parklands when

appropriate opportunities present themselves.

- ⇒ Attempt to achieve and maintain a balance between population concentrations and recreational facilities.
- ⇒ Recreational programs will be designed to meet the needs and desires of the citizens and will be periodically reviewed to respond to changing needs.
- ⇒ Develop and annually update a Capital Improvements Program for parks.
- ⇒ Design parks to be as maintenance-free as possible and include a reasonable degree of flexibility to accommodate a variety of activities and to allow for changes in demands for use of space.

The plan divided the City into districts and projected facility and parkland needs as a “catch up” for the 3 years following plan development. At the time, a shortage of Community Parks (minimum size 15 acres) of 58.8 acres and Neighborhood Parks (minimum size 2 acres) of 12.8 acres was identified and recommended for construction in subsequent years. Projects for out-years were also recommended, but with much less specificity.

The plan also examined the parkland dedication requirements at the time (which are still the same today) and noted, “...the 7% land dedication requirement may not satisfy the desired park area per 1,000 people. This is particularly true when remembering that the 7% dedication of land may be for uses other than parks and recreation. Some acquisition of park land has been required in the past and will no doubt continue to be required in the future to supplement land dedication.” (BRW-3, 91)

1994 Rock Springs Park and Recreation Master Plan

Prepared in October 1994, the *Rock Springs Park and Recreation Master Plan* was intended to “...replace the 1982 *Parks and Recreation Plan* and to provide an up-to-date assessment and program for recreation within the City of Rock Springs.” (Ohde-1, et al, 1) The plan listed three primary objectives:

- 1) To provide an inventory of existing recreational facilities
- 2) To establish overall standards for providing adequate parks and facilities, and
- 3) To provide a basis upon which to program future recreation improvements



Drawing of Bunning Park from 1994 Park and Recreation Master Plan.



Garnet Park—A Popular Neighborhood Park.

The plan contained a detailed inventory of recreational facilities, including location and site plan drawings, as well as summary sheets for each facility. Following the inventory, the plan assessed existing facilities against national standards. At the time, no additional community parks were called for.

While the plan noted that the City exceeded the standard for neighborhood parks, it recommended: “...the area around the new housing developments near the Recreation Center would benefit from construction of a neighborhood level park.” (Ohde-1, et al, 77). Another shortcoming of the City’s neighborhood parks was the average park size of 4.6 acres. The plan did not recommend the City develop future

“A City’s visual environment reflects directly on the community’s perception of itself to visiting business people, tourist(s), and others having an occasion to pass through the City. A city with less than positive image is certainly at a disadvantage.”

playground facilities (less than 1 acre) primarily because of expensive maintenance costs, but did suggest that private developers be encouraged to develop and maintain these. The existing parks service area map noted gaps in a few areas, but particularly on the west side of town in the vicinity of the Family Recreation Center, as well as near the White Mountain Library.

The plan reiterated the goals of the 1982 plan, as well as many of the policy statements.

1994 Rock Springs Open Space Plan

The 1994 Open Space Plan was prepared in order to enhance the visual appeal of the community. “A City’s visual environment reflects directly on the community’s perception of itself to visiting business people, tourist(s), and others having an occasion to pass through the City. A city with less than positive image is certainly at a disadvantage.” (Ohde-2, et al, 1)

The plan did not strive to address all of the aspects of the visual environment, but rather focused on open space areas, which it defined as “...an area, public or private, which is unoccupied or predominantly unoccupied by buildings, and which may be used for conservation, visual enhancement, or scenic purposes.” (Ohde-2, et al, 1) The plan further divided open space into two types:

- 1) Natural Open Space Areas (areas in their natural state determined to be essential to the cultural and scenic value of the City), and
- 2) Visual Open Space Areas (areas located along roadways, intersections, service or utility corridors).



Right of Way Landscaping & Walking Path Along Elk St.



Right of Way Landscaping & Walking Path Along Dewar Dr.

Natural Open Space areas are discussed in Chapter 8 of this Plan. Visual Open Space areas are included in this Chapter as part of the corridors section which includes projects for the 10-year planning horizon.

The goal of the plan was to “...provide, protect, and maintain a high-quality, sensitive, accessible and economically efficient system of open space that serves the interest of all the residents of Rock Springs.” (Ohde-2, et al, 3) Among the policies and projects recommended by the plan were:

- ⇒ Acquisition of open space sites in a coordinated manner
- ⇒ Adoption of a clean-up program
- ⇒ Use of indigenous vegetation or xeriscaping for landscaping of open space
- ⇒ Pursue state, federal or private funding for open space acquisition and development
- ⇒ Coordination with other public entities to eliminate duplication of effort
- ⇒ Require land donated to the City be accompanied by a landscape plan
- ⇒ Development of a right-of-way maintenance ordinance

The plan envisioned formation of a group – the Rock Springs Visual Improvement Foundation -- that would oversee plan implementation. While this foundation (known simply as the Improvement Foundation) was active for a time, it was disbanded within the last few years.

Based largely upon major travel corridors, the plan included a map of existing and proposed visual improvement sites. In the more than eighteen years since plan adoption, the City has been able to develop partnerships and obtain funding for some of the projects include in the 1994 plan.

1994 Rock Springs Trail System Plan

In conjunction with the Open Space and Park and Recreation Plans, a trail system plan was also prepared in 1994. The objective of the plan was to “...provide a coordinated and functional system of bikeways and trails throughout the City of Rock Springs.” (Ohde-3, et al, 1) The plan indicated the primary purpose of the trailways was for provision of commuter routes between desired destinations, with a secondary purpose of serving community-wide recreational needs.

The plan identified three types of trail facilities: bike lane, bike path and sidewalk. This *2012 Master Plan* revises these

classifications (see Section 7.5 in this Chapter). The plan concluded with a description and analysis of each trailway segment, including a cost estimate for construction.

2009 Bike Trails System Map Update

In June 2009, City Council approved a revised map updating the 1994 bike trails system map. The map included the original 15.9 miles of bicycle path proposals listed in the 1994 plan and added 11.5 additional miles of bike paths. The map also included 6.6 miles of off-system bike paths. In total, the new map contained 34 miles of bike facilities.

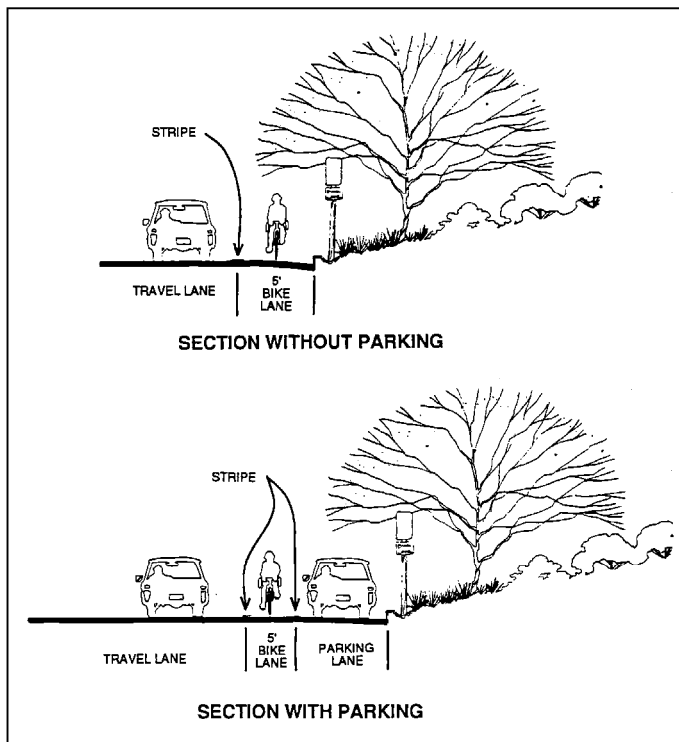
7.3 Park and Recreation Classifications

Playgrounds

This Plan classifies park and recreation facilities into four separate categories, primarily dependent upon their size (see Map 7.1). The smallest parks, those less than one acre in area, are considered playgrounds.

Playground parks serve a small area because of the limited amount of facilities that can be accommodated. Typically they provide recreational opportunities for the City’s youngest residents at a sub-neighborhood level. The following existing City parks are classified as playgrounds:

- | | |
|-------------------|----------------|
| ⇒ Belmont Park | ⇒ Booker Park |
| ⇒ Depot Park | ⇒ North Park |
| ⇒ O’Farrell Park | ⇒ Stevens Park |
| ⇒ Summit Park | ⇒ Wardell Park |
| ⇒ Washington Park | |

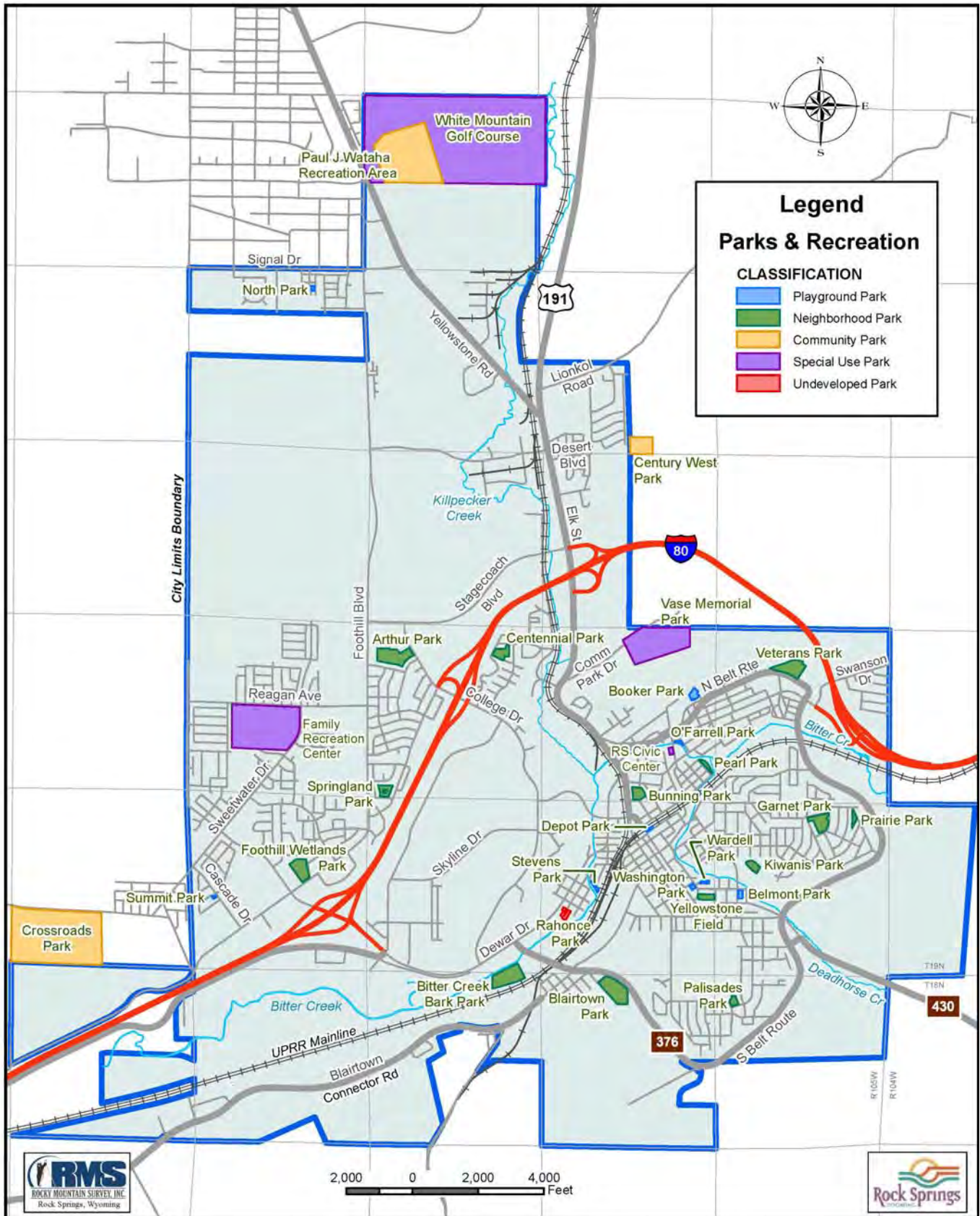


Typical Bike Lane Cross Sections from 1994 Trail Plan.



O'Farrell Park—Typical Playground Park.

MAP 7.1 Park and Recreation Facilities



Notice: This map is intended for illustrative purposes only. Users are advised to verify the information shown hereon by consulting the City of Rock Springs Planning Office.

Neighborhood Parks

Parks ranging in size from 1 acre to 20 acres are considered neighborhood parks in this Plan. Neighborhood parks are intended to service a walkable area, or neighborhood, typically of ½ mile radius from the park. Neighborhood parks may contain a variety of facilities, including walking paths, benches, picnic tables, playgrounds and volleyball courts. The following existing City parks are classified as neighborhood parks:

- | | |
|-------------------|--------------------------|
| ⇒ Arthur Park | ⇒ Bitter Creek Bark Park |
| ⇒ Blairtown Park | ⇒ Bunning Park |
| ⇒ Centennial Park | ⇒ Foothill Wetlands Park |
| ⇒ Garnet Park | ⇒ Kiwanis Park |
| ⇒ Palisades Park | ⇒ Pearl Park |
| ⇒ Prairie Park | ⇒ Springland Park |
| ⇒ Veterans Park | ⇒ Yellowstone Field |



Arthur Park—Newly Constructed Neighborhood Park.

Community Parks

The largest park classification is community park. Community parks are typically larger than 20 acres and serve either multiple neighborhoods or the entire community. Community parks may preserve open space or offer a variety of sports fields and court facilities or serve both functions. In Rock Springs, the following serve as community parks:

- ⇒ Century West Park (Outside City Limits, City Managed and Maintained)
- ⇒ Crossroads Park (Outside City Limits, County Managed)
- ⇒ Paul J. Wataha Recreation Area

It should be noted that both Century West and Crossroads are included among the City's parkland inventory because the City has active sports programming at both facilities. In addition, both parks are located in close proximity to the City and are patronized by City residents.



Century West Park—Community Park Next to City Limits.



Bitter Creek Bark Park — Another Newly Constructed Neighborhood Park.



Paul J. Wataha Recreation Area—Community Park.

Special Use Parks

One final classification of parks is special use. Special use parks are those that provide special facilities or take advantage of unique natural or other features. The following serve as special use parks for Rock Springs:

- ⇒ Civic Center
- ⇒ Family Recreation Center
- ⇒ White Mountain Golf Course
- ⇒ Vase Memorial Park

The Civic Center and Family Recreation Center are indoor facilities offering a variety of recreational amenities. White Mountain Golf Course, which is part of the Paul J. Wataha complex, offers 27 holes of golf, a driving range and a clubhouse with restaurant (The Nine Iron).

Finally, Vase Memorial Park offers specialty activities, including a paintball course, radio controlled (RC) car racing and archery, however, only the paintball course is open to the public at large. The other activities are limited to club members.



Civic
Center
Pool
&
Bike
Room



White
Mountain
Golf
Course



Family
Recreation
Center
Track
&
Ice
Arena



Vase
Memorial
Paintball
Park
&
RC
Raceway



7.4 Park and Recreation Facilities Review and Plan

Inventory

An extensive inventory was prepared for the 1994 *Parks and Recreation Master Plan*. Since that time, the following new parks have been added:

- ⇒ Arthur Park (developed)
- ⇒ Bitter Creek Bark Park (developed)
- ⇒ Foothill Wetlands Park (developed)
- ⇒ Summit Park (partially developed)

In addition, a non-motorized Bike Park located on the same property as the Family Recreation Center has been approved but has not yet been developed; for purposes of this Plan, it has been included as part of the total Family Recreation Center acreage. And finally, land has been acquired for a new neighborhood park, Rahonce Park, but plans have not been finalized at this time.

Table 7.1 includes an inventory of the amenities at each of the City's parks and recreation facilities.

TABLE 7.1
Park and Recreation Facilities Inventory

Park Name	Acreage	Type	Basketball	Bike / Skate	Disc Golf	Football	Golf Course (18 Holes)	Gymnasiums	Horseshoes	Ice Arena	Multi-Use Field	Non-traditional	Off Leash Area	Paintball	Picnic	Playground	Pool, Indoor	Racquetball Courts, Indoors	Restroom	Shelter	Soccer	Softball / Baseball	Spray Pad	Tennis	Volleyball	Wading Pool
Arthur	9.50	N			1										1	2			1	1						
Belmont	0.75	P									1															
Bitter Creek Bark	4.50	N											2		1				1							
Blairtown	10.50	N									1				1	1			1	1		1				1
Booker	0.25	P	1												1	1			1							
Bunning	3.25	N									1				1	1			1	2						
Centennial	3.00	N							3		1				1	2			1	4					1	
Century West	40.00	C				1					1				1	1			1		1					1
Civic Center	1.50	S						2									1	3								
Crossroads	40.00	C				1			3		2					1			1	1	2	2				
Depot	0.75	P													1				1							
Family Recreation Center	60.00	S		1				4		1	1				1	1	2	4		1			1			
Foothill Wetlands	3.00	N													1	1			1	1						
Garnet	5.00	N	1						4		1				1	2			1	2			1	1		
Golf Course	225.00	S					1.5																			
Kiwanis	6.89	N				1					1				1	1			1			2				
North	0.25	P													1					1						
O'Farrell	0.75	P													1	1				1						
Palisades	1.50	N	1								1				1	1				1				1		
Paul J. Wataha	140.90	C							5		1				2	1			1	2	4	1			1	
Pearl	1.00	N	1								1				1	2				1				1		
Prairie	1.00	N									1				1	1										
Rahonce	1.75	N		1																						
Springland	2.50	N																								1
Stevens	0.75	P	1												1	1				1				1		
Summit	0.25	P														1										
Vase	32.00	S										1		1												
Veterans	7.50	N		1		1			4		1		1		1	1			1	1	1				1	
Wardell	0.50	P																								
Washington	0.50	P	1												1	1			1	1						1
Yellowstone Field	1.50	N				1					1										1					
Total	606.54		6	3	1	5	1.5	6	19	1	16	1	3	1	22	24	3	7	12	25	9	6	2	4	3	4

Level of Service Standards

As can be seen, the City of Rock Springs has a variety of parks and recreation facilities available for its residents. Some communities elect to develop parks in conformance with Level of Service standards. Originally established by the National Recreation and Park Association (NRPA), the standards provided a target level for communities.

Today, most communities have moved away from using a national standard and have opted to develop standards based upon local conditions and community preferences. To this end, the City of Rock Springs has established Level of Service standards, expressed in terms of park acreage per 1,000 residents (see Table 7.2). As can be seen, the City either meets or exceeds Level of Service standards for all park types.

The amount of developed parkland in Rock Springs is also high when compared with other Wyoming communities. This is particularly evident when adjustments are made for differing population sizes (see Table 7.3). Clearly, the average Rock Springs resident enjoys far more recreational opportunities than residents of other communities in the State.

In addition to outdoor facilities, the City has two indoor recreation centers that offer a variety of recreational activities, including swimming, ice skating, lazy river/water slide, racquetball, weight rooms, exercise equipment and numerous classes.

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TABLE 7.3
Level of Service Comparison—
Selected Wyoming Communities

City	2010 Population	Developed Park Acres	Developed Park Acres Per 1,000 Population
Casper	53,569	261.0	4.87
Cheyenne	59,466	454.1	7.64
Gillette	29,087	523.6	18.00
Laramie	30,816	118.3	3.84
Rock Springs	23,036	606.5	26.33

Source: WLC Engineering, Surveying, & Planning.

TABLE 7.2
City Park Acreage and Level of Service Standards

Park Type	Number	Total Acreage	Acreage Per 1,000 Population	City Level of Service Standard Per 1,000 Population	City Comparison to Standard
Playground	9	4.75	0.20	0.1—0.3 acres	Meets standard
Neighborhood	15	62.39	2.71	1—3 acres	Meets standard
Community	3	220.90	9.59	3—5 acres	Exceeds standard
Special Use	4	318.50	13.83	not applicable	not applicable
Total	31	606.54	26.33		

Service Area Standards

In addition to the Level of Service standards, the City has also established Service Area standards for parks. These standards reflect the need to have not only adequate parkland, but also to have parkland that is accessible for residents. If, for instance, a majority of the City's residents have to drive in order to get to the closest playground or neighborhood park, this is considered undesirable. The Service Area standards for Rock Springs are included in Table 7.4.

Filling Gaps

Map 7.2 shows the City's parks by type and includes circles depicting the Service Area for each facility. This is useful in identifying gaps in the City's system. As can be seen, almost all areas of the City have coverage by some type of parks and recreation facility. Community park coverage is lacking in the area south of the cemetery. Coverage by neighborhood parks is generally good in the older parts of town. Developments to the west of Sweetwater Drive, as well as those near Desert View Elementary School, do not have neighborhood parks located within the recommended ½-mile range. Playground park coverage is spotty, with the western, eastern and southernmost portions of town lacking accessible playground parks.

This map also illustrates two policy decisions made by the City with respect to parks development. The first was to discontinue acquisition and development of smaller playground parks, as identified in the 1994 plan. This left the west side (growth area) of the City essentially bereft of smaller parks. Recently, however, the City took over development and maintenance of Summit Park, which is part of the Summit View subdivision. In addition, North Park, a small park located in the Northpark Estates subdivision, was dedicated to the City. Even with these two additions to the City's playground park inventory, most west-side residents do not have easy access to playground or neighborhood parks.

Another policy decision made by the City in the last two decades was to allow for the property located adjacent to the Family Recreation Center to meet the parkland needs for residents of the west side. While the City has a high amount of parkland acreage per capita, the parks are not evenly distributed. In fact, only one neighborhood park is located west of Foothill Boulevard – the newly constructed Foothill

TABLE 7.4
Service Area Standards

Park Type	Service Area
Playground	1/4 Mile
Neighborhood	1/2 Mile
Community	3 Miles
Special Use	not applicable

Wetlands Park. Members of the community have complained that the west side is underserved by parkland, although the addition of a playground facility at the Family Recreation Center and the proposed construction of a non-motorized bike park and skate park also on Family Recreation Center property should assist in meeting these needs.

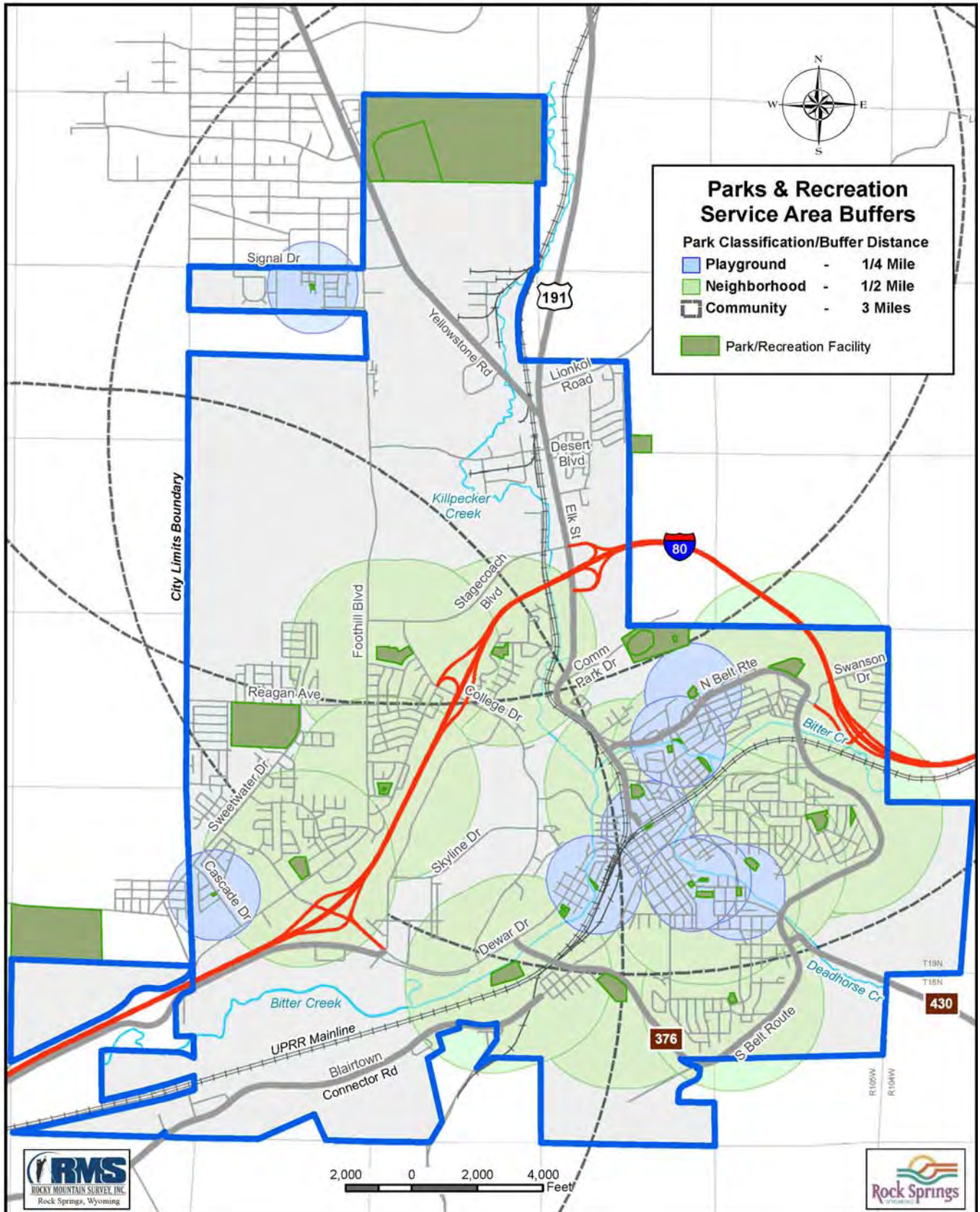
Implementation Plan project 7.1.a calls for the City to fill in neighborhood parks gaps on the west side in the vicinity of the Umbria, Stonebrook and Oregon Trails subdivisions through either development of playground or neighborhood park facilities or through construction of trailways connecting these neighborhoods with existing parks facilities, particularly those at the Family Recreation Center. Implementation Plan project 7.1.b calls for the City to fill in neighborhood parks gaps in the vicinity of the Century West subdivision through either acquisition of parkland on existing, vacant parcels or through construction of trailway connections to Century West Park.



Foothill Wetlands Park—Newly Constructed Neighborhood Park.

MAP 7.2

Park and Recreation Service Areas Analysis



Notice: This map is intended for illustrative purposes only. Users are advised to verify the information shown hereon by consulting the City of Rock Springs Planning Office.

Neighborhood Focal Points

Another impact of the City's parkland development philosophy in the past two decades is that new subdivisions have been built without playground or neighborhood parks. Since parks comprise one of the primary focal points for neighborhoods, the west side (growth area) has developed more as a string of subdivisions, than as a collection of individual neighborhoods.

Based upon the anticipated residential population of Section 21 of 4,479 residents, the City would need to develop 13 acres of neighborhood parkland and 0.89 acres of playground parkland to support that development and keep within current Level of Service standards. Roughly one neighborhood park would be needed to serve this section (see Figure 7.1).

If the City determines that playground parks are not desirable, Section 21 could have two neighborhood parks, located generally within one-quarter mile of most residents and each totaling 7 acres. This would be a possible solution and would still allow for Section 21 to develop into two distinct, albeit large, neighborhoods.

Parkland Acquisition and Development Funding

Once the number of parks needed is determined, parkland acquisition becomes the chief concern. In the past two decades, the City has collected fees-in-lieu-of-parkland monies instead of requiring parkland dedication. These funds have fallen far behind the amount necessary for land acquisition and parkland development, leaving the primary burden for park funding on the existing taxpayers. Since development should pay its own way, this is not a sustainable solution.

On the other hand, forcing one property owner who happens to have parkland identified on his property on a parks plan to dedicate 7 acres of parkland and allowing others to pay a minimal park fee is not an equitable solution.

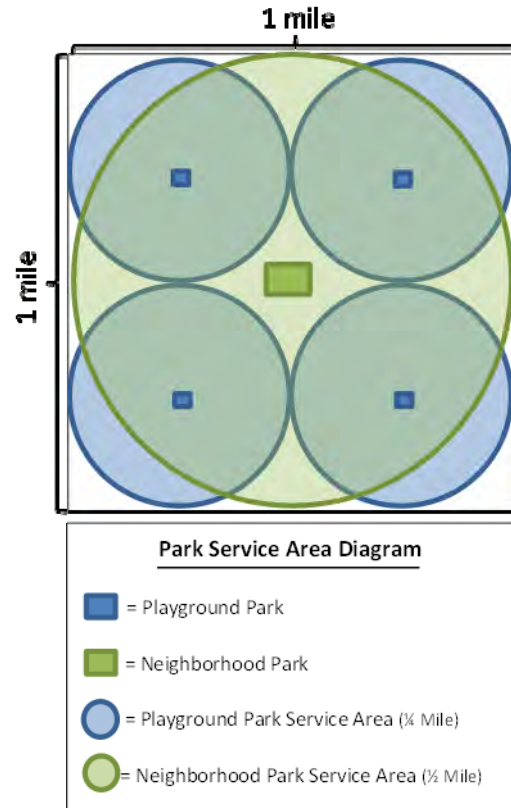


Figure 7.1: Park Service Area for Section 21.

For this reason, this Plan recommends the City both identify approximate parkland locations and charge a parks facility fee that is directly related to the number of lots being platted, rather than to the market value of the land. This parks facility fee would be assessed at the time of subdivision and would have two parts:

- 1) Parkland Acquisition
- 2) Parkland Development

The parkland acquisition component of the fee could be waived for developers who are required to dedicate parkland rather than pay the fee, however, the parkland development portion of the fee would still be charged. As an example, Table 7.5 considers Section 21, however, the costs are provided for the purposes of illustration only.

TABLE 7.5
Sample Parks Facility Development Fee

Parkland Acreage Needed	Acquisition Cost (per acre)	Development Cost (per acre)	Total Cost (per acre)	Total Acquisition Cost	Total Development Cost	Total Costs (Acquisition + Development)	Number of Dwelling Units	Acquisition Fee / DU	Development Fee / DU	Total Fee / DU
13.8	\$40,000	\$100,000	\$140,000	\$551,811	\$1,379,538	\$1,931,340	1,843	\$299.38	\$748.44	\$1,047.82

This methodology would be both fair and equitable and would keep the City from lagging behind established standards. Under this proposal, the Parks and Recreation Department, in conjunction with the Planning and Zoning Division, and the Finance Division would conduct an annual review of costs and adjust them accordingly.

Initial values would be set based upon the average costs associated with recent parks development. If the example in Table 7.5 were accurate, a subdivision containing 42 dwelling units would pay \$44,008.27 in total parks fees. This is considerably higher than the current fees being paid.

One thing the above illustration does not consider is multi-family developments. By ordinance, these developments are required to provide their own open space and recreation areas. For this reason, Implementation Plan project 7.2 calls for the City to hire a Financial Consultant to help establish initial parks fees and to provide a methodology for annual updates to those fees.

Parkland and Recreation Facility Maintenance

As the City's parkland and recreation facility inventory grows, the amount of maintenance required per employee increases. In order to ensure that existing parks and recreation facilities are properly maintained, the City should conduct an annual inventory review. Implementation Plan project 7.3 includes performing a yearly review of parkland and recreation facility inventory and making the appropriate staffing adjustments, where needed.



"Shootout in the Springs" Basketball Tournament.



Waiting in Line for the Climbing Wall at the Civic Center.

Recreation Programming and Facility Development

While an inventory of the City's recreational programming is beyond the scope of this Plan, recreation programming requires constant monitoring. In today's ever-changing society, an activity that is popular now may not receive much use 10, 5, or even 2 years in the future.

When determining what facilities to include in a particular park, the immediate neighborhood should be actively involved in the process. Where possible, facilities should be constructed to serve multiple functions or be designed so as to be easily converted. Monitoring of park and recreation facility use is also needed.

Parks with outdated play structures may need to be updated to encourage use. Accordingly, Implementation Plan project 7.4 includes an annual review of parkland and facility use to refine programming and plan for renovations. Implementation Plan project 7.5 calls for public involvement in parks planning.

7.5 Trailway System Classifications

Trailways are non-motorized facilities dedicated to bicycles and/or pedestrians. Bicycling in Rock Springs is more difficult than many areas of the country due to three factors: 1) the terrain, 2) the climate, and 3) the circuitous road network system. Nonetheless, the City needs to provide facilities for pedestrians and cyclists, as this promotes a more active, healthy community and also improves air quality. This Plan recommends classification of bicycle and pedestrian facilities as follows:

- 1) **Bike Path**— A non-motorized facility, paved or unpaved, physically separated from motorized vehicular traffic by an open space or high back curb. These are shared facilities which are open to both bicyclists and pedestrians. In Rock Springs, any sidewalk facility that is a minimum of 8 feet wide is considered a bike path and is open for both pedestrian and bicyclist use.
- 2) **Bike Lane** — A portion of a roadway that is designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists. Pedestrians are not allowed in bike lanes.
- 3) **Bike Route** — A segment of a road identified by directional and information markers as a shared facility between bicyclists and motorists, but without striping and pavement markings designating it for preferential or exclusive use by bicyclists.
- 4) **Sidewalk** — A paved area located within the street right-of-way but separated from the street by a curb or planter strip, or both, and which is designated for preferential use by pedestrians. Except for small sections needed for connectivity, cyclists are not permitted on sidewalks.



Bike Path.



Bike Lane.



Bike Route.



Sidewalk.

7.6 Trailway System Recommendations

The City's current trailway plan includes a variety of facilities which have not been classified as to type. Further, the plan does not include a clear denotation of what facilities are existing and which ones are planned for the future.

While preparation of a detailed trailway system plan is beyond the scope of this Plan, the City needs to refine its existing bicycle map to include classifications of facilities by type and a designation of existing versus planned facilities. To this end, Implementation Plan project 7.6 calls for preparation of an official Trailway System Plan and Map. The Plan should identify the funding sources for different trailway segments and should include a timeline for installation. Facilities should be installed with new development, where possible.

Implementation Plan project 7.7 calls for continuing the City's annual sidewalk replacement program to annually upgrade sidewalks within the older portions of the City in coordination with implementing the City's Trailway System Plan. Both sidewalk replacements and trailway segments should be included as part of the City's annual Capital Improvement Program.

7.7 Corridor Review and Plan

Assessment

Corridors comprise those areas, either privately or publicly owned, that line the City's roadways, railroads, utility easements/rights-of-way and trailways. Gateways, which

Corridors are highly visible to the traveling public and are possibly the greatest contributor to the aesthetic impression the City gives.

comprise the entrances to the City and major intersections, are described in Chapter 4 of this Plan. Corridors are highly visible to the traveling public and are possibly the greatest contributor to the aesthetic impression the City gives.

Due to our dry climate and rocky terrain, the City of Rock Springs faces significant challenges when it comes to corridor landscaping. The 1994 *Rock Springs Open Space Plan* identified several corridors for visual enhancements, and most of these included tree plantings and grass (see Figures 7.2 and 7.3). Due to the City's low annual precipitation levels, all grass and vegetative areas require irrigation. Installation of irrigation systems and subsequent mowing and maintenance are expensive and, given the City's climate, not generally considered environmentally responsible.

Since the 1994 plan, the City has made improvements along several of its major corridors. Most of the projects completed have been done with decorative rock, rather than plantings and turf. Additionally, the City now requires adjacent subdividers/developers to provide right-of-way landscaping as part of their projects.

Corridor Plan

While a detailed Corridor Plan is beyond the scope of this document, a drive-by inspection of the City's corridors performed on January 25, 2013 indicated the following top priorities for corridor enhancements:

- 1) Blair Avenue (south side between South Belt Loop and Willow Street). This is one of the key corridors into the City's Downtown area. While sidewalks are located on the south side of Blair Avenue, there is no landscaping and many areas adjacent to the roadway are in need of aesthetic improvements.
- 2) Reagan Avenue (north side between Foothill Boulevard and Summit Drive/south side in the vicinity of the Family Recreation Center). This is a highly-traversed corridor

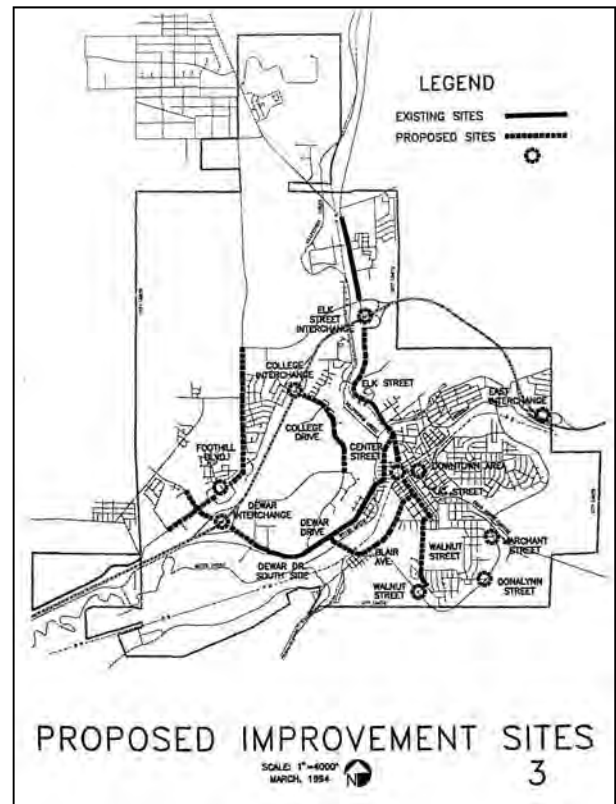


Figure 7.2: 1994 *Rock Springs Open Space Plan*—Proposed Improvement Sites.

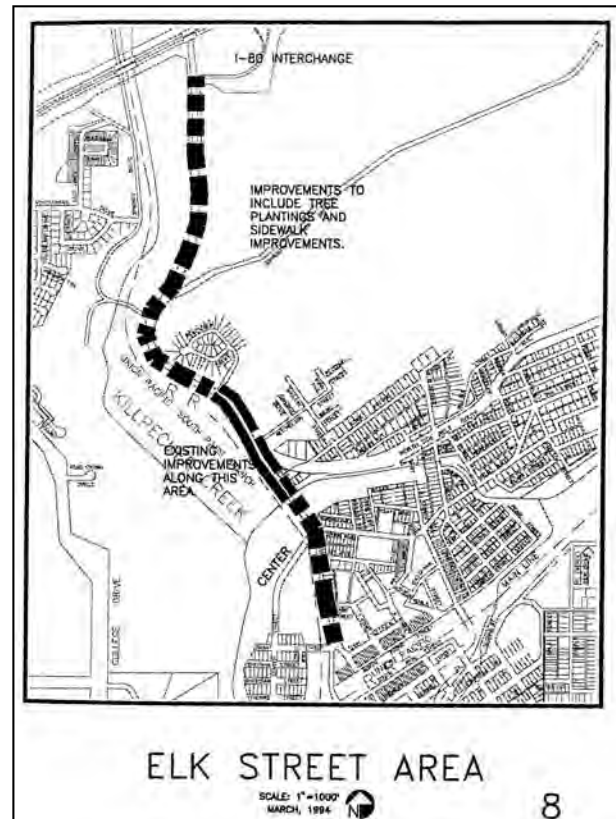


Figure 7.3: 1994 *Rock Springs Open Space Plan*—Elk Street Area Proposed Improvement Locations.

due to the Senior Center, Family Recreation Center and two schools located along or in close proximity to this roadway. Landscaping is spotty and not uniform.

- 3) Foothill Boulevard (west side from Reagan Avenue to Foothill Wetlands Park). Most of this corridor is developed, however, marginal properties on the west side of the roadway face development challenges. The City should take the lead on improving the visual appeal of the corridor in its right-of-way areas.
- 4) Sweetwater Drive Utility Corridor (Rocky Mountain Power corridor paralleling Sweetwater Drive between Reagan Avenue and Smarty Jones Lane). This corridor has become a nuisance enforcement issue, as neighboring property owners dump unwanted tires, trash and debris behind their fences but completely visible to the traveling public. The City should work with Rocky Mountain Power to find solutions to keeping this corridor clean, well-kept and free from dumping. One possible solution is construction of a bike path that would connect the Pronghorn and Sweetwater Downs developments with recreational activities located along Reagan Avenue.

Implementation Plan project 7.8 calls for performing a detailed analysis and prioritization of all of the City's corridors, including the priority corridors identified above, and allocating annual funding toward improvements as part of the City's Capital Improvement Program.

Implementation Plan project 7.9 includes potentially amending the City's Ordinances to require maintenance of adjacent corridors by private property owners, thereby reducing the long-term costs of the City for corridor maintenance.

7.8 Conclusion

The City of Rock Springs has an extensive and well-developed parkland inventory, with many recreational opportunities available for residents. This Plan provides for an ongoing commitment to parks and recreation, with a higher degree of developer participation. Recreational amenities, in the form of trailways, are not as plentiful, but a systemized approach to installation will ensure development of a complete system. Finally, the process of enhancing travel and utility corridors needs to be refined and prioritized, with adjacent



Open Space Corridor Along 9th Street.



Possible Visual Enhancements Along 9th Street.

Source: WLC Engineering, Surveying & Planning.

property owners potentially assuming the long-term responsibility for corridor maintenance. By reviewing our inventory on an annual basis and including projects as part of the Capital Improvement Program, the City can ensure progress toward Plan implementation.

7.9 Chapter 7—Implementation Plan

TABLE 7.6

Goal: Preserve environmental, cultural and recreational amenities, while minimizing potential hazards, to offer an enhanced quality of life for all citizens.

Project #	Project Description	Responsible Party	Budget Estimate	Timeline for Completion	Additional Funding Needed?
7.1	Close the gaps in playground/neighborhood parks on the City's west side, in the vicinity of the Umbria, Stonebrook and Oregon Trails subdivisions, as well as on the east side in the vicinity of Century West Park.	Parks & Recreation	\$\$\$\$	2018	Yes
7.2	Using the assistance of a Financial Consultant, establish parks fees that represent the full cost of service for acquiring and developing new parkland, including a methodology for annual updates.	Parks & Recreation	\$	2014	Yes
7.3	Perform an annual review of the City's parkland inventory in comparison to staffing levels and adjust staffing accordingly to ensure that parks and recreation facilities are properly maintained.	Parks & Recreation	\$	Ongoing	No cost for review. Could cost if positions are needed.
7.4	Perform an annual review of parks and recreation facilities, including usage and trends. Plan for renovation of parks as part of the annual CIP.	Parks & Recreation	\$\$	Ongoing	Yes. Renovations should be included as a regular part of
7.5	Actively engage the public in playground and neighborhood park design and planning through public outreach strategies.	Parks & Recreation	\$	Ongoing	Minimal cost.
7.6	Prepare a detailed Trailway System Plan and Map, including an identification of funding and construction timelines.	Engineering & Operations	\$	2015	Yes
7.7	Upgrade sidewalks in older portions of the City as part of the City's annual sidewalk replacement program and implement the City's Trailway System Plan on an annual basis, both as part of the annual CIP.	Engineering & Operations	\$\$	Ongoing	Possible
7.8	Perform a detailed analysis and plan for the City's corridors, including the priority corridors identified in this plan, and allocate annual funding, via the City's Capital Improvement Program, toward improving the City's aesthetic appeal.	Engineering & Operations	\$\$	Ongoing	Some – Partial funding included in Streets budget
7.9	Consider amending the City's ordinances to require maintenance of right-of-way landscaping areas by adjacent private property owners, thereby reducing long-term costs to the City.	Engineering & Operations	\$	2014	None – In House

Budget Estimate: \$ - <50,000; \$\$ - 50,000 - 100,000; \$\$\$ - 100,001 - 500,000; \$\$\$\$ - >500,000

CHAPTER 8: ENVIRONMENT AND PUBLIC SAFETY



View from Grant Street Looking East

“Community design is a key factor in community safety and environmental preservation. By recognizing the linkages between design and crime, as well as between design and preservation, the City can build a safer and more visually attractive community for the future.”

- Michael Lowell, Rock Springs Police Chief

Chapter 8: Environment and Public Safety

Sections:

- 8.1 Overview
- 8.2 Previous Plans
- 8.3 Natural Environment Asset Inventory
- 8.4 Natural Environment Preservation Plan
- 8.5 Public Safety and Design
- 8.6 Conclusion
- 8.7 Chapter 8—Implementation Plan

8.1 Overview

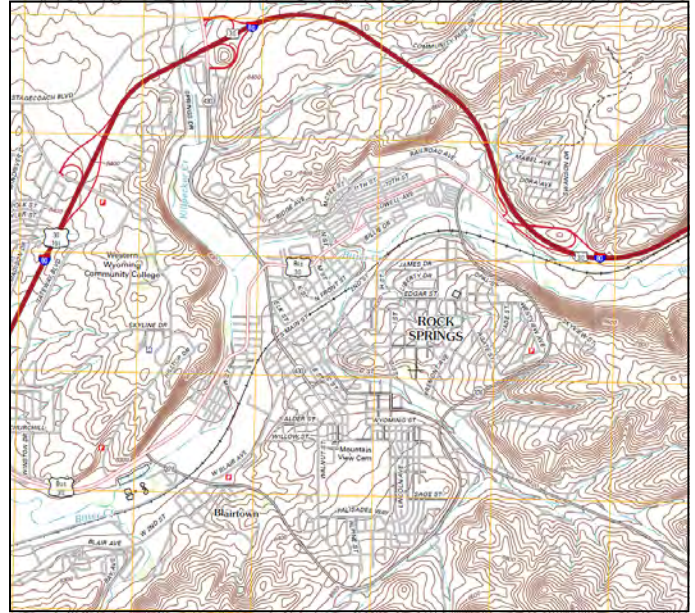
A community is comprised of both the natural environment and the manmade, or urban, environment. These two factors are interrelated, and changes in one factor have direct, as well as indirect, impacts on the other. Increased traffic, for instance, impacts air quality. Building additional roadways to handle increased traffic adds more impervious services, which increases runoff and impacts drainage. This Chapter examines the natural environment in relationship to the built environment for waterways, terrain, air quality and viewsheds. Recommendations are made for improvement and preservation, as well as for sustainability. This Chapter also examines the built environment from the perspective of public safety and includes design strategies that can both improve aesthetics and provide a safer development pattern.

8.2 Previous Plans

1983 Planning for the Future: A Master Plan for Rock Springs, Wyoming and 1983 Development Handbook

The City's existing, nearly 30-year old *Master Plan* contains a discussion of the City's natural features and topography and states: "Development constraints are natural features which limit density of development, or in some instances, prohibit development...Features which dictate the direction and density of development for the City are topography and drainage, floodplains, subsidence and soil conditions." (BRW-2, 1-8)

The *Development Handbook*, which served as the implementation document for the *Master Plan*, includes a goal for development to be compatible with "features of the natural environment" and states that development should



USGS Topographic Map Section of Rock Springs, 2009.

be "accommodated without destroying environmental features and natural amenities." (BRW-1, 1-12) The Handbook goes on to suggest that the City maintain an inventory of sensitive features that would be "...utilized as input to ongoing planning and project reviews. Projects will be reviewed to assess their impacts upon these features so that mitigative [sic] measures can be developed." (BRW-1, 1-13) While this appears to have been a good strategy, planning staff has no record that such an inventory was ever developed.

1994 Rock Springs Open Space Plan

The 1994 Open Space Plan was prepared in order to enhance the visual appeal of the community. The Plan does not strive to address all of the aspects of the visual environment, but rather focuses on open space areas, which are divided into two types:

- 1) Visual Open Space Areas (areas located along roadways, intersections, service or utility corridors), and
- 2) Natural Open Space Areas (areas in their natural state determined to be essential to the cultural and scenic value of the City).

Visual Open Space areas are discussed in Chapter 7 of this Plan. Natural Open Space areas are included in this Chapter. The goal of the 1994 Plan is to "...provide, protect, and

maintain a high-quality, sensitive, accessible and economically efficient system of open space that serves the interest of all the residents of Rock Springs.” (Ohde-2, et al, 3)

1994 Plan policies and projects that are pertinent to this discussion include:

- ⇒ Acquisition of natural open space sites in a coordinated manner
- ⇒ Adoption of a clean-up program
- ⇒ Pursue state, federal and private funding for natural open space acquisition and development
- ⇒ Coordination with other public entities to eliminate duplication of effort

The 1994 Plan also envisions formation of a group – the Rock Springs Visual Improvement Foundation— that would oversee plan implementation. This group was active for awhile but was disbanded several years ago. Today, other than an annual clean up program, the other natural open space policies have not been implemented.

8.3 Natural Environment Asset Inventory

Due to its distinctive natural environment, Rock Springs is unlike any other community in Wyoming or in the nation. Without adequate protections in place, the natural environment is susceptible to alteration or destruction by urban development. The inventory below is organized by type of feature and highlights some of the City’s most celebrated natural amenities that should be preserved.

Waterways

The primary waterways that drain Rock Springs are Bitter Creek and its main tributary, Killpecker Creek. Bitter Creek has its headwaters in the southeastern portion of Sweetwater County and flows from east to west through the City. It originally bisected the City near Bunning Park until the creek was moved north in the 1920s. The creek flows into the Green River just east of the City of Green River.

Killpecker Creek flows from north to south, generally paralleling Elk Street once it reaches Rock Springs and has its confluence with Bitter Creek in the vicinity of Grant Street.



Figure 8.1: Bitter Creek Watershed.

Source: Bitter Creek Reconstruction Plan and Design.

Another lesser creek – Dead Horse Canyon Creek – is also worthy of mention. It flows from south of town into the Bitter Creek. Figure 8.1 shows the alignment of Killpecker and Bitter Creeks as they flow into the City.

Both the Bitter Creek and Killpecker Creek are classified as intermittent streams by the United States Geological Survey. Intermittent streams are ones that have a well-defined channel but do not contain year-round flows. Flows are typically heaviest during the spring, in conjunction with snow melts, and may be supplemented by stormwater runoff and by landscape watering. During the fall and winter months, these streams may be completely dry.



Seasonally Dry Bitter Creek near Pilot Butte Avenue.



Figure 8.2: 1989 Flood, Downtown Rock Springs.

Despite their intermittent nature, or maybe because of it, the City's streams are susceptible to flood events, the most recent of which occurred in 1989 when the Dead Horse Canyon Creek flooded due to an intense cloudburst south of town. A blocked culvert caused flood flows to jump over the creek banks and sent a wall of water, mud and debris into the City's Downtown (see Figure 8.2).

While flood mitigation is addressed in Chapter 9 of this Plan, it is important to acknowledge the function of the City's waterways as conveyances for flood flows, even though they may appear to be no more than trickles of water much of the time.

Further, and perhaps because of their intermittent nature, the City's creeks have not always been considered a valuable community asset. For example, prior to the installation of a public sanitary sewer system in the 1920's, Bitter Creek conveyed the City's sewer flows.

The following excerpt from a 1894 Camp Pilot Butte medical history is particularly telling: "The gulch of Bitter Creek to the southwest of the camp is twenty-five feet in depth and in the spring contains several feet of water with a rapid current. The rest of the year the gorge is dry, with the exception of stagnant pools of water pumped into the ravine from its several coal mines or discharged from the camp sewers. The sides of the ravine as it goes through the town are

sometimes precipitous again [sic] consist of benches and gutter slopes and when this is the case, dug-outs and shanties of all kinds are built and are thereby inhabited by the lowest class of people, the bed of the creek is used as a common receptacle for filth, garbage and refuse of all kinds but owing to the constantly moving atmosphere no particularly bad odor is noticed from the ravine." (RS SCM, 5)

Over time, some adjacent property owners have gone so far as to fill in portions of creek channels in order to add to their developable property area. Others have viewed the stream channels as a suitable location for dumping of tires, trash and debris. The next section of this chapter recognizes the value of these waterways and proposes a plan for their restoration and preservation.

Terrain

Rock Springs was named both for a natural spring, located in the vicinity of Springs Drive, and for the impressive rock outcroppings and cliffs sprinkled throughout the City. "Topography in the study area is characterized by steep bluffs on either side of the Bitter Creek and along Killpecker Creek near its confluence with Bitter Creek" (BRW-2, 1-8).

The City's bluffs are distinctive and worthy of preservation, particularly those located in the following areas:

- ⇒ North side of Dewar Drive and continuing on to the west side of College Drive between Winston Drive and the Headquarters Fire Station



Rock Face Behind Fire Station #1 on College Drive.



Rocky Hillside Behind Commercial Development on Dewar Dr.



Residential, Steep Street in Blairtown.

- ⇒ North side of Dewar Drive and continuing north along the west side of Elk Street between College Drive and Springs Drive
- ⇒ North side of Veterans Park Drive behind Veterans Park subdivision, between I-80 and Wright Street
- ⇒ East side of Union Pacific Railroad spur extending south from Blairtown Connector Road in the vicinity of Quealy Road.
- ⇒ Area south of Blairtown and west of South Belt Loop
- ⇒ Numerous locations south and east of the South Belt Loop
- ⇒ South side of Community Park Drive

Even in areas that do not have stark cliffs or bluffs, the City still has considerable topographic relief which needs to be recognized and protected, where possible. Historical development patterns have resulted in structures being constructed along steep streets in some portions of the City. While this was not as much of an issue in the days preceding automobiles, several older neighborhoods are developed on streets that are extremely difficult to navigate during snow events.

While current development standards do not allow for steep roadways, the City does not require preservation of slopes during construction. For example, one recent development proposal impacted by slopes and water pressure issues proposed excavating a significant amount of slope – up to 20 feet – from the site. The project died due to prohibitive

costs, but this illustrates the need for better development regulations that will allow the City to protect slopes while also allowing for appropriate development to occur.

While a slope analysis has not been performed for this document, the following areas with considerable topographic relief were identified on the slope map in the 1983 Master Plan and should be protected to the greatest extent possible:

- ⇒ Triangular area between Skyline Drive and College Drive
- ⇒ Area between I-80, Bellview Drive, and Ridge Avenue
- ⇒ Area east of the South Belt Loop
- ⇒ Area south of the South Belt Loop
- ⇒ Area south of Blairtown Road
- ⇒ Area south of Blairtown

Air Quality

Due to the prevailing west winds and the generally lower elevations on the east side of the City, Rock Springs does not generally experience air quality issues. Though other portions of the state have had air quality problems associated with oil and natural gas exploration, as well as automobile emissions, Rock Springs seldom has smog or other air quality concerns. An air monitoring station was recently installed by the Wyoming Department of Environmental Quality in the area adjacent to the First Congregational Church on Adams Avenue. The results from this station should be available in Spring 2014.

Viewsheds

A viewshed, in the context of this Plan, is a portion of the natural environment that is unique or noteworthy and which is considered by the community as a whole as an asset worthy of preservation. Scenery is an important component of the overall quality of our community, but development can threaten to destroy scenic vistas and viewsheds.

Perhaps the most distinctive and recognizable natural feature in the Rock Springs viewshed is White Mountain. Visible from many locations throughout the City, White Mountain forms the backdrop for the eastern edge of town. Rising more than 1,000 feet above the City, White Mountain commands a majestic view of Rock Springs. White Mountain, its wild horses and other animals and famous knob, Pilot Butte, are part of the fabric of the City. The Sweetwater County Joint Travel and Tourism Board website perhaps puts it best:

“Listen for the sound of hooves pounding. Look for manes flying in the wind. Feel the rush of awe at the sight of these creatures. The Pilot Butte Wild Horse Scenic Loop Tour is something you and your family will never forget because Sweetwater County’s cherished wild horses are living examples of a wide-open landscape and untamed frontier spirit....Watch for wild horses between Rock Springs and Fourteen-Mile Hill, and all the way across the top of White Mountain” (Pilot Butte Wild Horses, 1).

Of all the viewsheds in Rock Springs, White Mountain is the one that best defines the City and the one which this Plan recommends should be preserved. Presently, the White



“White” Mountain in the Summertime.

Perhaps the most distinctive and recognizable natural feature in the Rock Springs viewshed is White Mountain...Rising more than 1,000 feet above the City, White Mountain commands a majestic view of Rock Springs.

Mountain viewshed is fairly close to its natural state. Other than a few antennas dotting the top, modern day residents are afforded the same view as miners and railroad workers who lived here more than 100 years ago. However, the White Mountain viewshed has been threatened by recent development proposals, including a wind farm. Section 8.4 of this Chapter provides possible strategies for preserving this important viewshed.

8.4 Natural Environment Preservation Plan

Waterways—Floodplain Protection

The City’s waterways are a valuable community asset and, despite their intermittent nature, need to be protected. Federal regulations require protection of floodway areas, as well as development controls for areas identified as floodplains. These regulations, which have been adopted by the City as Chapter 13-813 of the City’s Zoning Ordinance, are intended to be minimal standards.

Communities that exceed these development standards can apply for a higher community rating and are then eligible for reduced flood insurance rates. Implementation Plan project 8.1 calls for the City to explore training the City’s Floodplain Administrator to become a certified floodplain manager and for pursuit of possible additional floodplain development measures that would both better protect the City’s waterways and also give the City lower flood insurance rates.

Waterways—Aesthetics

Because of the intermittent nature of the City’s waterways, development generally backs up to them, rather than fronting upon them. As mentioned above, this makes the



Illegal Dumping and Development Next to Bitter Creek.

existing creek channels an attractive nuisance for dumping of debris, which is not only unsightly but also contributes to impairment of flood flows during storm events. One project – the Bitter Creek Reconstruction Project – is aimed at channel improvement and beautification, including a bike/walking path, for the Bitter Creek. This multi-million dollar project has both floodplain benefits, which are described in Chapter 9, and aesthetic/recreational benefits. In the long-run, this will make the Bitter Creek an attractive community asset.

While Bitter Creek generally flows through public property, Killpecker Creek is almost entirely located on private property and often bisects parcels. Though the City is tasked with floodplain management and protection, this is a difficult task to accomplish in places where the creek is not visible from public locations. State and/or federal statutes may give some ownership authority to the public, however, this requires research into state and federal water law. Implementation Plan project 8.2 includes a review of the state and federal statutes pertaining to ownership of waterways.

Terrain—Cliff Preservation

As identified in Section 8.3 of this Chapter, the City contains several distinctive areas where rock cliffs form a natural backdrop for the urban environment. Protection of these cliffs is essential if the City is going to retain its identity. And, development pressures do exist. One recent conceptual proposal, for example, called for tearing down a cliff located on the north side of Dewar Drive and hauling the rock

material across Dewar Drive via a conveyor belt to be deposited on low-lying property on the south side of the roadway. The project never came to fruition, but the threat to the natural landscape is a real one.

In other places, development has been allowed to occur all the way to the cliff edge on upper properties. This undermines the stability of the cliff and can cause rockfall and other issues. Implementation Plan project 8.3 calls for protection of the City's cliff areas through acquisition of slope easements. The easements would serve the dual function of preserving the cliffs as well as establishing setback standards for development.

Terrain—Slope Development

Beyond the cliff edge, several undeveloped properties in the City have not been developed due to slope constraints. Solutions can be costly and the City's current development policies do not allow for clustering of development to preserve open space and protect terrain assets. Implementation Plan project 8.4 includes amending the City's Zoning Ordinance to create a slope overlay zone and associated development standards that would require clustering development on smaller lots for smaller setbacks, while preserving steep slopes as part of the natural terrain.

Air Quality

As mentioned above, Rock Springs does not typically experience air quality concerns. Implementation Plan project 8.5 includes reviewing the data collected by the Wyoming Department of Environmental Quality from its air quality monitoring station to ensure air quality continues to meet established standards.

Beyond the cliff edge, several undeveloped properties in the City have not been developed due to slope constraints. Solutions can be costly and the City's current development policies do not allow for clustering of development to preserve open space and protect terrain assets.

Another way the City can improve air quality is through support of alternative fuels and energy sources. A compressed natural gas (CNG) fueling station was recently installed on Elk Street (see Figure 8.3). Natural gas burning engines emit fewer pollutants than their gasoline counterparts. Natural gas is also a local resource. Further, the City has adopted solar energy and wind energy development ordinances. Implementation Plan project 8.6 calls for continued support of a wide range of energy sources and for revisions to the City Ordinance pertaining to CNG fueling stations.

Viewsheds

White Mountain is the City's most important, virtually undisturbed viewshed. However, the mountain is located completely outside of the City Limits and the City has little control over development atop and along the mountain. Most portions of White Mountain visible from the City are owned by either the Bureau of Land Management, the Union Pacific Railroad, or the Rock Springs Grazing Association.

In order to preserve this viewshed, the City needs to discuss options for preservation with Sweetwater County. The County has identified this area as a scenic/slope overlay area and has corresponding development regulations, as follows:

- ⇒ Non-reflective building & roof colors (required)
- ⇒ Siting so that the natural skyline is preserved (encouraged)
- ⇒ Preservation of existing vegetation (encouraged)
- ⇒ Stabilization of cuts and fills so as to blend in with surrounding environment (required)
- ⇒ Outdoor lighting limitations (required)
- ⇒ Wildlife friendly fencing (encouraged)
- ⇒ Outdoor storage and corral areas screened (required)
- ⇒ Storage below six feet tall (required)
- ⇒ Fencing of wood, brick, concrete block, vinyl or chain link with slats (required)

While these regulations represent an important first step in preservation of this vital viewshed, the City should work with Sweetwater County to strengthen the language and/or acquire conservation easements. Implementation Plan project 8.7 involves working with the County to ensure appropriate viewshed protection measures are taken.



Figure 8.3: New CNG Fueling Station Installed on Elk Street.

8.5 Public Safety and Design

In the 1960s, community activists began noticing a relationship between location and criminal activity. Some establishments, for example, experienced repeated robberies, while others in the same general neighborhood experienced few or none.

Over time, experts came to conclude that the design of a property or neighborhood can be a key contributor toward attractiveness to criminals. Properties that are well-maintained, for example, experience fewer crime events than those that are in disrepair. Further, those that are well-lit, have windows on the street, and have one primary means of access for the public have less crime. Basically, a prospective criminal views the property or neighborhood in light of the potential for being caught. Active, well-kept neighborhoods and commercial areas with eyes on the street and good visibility are far less likely to be targeted by criminals.

In response to these observations, researchers have developed a community design program that incorporates elements of safety as part of neighborhood and business design. Endorsed by the Department of Justice, the Crime Prevention Through Environmental Design (CPTED) program proposes strategies for reducing crime through physical design. Some communities have gone so far as to adopt CPTED principles as part of their ordinances and appear to be experiencing positive results. Basic CPTED functional

performance standards related to natural surveillance, access control, and ownership include:

- ⇒ Blind Corners
- ⇒ Site and Building Layout
- ⇒ Common / Open Space / Public Areas
- ⇒ Entrances
- ⇒ Fencing
- ⇒ Landscaping
- ⇒ Exterior Lighting
- ⇒ Mix of Uses
- ⇒ Security Bars, Shutters, Doors
- ⇒ Building Identification
- ⇒ Signage
- ⇒ Maintenance
- ⇒ Materials

One CPTED principle Rock Springs already employs is requiring 50% transparency for front yard fencing in residential areas. In order to further ensure that the City's design requirements support safe buildings and neighborhoods, Implementation Plan project 8.8 includes a review of CPTED design principles and appropriate updates to the City's Zoning and Subdivision Ordinances.

8.6 Conclusion

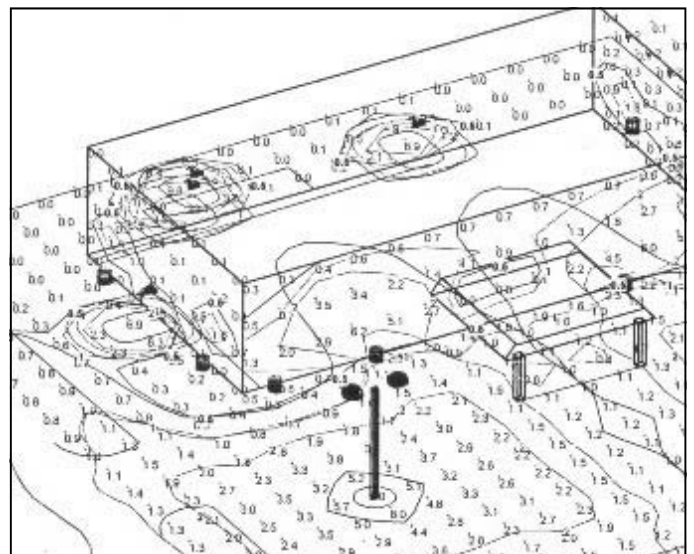
The built environment relies heavily on the natural environment for its context. An urban environment that ignores its surroundings may easily lose its uniqueness and risks becoming no more than a Levittown with rows of tacky tacky houses – nothing distinct, nothing original. Communities that incorporate the natural environment into the built environment are the ones people most want to visit and call home. Safety is another important factor to consider when designing a community. By planning our communities to be safe and healthy, and incorporating the natural environment, we can preserve our rich heritage and build a brighter, sustainable tomorrow.



Front Yard Fencing with 50% Transparency.



Public Lighting and Landscaping along Front Street.



3-D Lighting Plan with Point-to-Point Foot Candle Levels.

8.7 Chapter 8—Implementation Plan

TABLE 8.1

Goal: Preserve environmental, cultural and recreational amenities, while minimizing potential hazards, to offer an enhanced quality of life for all citizens.

Project #	Project Description	Responsible Party	Budget Estimate	Timeline for Completion	Additional Funding Needed?
8.1	Explore training the City's floodplain administrator to become a certified floodplain manager and pursue possible additional floodplain development measures that would both better protect the City's waterways and also give the City lower flood insurance rates.	Planning & Zoning	\$	2016	No – floodplain training is reimbursed by FEMA
8.2	Review and assess the Killpecker Creek drainage, to include ownership, and develop options for managing this drainage.	City Attorney	\$	2018	Yes
8.3	Protect the City's distinctive cliffs from development and encroachment through acquisition of slope easements for areas identified in this Plan.	Planning & Zoning	\$\$	2022	Costs are unknown at this time, but property owners will likely want to be paid for easements.
8.4	Amend the City's Zoning Ordinance to create a slope overlay zone and associated development standards that require development clustering on smaller lots, while preserving steep slopes as part of the natural terrain.	Planning & Zoning	\$	2022	Yes
8.5	Review data collected by the Wyoming Department of Environmental Quality from its air quality monitoring station to ensure air quality continues to meet established standards.	Wyoming DEQ	\$	2014	None – state funded
8.6	Continue to support non-oil energy sources and revise the City's Zoning Ordinance to development specific standards for compressed natural gas fueling stations.	City Council	\$	2015	None – in house
8.7	Work with Sweetwater County to ensure appropriate viewshed protection measures are taken to preserve and protect the White Mountain viewshed.	Planning & Zoning	\$\$	2014	Yes-depends upon measure adopted
8.8	Review the Crime Prevention Through Environmental Design (CPTED) principles and incorporate appropriate standards as part of the City's subdivision and zoning ordinances.	Police Department	\$	2016	None – in house

Budget Estimate: \$ - <50,000; \$\$ - 50,000 - 100,000; \$\$\$ - 100,001 - 500,000; \$\$\$\$ - >500,000

CHAPTER 9: HAZARD MITIGATION



1989 Flood in Downtown Rock Springs.
Source: Rock Springs Historical Museum

“Hazard mitigation planning is an essential component of emergency management. This Hazard Mitigation Plan allows us to examine potential hazards and develop a strategy to reduce the impacts of those hazards; thereby affording a better allocation of resources and providing a higher level of protection for our community. By including the Hazard Mitigation Plan as part of the City’s 2012 Master Plan, the City has shown its commitment to a comprehensive approach to planning.”

- Lyle Armstrong, Rock Springs Fire Chief

Chapter 9: Hazard Mitigation

Sections:

9.1 Purpose of the Plan

9.2 The Planning Process

9.3 Hazard Profiles and Risk Assessment

9.4 Mitigation

9.5 Conclusion

9.6 Chapter 9—Implementation Plan

9.1 Purpose of the Plan

The purpose of this *Hazard Mitigation Plan* is to examine the types of facilities, infrastructure, plans, policies and people that make up the emergency management community and make recommendations for changes needed to minimize hazards and improve safety. In this way, the 23,036 residents (2010 Census) of the City of Rock Springs will live in a safer community that is more disaster resistant.

The City of Rock Springs intends to eliminate or reduce the risks to human life, the environment, and property from the effects of natural hazards through the preparation of this *Hazard Mitigation Plan*. This plan identifies goals and actions (projects) to be accomplished and prioritizes the mitigation actions.

The plan meets the requirements of the Interim Final Rule published in the Federal Register on February 26, 2003, at 44 CFR Part 201 as part of the Disaster Mitigation Act of 2000.

The City of Rock Springs is the planning area referenced in this plan, which includes the area bounded by the current city limits. However, hazard mitigation planning in Wyoming is typically completed on a county basis. Much of the information available references the entire county. This plan extracts information, where possible, for Rock Springs. It should be noted that there are hazards in Sweetwater County that do not occur in the City of Rock Springs. This plan recognizes those as potential hazards for Rock Springs in a general sense of maintaining a level of preparedness for all potential hazards.

This *Hazard Mitigation Plan* is part of the larger 2012 *Master*

Plan for the City of Rock Springs. Incorporating this *Hazard Mitigation Plan* into the larger *Master Plan* allowed for the collection of data in relation to development trends to be done simultaneously. In addition, FEMA's request that other plans overlap allows this plan to be part of the larger picture.

9.1.1 Mitigation Planning Goals

- 1) To determine if current hazards are ranked according to their current threat to the community.
- 2) To create an updated list of goals and objectives that provides greater mitigation protection.
- 3) To review any past mitigation projects that were completed and to develop a list of projects to complete in the future.

In order to complete this *Hazard Mitigation Plan* with the greatest amount of public participation, a Local Planning Team (LPT) was formed. Members of the team attended the planning meetings. LPT and public meetings represented a broad cross-section of interests of the local government entities. Flyers announcing the first meetings were posted around the City. In order to generate even more public participation, an online survey was created and respondents were asked to rank the hazards and the projects.

In the planning process, the disasters of most concern to participants were, in descending order: winter storms, tornadoes, wildfires, hazardous materials, flooding, manmade disasters, storms, drought, terrorism and earthquakes. Each hazard profile contains sections that discuss past occurrences, potential impacts, vulnerability and frequency and potential losses.

Mitigation goals, each with corresponding projects or mitigation actions, were updated and several new goals were developed.

9.1.2 Hazard Mitigation Plan Goals for 2012

- 1) To protect and provide services to vulnerable populations, i.e. elderly, disabled and low income.
- 2) To provide additional services and structures to protect the community from flooding.

- 3) To provide additional services and education to protect the community from manmade incidents to Rock Springs.
- 4) To strengthen and enhance the sustainability of government buildings in the event of natural or manmade disasters.
- 5) To provide sustainability for the Rock Springs water system.
- 6) To increase public education to reduce the risk of impact of hazardous events.
- 7) To provide additional services and structures to protect the community from extreme weather situations.
- 8) To provide additional services and education to protect the community from public health concerns.
- 9) To reduce loss of life, environment, and property from manmade facilities such as pipeline failure.

9.2 The Planning Process

9.2.1 Introduction to Mitigation

Mitigation is the process of creating and implementing sustained actions aimed at reducing or eliminating the long-term risk to human life and property from hazards (Mitigation Planning Guidance). When looking at mitigation from a citywide perspective, it is important to understand that mitigation is multi-layered and requires both plan development and participation.

9.2.2 Preparation of the Plan

The backbone of the operation was the City of Rock Springs Local Planning Team (LPT). The LPT was developed to represent the broader community, county departments and impacted state agencies, and was comprised of stakeholders from all City Departments, as well as the following external entities:

- ⇒ Rock Springs-Sweetwater County Airport
- ⇒ Western Wyoming Community College
- ⇒ Sweetwater County School District #1
- ⇒ Young at Heart Senior Center
- ⇒ Joint Powers Water Board
- ⇒ Rock Springs Chamber of Commerce
- ⇒ Sweetwater County Events Complex

Mitigation is the process of creating and implementing sustained actions aimed at reducing or eliminating the long-term risk to human life and property from hazards .

- ⇒ Sweetwater County Health
- ⇒ Memorial Hospital of Sweetwater County
- ⇒ Sweetwater County Sheriff's Department
- ⇒ Sweetwater County Emergency Management Agency
- ⇒ Wyoming Department of Transportation
- ⇒ Wyoming Highway Patrol

The Emergency Operations Coordinator, Fire Chief Lyle Armstrong, along with the LPT, formed the core group for completion of the plan. The planning process was guided by consultant Mayana Roberg, AICP, formerly a Senior Planner with WLC Engineering, Surveying, and Planning.

Ms. Roberg briefed local government officials, convened and facilitated public meetings, conducted research on past hazardous events and prepared the draft plan based upon input obtained from the public and the LPT. Information for Sweetwater County and the City of Rock Springs was obtained from the *Wyoming Multi-Hazard Mitigation Plan, June 2011*.

FEMA has developed a mapping tool called HAZUS (Hazard Zones in the U.S.) that models potential losses if various hazards occur. HAZUS is defined by FEMA as “a nationally applicable standardized methodology that contains models for estimating potential losses from earthquakes, floods and hurricanes.” HAZUS uses Geographic Information Systems (GIS) technology to estimate physical, economic, and social impacts of disasters. Utilizing this modeling system, the Rock Springs Emergency Operations Coordinator has compared the results to the currently zoned land within the City that is within the HAZUS areas for potential future events.

Information such as this is important when reviewing development trends and future projects seeking approval by

the Rock Springs Utility Review Committee. The areas that are within the HAZUS flooding locations should be held to a higher standard.

9.2.3 Plan Participation and Sources

This *Hazard Mitigation Plan* was prepared through the efforts of many people, representing various interested parties. The information in the Plan was obtained through internet research, review of existing plans, personal interviews and public input. A list of all *Works Cited* throughout this *Hazard Mitigation Plan* is included at the end of this Chapter.

Community leaders and citizens participated in the planning process and guided the development of goals and mitigation actions. City, County, State and Federal personnel were also contacted for information.

LPT meetings were held on February 14, 2011 and March 15, 2011. During the first meeting, the group developed a list of hazards and ranked them; discussed topics that would be included in the plan; and performed an inventory of available data. During the second meeting, the group developed specific projects and reviewed plan goals and objectives. Attendance rosters from the LPT meetings are included in Figures 9.1 and 9.2 on the following pages.

In addition, a survey was developed and distributed to members of the Rock Springs City Council, Police Department and Fire Departments; City Department Directors; and the LPT stakeholders. Nine people completed the survey supporting the hazard ranking included in the plan. A copy of the survey and results are included in *Chapter 9—Appendix A* at the end of this Chapter.

9.2.4 Implementation and Monitoring

This Plan has the potential to bring results. Those results will not come from the Plan sitting on a shelf, being on a website or being looked at once a year. Instead, the document needs to be implemented and carefully monitored. The way to accomplish this is by ensuring that each team member with implementation responsibility is a champion of the Plan and the process.

The success of any community-based plan is directly linked to building successful partnerships.

9.2.5 Budgets

Mitigation projects included in this Plan should be part of the City's annual budget program. In this way, the Plan can be implemented proactively, instead of waiting for the next disaster to occur to ensure a project gets done. While not all proposed projects will be funded in a given year, including projects in yearly budget proposals will keep them on the forefront of the City's budgeting process and prevent them from being overlooked. When opportunities for funding arise, decision makers will be aware of these funding needs.

9.2.6 Regulatory

Including this *Hazard Mitigation Plan* as an element of the Master Plan is very important in promoting the need for funding. It is also important to ensure that, as development trends shift, the various hazards facing population concentrations are addressed through design and construction codes.

9.2.7 Partnerships

The success of any community-based plan is directly linked to building successful partnerships. Gaining the involvement of the community builds momentum and depth for the project and ownership by the individuals involved. Mitigation is not only about government making its citizens safe. Since the citizens ARE the government, they must buy into the concept and benefits of working to reduce or eliminate the impact of hazards before they strike.

These partnerships can help individuals make informed decisions about where to live, where to purchase property or where to establish a business. Collaboration between the public and private sectors broadens the base of available resources and expertise and adds to the resilience of the community.

HAZARDS MITIGATION "KICK OFF MEETING OF THE LPT" ROCK SPRINGS
2/14/11

EMAIL SIGN UP TO PROVIDE COMMENTS

NAME

DEPARTMENT

PHONE

EMAIL

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Figure 9.1: Copy of Attendance Roster from 2/14/11 Hazard Mitigation Meeting.

HAZARDS MITIGATION "KICK OFF MEETING OF THE LPT" ROCK SPRINGS
3/15/11

EMAIL SIGN UP TO PROVIDE COMMENTS

NAME	DEPARTMENT	PHONE	EMAIL
Jana McCarron	Planning	352-1540	jana-mccarron@rswy.net
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Rick Cozad	RSFD	352-1475	rick-cozad@rswy.net
Lyle Armstrong	RSFD	352-1475	lyle-armstrong@rswy.net
CARL BLANKSVARD	RSFD	352-1475	RSFD@rocketmail.com

Figure 9.2: Copy of Attendance Roster from 3/15/11 Hazard Mitigation Meeting.

Projects identified within this *Hazard Mitigation Plan* will need these partnerships to reach the goals and objectives set out in the Plan. Additionally, they need to be addressed on a regular basis and incorporated into routine work plans. The Plan must have responsibilities assigned and the monitoring of progress must be ongoing. This can occur through annual updates or reports, such as a progress sheet showing the implementation status.

Finally, it is important to celebrate successes. As the mitigation projects are completed, the LPT can let the community know about them. This can be via a news release or even a formal announcement at a City Council meeting with recognition of those involved.

9.2.8 Plan Maintenance

The City of Rock Springs Emergency Management Organization (EMO) is responsible for ensuring the Plan and its projects are reviewed on a regular basis and that an annual status report is prepared.

Additionally, the Sweetwater County Local Emergency Planning Committee (LEPC), which has an all-hazards focus, is a forum that the City of Rock Springs EMO can use to consider additional public input on the Plan and any proposed or existing projects. The LEPC's meetings provide a public forum and, if necessary, additional special public meetings can be held as needed.

The City's website can be used to provide the community with a snapshot of the status of the plan, what projects are underway and what goals may be targeted for the upcoming year.

This *Hazard Mitigation Plan* must be updated and submitted to FEMA on a five-year cycle, based upon the date of approval. Should it be necessary to make additions or updates to the plan before that five-year update process, the Rock Springs EMO will be responsible for obtaining public input and making a recommendation to the jurisdictions for adoption of the changes.

9.3 Hazard Profiles and Risk Assessment

This section identifies:

- 1) Natural hazards to which Rock Springs is susceptible
- 2) Other hazards of concern to citizens
- 3) Documented historical occurrences of these hazards
- 4) Potential impacts of hazards
- 5) Vulnerability to damage from hazards

This section also includes a short description of methodology, followed by a list of the identified hazards discussed in this chapter. Detailed profiles of each hazard type are provided, including past occurrences, vulnerability, potential loss estimates, critical assets and populations that could be affected by various hazards.

9.3.1 Methodology

Information on historical natural hazards and disasters was obtained from a variety of sources. At the local planning meetings, participants provided their priorities for natural and other disasters of concern.

State and federal websites and databases were searched. Information from the Bureau of Land Management, Forest Service, National Weather Service's National Climate Data Center, Western Regional Climate Center, Federal Emergency Management Agency (FEMA), Spatial Hazard Events and Losses Database for the United States (SHELDUS), and the National Response Center was reviewed. Information was requested from and provided by the Wyoming State Forestry Division, Wyoming Fire Marshal's Office, Wyoming Department of Environmental Quality, Wyoming Office of Homeland Security and USDA Natural Resources Conservation Service and Farm Service Agency. Existing written plans, including the *Sweetwater County Emergency Operations Plan* and the draft *Sweetwater County Mitigation Plan*, were reviewed as well. In addition, the *Wyoming Multi-Hazard Mitigation Plan* was utilized extensively for information on past occurrences of natural hazards and is cited throughout this Plan.

9.3.2 HAZUS Summary

HAZUS is a regional, multi-hazard loss estimation model that was developed by FEMA and the National Institute of Building Sciences (NIBS). The primary purpose of HAZUS is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates

would be used primarily by local, state, and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery. Economic loss associated with hazardous incidents is two-fold:

- 1) Loss for Residents (loss of dollars, work time and sense of safety for residents) in the community that can equate to unrecorded economic loss.
- 2) Physical Loss (buildings, infrastructure, data) in terms of recovery dollars that equate to an enormous drain on a community after a disaster has occurred.

The projects proposed in this document are meant to mitigate a wide variety of hazards and increase the speed and effectiveness of post-recovery efforts.

There are several types of hazards included under the “maximum exposure” description. These hazards cannot be identified as placing any one specific area of the community in danger. If any of these disasters occur they could affect any portion of the population within the City, therefore maximum exposure could be expected. Those hazards include severe winter storms, severe weather (thunderstorms, tornadoes), earthquakes and terrorism.

9.3.3 Hazard Evaluation

- 1) Identification of hazards that may occur through:
 - ⇒ Meetings and discussions with community leaders
 - ⇒ Review of Multi-Hazard Mitigation Plan
 - ⇒ Public meetings
 - ⇒ Review of hazard lists in FEMA’s “How-to Guide: Understanding your Risks” and initial research on recommended websites
 - ⇒ Review of *Wyoming Multi-Hazard Mitigation Plan*
 - ⇒ Review of the Project Impact Hazard/Risk Assessment and Mitigation Plan
 - ⇒ Research of other plans, reports, newspapers and local histories
- 2) Prioritization of hazards and focus on the most prevalent.
 - ⇒ Hazards were prioritized by the LPT at the first public meeting.
 - ⇒ Hazards were prioritized by the public via an online survey.

The projects proposed in this document are meant to mitigate a wide variety of hazards and increase the speed and effectiveness of post-recovery efforts.

- 3) Profile hazard events by:

- ⇒ Mapping the geographic extent of hazards that can occur in predictable areas.
- ⇒ Obtaining data on historical occurrences—frequency, severity, and related damage when available.

9.3.4 Vulnerability

Vulnerability and potential loss estimates were assessed as follows:

- 1) Identification of future potential for the hazard to cause damages. Past occurrences were considered along with the factors that could potentially increase risk. Probability of occurrence for the highest priority hazards was rated by participants.
- 2) Asset Inventory. This includes structures and operations important to the economy of Rock Springs, as well as review of vulnerable populations that could be particularly hard-hit by a disaster. Inventories of critical facilities included location and replacement value, identified using information provided by representatives of the various facilities. Because many of the natural hazards in the City can essentially occur anywhere, the inventory of assets is included on an overall basis.

Affected population ratings at the end of each hazard profile are based on the following:

- ⇒ Low = sporadic impacts on individual properties
- ⇒ Medium = significant impact locally
- ⇒ High = half or more of the City’s population is significantly impacted

Generally, losses were estimated using information from past events since hazards in Rock Springs can vary in location and extent.

9.3.5 Hazard Analysis

The following pages cover the ranked hazards listed below that are of concern to Rock Springs. Some event records will be countywide, as many hazards are not specific to the city limits.

- #1 - Flood
- #2 - Severe Storms & Tornadoes
- #3 - Severe Winter Storms
- #4 - Subsidence
- #5 - Landslide
- #6 - Drought
- #7 - Extreme Heat
- #8 - Wildfire
- #9 - Earthquake
- #10 - Hazardous Materials/Manmade
- #11 - Terrorism

Table 9.1 contains a summary of these hazards and includes the likelihood of occurrence (probability), the amount of people expected to be impacted (population), and the amount of property damage likely to occur (property).

Hazard #1: Flood

Floods have caused significant damage in Wyoming and rank

among the most prevalent natural hazards in the state. Floods can cause millions of dollars in damage in just a few hours or over the course of a few days. Every county and many communities in the state have experienced some kind of flooding after spring rains, heavy thunderstorms, winter snow thaws or ice jams.

A flood, as defined by the National Flood Insurance Program (NFIP), is a “general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties from overflow of waters, unusual and rapid accumulation or runoff of surface waters from any source or a mudflow”. Floods can be slow or fast rising, but generally develop over a period of many hours or days.

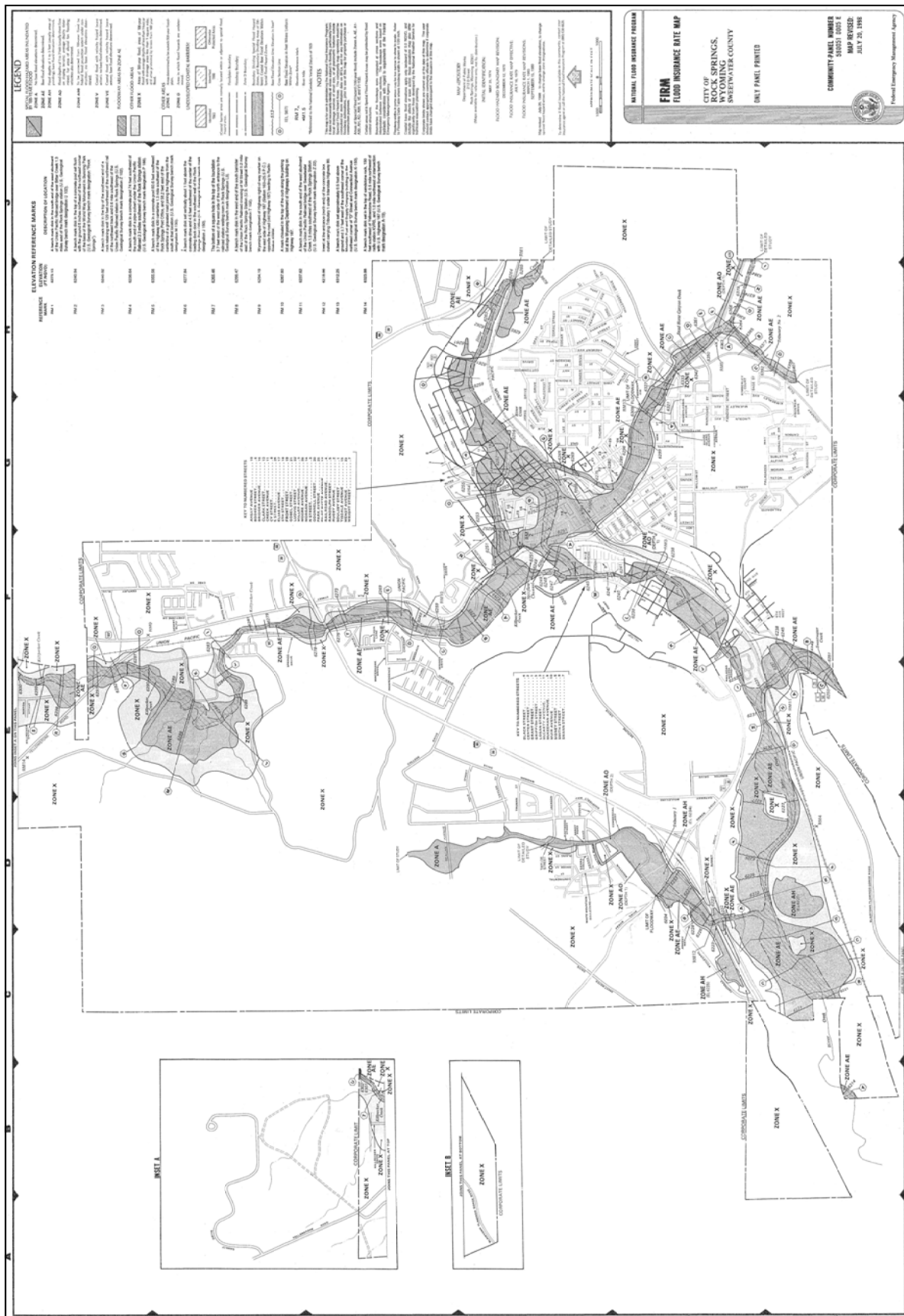
Floods can also occur with little or no warning and can reach full peak in only a few minutes. Such floods are called flash floods. A flash flood usually results from intense storms dropping large amounts of rain within a brief period. Floods can occur for reasons other than precipitation or rapidly melting snow. They can also occur because of ice jams or dam failures, both of which have occurred in Wyoming. (*Wyoming Multi-Hazard Mitigation Plan, 8.1*). Map 9.1 shows the FEMA-designated Special Flood Hazard Areas (SFHA) for the City of Rock Springs as of 1998.

TABLE 9.1
Summary Table of Hazards

Hazard	Property Impacted	Population Impacted	Probability of Occurrence
#1 - Flood	Medium	Medium	HIGH
#2 - Severe Storms & Tornadoes	HIGH	Medium	HIGH
#3 - Severe Winter Storms	Medium	HIGH	HIGH
#4 - Subsidence	Medium	Medium	Medium
#5 - Landslide	Medium	Low	Medium
#6 - Drought	Low	Low	HIGH
#7 - Extreme Heat	Low	Low	Medium
#8 - Wildfire	Medium	Low	Low
#9 - Earthquake	HIGH	Medium	Low
#10 - Hazardous Materials / Manmade	HIGH	Medium	HIGH
#11 - Terrorism	HIGH	HIGH	Low

MAP 9.1

Rock Springs Flood Insurance Rate Map*



Source: Federal Emergency Management Agency, July 20, 1998. *Map does not include revisions approved by FEMA since 1998.

HAZUS: Using the HAZUS program, the following impacts would be realized should a citywide 100-year flood event occur in Rock Springs:

- 1) \$21,177,700 in direct economic losses to buildings; and
- 2) 5,036 people would be displaced.

Past Occurrences: According to the *Wyoming Multi-Hazard Mitigation Plan*, Sweetwater County ranks among the top three counties in the state in terms of number of buildings in the floodplain. The City has 2,199 buildings within the FEMA-defined Special Hazard Flood Area (counts made from 2005 planimetric data derived from the 2005 aerial imagery).

Impacts:

- ⇒ Injury
- ⇒ Loss of life
- ⇒ Injury and loss of life to livestock, pets and wildlife
- ⇒ Damage to and loss of property and infrastructure
- ⇒ Interruption of transportation and commerce
- ⇒ Contamination of surface and ground waters

Vulnerability and Frequency: Due to the overall dry climatic conditions in Rock Springs, flood events occur infrequently, but since the City is low-lying in comparison to the surrounding terrain, flooding in the vicinity typically impacts residents. However, it should be noted that there are no repetitive loss properties located in the City of Rock Springs.

The City is presently working on a project to improve Bitter Creek, the City's primary drainage. The project, aptly named the *Bitter Creek Reconstruction Plan and Design*, will remove a number of buildings, including historic structures and houses, from the Special Flood Hazard Area. The City has been engaged in the project for over five years through funding provided by the Wyoming Department of Environmental Quality (DEQ), Abandoned Mine Land Division (AML). With those funds the City completed a master plan and an environmental assessment, and constructed two detention basins south and east of Rock Springs on a tributary to Bitter Creek - Dead Horse Canyon Creek, as well as completed improvements to the Dead Horse Canyon Creek levee. With additional funding, the City can move forward with additional improvements to control and prevent flooding along the Bitter Creek drainage.



Rock Springs Flood of 1924.

Source: Union Pacific Coal Company.



Works Progress Administration construction of retaining wall along Bitter Creek, 1941.

Source: Western Archaeological Services Archives.

Another high priority hazard mitigation project for the City is preparation of an updated Flood Insurance Rate Map (FIRM). The City's current FIRM was last updated in 1998. Since that time, the City has experienced considerable growth, particularly on the west side of town. Some of the new growth areas were located on the very edge of the limits of FEMA's mapping. If growth continues into the future, the lack of an updated FIRM will represent a significant obstacle to development, as individual projects will have to provide their own floodplain studies.

Another limiting factor with the current FIRM is the projection of the map compared with the overlay used for

TABLE 9.2

Sweetwater County Building Exposure & Damage

County	FIRM Building Exposure	Damage (2010)	Damage Rank
Sweetwater	\$311,450,629	\$5,551,427	13

Source: *Wyoming Multi-Hazard Mitigation Plan*, 8.75.

the City's streets. In several places, the FIRM shows stream channels flowing down the center of streets when, in fact, the stream is located 100 or more feet offset from the street.

In addition, there have been several LOMR's approved by FEMA since the 1998 map was prepared. These are not reflected on the map and make review difficult. Map 9.2 shows the approximate Special Flood Hazard Areas based upon subsequent Letters of Map Revision (LOMR's) and Letters of Map Amendment (LOMA's) approved by FEMA.

Additionally, FEMA is no longer publishing paper FIRM maps and has gone to an all-digital format. Unfortunately, because Sweetwater County does not participate in the National Flood Insurance Program (NFIP), the City of Rock Springs' map was not placed on the list for digital conversion. Representatives from FEMA have indicated they may be converting the City's map, but the timing is uncertain. In the meantime, the City's floodplain administrator has to make oversized copies of an outdated map for users.

Due to all of these factors, most real estate agents, insurance companies and residents are not comfortable interpreting the map themselves, substantially increasing the workload of the floodplain administrator. New, accurate mapping is need for continued growth, ease of use, accuracy of floodplain determinations and to reflect the multiple changes that have occurred since 1998.

Potential Losses: As of February 28, 2011, there were 250 National Flood Insurance Program policies in force within the designated flood area (*Wyoming Multi-Hazard Mitigation Plan*, 8.77). The reconstruction project will help with the re-development needs of the downtown.



Modern day Bitter Creek near the North Belt Loop.

Source: Landmark Design.



Flood control construction along Dead Horse Canyon Creek.

Source: Rock Springs Planning Department.

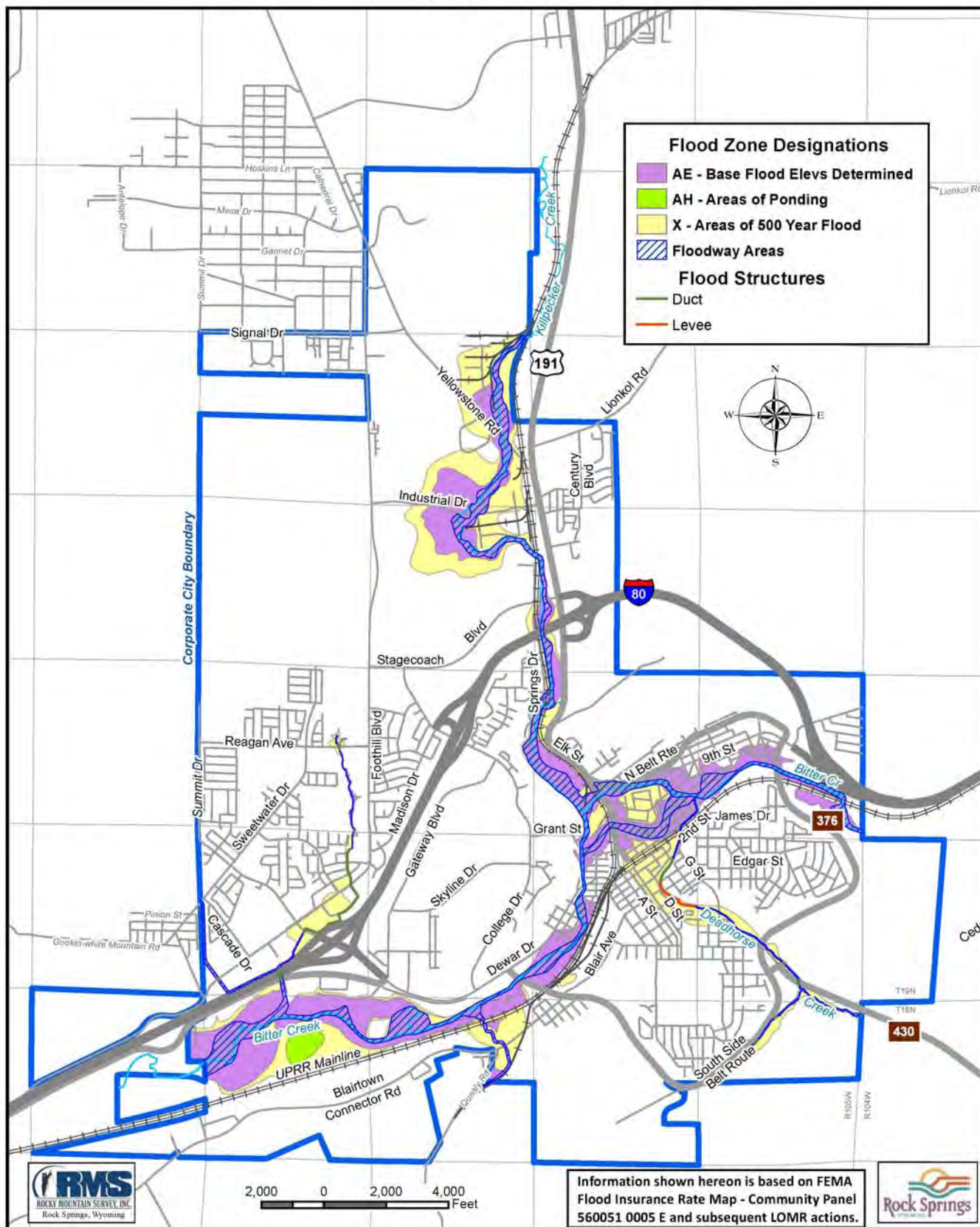
Summary:

- ⇒ Property Impacted: Medium
- ⇒ Population Impacted: Medium
- ⇒ Probability of Occurrence: High

MAP 9.2

Rock Springs Approximate Flood Zones

Based Upon FEMA Approved Map Revisions and Amendments



Notice: This map is intended for illustrative purposes only. Users are advised to verify the information shown hereon by consulting the City of Rock Springs Planning Office.

TABLE 9.3
Rock Springs Past Flooding Events

Date	Location	Deaths	Injury	Property Damage	Crop	Total
4/1924	Rock Springs, Bitter Creek					
Description: Snowmelt lasting nearly a week destroyed bridges and severely damaged or totally destroyed a large number of dwellings, driving several hundred residents from their homes.						
7/1926	Rock Springs, Bitter Creek					
Description: An intense rainfall caused a flash flood resulting in interrupted rail and highway traffic, damaged bridges, eroded stream banks and cut communication lines.						
8/1930	Rock Springs, Bitter Creek					
Description: Intense rainfall damaged bridges, eroded stream banks and cut communication lines.						
7/7/1937	Rock Springs					
Description: The heavy rains caused a large number of floods, the most destructive being in the vicinity of Rock Springs. In this area floods occurred on the 7th-8th.						
7/11/1937	Rock Springs, Killpecker Creek, Bitter Creek			\$100,000		\$100,000
Description: Heavy rains caused a large number of floods, the most destructive being in the vicinity of Rock Springs. In this area floods occurred on the 11th-12th. During the flood on the 11-12 th , more than 500 homes were inundated and more than 2,000 people rendered temporarily homeless. Crops suffered severely from hail and floods, but there were compensating benefits from the excess moisture. The heavy downpour caused severe floods in Sweetwater County that caused great loss of property and interrupted railway and highway traffic. In addition to the damage to homes, highway, railway and mine property was severely damaged and railway service was suspended for 24 hours. Property damage in Sweetwater County amounted to more than \$100,000.						
6/3/1952	Rock Springs					
Description: Floods occurred at Rock Springs on the 3rd. The storm caused considerable damage from flooding and lightning.						
8/19/1956	Rock Springs					
Description: At Rock Springs, during the afternoon of the 19th, rain and hail followed by a flash flood caused extensive damage, primarily due to flooding in a new section of the city known as White Mountain. Floodwaters reached a depth of five feet in some low areas. About 200 telephones were put out of order. Refuse from a nearby garbage dump and debris from boardwalks and fences littered the streets. In a few places, silt was deposited to a depth of 12 to 18 inches.						
7/4/1975	Rock Springs-Green River area					
Description: Torrential rains caused severe flooding in parts of Rock Springs; damage was especially heavy in the northern part of the city. Several businesses in downtown Rock Springs reported damage from water and mud. Some hail attended the storm.						
7/24/1982	Rock Springs			\$225		\$225
Description: A thunderstorm dumped over 2 inches of rain on the city causing local flooding of some streets and a few basements.						
7/12/1989	Rock Springs	1	1	\$2,250,000		\$2,250,000
Description: Weak upper-level southerly flow, very moist tropical air and an upper-level disturbance caused a slow-moving torrential rain-producing thunderstorm to hit Rock Springs in the late afternoon and early evening. The heaviest precipitation occurred just south of the town. The Rock Springs airport recorded 0.88 inches of rain along with wind gusts up to 52 mph. Dime-sized hail covered the ground to 1.5 feet deep 5 miles south of the community. As a result of Rock Springs being low relative to the terrain to their south, a tremendous surge of water and mud up to 3 to 4 feet deep invaded the town between 1700 MST and 1830 MST. This surge came northward into the south part of town by way of Dead Horse Canyon Creek. The water and mud rapidly inundated the downtown section of the community. The result was catastrophic losses to homes, businesses, and cars. Vehicles were washed down streets onto lawns and basements flooded. Not including costs associated with automobiles, a preliminary total damage figure of more than \$1.5 million was reported by county and city officials. Rock Springs is located on a 100-year flood plain. At 1815 MST, a storm-related death occurred to a conductor who was on a westbound Union Pacific Railroad engine cab that struck a stationary, empty rail car. The combination of the flooding waters and strong winds caused the car to lean over to the tracks that the engine cab was traveling on.						
8/20/1991	Rock Springs			\$22,500		\$22,500
Description: no details provided.						
8/22/1995	Rock Springs			\$1,000		\$1,000
Description: Thunderstorms produced heavy rain in Dead Horse Canyon. The rainfall caused minor flooding in Rock Springs. In addition, lightning from the thunderstorms knocked out power to a part of Rock Springs, including the airport, for 2.5 hours.						
9/12/1998	Rock Springs					
Description: Primarily western sections of Rock Springs. Water reported to be 4 to 5 feet deep in some areas. Estimated rainfall of 1 to 2 inches in less than an hour over a small area, caused by slow-moving, intense thunderstorms.						

Source: Wyoming Multi-Hazard Mitigation Plan, 8.53-8.56.

Hazard #2: Severe Storms and Tornadoes

Although not significant in relation to other natural hazards, lightning remains a certain danger in Wyoming. Lightning is a sudden electrical discharge released from the atmosphere that follows a course from cloud to ground, cloud to cloud, or cloud to surrounding air, with light illuminating its path. Lightning's unpredictable nature causes it to be one of the most feared weather elements.

In Wyoming, outdoor enthusiasts venturing into high and exposed areas should be especially cautious because rapid thunder-storm development with associated lightning can place even the most experienced climbers in jeopardy without warning. Hikers and climbers above the timberline should plan to be off exposed mountaintops and ridges by 1400 MST during the summer months to avoid being struck by lightning unless proper shelter is available.

Tornadoes are a form of severe storm. Lying just west of "tornado alley", Wyoming is fortunate to experience fewer intense tornadoes than its neighboring states. However, tornadoes remain a significant hazard in the state. Tornadoes are the most intense storm on earth and have been recorded at velocities exceeding 315 miles per hour (mph). Tornadoes, which mimic hurricanes, result in a destructive rotating column of air ranging in diameter from a few yards to greater than a mile. They are usually associated with a downward extension of cumulonimbus cloud.

Table 9.4 shows Wyoming's relative vulnerability to tornadoes.

TABLE 9.4
Wyoming Tornado Damage 1950 to 1994

Statistic	National Rank
Annual Number of Tornadoes	25
Property Damage (\$49,339,505)	36
Fatalities (6 per 1 million people)	33
Injuries	37

Source: Curtis and Grimes, 7.8.

During the citizen participation portion of this *Hazard Mitigation Plan* development, tornadoes were one of the public's major concerns. Though there have been few reported tornadoes in Rock Springs, they do occur in the region and Rock Springs could experience a tornado at any time.

Past Occurrences: Tornado statistics, "especially prior to the 1970s, should be viewed as incomplete since many twisters must have occurred without being witnessed. Wyoming's open rangelands experience little, if any, damage from these storms and parts of the state are sparsely populated so many tornadoes go unnoticed or unreported. In the 1990s, the internet and Doppler radar increased the public's

Though there have been few reported tornadoes in Rock Springs, they do occur in the region and Rock Springs could experience a tornado at any time.

awareness of tornadoes and increased the potential of these storms being observed and reported. However, the trend in annual tornadoes has decreased by one-third since 1976 and appears to have coincided with a major hemispheric weather pattern shift, despite the increased reporting based on Doppler radar vortex (circulation) signatures." (Curtis and Grimes, 7.8).

Impacts:

- ⇒ Loss of life
- ⇒ Loss of property
- ⇒ Loss of income/business interruption
- ⇒ Relocating people
- ⇒ Injuries
- ⇒ Large amounts of debris
- ⇒ Secondary impacts, such as fires and damaged infrastructure
- ⇒ Looting and crimes
- ⇒ Replacement housing

Vulnerability and Frequency: Severe storms will continue to occur in and around Rock Springs. Tornadoes can occur anywhere in the County and all structures could potentially be at risk. Participants at the first public meeting rated tornadoes as a high probability event (high means the event is likely to occur at least once every five years).

Potential Losses: According to the *Wyoming Multi-Hazard Mitigation Plan*, there has been \$332,662 (in 2010 dollars) lost to tornadoes in Sweetwater County (16.3). Dollar amounts due to lightning have not been determined.

Table 9.5 contains an inventory of past severe storm events in the Rock Springs area.

Summary:

- ⇒ Property Impacted: High
- ⇒ Population Impacted: Medium
- ⇒ Probability of Occurrence: High

Hazard #3: Severe Winter Storms

“Severe winter storms affect far more people in Wyoming than their summer counterparts, even though they are inherently less violent. Severe snowstorms are so extensive that they usually require a day or two to cross and completely exit the state. Blizzard conditions bring the triple threat of heavy snowfall, strong winds and low temperatures. Poor visibility and huge snowdrifts are major hazards caused by blowing snow. These storms disrupt work, make travel difficult or impossible, isolate communities, kill large numbers of livestock by the hundreds or thousands, and sometimes leave human fatalities in their wake (*Wyoming Multi-Hazard Mitigation Plan*, 19.1).

Past Occurrences: There have been a few winter storms in Sweetwater County that have caused great damage, economic impact and brought about change in livestock practices. Winter storm data was obtained from the monthly storm data reports issued by the National Oceanic and Atmospheric Administration’s (NOAA) National Climatic Data Center (NCDC). Other sources are unpublished reports from the Wyoming Office of Homeland Security, newspaper accounts and periodicals from public libraries. Loss of human life occurred in 1886-1887, 1888, 1931, 1947, 1950, 1953, 1955, 1961, 1977, and 1980. Damaging winter storms that



A stormy day in Sweetwater County near Rock Springs, Wyoming. Source: Flickrriver.com

have had an impact statewide occurred in 1886-87, 1888, 1931, 1939, 1945, 1947, 1950, 1953, 1955, 1957, 1961, 1965, 1973, 1975, 1977, 1978, 1979, 1980, 1983, 1989, and 1990. (*Wyoming Multi-Hazard Mitigation Plan*, 19.6-19.34).

Impacts:

- ⇒ Loss of life / Injury
- ⇒ Loss of utilities (gas, electric, water, wastewater, etc.)
- ⇒ Business interruption
- ⇒ Food shortages
- ⇒ Medication shortages
- ⇒ Transportation interruption
- ⇒ Loss of emergency response access
- ⇒ Stranded people (mine workers, locals, travelers)
- ⇒ Increased risks to emergency responders
- ⇒ Injuries associated with loss of utilities

Vulnerability and Frequency: Participants at the planning meetings rated winter storms as high probability events (occurring at least once every five years). All areas of the County are vulnerable to blizzards.

Table 9.6 contains a summary of past severe winter storm occurrences in the area.

Summary:

- ⇒ Property Impacted: Medium
- ⇒ Population Impacted: High
- ⇒ Probability of Occurrence: High

TABLE 9.5
Severe Storm Occurrences

Location	Date	Type	Magnitude
Sweetwater Co.	7/31/1957	Thunderstorm Wind	60 knots
Sweetwater Co.	6/9/1960	Tornado	F0
Sweetwater Co.	8/22/1968	Thunderstorm Wind	80 knots
Sweetwater Co.	7/12/1969	Thunderstorm Wind	55 knots
Sweetwater Co.	9/3/1969	Thunderstorm Wind	50 knots
Sweetwater Co.	6/27/1970	Thunderstorm Wind	50 knots
Sweetwater Co.	9/8/1970	Thunderstorm Wind	50 knots
Sweetwater Co.	7/28/1973	Thunderstorm Wind	50 knots
Sweetwater Co.	9/9/1973	Tornado	F1
Sweetwater Co.	11/12/1973	Thunderstorm Wind	59 knots
Sweetwater Co.	6/19/1974	Thunderstorm Wind	60 knots
Sweetwater Co.	6/27/1974	Tornado	F1
Sweetwater Co.	7/16/1978	Thunderstorm Wind	53 knots
Sweetwater Co.	7/31/1978	Tornado	F1
Sweetwater Co.	8/13/1978	Thunderstorm Wind	61 knots
Sweetwater Co.	8/14/1979	Tornado	F0
Sweetwater Co.	8/14/1979	Tornado	F0
Sweetwater Co.	8/14/1979	Tornado	F0
Sweetwater Co.	8/8/1980	Hail	0.75 inches
Sweetwater Co.	6/25/1981	Thunderstorm Wind	54 knots
Sweetwater Co.	6/14/1982	Tornado	F0
Sweetwater Co.	7/21/1987	Hail	0.75 inches
Sweetwater Co.	8/11/1987	Thunderstorm Wind	55 knots
Sweetwater Co.	5/13/1988	Thunderstorm Wind	54 knots
Sweetwater Co.	5/25/1988	Thunderstorm Wind	52 knots
Sweetwater Co.	5/10/1989	Thunderstorm Wind	50 knots
Sweetwater Co.	5/30/1989	Tornado	F0

Location	Date	Type	Magnitude
Sweetwater Co.	5/30/1989	Tornado	F0
Sweetwater Co.	7/12/1989	Hail	0.75 inches
Sweetwater Co.	9/17/1989	Thunderstorm Wind	52 knots
Sweetwater Co.	6/15/1990	Thunderstorm Wind	50 knots
Sweetwater Co.	7/24/1990	Tornado	F0
Sweetwater Co.	8/1/1990	Thunderstorm Wind	55 knots
Sweetwater Co.	8/1/1990	Thunderstorm Wind	55 knots
Sweetwater Co.	8/4/1990	Tornado	F0
Sweetwater Co.	9/9/1991	Tornado	F0
Sweetwater Co.	4/17/1992	Thunderstorm Wind	54 knots
Sweetwater Co.	5/15/1992	Tornado	F0
Sweetwater Co.	7/5/1992	Thunderstorm Wind	63 knots
Sweetwater Co.	8/3/1992	Thunderstorm Wind	50 knots
Sweetwater Co.	12/30/1992	Thunderstorm Wind	78 knots
WYZ64>67 69>71	1/20/1993	High Winds	0 knots
Rock Springs	5/5/1994	Thunderstorm Winds	0 knots
Sweetwater Co.	5/31/1994	Thunderstorm Winds	0 knots
Sweetwater Co.	5/25/1995	Tornado	F0
Sweetwater Co.	6/2/1995	Funnel Cloud	N/A
Sweetwater Co.	8/6/1995	Lightning	N/A
Sweetwater Co.	8/22/1995	Flash Flooding	N/A
Sweetwater Co.	9/4/1995	Thunderstorm Wind	52 knots
Sweetwater Co.	9/4/1995	Thunderstorm Wind	0 knots
Sweetwater Co.	9/4/1995	Thunderstorm Wind	50 knots
Airport	8/1/1996	Thunderstorm Wind	64 knots
Airport	6/10/1997	Tornado	F0
Rock Springs	8/5/1997	Funnel Cloud	N/A

TABLE 9.5
Severe Storm Occurrences continued...

Location	Date	Type	Magnitude
Rock Springs	6/8/1998	Funnel Cloud	N/A
Rock Springs	9/12/1998	Urban/Small Stream Flood	N/A
Rock Springs	5/16/2000	Dry Microburst	N/A
Rock Springs	6/5/2000	Dry Microburst	N/A
Airport	6/27/2000	Dry Microburst	N/A
Rock Springs	8/1/2000	Dry Microburst	N/A
Rock Springs	8/10/2000	Wild / Forest Fire	N/A
Rock Springs	6/12/2001	Thunderstorm Wind	52 knots
Rock Springs	6/12/2001	Thunderstorm Wind	55 knots
Wamsutter	6/12/2001	Thunderstorm Wind	61 knots
Rock Springs	7/6/2001	Hail	0.75 inches
Rock Springs	7/6/2001	Wild / Forest Fire	N/A
Airport	7/27/2001	Thunderstorm Wind	56 knots
Airport	8/18/2001	Thunderstorm Wind	50 knots
Airport	9/16/2001	Thunderstorm Wind	50 knots
Superior	4/13/2002	Wild / Forest Fire	N/A
Rock Springs	6/1/2002	Thunderstorm Wind	52 knots
Rock Springs	7/26/2002	Wild / Forest Fire	N/A
Rock Springs	8/11/2002	Wild / Forest Fire	N/A
Rock Springs	6/24/2003	Tornado	F0
Rock Springs	6/24/2003	Thunderstorm Wind	50 knots
WYZ030	3/6/2004	High Wind	43 knots
Rock Springs	7/22/2005	Thunderstorm Wind	65 knots
Rock Springs	10/20/2006	Hail	0.75 inches
WYZ030	2/16/2007	High Wind	54 knots
Thayer Jct	8/2/2007	Flash Flood	N/A
Wamsutter	8/22/2007	Thunderstorm Wind	55 knots

Location	Date	Type	Magnitude
WYZ030	1/4/2008	High Wind	37 knots
WYZ030	1/15/2008	High Wind	38 knots
WYZ030	1/29/2008	High Wind	38 knots
WYZ028 - 030	2/13/2008	Blizzard	N/A
WYZ030	3/26/2008	High Wind	52 knots
WYZ030	11/13/2008	High Wind	55 knots
WYZ030	1/7/2009	High Wind	63 knots
WYZ015 - 030	4/3/2009	Blizzard	N/A
Wamsutter	4/25/2009	Funnel Cloud	N/A
Wamsutter	4/25/2009	Thunderstorm Wind	56 knots
Airport	6/13/2009	Thunderstorm Wind	50 knots
Airport	8/6/2009	Thunderstorm Wind	52 knots
WYZ030	3/30/2010	High Wind	59 knots
WYZ030	4/3/2010	High Wind	50 knots
WYZ030	4/6/2010	High Wind	40 knots
WYZ030	5/4/2010	High Wind	53 knots
WYZ030	5/28/2010	High Wind	54 knots
Airport	6/10/2010	Thunderstorm Wind	58 knots
South Baxter	7/10/2010	Thunderstorm Wind	53 knots
Airport	8/28/2010	Thunderstorm Wind	52 knots
Airport	8/29/2010	Thunderstorm Wind	55 knots
Airport	9/9/2010	Thunderstorm Wind	66 knots
Airport	10/6/2010	Thunderstorm Wind	66 knots
WYZ030	11/16/2010	High Wind	56 knots

TABLE 9.6
Severe Winter Storm Occurrences

Date	Location	Deaths	Injury	Property Damage	Crop
3/20-3/21/1952	Sweetwater County				
Description: Heavy snow over Southern Wyoming on the 20th and 21st blocked Highway 30 between Rawlins and Rock Springs causing a number of motorists to be stranded.					
3/5-3/6/1983	Sweetwater County			\$2,750	
Description: A major winter storm deposited a blanket of snow varying from 4 to 16 inches over east and south Wyoming stranding over 250 travelers in Laramie alone. All roads in and out of Cheyenne and Laramie were closed with additional closures between Rawlins and Evanston. Winds averaging 25 mph and gusting to near 40 mph in many areas caused ground blizzards.					
4/12-4/13/1983	Statewide				
Description: A two-day storm buried most of the state with 6 to 15 inches of snow. Some mountain locations near Casper received up to 2.5 feet of snow. In addition, north winds of 25 to 40 mph caused near blizzard conditions mainly in the southwest and southeast with many roads closed. Power also was interrupted for up to 6 hours in quite a few areas of the state.					
5/11/1983	Statewide				
Description: A spring snowstorm swept through northern, central, and western Wyoming dumping an average of 6 to 12 inches of snow. Up to 18 inches fell in some western mountain towns. Near blizzard conditions occurred in southwest Wyoming as northeast winds of 30 to 40 mph whipped up 2 to 4 foot drifts. At least two interstate highways were closed for a period of time, and lots of traffic accidents were reported across the state.					
12/8-12/9/1985	Southwest Wyoming				
Description: Accumulations of 6 to 12 inches were common through Lincoln, Sweetwater and Carbon counties during a snowstorm. In Lincoln County, Kemmerer got 21 inches and LaBarge received 18 inches. Rock Springs, in Sweetwater County, got 12 inches of snow. Winds gusting to 50 mph from Rawlins to Rock Springs, on the 9th, caused blizzard conditions and shut down most of the roads in the southwest part of the state.					
2/18/1986	Sweetwater County			\$2,750	
Description: High winds and heavy, wet snow at Rock Springs caused numerous power outages due to downed lines.					
1/10/1993	Southwest Wyoming				
Description: A moist winter storm continued to engulf southwest Wyoming during the day and night. Snow amounts included 10 inches in Rock Springs and 6 to 8 inches additional snow in the Evanston area. South Pass City collected 4.5 inches of new snow. I-80 in southwest Wyoming was closed most of the day.					
1/17/1996	Rock Springs			\$4,000	
Description: Six to 12 inches of snow fell in parts of southwestern Wyoming. The greatest amount was 11 inches at the Rock Springs airport. Many accidents were reported and power was interrupted in the Rock Springs area.					
1/20-1/21/1996	Rock Springs				
Description: Winds were sustained between 40 and 50 mph from Jeffrey City and Casper, southeast to just east of the Laramie Mountains. Wind gusts were between 55 and 65 mph, with the strongest gust being 71 mph, 10 miles south of Wheatland between 1753 and 1909 MST. Highway 191, south of Rock Springs was closed due to blowing snow from 2300 to 0600 MST.					
1/24/1996	Rock Springs				
Description: Strong winds and heavy snowfall created blizzard conditions in southwest and south central Wyoming. Winds gusted to around 50 mph over the area. Snowfall was from 12 to 18 inches in Evanston, with 3 to 6 inches over the rest of the area. Many roads, including I-80 in the southwest corner, were closed due to the snow and blowing and drifting snow. A number of travelers were stranded in the southwest corner. Some snowplows in the area even became stuck and stranded due to the poor conditions.					
3/23/1996	Rock Springs				
Description: Heavy snow fell in parts of western Wyoming. The largest amounts were 20 inches at Sinks Canyon (Fremont County) and 22 inches at Pinedale. In addition, 10 inches at Lander, 9 inches at Mountain View and 15 inches at Thermopolis. I-80 was closed for a time between Fort Bridger and Evanston due to the snowfall. Power was out during much of the time in parts of the SW corner of the state.					
10/25-10/26/1996	Rock Springs				
Description: Around 6 inches of snow was received. Strong winds caused blowing and drifting of snow and closure of I-80 with numerous accidents.					
10/23-10/25/1997	Rock Springs				
Description: Winter storm spanned three days and moved from western Wyoming late on the 23rd to eastern Wyoming on the 25th. Snowfall amounts approached 1.5 feet in some locations, with the greatest amounts on northeast-facing slopes and eastern foothills. Sinks Canyon, near Lander, received 17 inches of snow; Lander, 16 inches; South Pass, 15 inches; along the South Fork of the Shoshone River southwest of Cody, 11 to 13 inches; Casper, 8 to 12 inches; extreme southwest Sweetwater County, 12 inches. In addition, blizzard conditions prevailed across Sweetwater County on the 24th, with I-80 and many county roads closed.					

Source: Wyoming Multi-Hazard Mitigation Plan, 19.10-19.65.

TABLE 9.6

Severe Winter Storm Occurrences continued...

Date	Location	Deaths	Injury	Property Damage	Crop
3/17-3/18/1998	Rock Springs				
Description: Heavy snow, considerable blowing and drifting across parts of southwestern and central Wyoming. Schools, businesses and roads closed in Fremont, Hot Springs and Sweetwater counties. First time some schools had been closed for many years in Fremont County. Power outages in sections of Fremont County. Five- to 6-foot drifts reported in parts of Sweetwater County, with I-80 closed until the morning of the 19th.					
4/22-4/23/1999	Sweetwater County				
Description: Second major spring storm of the month in the Lander Foothills and Wind River Basin area, with record one-day snowfall at Lander of 29 inches on the 22nd. Storm total at Lander was 53 inches, which was also a record. More than 4 feet of snow fell in Sinks Canyon west of Lander. Other storm totals included 23 inches in Hudson and 22 inches in Riverton. Many roads were closed due to poor visibility caused by falling and blowing snow. Downed power lines and power outages were widespread.					
2/7/2001	Rock Springs				
Description: Heavy snow fell in a swath from south-central into east-central Wyoming, with as much as 11 to 13 inches of snow reported in Rawlins and 6 to 7 inches in Douglas. A 250-mile stretch of I-80 was closed for much of the day between Laramie and Rock Springs, with many secondary roads also closed.					
5/3/2001	Rock Springs				
Description: Four to 6 inches of snow, very strong winds sustained between 40 and 60 mph with gusts to more than 80 mph. Visibilities near zero in many areas. Most roads in Sweetwater County (including I-80) closed most of the day. Large pine trees, fences, and power lines were blown down in Rock Springs and Green River.					
2/1-2/2/2003	Rock Springs				
Description: A vigorous upper level disturbance moving through the central Rockies coupled with strong, moist upslope flow resulted in a significant winter storm. The snow was heaviest across central and southwestern Wyoming. Snowfall amounts ranged from 12 to 20 inches in the mountains to 6 to 14 inches in the lower elevations. The wind and snow produced blizzard conditions across Sweetwater County during the late morning and afternoon of February 2, causing numerous accidents along I-80. Also, I-80 was closed for a period of time, east of Rock Springs. A wind gust of 61 mph was reported at the Rock Springs Airport on February 2 at 1218 MST.					
10/29-10/31/03	Rock Springs	2	100		
Description: A strong autumn snowstorm brought widespread heavy snow to much of western and central Wyoming. Some parts of this region received anywhere from 1 to 3 feet of snow. The most concentrated area of heavy snow was observed from the southern Wind River Mountains, including Lander, east to Riverton, Casper, and Casper Mountain. Roads became treacherous bringing travel to a halt across much of the area. Two highways in southwest Wyoming were closed: U.S. 191 west of Rock Springs and U.S. 189 east from Kemmerer to Wyoming Highway 372 near Fontenelle Reservoir. Two people were killed in separate accidents when their automobiles slid off the roadway. Additional traffic-related accidents totaled 396, with about 100 people reporting injuries.					
2/26-2/29/2004	Sweetwater County				
Description: Two potent winter storms dropped heavy snow across western and central Wyoming. General snowfall accumulations ranged from 3 to 6 inches in the lowest elevations of southwest Wyoming, increasing to 9 to 12 inches in lower elevations of central Wyoming. Upwards of 2 feet of snow fell in the Wyoming, Salt, Wind River and Big Horn Mountains. Snowfall combined with some areas of 20 to 30 mph wind and created difficult traveling conditions.					
11/27-11/28/04	Sweetwater County				
Description: A strong Pacific storm system dumped 12 to 16 inches across the higher terrain of central Wyoming. Lower elevations received 4 to 8 inches of snow. In Sweetwater County, very strong winds closed several federal and state highways as significant areas of blowing and drifting snow created whiteout conditions.					
1/7-1/9/2005	Sweetwater County			\$5,000	
Description: A strong Pacific storm system dropped very heavy snow across western Wyoming. Snowfall amounts of 2 to 3 feet were common above 8000 feet. Lower elevations west of the Continental Divide received 1 to 2 feet of snow through the period. Snowfall combined with wind gusts to 40 mph dropped surface visibilities to near zero in some areas creating treacherous traveling conditions.					
12/1-12/2/2005	Sweetwater County				
Description: A strong Pacific storm system dumped 15 to 25 inches of snow across the mountains of western Wyoming through the period. Western valley locations received 6 to 12 inches of snow by storm's end. Snowfall combined with wind gusts to 40 mph at ridge-top, dropping surface visibilities to near zero in mountain passes and created treacherous traveling conditions.					
2/15-2/16/2006	Sweetwater County		1		
Description: A major late-winter storm inundated western and central Wyoming with 12 to 20 inches of mountain snowfall and 8 to 14 inches in most basin locations. Snow began to accumulate during the early morning hours of February 15th and wound down early on the 16th. Schools in Natrona County were closed on the 16th due to unsafe roadways. The decision to cancel classes due to weather is rare in the Casper area. However only one injury was reported, when a firefighter was hit by a sliding car while responding to another accident.					

Source: Wyoming Multi-Hazard Mitigation Plan, 19.10-19.65.

Hazard #4: Subsidence

Wyoming is the top coal producer in the nation. Total coal production was 442.5 million short tons in 2010. Coal-fired electrical power plants comprise some 50% of the nation's inventory, with Wyoming coal supplying 30% of the coal for electrical generation ("Coal").

Subsidence has been a concern in Rock Springs since miners started producing coal for the railroad in the late 1800s. As mines have been abandoned and the population has increased, there have been many more conflicts. Homes built on or near abandoned mines have experienced foundation problems, and some homes have been completely lost. Map 9.3 shows the undermined and subsidence areas in the City of Rock Springs.

Past Occurrences: "Coal-mine subsidence has been threatening select areas of Wyoming since the onset of mining in the 1860s." (*Wyoming Multi-Hazard Mitigation Plan, 14.1*) According to Map 9.3, a significant amount of underground coal mining took place in the Rock Springs area, however, most developed areas of the City have been mitigated for subsidence or have low subsidence risk. The *Wyoming Multi-Hazard Mitigation Plan* indicates subsidence is a problem in Rock Springs, Hanna, Glenrock, Superior, Reliance, Evanston, Sheridan and Gillette (14.1).

Impacts:

- ⇒ Injury
- ⇒ Loss of life
- ⇒ Damage to and loss of property and infrastructure

Vulnerability and Frequency: The Wyoming Department of Environmental Quality's (DEQ's) Abandoned Mine Land (AML) Division started dynamic compaction work in Rock Springs in July 2007. Dynamic compaction consists of dropping 25-ton weights on top of abandoned mine shafts to help fill them inches. This practice was discontinued as residents in the vicinity of the compaction project complained they were experiencing high levels of damage to their homes.

The current practice for abandoned mine mitigation is to utilize "grouting", or injecting concrete, into the abandon mines in order to provide greater stability.



Wyoming Coke & Coal Company Mine, Rock Springs, WY.
Source: www.miningartifacts.org

Homes built on or near abandoned mines have experienced foundation problems, and some homes have been completely lost.

Potential Losses: The dollar amounts of damage due to subsidence are not readily available. An indirect measure of the impacts is the existing cost of mitigating the hazards. AML has spent \$85 million through 2007 mitigating the effects of mine subsidence as well as for mine reclamation throughout the state (*Wyoming Multi-Hazard Mitigation Plan, 14.1*).

Summary:

- ⇒ Property Impacted: Medium
- ⇒ Population Impacted: Medium
- ⇒ Probability of Occurrence: Medium

Hazard #5: Landslides

"Landslides are one of the most common geologic hazards in Wyoming." (*Wyoming Multi-Hazard Mitigation Plan, 11.1*) While landslides have occurred in all of the nation's states, coastal areas and mountainous regions are particularly vulnerable to slides. Nationwide, landslides cause some \$3.5 billion in damage annually (2001 dollars) and cause anywhere from 25 to 50 deaths (Highland, 1).

"The term 'landslide' describes a wide variety of processes that result in the downward and outward movement of slope-forming materials including rock, soil, artificial fill, or a combination of these" (Highland, 1). Landslides can be classified into five basic types: falls, topples, slides, lateral spreads and flows, with these basic types having subcategories. Figure 9.1 illustrates the various types of slides and includes subcategories.

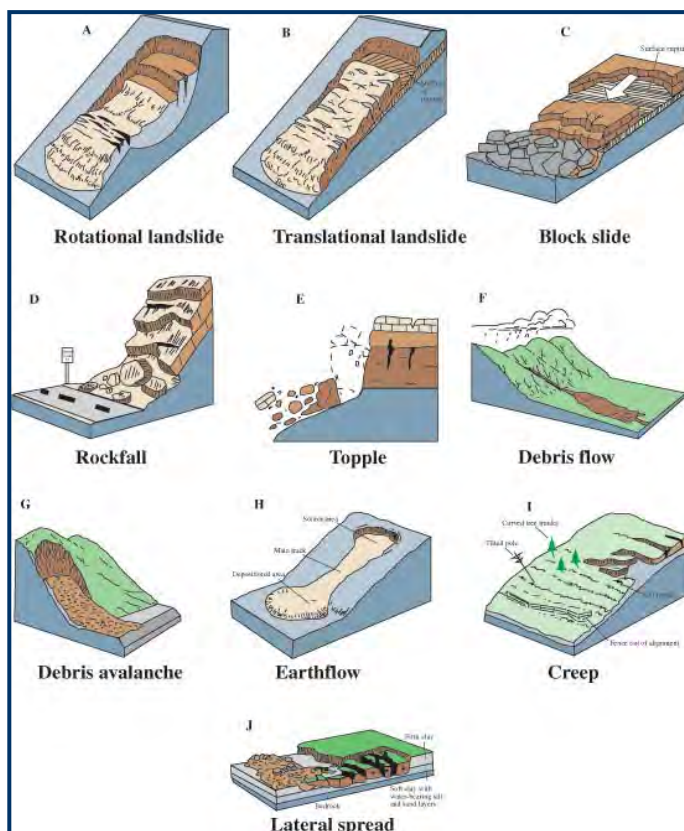


Figure 9.3: Landslide Types, Highland, 3.

Landslides are caused by a variety of factors, which may work in combination, and are grouped into three categories: geological, morphological and human. Geological causes include: weathered materials, weak or sensitive materials and sheared, jointed or fissured materials. Freeze and thaw weathering, tectonic or volcanic uplift and vegetation removal by fire/drought are among the morphological causes for landslides. Human causes include: excavation, drawdown of reservoirs, deforestation, irrigation and mining (Highland, 2)

Past Occurrences: While there is no written record of landslides occurring in Rock Springs, numerous slides have occurred in Sweetwater County. Any place containing the

underlying geological, morphological or human factors associated with landslides can be susceptible to slides.

Impacts:

- ⇒ Property damage to structures and vehicles
- ⇒ Damage to infrastructure to roads, railroad track and pipelines
- ⇒ Injury
- ⇒ Loss of life
- ⇒ Flash flooding when creeks are dammed by landslides, subsequent dam bursts

Vulnerability and Frequency: The probability of a landslide causing damage in Rock Springs is difficult to determine because of the lack of historical data. There are many steep slopes within the City. Monitoring development on those areas is valuable to the safety of the community.

Potential Losses: According to the *Wyoming Multi-Hazard Mitigation Plan*, the potential for damage to buildings in Sweetwater County from landslides is \$623,120 (11.8). Damage from any given landslide is likely to be highly localized and less costly than the total figure of vulnerable buildings. However, in addition to buildings, other infrastructure could be at risk, and, if affected, cause indirect losses associated with interruption of business and transportation. Although unlikely, if railroad or interstate highway operations are impacted, losses could be significant.

Summary:

- ⇒ Property Impacted: Medium
- ⇒ Population Impacted: Low
- ⇒ Probability of Occurrence: Medium

Hazard #6: Drought

The *Wyoming Multi-Hazard Mitigation Plan* lists drought among the state's most costly weather-related disasters (5.1). Drought is a period in which a region has a deficit in its water supply. Drought "indirectly kills more people and animals than the combined effects of hurricanes, floods, tornados, blizzards and wildfires. The 1980 and 1988 droughts in the U.S. resulted in approximately 17,500 heat-related deaths and an economic cost of over \$100 billion." (*Wyoming Multi-Hazard Mitigation Plan*, 5.1)

There are four stages of drought. The first stage is known as a meteorological drought, which occurs when there is a precipitation shortfall of 75 percent of normal for three months or longer. The second stage is an agricultural drought, which, as the name implies, results in stress to plants due to low soil moisture. The third stage is a hydrological drought, which results when there is reduced flow into streams and reservoirs. The final stage is a socioeconomic drought. During this drought stage, impacts are felt by humans.

Drought can be particularly prevalent in drier states such as Wyoming. “Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring.” (“Wyoming Basin Outlook Report”, 1). Across Wyoming, the snow water equivalent (SWE) was well below average as of June 1, 2012. In the southwestern portion of the state, SWE was at 17% of average (“Wyoming Basin Outlook Report”, 2).

Further, “Wyoming is the 5th driest state in the Union, and drought is a constant threat in our region.” (“Drought”, 1). In Rock Springs, precipitation is more concentrated in the summer months, with 59.5 percent of the average annual total of 8.56 inches occurring from April to September. This seasonal concentration can easily be seen on the Climate Graph in Figure 9.2. (“2011 Climate Summary”, 5)

Because of a precipitation concentration that coincides with the warmest season, drought conditions are often made worse by high temperatures, high winds, low humidity and greater sunshine. All of these factors contribute to increased evaporation and transpiration and result in reduced soil infiltration, runoff, deep percolation, and groundwater recharge.

According to Curtis and Grimes, drought conditions are experienced “more than 20% of the time over the southwest regions of the state.” (3)

Past Occurrences: From 1999-2009, Rock Springs, Sweetwater County and most of the State of Wyoming suffered from a persistent drought, though 2010 and 2011 brought some relief. As of June 12, 2012, Sweetwater County was considered to be in a severe drought status (Miskus, 1).

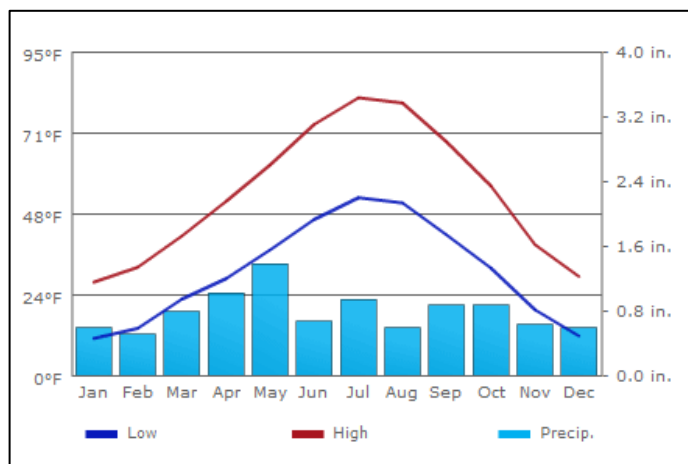


Figure 9.4: Rock Springs Climate Graph.

Source: “Climate—Rock Springs—Wyoming”, 1.

TABLE 9.7

Wyoming Recent, Multi-Year, Statewide Droughts

Drought Period	% of 1895-2006 Average Annual Precipitation (13.04")
1952-1956	81.69%
1900-1903	82.52%
1999-2004*	84.89%*
1987-1990	85.28%
1958-1964	89.49%
1974-1977	90.26%
1931-1936	90.41%

*Does not include 2005-2009 data.

Source: *Wyoming Multi-Hazard Mitigation Plan*, 5.6.

Several other notable periods of statewide drought have occurred as depicted in Table 9.7.

Impacts:

- ⇒ Economic losses to agricultural producers (crops & livestock)
- ⇒ Physical and mental health issues in those suffering losses
- ⇒ Water supply interruption for business and industry
- ⇒ Water quality problems
- ⇒ Reduced soil and vegetation moisture
- ⇒ Vegetation mortality, insect infestations
- ⇒ Impacts to fish and wildlife populations
- ⇒ Increase in wildland fires and associated losses

Vulnerability and Frequency: Sweetwater County remains vulnerable to drought. Sweetwater County can expect to be in severe or extreme drought 15 to 20 percent of the time. Rock Springs, while within the Sweetwater County drought area, will likely experience a much lower level of vulnerability, as agriculture is not considered an urban land use.

Potential Losses: Based upon the precipitation record from 1895 to 2006, there has been an increasing trend toward periods of drought for the state. Normal precipitation in a single year does not eliminate the drought status. There were significant impacts on the agricultural industry from the 1999-2009 drought, with the value of production for all commodities remaining relative stagnant over the decade. (*Wyoming Multi-Hazard Mitigation Plan*, 5.13).

"The snow water equivalent (SWE) across Wyoming is well below average for June 1st at 39%. Year to date precipitation for Wyoming basins varies from 70-112% of average. Forecasted runoff varies from 9-116% of average across the Wyoming basins for an overall average of 63%. ("Wyoming Basin Outlook Report", 2).

Summary:

- ⇒ Property Impacted: Low
- ⇒ Population Impacted: Low
- ⇒ Probability of Occurrence: High

Hazard #7: Extreme Heat

Wyoming has a relatively cool climate and ranks 46th in the U.S. with an annual average of 42°F. ("Average Annual Temperature", 2) Above the 6,000-foot level, the temperature rarely exceeds 100°F. The warmest parts of the state are the lower portions of the Bighorn Basin, the lower elevations of the central and northeast and along the state's eastern border. The highest temperature ever recorded in Wyoming was on July 12, 1900, with the thermometer reading 116°F near Rock Springs at Bitter Creek in Sweetwater County. (Curtis and Grimes, 3.1)

The Heat Stress Index is a measure of the combined effects of high temperature and high humidity on humans. The human body normally cools itself through perspiration. As perspiration evaporates into the surrounding atmosphere, it

The highest temperature ever recorded in Wyoming was on July 12, 1900, with the thermometer reading 116°F near Rock Springs.

produces a cooling effect. When the humidity level is high, the surrounding atmosphere is carrying a large amount of water vapor and is unable to absorb additional water from the human body. Therefore, perspiration is unable to have its typical cooling effect and the human body can become stressed.

"The combined effects of temperature and humidity cannot be directly measured but can be assessed by calculation of an 'apparent temperature'". ("U.S. Heat Stress Index", 1) This apparent temperature is not the same as the Heat Index used by the National Weather Service, because that measure does not look at temperatures below 80°F. The Heat Stress Index, or maximum apparent temperature, for Rock Springs is 81.6°F.

Past Occurrences: Using a dataset containing temperature data from 1948 to 2011 and compiled by the National Climatic Data Center, Rock Springs has experienced temperatures exceeding this threshold on numerous occasions, with an average of 7 days higher than the maximum in July, 1 day in June and almost 4 days in August. It should be noted that the weather station where the Rock Springs data is collected is located at the Rock Springs-Sweetwater County Airport at an elevation of 6,745 feet above mean sea level. Since the City proper is located 357 feet lower, at 6,388 feet, higher temperatures can be expected in town. However, the Heat Stress Index would likely be slightly higher, as well.

Impacts:

- ⇒ Fatigue possible with prolonged exposure
- ⇒ Sunstroke, heat cramps
- ⇒ Heat stroke
- ⇒ Agricultural losses

Vulnerability and Frequency: Extreme heat conditions are exceeded on average about a dozen days per year, primarily in July and August.

Potential Losses: There are very few losses associated with extreme heat (infrastructure, buildings and life). The main goal is to understand the needs of people in and around Rock Springs as they recreate in the summer months.

Summary:

- ⇒ Property Impacted: Low
- ⇒ Population Impacted: Low
- ⇒ Probability of Occurrence: Medium

Hazard #8: Wildland Fire

“Wyoming’s semi-arid climate and rural character make the state vulnerable to catastrophic wildland fires, which comprise more than 50 percent of all fires in Wyoming.” (*Wyoming Multi-Hazard Mitigation Plan, 17.1*) A “wildland fire” is any non-prescribed, non-structure fire that occurs in the wild. As the population of Rock Springs grows, the contact area between urban and non-urban uses increases, thereby increasing the risk of wildland fires.

Over the course of the past decade, Rock Springs experienced a 23 percent population growth rate. This increase translates to more houses, apartments and commercial structures that can potentially be impacted by wildland fires.

Because of the general lack of forested land in Sweetwater County, it does not rank in the top 10 counties in the state in terms of existing or potential risk from wildland fires. However, in terms of building exposure values, the county ranks 9th in the state. The total estimated damage for the entire state of Wyoming is more than \$8.5 billion. Sweetwater County has \$279,772,342 in wildland fire building exposure values. (*Wyoming Multi-Hazard Mitigation Plan, 17.14*).

Past Occurrences: Fuel characteristics of the undeveloped areas of Rock Springs are light surface fuels consisting of grasses, sage brush, rabbit brush and grease wood. These types of fuels burning in the right conditions would create a hot, fast burning fire which could create several logistical and public safety hazards in the wildland/urban interface areas. There are approximately 6-8 wildland fires per year in the area surrounding Rock Springs consuming a total area of less

than one acre. However, continued growth of the wildland/urban interface, coupled with overall windy conditions and an increasing drought, makes wildland fires in and around Rock Springs a growing hazard to the public.

Impacts:

- ⇒ Loss of life (human; livestock and wildlife in non urban areas.)
- ⇒ Loss of property
- ⇒ Evacuations

Summary:

- ⇒ Property Affected: Medium
- ⇒ Population Affected: Low
- ⇒ Probability of Occurrence: Low

Hazard #9: Earthquake

“An earthquake is generally defined as a sudden motion or trembling in the Earth caused by the abrupt release of slowly accumulated strain.” (*Wyoming Multi-Hazard Mitigation Plan, 6.1*) Most earthquakes are caused by movements along fault lines or by volcanic forces.

While every county in the state of Wyoming has experienced earthquakes, historically, the largest concentration is in the northwest corner of the state, in and around Yellowstone National Park. In fact, the first reported earthquake in Wyoming was in the Park in 1871, which is not surprising as this area is considered to be one of the more seismically active areas in the country. (*Wyoming Multi-Hazard Mitigation Plan, 6.1*).

Earthquakes are measured in terms of magnitude or intensity. Table 9.8 contains a comparison between the Richter Scale (magnitude) and the Modified Mercalli Intensity Scale.

Past Occurrences: According to Case, Toner, and Kirkwood, earthquakes have been reported in and around Rock Springs, though some may have been attributed to mine collapse. Countywide, excluding the trona mine region west of Green River, there have been roughly 30 earthquakes recorded with a magnitude of 2.0 or more. (1-5) Table 9.9 relies heavily on the Case, Toner & Kirkwood publication to provide an historical record of earthquakes in and around

TABLE 9.8

Earthquake Magnitude/Intensity Comparison

Magnitude	Typical Maximum Modified Mercalli Intensity	Perceived Shaking
1.0 - 3.0	I	Not felt
3.0 - 3.9	II - III	Weak
4.0 - 4.9	IV - V	Light - Moderate
5.0 - 5.9	VI - VII	Strong – Very Strong
6.0 - 6.9	VII - IX	Very Strong - Violent
7.0 and higher	VIII or higher	Severe - Extreme

Source: "Magnitude / Intensity Comparison", 1.

Rock Springs. Intensities have been assigned to the older earthquakes where magnitude data is not available.

Seismic Site Class:

The 2006 International Building Code classifies Rock Springs as Seismic Site Class B.

Impacts: Potential impacts are taken from the Abbreviated Modified Mercalli Intensity Scale. ("Magnitude / Intensity Comparison", 1) The Mercalli Intensity scale values (I-XII) and description are included below:

- I. Not felt except by a very few under especially favorable circumstances.
- II. Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.
- III. Felt quite noticeably indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing automobiles may rock slightly. Vibration is comparable to passing of a truck.
- IV. During the day felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, doors disturbed; walls make creaking sound. Sensation like heavy truck striking building. Standing automobiles rocked noticeably.
- V. Felt by nearly everyone, many awakened. Some dishes,

windows, and so on broken; plaster cracked in a few places; unstable objects overturned. Disturbance of trees, poles and other tall objects sometimes noticed. Pendulum clocks may stop.

- VI. Felt by all, many are frightened and run outdoors. Some heavy furniture moved; a few instances of fallen plaster and damaged chimneys. Damage slight.
- VII. Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving cars.
- VIII. Damage slight in specially designed structures; considerable in ordinary substantial buildings with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving cars disturbed.
- IX. Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substandard buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.
- X. Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from riverbanks and steep slopes. Shifted sand and mud. Water splashed, slopped over banks.
- XI. Few, if any, (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.
- XII. Damage total. Waves seen on ground surface. Lines of sight and level distorted. Objects thrown into the air.

Vulnerability and Frequency: Rock Springs, like most of Sweetwater County, is not located in a high risk seismic zone. There are no exposed known or suspected active faults in the vicinity of the City, though some are present within Sweetwater County. "Because of the limited historic record, it is possible to underestimate the seismic hazard in Sweetwater County if historic earthquakes are used as the sole basis for analysis." (Case, Toner and Kirkwood, 17).

TABLE 9.9
Recorded Earthquakes in Sweetwater County with a Magnitude Greater Than 2.0
(excluding trona mining area)

Date	Intensity/Magnitude	Damage
4/28/1888	IV	No Appreciable
Description: The first earthquake ever felt and recorded in Sweetwater County, this earthquake originated near Rock Springs.		
7/25/1910	V	Mine Collapse
Description: The earthquake coincided with a partial collapse of the Union Pacific No. 1 mine in Rock Springs. It is uncertain whether the mine collapse was caused by the earthquake, or if the earthquake was caused by the mine collapse.		
7/28/1930	IV	Mine Collapse
Description: This earthquake had an epicenter near Rock Springs and was felt in Rock Springs and Reliance. Residents were awakened by the event and reported movement of goods on store shelves. A portion of the Reliance mine collapsed. As with the 1910 quake, it is unclear whether it was the mine collapse that caused the earthquake or the reverse.		
3/21/1942	III	No Appreciable
Description: This non-damaging quake was felt in the Rock Springs area.		
9/14/1946	IV	No Appreciable
Description: Unavailable.		
10/25/1947	Not assigned	No Appreciable
Description: This small earthquake occurred southeast of Rock Springs, with no assigned magnitude or intensity.		
9/24/1948	IV	No Appreciable
Description: Two earthquakes occurred in the Rock Springs area, rattling dishes in portions of the City. The <i>Casper Tribune-Herald</i> reported on Sept 27, 1948 that local residents thought the events may have been caused by a mine cave-in.		
2/21/1951	III	None Reported
Description: The location of this quake is uncertain, with USGS records indicating it occurred in Sublette County. USGS has tentatively assigned the epicenter in northwestern Sweetwater County, 28 miles north-northwest of Granger..		
10/3/1956	IV	No Appreciable
Description: Located in western Sweetwater County roughly 7 miles southwest of Little America, this quake caused windows, doors and dishes to rattle in Opal. Reports indicate loud "earth noises" were heard from the west prior to the quake.		
10/14/1963	4.5	None Reported
Description: Located in northeastern Sweetwater County, roughly 30 miles southeast of Atlantic City, there was no damage reported with this quake.		
1/5/1964	3.9	None Reported
Description: This quake was centered approximately 23 miles south of Rock Springs.		
9/10/1964	4.1	Minor
Description: This earthquake occurred in the eastern portion of the County just west (30 miles) of Rawlins. One Rawlins resident reported damage to his basement.		
11/24/1966	None assigned	None Reported
Description: Centered a few miles north of Wamsutter, no damage was reported and no intensity or magnitude were assigned to this quake.		
3/19/1968	2.4	None Reported
Description: This quake was recorded by University of Utah seismograph stations and centered some 17 miles southeast of Rock Springs. No damage was reported		
8/18/1971	2.2	None Reported
Description: Centered approximately 26 miles south-southeast of Green River, this quake was recorded by University of Utah seismograph stations and was not associated with any damage.		

Source: Case, Toner & Kirkwood, 1-5.

TABLE 9.9
Recorded Earthquakes in Sweetwater County with a Magnitude Greater Than 2.0 continued...
(excluding trona mining area)

Date	Intensity/Magnitude	Damage
5/29/1975	3.2	None Reported
Description: This quake was centered approximately 13 miles northeast of Superior.		
6/6/1975	3.7	None Reported
Description: This larger quake was recorded in the same location as the May 29, 1975 tremor. No damage was reported with either event.		
9/10/1977	2.2	None Reported
Description: Centered some 8 miles north of Burntfork, this non-damaging quake was recorded by University of Utah seismograph stations.		
3/1/1984	3.2	None Reported
Description: This quake was centered approximately 14 miles southeast of Point of Rocks.		
9/14/1984	3.2	None Reported
Description: This quake was centered approximately 13 miles east-southeast of Point of Rocks.		
11/27/1984	3.2	None Reported
Description: This quake was centered approximately 14 miles southeast of Point of Rocks.		
9/14/1984	3.2	None Reported
Description: This quake was centered approximately 8 miles southeast of Point of Rocks. The genesis of this quake may have been an explosion.		
8/13/1985	3.5	None Reported
Description: This intensity IV earthquake was centered roughly 12 miles northeast of Point of Rocks and was felt by persons at Point of Rocks.		
4/29/1986	2.5	None Reported
Description: This non-damaging earthquake occurred northeast of Pine Mountain in the southern portion of Sweetwater County..		
6/5/1986	2.7	None Reported
Description: This non-damaging quake was recorded by University of Utah seismograph stations and was located some 14 miles southwest of Green River.		
11/2/1986	3.3	No Significant Damage
Description: This intensity IV earthquake occurred near Superior (11 miles north-northeast).		
12/4/1986	2.9	No Significant Damage
Description: Two earthquakes of the same magnitude occurred, one roughly 14 miles northwest of Farson and the second 19 miles northwest of Farson.		
2/1/1992	2.3	None Reported
Description: This non-damaging quake was recorded by University of Utah seismograph stations and was located approximately 7 miles north of Rock Springs.		
5/26/2000	4.0	None Reported
Description: This event occurred near the town of Bairoil in northeastern Sweetwater County. Residents reported feeling the quake.		
5/30/2000	3.2	None Reported
Description: This event occurred near the town of Bairoil in northeastern Sweetwater County. Residents reported feeling the quake.		

Source: Case, Toner, and Kirkwood, 1-5.

Under a worst-case scenario assessment, the City of Rock Springs could experience an Intensity VII earthquake. This equates to negligible damage in well-designed and constructed buildings and considerable damage in poorly constructed buildings. (Case, Toner and Kirkwood, 17)

Potential Losses: HAZUS (Hazards U.S.) is “a nationally standardized, GIS-based, risk assessment and loss estimation computer program that was originally designed in 1997 to provide the user with an estimate of the type, extent and cost of damages and losses that may occur during and following an earthquake.” (*Wyoming Multi-Hazard Mitigation Plan*, 6.22). It was developed for the Federal Emergency Management Agency (FEMA) by the National Institute of Building Sciences (NIBS).

There have been a number of versions of HAZUS generated by FEMA, with HAZUS-MH (HAZUS — Multi-Hazard) being the most recent release. HAZUS-MH incorporates a flood and wind module with the previously existing earthquake module.

The State of Wyoming has performed a HAZUS probabilistic scenario for every Wyoming County. The Plan uses loss ratios and total damage figures to rank counties for potential damage. (*Wyoming Multi-Hazard Mitigation Plan*, 6.23) The loss ratio is determined by dividing the sum of the structural and non-structural damage by the total building value for the County. This is likely a better measure of impacts because it factors in the total valuation of buildings in a County and includes a percent damage.

Sweetwater County ranks 13th among the 23 counties in the state for loss ratio, with an estimated loss of 2.84 percent. The range is from a high of 31.08 percent (Lincoln County) to 0.96 percent (Weston County). By contrast, Sweetwater County ranks 6th in total estimated loss dollars (\$93,017,000), with Teton County ranking first (\$681,981,000) and Niobrara County ranking last (\$2,935,000). (*Wyoming Multi-Hazard Mitigation Plan*, 6.23)

Summary:

- ⇒ Property Affected: High
- ⇒ Population Affected: Medium
- ⇒ Probability of Occurrence: Low

Hazard #10: Hazardous Materials

The U.S. Department of Transportation (USDOT) defines hazardous material as follows: “...a substance or material that the Secretary of Transportation has determined is capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and has been designated as hazardous under Section 5103 of Federal Hazardous Materials Transportation Law (49 U.S.C. 5103).” Hazardous substances, wastes, pollutants and materials with elevated temperatures are included as part of this definition.

Hazardous material incidents can occur from a fixed facility or during transportation. The USDOT has the following nine classes of hazardous material:

- ⇒ Explosives
- ⇒ Compressed gases: flammable, non-flammable compressed, poisonous
- ⇒ Flammable liquids: flammable (flashpoint below 141°F), combustible (flashpoint from 141°F to 200°F)
- ⇒ Flammable solids: spontaneously combustible, dangerous when wet
- ⇒ Oxidizers and organic peroxides
- ⇒ Toxic materials: poisonous material, infectious agents
- ⇒ Radioactive material
- ⇒ Corrosive material: destruction of human skin, corrodes steel; and
- ⇒ Miscellaneous

Past Occurrences: There have been numerous hazardous material spills and events within Rock Springs. The Rock Springs Fire Department is responsible for responding to these events.

Impacts:

- ⇒ Injury
- ⇒ Loss of life (human, livestock, fish and wildlife)
- ⇒ Evacuations
- ⇒ Property damage
- ⇒ Air pollution
- ⇒ Surface or ground water pollution
- ⇒ Interruption of commerce and transportation

Vulnerability and Frequency: Hazardous material spills and releases, both from fixed facilities and during transport, will

continue to occur in Rock Springs. The Emergency Planning and Community Right-to-Know Act (EPCRA) requires regulated entities to report information about hazardous chemicals and substances to authorities. “The objective is to improve the facilities, or government agency’s ability to plan for and respond to chemical emergencies and to give citizens information about chemicals present in their communities.” (*Wyoming Multi-Hazard Mitigation Plan*, 10.2)

Executive Orders mandate compliance of federal agencies with portions of the EPCRA requirements. The Environmental Protection Agency (EPA) is tasked with ensuring these requirements are met. In addition, the EPCRA created two organization: the State Emergency Response Commission (SERC) and the Local Emergency Planning Committee (LEPC). Sweetwater County has an active LEPC that meets on a regular basis. Finally, the EPCRA requires submission of material safety data sheets (Tier II forms) to the SERC, LEPC and local fire departments. These Tier II forms contain a listing of hazardous materials storage that exceeds certain thresholds. (*Wyoming Multi-Hazard Mitigation Plan*, 10.2-10.3) In 2010, there were 1,955 Tier II facilities in Sweetwater County reported by 93 companies. Of those facilities, 28 are located in Rock Springs.

In addition to the Tier II facilities, Rock Springs is traversed or fringed by several large pipelines that carry hazardous materials. The City is also located along the Interstate 80 corridor and straddles the Union Pacific Railroad’s main east-west line. A variety of hazardous materials are transported along these routes, which makes the City vulnerable to accidental spills.

Finally, Sweetwater County has several businesses that use flammable and toxic chemicals in sufficient quantities to require development of a Risk Management Program (RMP), and Sweetwater County has more RMP facilities than any other County in the state. (*Wyoming Multi-Hazard Mitigation Plan*, 10.4) Table 9.10 contains a list of the RMP Facilities in Sweetwater County. Of the listed facilities, only two are located relatively close to Rock Springs – Simplot Phosphates and the JPWB Water Treatment facility.

Due to the industrial nature of Sweetwater County, a number of hazardous chemicals are stored in and around

TABLE 9.10
Risk Management Plan Facilities
in Sweetwater County

Site	Chemical
Blacks Fork Gas Plant	Flammable
Colorado Interstate Gas Co – Table Rock	Ammonia; Flammable
GR/RS/SW Co. JPWB Water Treatment Facility	Chlorine
Granger Gas Plant	Flammable
Lincoln Road Gas Plant	Flammable
Lost Creek Compressor Station	Flammable
Red Desert	Flammable
Simplot Phosphates Company	Ammonia; Chlorine
Vermillion Gas Plant	Flammable

Source: *Wyoming Multi-Hazard Mitigation Plan*, 10.5.

Rock Springs. At any given time, these could be transported through the City, increasing the likelihood of an incident. Table 9.11 includes a list of the hazardous chemicals in Sweetwater County. As with RMP facilities, Sweetwater County has more hazard chemicals, by type, than any other county in the state. (*Wyoming Multi-Hazard Mitigation Plan*, 10.10-10.11) It is essential that responders become familiar with the variety of chemicals and have the tools necessary for mitigating incidents.

Potential Losses: Potential losses can vary greatly for hazardous material incidents. For even a small incident, there are cleanup and disposal costs. A six-person equipped hazmat team with a vehicle costs approximately \$1,400 per hour. Hazmat suits can cost \$2,700 each. In a larger scale incident, cleanup can be extensive and protracted. There can be deaths or injuries requiring doctor’s visits and hospitalization. Soil and water contamination can occur, necessitating costly remediation. Evacuations can disrupt home and business activities. Large-scale incidents can easily reach \$1 million or more in direct damages.

Summary:

- ⇒ Property Impacted: High
- ⇒ Population Impacted: Medium
- ⇒ Probability of Occurrence: High

TABLE 9.11

Hazardous Chemicals in Sweetwater County

Chemical	Chemical
Acids, organic	Molten sulfur(s)
Acrylmid	Monoammonium phosphate
Ammonium thiosulfate	Natural gas (methane)
Biocides	Natural gasoline: hexane+
Breakers, emulsion/gel	NGL (Y grade liquids)
Buffers, pH	Off road diesel fuel #2
Butane-gasoline mix	Phosphoric acid (H ₃ PO ₄)
Calcium compounds	Pipe joint compound
Caustic soda solution – sodium hydroxide	Polymer-acrylamide
Chlorine (CL ₂)	Proppants
Crosslinkers	Resin and resin solutions
Cyclohexylamine	Salt solutions
Detergents/foamers	Silica
Ethanethiol (ethylmercaptan)	Slaked lime Ca(OH) ₂
Ethyl mercaptan	Sodium chlorate solution
Ethylenediamine	Sodium hydroxide solution (NaOH)
Explosives	Solvent
Friction reducers	Sulfur dioxide
Gel stabilizers	Sulfur trioxide
Herbicides	Surfactants, corrosive
Hydraulic fluids	Surfactants, flammable
Hydrocarbon coating oil	Surfactants, miscellaneous
Hydrogen fluoride	Temporary blocking agents
Liquid oxygen	Tracers
Methane	Welding materials
Methyl diethanolamine	Y grade product
Molecular sieve type 4ADG	

Source: Wyoming Multi-Hazard Mitigation Plan, 10.10-10.11.

Hazard #11: Terrorism

Terrorism can strike not just in large cities, but in any community of any size. While no amount of planning and mitigation can remove 100 percent of the risk from terrorism, hazard mitigation and preparedness can help reduce the risk.

Terrorism is the use of force or violence against persons or property in violation of the criminal laws of the United States for purposes of intimidation, coercion or ransom. The Federal Bureau of Investigation (FBI) categorizes terrorism in the U.S. as one of two types:

- ⇒ Domestic Terrorism – terrorist activities that focus on facilities or populations without foreign direction.
- ⇒ International Terrorism – terrorist activities that are foreign-based and/or sponsored by organizations or groups outside the U.S.

Past Occurrences: There are no known terrorism events that have occurred in Rock Springs, however, at least one known terrorist activity has occurred in Sweetwater County. This 2003 incident involved removing bolts from an interstate powerline tower, thereby causing failures of multiple towers and disrupting power service in several western states. The persons responsible for this act of terrorism were sentenced to 2.5 years in federal prison, 3 year's probation and more than \$1 million in restitution. (*Wyoming Multi-Hazard Mitigation Plan, 10.1*)

Impacts:

- ⇒ Chemical agent
- ⇒ Nuclear bomb
- ⇒ Radiological agent
- ⇒ Arson/incendiary attack
- ⇒ Armed attack
- ⇒ Agriterrorism
- ⇒ Intentional hazardous materials release
- ⇒ Assaults on the infrastructure and electronic information systems.

Vulnerability and Frequency: There is relatively low vulnerability to the community.

Potential Losses: If a terrorism event occurred, loss of buildings and infrastructure could be devastating.

Summary:

- ⇒ Property Impacted: High
- ⇒ Population Impacted: High
- ⇒ Probability of Occurrence: Low

9.3.6 Critical Facilities

A critical facility is defined as any facility that is important to the community and needs to remain functional during a natural or manmade hazard event. The list can include essential facilities, transportation, utilities, high dollar loss facilities, and any area storing hazardous materials. Critical facilities can be grouped into different categories, by type, as listed below:

Essential Facilities:

- ⇒ Hospitals and other medical facilities
- ⇒ Police stations
- ⇒ Fire stations
- ⇒ Emergency operations centers
- ⇒ Evacuation shelters
- ⇒ Schools

Transportation Systems:

- ⇒ Airports
- ⇒ Highways
- ⇒ Bridges
- ⇒ Road beds
- ⇒ Railways

Utility Systems:

- ⇒ Potable water
- ⇒ Wastewater
- ⇒ Oil
- ⇒ Natural gas
- ⇒ Electric power
- ⇒ Communication systems

High Potential Loss Facilities:

- ⇒ Dams
- ⇒ Military installations

A list and map of Critical Facilities in Rock Springs is included in Table 9.12 and Map 9.4.

Hazardous Material Facilities are not mapped but are identified and inserted into the CAMEO (Computer-Aided Management of Emergency Operations) software. Hazardous Material Facilities include any facility that, when faced with a destructive hazard, has the potential to contaminate the area with corrosives, explosives, flammable materials, radioactive materials and toxins.

In addition to the critical facilities that are important to functionality of the community, there are other assets to the community that should be considered when conducting an inventory. These include:

- ⇒ Vulnerable populations (elderly, non-English speakers and group homes)
- ⇒ Major employers
- ⇒ Historic resources
- ⇒ Natural resources

9.3.7 Vulnerable Populations

A list of populations in the City that could be vulnerable in the event of a natural disaster was developed during the planning process. These populations consist of daycare attendees; schoolchildren; persons who are developmentally disabled, chronically ill or homebound; seniors; library patrons; clinic patrons; detainees; people living in poor quality housing; people attending outdoor recreation events; and patients or residents at a number of care facilities.

The greatest need in Rock Springs is timely notification of the public in the event of emergencies and education of vulnerable populations. (Armstrong, 5)

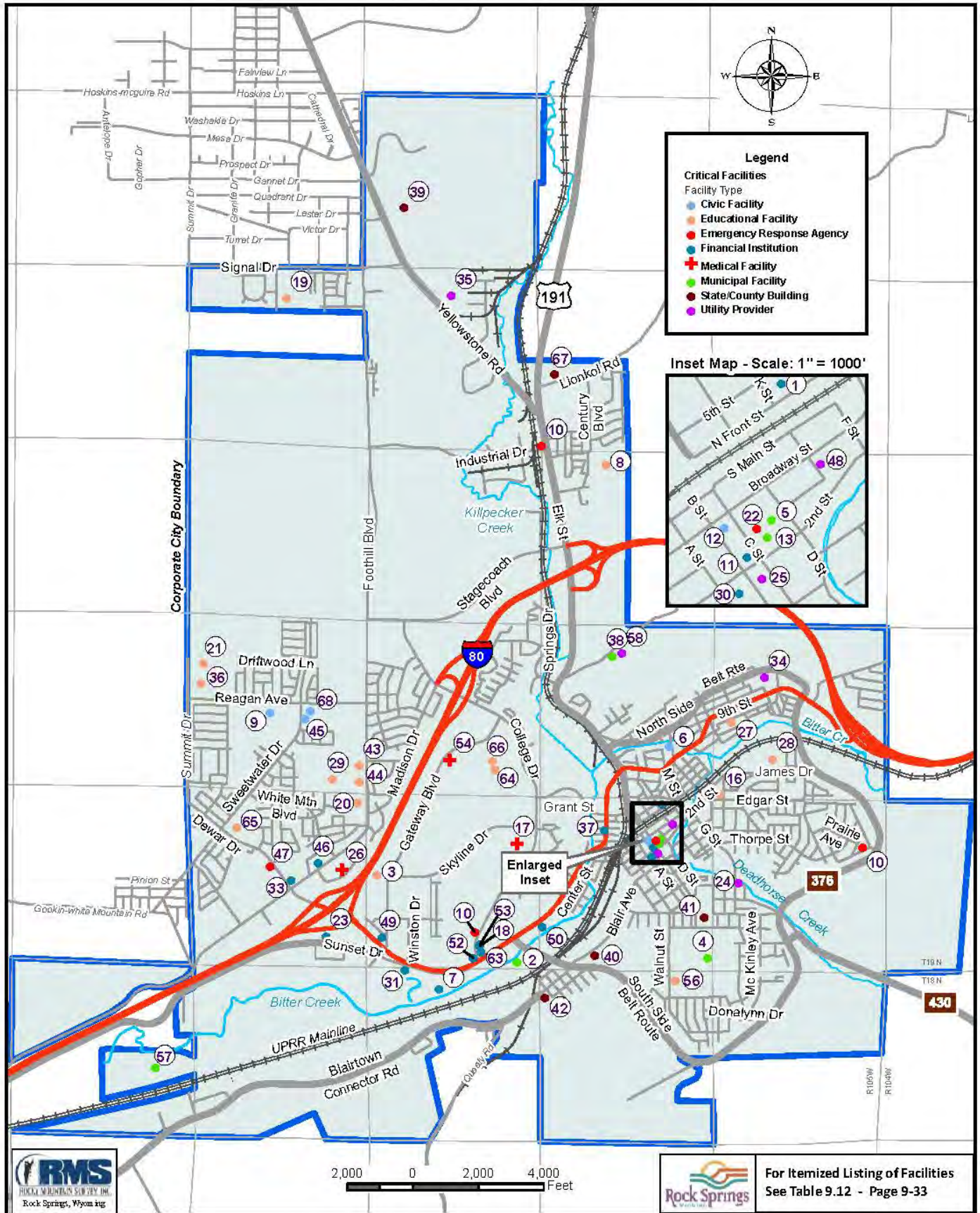
9.3.8 Public Notification

The City of Rock Springs has vulnerabilities that, given the right circumstances, could evolve into a crisis that would negatively affect life, property, or environment. (Armstrong, 5) "These potential hazards include, but are not limited to, hazardous materials releases, severe weather events, flooding, earthquakes and acts of terrorism. Providing warning and emergency information to the public during

TABLE 9.12
Rock Springs Critical Facilities

	Facility Name	Address		Facility	Address
1	1 st Bank	601 N. Front St.	35	Rocky Mountain Power (transformer yard/station)	Yellowstone Rd.
2	Animal Control Building	848 W. Center St.	36	Sage Elementary	903 Summit Dr.
3	Aspen Mountain Hall (Dorm)	525 Gateway Blvd.	37	State Bank	300 Center St.
4	Cemetery	809 Thompson St.	38	Street Department & City Shop	200 Community Park Dr.
5	City Hall	212 D St.	39	Sweetwater County Events Complex (Primary Emergency Shelter)	3320 Yellowstone Rd.
6	Civic Center	410 N St.	40	Sweetwater County Garage	430 Blair Ave.
7	Commerce Bank	1575 Dewar Dr.	41	Sweetwater Co. Office Building/ E.O.C.	731 C St.
8	Desert View Elementary	1900 Desert Blvd.	42	Sweetwater County Road & Bridge	1616 W. Second St.
9	Family Recreation Center (Secondary Emergency Shelter)	3900 Sweetwater Dr.	43	Sweetwater County School District #1 Central Administration Building	3550 Foothill Blvd.
10	Fire Dept. Headquarters Fire Station #2 Fire Station #3	600 College Dr. 2117 Hillcrest Dr. 145 Industrial Dr.	44	Sweetwater County School District #1 Transportation	3550 Foothill Blvd.
11	Green River Basin Federal Credit Union	301 2 nd St.	45	Sweetwater County Youth Crisis Home	3801 Sweetwater Dr.
12	Historical Museum	201 B St.	46	Sweetwater Federal Credit Union	2611 Foothill Blvd.
13	Housing Office	233 C St.	47	Sweetwater Medics Ambulance	2471 Foothill Blvd.
14	Joint Powers Water Board Treatment Plant	2 Telephone Canyon Rd., Green River	48	Sweetwater Television/Internet	602 Broadway St.
15	Joint Communications Center (under construction)	5 Shoshone Ave., Green River	49	Trona Valley Credit Union	85 Gateway Blvd.
16	Lincoln Elementary	915 Edgar St.	50	Uinta Bank	1251 Dewar Dr.
17	Memorial Hospital of Sweetwater County	1200 College Dr.	51	Union Wireless Cell Towers	Not Listed
18	Meridian Trust Federal Credit Union	601 College Dr.	52	US Bank	1510 Dewar Dr.
19	Northpark Elementary	1 Northpark Dr.	53	Utah Power Credit Union	601 College Dr.
20	Overland Elementary	3400 Foothill Blvd.	54	VA Rock Springs Clinic	1401 Gateway Blvd., #1
21	Pilot Butte Middle School	911 Summit Dr.	55	Verizon Wireless Cell Towers	Not Listed
22	Police Department	221 C St.	56	Walnut Elementary	1115 Walnut St.
23	Powertrust	1695 Sunset Dr.	57	Wastewater Treatment Plant	2300 Sunset Dr.
24	Questar Gas Distribution	1005 D St.	58	Water Department Shop	206 Community Park Dr.
25	Qwest Communications Bldg.	300 C St.	59	Water Distribution System	Not Listed
26	Red Desert Instacare	2761 Commercial Way	60	Water Pump Stations (5)	Not Listed
27	Rock Springs Alternative High School	1300 Lowell Ave.	61	Water Storage Tanks (8)	Not Listed
28	Rock Springs High School	1375 James Dr.	62	Water Transmission System	Not Listed
29	Rock Springs Junior High School	3500 Foothill Blvd.	63	Wells Fargo Bank	1400 Dewar Dr.
30	Rock Springs National Bank	200 Second St.	64	Western Wyoming Community College	2500 College Dr.
31	Rock Springs National Bank, West Branch	1897 Dewar Dr.	65	Westridge Elementary	3501 Dewar Dr.
32	Rock Springs/Sweetwater Co. Airport	468 Highway 370	66	WWCC Dorms	2500 College Dr.
33	Rocky Mountain Bank	2515 Foothill Blvd.	67	WYDOT, District Office	3200 Elk St.
34	Rocky Mountain Power (transformer yard/station)	Powerhouse Dr.	68	Young at Heart Senior Center	2400 Reagan Ave.

MAP 9.4 Critical Facilities



Notice: This map is intended for illustrative purposes only. Users are advised to verify the information shown hereon by consulting the City of Rock Springs Planning Office.

these times of crisis could assist in reducing the potential harmful effects of the crisis.” (Armstrong, 27-28)

9.3.9 Emergency Warning Systems

There are currently several methods in place in the City of Rock Springs to provide warning and emergency information during times of crisis. These methods include outdoor warning sirens, the Emergency Alert System (EAS), National Weather Radio (NWR), electronic highway message boards and public address systems. The use of these systems, individually and in combination, is not fully effective in providing warning and emergency information to the public during times of crisis. (Armstrong, 29-30)

Newer technologies are constantly being developed that could enhance the current capabilities of the City of Rock Springs to providing warning and emergency information to the public during times of crisis. Some of the more recent technologies include emergency telephone systems, cell broadcasting and Internet websites. It is realistic to assume that, as technological advances are made, additional methods for providing warning and emergency information will be developed.

Armstrong suggests that the City of Rock Springs should work in unison with Sweetwater County to enhance existing capabilities for providing warnings and emergency information to the public during times of crisis. Because of the active work and lifestyle environment within the County, redundant systems are needed for provision of warning and emergency information.

“The backbone of this capability is, and should continue to be, the EAS. Dialog should be established with the key players of the local EAS to validate the expectations, capabilities and limitations of the EAS for providing local warning and emergency information as outlined in the *Sweetwater County Warning Checklist* as defined by the Sweetwater County Emergency Management Agency (SCEMA). Discussion should also be pursued regarding the possibility of establishing the capability to activate the EAS through local emergency operations dispatch centers.” (Armstrong, 28-29)

Sweetwater County obtained the capability to provide

warning and emergency information through NWR approximately 10 years ago. The system has not been fully utilized in the County, but it does have the potential to augment the existing early warning and emergency information systems available.

An educational and public awareness campaign should be initiated to showcase the capabilities of NWR and to encourage all citizens and businesses to obtain tone alert NWRs that can run on alternating current or battery power. The City of Rock Springs should seek grant funding to purchase NWRs for individuals unable to afford them. (Armstrong, 29)

“Existing emergency outdoor warning siren systems should be expanded to cover all densely populated areas. An awareness campaign should be implemented to educate citizens about actions to take when outdoor warning sirens are being sounded. Warning sirens are also crucial for alerting citizens who are outside and would not be aware of warning or emergency information that was being provided by the EAS or NWR.” (Armstrong, 29)

Other capabilities for providing warning and emergency information to the public should be implemented or enhanced, including:

- ⇒ Using information banners on local cable TV
- ⇒ Posting emergency information to a designated website
- ⇒ Using electronic highway information signs and digital billboards to post messages (Armstrong 29-30)

Research indicates that the time guidelines for providing emergency information to the public are dependent upon the nature of the emergency event. Emergency personnel should be trained and experienced in recognizing the potential consequences of emergency events. In addition, persons in key leadership positions should continue to receive training that will assist them in emergency management issues. (Armstrong, 30)

“The percentage of the population that the City of Rock Springs and Sweetwater County are capable of providing warning and emergency information to during times of crisis will be dependent on the warning and emergency information system that is in place.” (Armstrong, 30)

As former Sweetwater County Emergency Management Coordinator Judy Valentine stated, “The biggest obstacle to expanding the current warning and emergency information system and public awareness of the system is the lack of emergency incidents of significance.” (Armstrong, 31)

9.4 Mitigation

9.4.1 Introduction

“Hazard mitigation is any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards.” (*Local Multi-Hazard Mitigation Planning Guidance*, 5).

This *Hazard Mitigation Plan* is part of the City of Rock Springs’ 2012 Master Plan and, while it can function as a standalone document, it is also intended to be incorporated as part of the overall plan for the City’s growth and development. By incorporating these documents together, hazard mitigation planning can occur in conjunction with development planning.

9.4.2 Authority

Authority for emergency management and hazard mitigation planning comes from multiple layers of government – federal, state and local. Federal authority includes:

- 1) The Homeland Security Act of 2002;
- 2) The Hazard Mitigation Act of 2000;
- 3) The Aviation and Transportation Security Act; and
- 4) The Enhanced Border Security and Visa Entry Reform Act of 2002.
- 5) All other public laws or Executive Orders enacted or to be enacted which pertain to events, emergencies, and disasters. (City of Rock Springs Emergency Operations Plan, 4)

At the state level, the following acts, statutes, plans and orders authorize local emergency management and hazard mitigation planning:

- 1) The Wyoming Homeland Security Act (W.S. §19-13-101, et seq);
- 2) Vacancy in Office of Governor (W.S. §9-1-211);

- 3) Assignment of Disaster/Emergency Mitigation, Preparedness, Response, and Recovery Functions to State Agencies (Executive Order 1988-7);
- 4) Assignment of Emergency Response, Preparedness, and Recovery Functions for Radiological Materials Transportation Accidents (Executive Order 1990-4);
- 5) *The Wyoming Public Assistance Administrative Plan*;
- 6) *The Wyoming Individual and Family Grant Administrative Plan*; the *Wyoming Hazard Mitigation Grant Administrative Plan*;
- 7) *The Wyoming Multi-Hazard Mitigation Plan*; the Wyoming State Operations & Coordination Center Standard Operation Procedures;
- 8) *The Wyoming Emergency Highway Traffic Regulation Plan*;
- 9) *The Wyoming Radiological Materials Transportation Accident Emergency Response Plan*;
- 10) *The Wyoming Emergency Management Basic Administrative Handbook*;
- 11) *The Wyoming Energy Emergency Contingency Plan*;
- 12) *The Wyoming Department of Health All Hazards Plan*;
- 13) *The Wyoming Animal Emergency Management & Operations Plan*; and
- 14) Wyoming General Provisions pertaining to Civil Actions (W.S. §1-1-125 – Immunity for Volunteers) (“City of Rock Springs Emergency Operations Plan”, 5)

Finally, the City of Rock Springs’ local ordinance authorizes emergency management and hazard mitigation planning. The City of Rock Springs is a first-class City which has the authority for self-governance, as granted by the State of Wyoming. Article 4-EM010, “Emergency Management Organization”, of the City of Rock Springs Ordinances establishes the Rock Springs Emergency Management Organization, creates a City Emergency Management Council and authorizes the Council to act in emergency or disaster events. The Emergency Council is empowered to:

- 1) Prepare an emergency operations plan for the City of Rock Springs;
- 2) Promulgate rules and regulations as may be necessary for efficient management and operation of the Emergency Management Organization;
- 3) Designate a suitable location for establishment of an Emergency Operations Center;
- 4) Establish a chain of command for leadership during

critical incidents;

- 5) Recommend to the Governor of the State of Wyoming a person to serve as the Coordinator for the Council; and
- 6) With the consent of the Governor of the State of Wyoming, designate an agent or agents to receive services, equipment, funds, training, etc., offered by federal or state grant or loan programs or other donors.

The designated Emergency Operations Coordinator is empowered to: (1) prepare a local Emergency Operating Plan for Rock Springs and coordinate with Sweetwater County in preparation of a countywide plan; (2) assist in coordination of emergency responsibilities and function of other departments, industry and citizens of Rock Springs; (3) execute directives and policies established by the Rock Springs Emergency Management Council; and (4) coordinate training, planning, management and operational activities with Sweetwater County Emergency Management.

9.4.3 Existing Policies and Programs

This *2012 Hazard Mitigation Plan* represents the first comprehensive hazard mitigation plan prepared by the City of Rock Springs. It has been included as part of the City's overall *Master Plan* because the City believes that hazard mitigation planning is integral to overall growth and development of the City. While the City does not presently have a formal hazard mitigation plan in place, the City has developed an emergency operations plan. In addition, the City's development review process supports hazard mitigation. Each of these is discussed briefly below.

Emergency Operations Plan

The "City of Rock Springs Emergency Operations Plan" (EOP) was approved in September 2009. The document represents the City's plan for emergency management and disaster operations with a goal of "bringing together a strong team of agency representatives whose early involvement in an event will expedite the coordination of local, State and Federal assistance to the impacted area." ("City of Rock Springs Emergency Operations Plan", 3). The plan aims to meet the urgent needs arising from a natural, manmade or terrorist emergency or disaster. Included in the plan is a hazards analysis.

EOP high risk hazards include:

- 1) Hazardous Materials Incident
- 2) Transportation
- 3) Severe Weather
- 4) Utility Failure
- 5) Pipeline Rupture
- 6) Land Shift (subsidence)

EOP moderate risk hazards include:

- 1) Terrorism
- 2) Pandemic
- 3) Tornado
- 4) Wild Land Fire
- 5) Structure Fire

EOP lower risk hazards include:

- 1) Earthquakes
- 2) Civil Disorder
- 3) Drought

("City of Rock Springs Emergency Operations Plan", 7-8)

The plan looks at hazards primarily from a response perspective, rather than from a mitigation perspective. This *Hazard Mitigation Plan* builds upon the adopted emergency operations plan to include prioritization of hazards and a program for mitigation to reduce these hazards.

Development Review Process

Another way the City of Rock Springs has reduced the potential for hazards is through its development review process. Each new construction project is reviewed for its compliance with the 2006 International Building Code or 2006 International Residential Code. Hazards mitigated through compliance with these code requirements include Fire and Earthquake. In addition, development proposals located in the Special Flood Hazard Area are reviewed for compliance with federal and local floodplain development statutes and ordinances. This ensures protection of the City's floodways and floodplain areas and mitigates the potential hazards associated with Floods. The City has also adopted minimum setbacks for new structures. Review and enforcement of the setback standards mitigates potential damages associated with Fire.

Other hazards mitigated through the development review

process are Transportation and Pipeline. For example, new subdivisions are required to meet minimum standards for access, street width and connectivity. Development projects are required to meet Fire Code requirements for separation of accesses, thereby minimizing the potential for loss of life associated with not being able to vacate during any type of Hazard Event. Fire Lanes are required and parking standards are adhered to in order to facilitate the ability of fire trucks to access buildings in emergencies and keep parked cars in established, approved spaces with adequate means of ingress and egress. In addition, development is not permitted atop pipeline or other utility easements, thereby minimizing the risk of damage from these utilities. Development proposals are required to annotate the location of utility easements on their plans, which facilitates the efforts of emergency responders to secure sites in the case of emergencies.

Through its existing *City of Rock Springs Emergency Operations Plan* and the Development Review Process, the City is already mitigating hazards. This *Hazard Mitigation Plan* refines those efforts and provides a program for mitigating a full range of hazards, as identified herein.

9.4.4 Resources

Presently, the Rock Springs Fire Chief serves as the City's Emergency Operations Coordinator. Other internal personnel resources include the Rock Springs Fire Department, the Rock Springs Police Department, the Rock Springs Parks and Recreation Department, the Rock Springs Water Department, the Rock Springs Engineering and Operations Department, the Rock Springs Wastewater Treatment Plant, and the Rock Springs City Street Department and Garage. Monetary resources include an annual budget and grant funding.

Relationships with external partners and stakeholders solidify the resources that are available for preparation, response, recovery, and mitigation. The majority of those partners and stakeholders participated as members of the Local Planning Team for this project. They included Sweetwater County Emergency Management, Rock Springs Housing Authority, Rock Springs Urban Renewal Association, the Joint Powers Water Board, Sweetwater County Public Health, the Young at heart Senior Citizens Center, Wyoming

Department of Transportation, and Memorial Hospital of Sweetwater County.

Other partners and stakeholders include Western Wyoming Community College, Sweetwater County School District #1, Sweetwater County Events Complex, Sweetwater County, and the City of Green River.

9.4.5 National Flood Insurance Program

Since 1978, the City of Rock Springs has been a participant in the National Flood Insurance Program (NFIP). Section 13-813 of the City of Rock Springs Ordinances contains the City's regulations pertaining to Flood Damage and Prevention. All new construction and substantial improvements require review and conformance with the City's floodplain development requirements. The City of Rock Springs is committed to protecting development in the special flood hazard area now and into the future.

9.4.6 Mitigation Planning

When looking at mitigation from a jurisdictional perspective, it is important to understand that mitigation is multi-layered and requires both plan development and participation.

The planning side of mitigation looks at the jurisdiction for strengths and weaknesses. The strengths, as seen in the document, might include new infrastructure, hardened shelters or an education campaign on flooding. The weaknesses might be the need for protection of a natural resource such as a floodplain or a riverside area. By allowing these areas to be protected in their natural state through development restrictions, other local populations maintain their existing flood protection. A mitigation strategy could be the implementation of stricter development standards for certain areas in the community to enhance flood protection. It takes community participation and a strong political will to create great mitigation ideas and champion them through to implementation.

Mitigation must include participation by the jurisdiction, external agencies and citizens. By pooling together ideas and resources, individual jurisdictions are better protected and prepared for disasters. In addition to the altruistic benefits, there is the need to participate in order to be eligible to

apply for funding.

This section contains hazard problem statements. It also lists goals, objectives and projects to mitigate the hazards of most concern to residents of Rock Springs. Goals statements and project ideas were developed by the Local Planning Team as well as from the online public survey results.

Following meetings with the Local Planning Team, the consultant organized the material, clarified points and eliminated duplication. To ensure that there were no misinterpretations or omissions, the consultant reviewed the refined goals and the online survey results. The goals below were endorsed by the participants.

9.4.7 Implementation Needs Statements

The following list corresponds to needs of the City for better protection against potential hazards. These needs statements form the basis for the goals, objectives, and projects that comprise the City's *Hazard Mitigation Plan*.

- ⇒ Many hazardous materials are transported through Rock Springs. There are no designated alternative routes to separate that traffic from residential or city transportation routes.
- ⇒ Hazardous materials are stored and transported daily by rail and truck. There is a high probability for a serious spill. Transportation is the leading cause of hazmat incidents.
- ⇒ Large amounts of explosives are transported through and used in the County. This creates the potential for an accident or terrorist use.
- ⇒ There are no designated windstorm shelters that meet design standards where people can go before a storm.
- ⇒ Blizzards are major hazards in Rock Springs. All locations, residents and travelers are vulnerable.
- ⇒ Newcomers to the City are not familiar with the potential intensity of weather events (blizzards and storms) and don't know how to prepare for them or act in the midst of them.
- ⇒ Limited access to remote locations complicates emergency response.
- ⇒ Many residents of the City and surrounding areas commute a number of miles to work at all times of the day, every day of the week, all year round in all kinds of

hazardous weather and road conditions.

- ⇒ An earthquake, though unlikely, could have catastrophic consequences because structures aren't built to withstand earthquakes.
- ⇒ A damaging hailstorm is likely to occur every year in the City.

9.4.8 Hazard Mitigation Goals, Objectives, and Projects

Hazard mitigation goals are the guiding principles of this Plan that provide the "vision" for success of all actions taken under the Plan. The goals help align mitigation measures to ensure that efforts are focused and coordinated toward the desired outcome.

Hazard mitigation objectives are measurable actions which, if implemented in conjunction with associated projects, will achieve the goals of the plan. The objectives are intended to:

- 1) Reduce the chances of damage from one or more hazardous events;
- 2) Protect people living and working in the City from the effects of hazardous events; and
- 3) Make the jurisdiction more resilient and able to recover more quickly from the effects of hazardous events.

Hazard mitigation projects generally need to do the following to meet these overarching requirements:

- ⇒ Substantially reduce the risk of future damage, hardship, loss, or suffering from a major disaster;
- ⇒ Conform to federal floodplain, wetland and environmental regulations;
- ⇒ Solve a problem, or part of a problem when there is assurance that the whole project will be completed;
- ⇒ Be cost-effective in that the project addresses a problem that is repetitive or that poses a significant risk if left unsolved;
- ⇒ Contribute substantially to the problem's long-term solution;
- ⇒ Provide cost-effective protection over the expected project life;
- ⇒ Have manageable future maintenance requirements;
- ⇒ Be determined to be the most practical, effective and environmentally sound alternative among the possible options; (if mitigating flooding) conform to the goals of

the National Flood Insurance Program;

- ⇒ Have the documented support of the local community;
- ⇒ Protect and provide services to vulnerable populations, i.e. elderly, disabled and low income;
- ⇒ Provide additional services and structures to protect the community from flooding ;
- ⇒ Provide additional services and education to protect the community from manmade incidents;
- ⇒ Strengthen and enhance the sustainability of government buildings in the event of natural or manmade disasters;
- ⇒ Provide sustainability for the Rock Springs water system;
- ⇒ Increase public education to reduce the risk associated with hazardous events;
- ⇒ Provide additional services and structures to protect the community from extreme weather situations;
- ⇒ Provide additional services and education to protect the community from public health concerns; and
- ⇒ Reduce loss of life, environment, and property from manmade systems failures.

The goals, objectives, and projects in Table 9.13 have been developed to address the needs statements as well as meet the overarching requirements of the listed mitigation projects.

9.5 Conclusion

The City of Rock Springs Fire Chief is designated as the Emergency Management Coordinator for the City of Rock Springs, however, successful implementation of this *Hazard Mitigation Plan* will require assistance from other City Departments, outside agencies and the public.

In addition to goals, objectives, and projects, Table 9.13 also provides a detailed implementation plan, including budget estimates, responsible parties and timelines for completion for each of the projects included in this *Hazard Mitigation Plan*.

9.6 Chapter 9—Implementation Plan

TABLE 9.13

Section Goal: Preserve environmental, cultural and recreational amenities, while minimizing potential hazards, to offer an enhanced quality of life for all citizens.

Hazard Mitigation Goal 1: Protect and provide services to vulnerable populations, including elderly, disabled, and low income residents.

Objective 1.1 Improve warning and communication capabilities.

Project	Description	Responsible Party	Budget	Timeline for Completion	Additional Funding Needed?	Hazard Mitigated
9.1.1.1	Involve media, newspaper, radio, WYDOT, PD, RSFD & digital billboard companies	Emergency Management	\$	2014	No	All Hazards
9.1.1.2	Involve STAR Bus, ambulance services, etc.	Emergency Management	\$	2014	No	All Hazards
9.1.1.3	Establish a local number to call (if phone lines available) for deliveries	Emergency Management	\$	2015	Yes	All Hazards

Objective 1.2 Provide appropriate sheltering for vulnerable populations during severe weather.

Project	Description	Responsible Party	Budget	Timeline for Completion	Additional Funding Needed?	Hazard Mitigated
9.1.2.1	Identify locations to evacuate residents, including Sage View Care Center, Memorial Hospital of Sweetwater County, Young at Heart Senior Center, schools, churches, and local motels	Emergency Management	\$	2016	Yes	Severe Weather
9.1.2.2	Expand Meals on Wheels to include the Young at Heart Senior Center as a sheltering service and location	Emergency Management	\$	2014	No	Severe Weather
9.1.2.3	Organize emergency responders to provide deliveries of food, medicines, essential food and household needs, medical personnel	Emergency Management	\$	2015	Yes	Severe Weather

Objective 1.3 Reduce the impact of incidents, emergencies and disasters on special needs populations.

Project	Description	Responsible Party	Budget	Timeline for Completion	Additional Funding Needed?	Hazard Mitigated
9.1.3.1	Coordinate special needs population team with existing Sweetwater County team	Emergency Management	\$	2013	No	All Hazards
9.1.3.2	Inventory special needs population stakeholders and providers as a means of identifying the special needs population in the event of an emergency	Emergency Management	\$	2013	No	All Hazards

Hazard Mitigation Goal 2: Provide additional services & facilities to protect the community from flooding.

Objective 2.1 Reduce flood damage within Rock Springs.

Project	Description	Responsible Party	Budget	Timeline for Completion	Additional Funding Needed?	Hazard Mitigated
9.2.1.1	Replace or improve bridges and culverts impacting drainages and make channel improvements and improve erosion control throughout the City, where needed	Engineering & Operations	\$\$\$\$	2017	Yes	Flooding

9.6 Chapter 9—Implementation Plan

TABLE 9.13 continued...

Section Goal: Preserve environmental, cultural and recreational amenities, while minimizing potential hazards, to offer an enhanced quality of life for all citizens.

9.2.1.2	Complete construction for Segment 1 of the Bitter Creek Reconstruction Plan	Engineering & Operations	\$\$\$\$	2017	Yes	Flooding
9.2.1.3	Update the Flood Insurance Rate Map to provide the accurate flood hazard areas, particularly in new growth portions of the City	Planning & Zoning	\$\$	2016	Yes-possible grant funding	Flooding
9.2.1.4	Create a public education campaign addressing emergency warning system for flooding emergencies and enhance emergency warning system for use during flooding events	Emergency Management	\$	2017	Yes	Flooding

Hazard Mitigation Goal 3: Provide additional services & education to protect the community from manmade incidents.

Objective 3.1 Determine the need for volunteers and training.

Project	Description	Responsible Party	Budget	Timeline for Completion	Additional Funding Needed?	Hazard Mitigated
9.3.1.1	Provide training for emergency response personnel for HAZMAT incidents	Emergency Management	\$	2014	No	azardous Materia

Objective 3.2 Address issues involving transportation of hazardous materials within populated areas.

Project	Description	Responsible Party	Budget	Timeline for Completion	Additional Funding Needed?	Hazard Mitigated
9.3.2.1	Map hazardous materials storage locations	Emergency Management	\$	2015	Yes	azardous Materia
9.3.2.2	Survey routes within the City for types of hazardous materials being transported	Emergency Management	\$	2015	Yes	azardous Materia
9.3.2.3	Designate specific hazardous materials transportation routes so as to reduce the impacts to residents, should a spill occur	WYDOT	\$	2016	No - External Agency	azardous Materia

Hazard Mitigation Goal 4: Strengthen and enhance the sustainability of government buildings in the event of natural or manmade disasters.

Objective 4.1 Promote increased use of codes and regulations to protect life and property.

Project	Description	Responsible Party	Budget	Timeline for Completion	Additional Funding Needed?	Hazard Mitigated
9.4.1.1	Ensure backup generator systems and alternative locations to maintain government functionality before, during and after a hazard event	Emergency Management	\$	2015	Yes	All Hazards
9.4.1.2	Create sustainability plan for government buildings	Emergency Management	\$	2016	Yes	All Hazards
9.4.1.3	Identify facilities for hardening	Emergency Management	\$	2014	No	All Hazards

9.6 Chapter 9—Implementation Plan

TABLE 9.13 continued...

Section Goal: Preserve environmental, cultural and recreational amenities, while minimizing potential hazards, to offer an enhanced quality of life for all citizens.

Hazard Mitigation Goal 5: Provide sustainability for the Rock Springs water system.

Objective 5.1 Provide for redundancy in water supply.

Project	Description	Responsible Party	Budget	Timeline for Completion	Additional Funding Needed?	Hazard Mitigated
9.5.1.1	Identify hardening locations for water system	Emergency Management	\$	2014	No	All Hazards
9.5.1.2	Add facilities to create transmission line redundancy	JPWB	\$\$\$\$	2017	Yes	All Hazards
9.5.1.3	Ensure back up power supply for individual pump stations	JPWB	\$\$\$\$	2017	Yes	All Hazards

Objective 5.2 Provide for a protected and clean water supply.

Project	Description	Responsible Party	Budget	Timeline for Completion	Additional Funding Needed?	Hazard Mitigated
9.5.2.1	Ensure adequate water supply	JPWB	\$\$\$\$	2017	Yes	All Hazards
9.5.2.2	Create post disaster water supply protocol	JPWB	\$	2015	Yes	All Hazards
9.5.2.3	Design treatment for surface water	JPWB	\$\$\$\$	2017	Yes	All Hazards
9.5.2.4	Increase water quality across the system	JPWB	\$\$\$\$	2017	Yes	All Hazards

Hazard Mitigation Goal 6: Increase public education to reduce the risk of hazardous events.

Objective 6.1 Improve warning and communication capabilities.

Project	Description	Responsible Party	Budget	Timeline for Completion	Additional Funding Needed?	Hazard Mitigated
9.6.1.1	Identify weaknesses in ability to notify all residents	Emergency Management	\$	2014	No	All Hazards
9.6.1.3	Provide public education on evacuation	Emergency Management	\$	2015	Yes	All Hazards
9.6.1.4	Provide public education on sheltering	Emergency Management	\$	2014	No	All Hazards
9.6.1.5	Participate in WYDOT HAR 1610	Emergency Management	\$	2013	No	All Hazards
9.6.1.6	Ensure interagency communication: FD, PD & WYDOT	Emergency Management	\$	2013	No	All Hazards

Hazard Mitigation Goal 7: Provide additional services and facilities to protect the community from extreme weather situations.

Objective 7.1 Provide appropriate shelter during severe weather.

Project	Description	Responsible Party	Budget	Timeline for Completion	Additional Funding Needed?	Hazard Mitigated
9.7.1.1	Identify shelter locations for motorists and a system for informing them	Emergency Management	\$	2014	Yes	Severe Weather
9.7.1.2	Provide services and resources for stranded motorists	Emergency Management	\$	2014	Yes	Severe Weather

9.6 Chapter 9—Implementation Plan

TABLE 9.13 continued...

Section Goal: Preserve environmental, cultural and recreational amenities, while minimizing potential hazards, to offer an enhanced quality of life for all citizens.

Objective 7.2 Provide appropriate levels of service during severe weather.

Project	Description	Responsible Party	Budget	Timeline for Completion	Additional Funding Needed?	Hazard Mitigated
9.7.2.1	Develop a program for obtaining crews and equipment, even on a temporary basis, to provide snow removal to all residential areas	Emergency Management	\$	2014	Yes	Severe Weather
9.7.2.2	Enlist off- season/non-critical personnel to remove snow on sidewalks in areas where elderly live	Emergency Management	\$	2014	Yes	Severe Weather
9.7.2.3	Unblock storm drains to allow for snow melt	Engineering & Operations	\$	Ongoing	No	Severe Weather
9.7.2.4	Develop a vegetation management program to keep trees from falling on power lines and interrupting service	Utilities	\$\$	2016	Yes-but not City funded	Severe Weather
9.7.2.5	Close non-essential public facilities to limit exposure during extreme weather events	City Council	\$	2014	No	Severe Weather

Objective 7.3 Improve warning and communication capabilities.

Project	Description	Responsible Party	Budget	Timeline for Completion	Additional Funding Needed?	Hazard Mitigated
9.7.3.1	Develop an emergency public notification system	Emergency Management	\$\$	2017	Yes	Severe Weather
9.7.3.2	Educate the public on the NOAA weather radio program and provide information regarding where the public can purchase weather radios	Emergency Management	\$	2017	Yes	Severe Weather
9.7.3.3	Involve media and communication systems	Emergency Management	\$	2017	Yes	Severe Weather

Hazard Mitigation Goal 8: Provide additional services and education to protect the community from public health concerns.**Objective 8.1 Provide training for responders and providers**

Project	Description	Responsible Party	Budget	Timeline for Completion	Additional Funding Needed?	Hazard Mitigated
9.8.1.1	Conduct training for first responders and health care providers	Emergency Management	\$	2017	Yes	Disease Epidemic

Objective 8.2 Educate the public on disease epidemics.

Project	Description	Responsible Party	Budget	Timeline for Completion	Additional Funding Needed?	Hazard Mitigated
9.8.1.2	Establish a public health emergency response team	Emergency Management	\$	2017	Yes	Disease Epidemic
9.8.2.1	Conduct a public information campaign which would include business and personal plans, sanitation and stockpiling of supplies, etc.	Emergency Management	\$	2017	Yes	Disease Epidemic
9.8.2.2	Develop and distribute multilingual educational information, as needed	Emergency Management	\$	2017	Yes	Disease Epidemic

9.6 Chapter 9—Implementation Plan

TABLE 9.13 continued...

Section Goal: Preserve environmental, cultural and recreational amenities, while minimizing potential hazards, to offer an enhanced quality of life for all citizens.

Objective 8.3 Review/update disease epidemic planning by governmental agencies.

Project	Description	Responsible Party	Budget	Timeline for Completion	Additional Funding Needed?	Hazard Mitigated
9.8.3.1	Establish planning review criteria and schedule for disease epidemic plans	Emergency Management	\$	2015	Yes	Disease Epidemic
9.8.3.2	Update plans to include alternatives in the event of lack of transportation, necessary supplies and equipment, rotation and restocking of inventory, quality, etc.	Emergency Management	\$	2016	Yes	Disease Epidemic
9.8.3.3	Exercise the plans and make revisions as necessary	Emergency Management	\$	2017	Yes	Disease Epidemic

Hazard Mitigation Goal 9: Reduce loss of life and property from a pipeline incident.**Objective 9.1 Improve warning and communication capabilities.**

Project	Description	Responsible Party	Budget	Timeline for Completion	Additional Funding Needed?	Hazard Mitigated
9.9.1.1	Enhance ability to notify the public	Emergency Management	\$\$	2014	Yes	Manmade / Pipeline
9.9.1.2	Develop awareness campaigns	Emergency Management	\$	2015	Yes	Manmade / Pipeline
9.9.1.3	Provide school education (coloring books, activity books)	Emergency Management	\$	2016	Yes	Manmade / Pipeline

Objective 9.2 Improve types and updates of pipeline hazard specific data.

Project	Description	Responsible Party	Budget	Timeline for Completion	Additional Funding Needed?	Hazard Mitigated
9.9.2.1	Inventory lines and update contact information	Pipelines	\$\$	2014	No-not City funded	Manmade / Pipeline
9.9.2.2	Attend Pipeline Association (GRBPA) meetings and seminars	Emergency Management	\$	2014	Yes	Manmade / Pipeline
9.9.2.3	Get sponsorship for stronger fines pertaining to One Call violations	Building	\$	2015	Yes	Manmade / Pipeline

Appendix A: Hazard Mitigation Survey Results

1. Please rank the following hazards! A. Extremely rare B. Rare C. Unlikely D. Possible E. Likely F. Certain

	Extremely rare	Rare	Unlikely	Possible	Likely	Certain	Rating Average	Response Count
Flood	0.0% (0)	33.3% (3)	33.3% (3)	33.3% (3)	0.0% (0)	0.0% (0)	3.00	9
Severe Storms & Tornadoes	11.1% (1)	33.3% (3)	22.2% (2)	33.3% (3)	0.0% (0)	0.0% (0)	2.78	9
Winter Storms	0.0% (0)	0.0% (0)	0.0% (0)	11.1% (1)	22.2% (2)	66.7% (6)	5.56	9
Land/Mine	11.1% (1)	11.1% (1)	0.0% (0)	33.3% (3)	33.3% (3)	11.1% (1)	4.00	9
Subsidence	0.0% (0)	0.0% (0)	0.0% (0)	22.2% (2)	33.3% (3)	44.4% (4)	5.22	9
Landslide	0.0% (0)	11.1% (1)	44.4% (4)	44.4% (4)	0.0% (0)	0.0% (0)	3.33	9
Drought	0.0% (0)	0.0% (0)	0.0% (0)	55.6% (5)	44.4% (4)	0.0% (0)	4.44	9
Extreme Heat	0.0% (0)	0.0% (0)	0.0% (0)	77.8% (7)	22.2% (2)	0.0% (0)	4.22	9
Wildfire	0.0% (0)	11.1% (1)	0.0% (0)	44.4% (4)	44.4% (4)	0.0% (0)	4.22	9
Earthquake	0.0% (0)	11.1% (1)	22.2% (2)	66.7% (6)	0.0% (0)	0.0% (0)	3.56	9
Hazardous Materials / Man Made	0.0% (0)	0.0% (0)	0.0% (0)	33.3% (3)	44.4% (4)	22.2% (2)	4.89	9
Terrorism	0.0% (0)	22.2% (2)	44.4% (4)	33.3% (3)	0.0% (0)	0.0% (0)	3.11	9

Appendix A: Hazard Mitigation Survey Results continued...

2. Please rank the extent (magnitude or severity) of the following hazards. High = would affect most of Rock Springs Medium = would affect a significant portion of Rock Springs Low = very isolated incident

	High	Medium	Low	Rating Average	Response Count
Flood	0.0% (0)	33.3% (3)	66.7% (6)	2.67	9
Severe Storms & Tornados	22.2% (2)	33.3% (3)	44.4% (4)	2.22	9
Winter Storms	100.0% (9)	0.0% (0)	0.0% (0)	1.00	9
Land/Mine	0.0% (0)	22.2% (2)	77.8% (7)	2.78	9
Subsidence	0.0% (0)	55.6% (5)	44.4% (4)	2.44	9
Landslide	0.0% (0)	11.1% (1)	88.9% (8)	2.89	9
Drought	77.8% (7)	22.2% (2)	0.0% (0)	1.22	9
Extreme Heat	88.9% (8)	11.1% (1)	0.0% (0)	1.11	9
Wildfire	0.0% (0)	33.3% (3)	66.7% (6)	2.67	9
Earthquake	44.4% (4)	55.6% (5)	0.0% (0)	1.56	9
Hazardous Materials / Man Made	33.3% (3)	55.6% (5)	11.1% (1)	1.78	9
Terrorism	44.4% (4)	11.1% (1)	44.4% (4)	2.00	9

Appendix A: Hazard Mitigation Survey Results continued...

3. What is the probability (based on past occurrences) that the hazards will occur?

	Seldom	Sometimes	Often	Rating Average	Response Count
Flood	55.6% (5)	44.4% (4)	0.0% (0)	1.44	9
Severe Storms & Tornadoes	55.6% (5)	44.4% (4)	0.0% (0)	1.44	9
Winter Storms	0.0% (0)	11.1% (1)	88.9% (8)	2.89	9
Land/Mine	55.6% (5)	44.4% (4)	0.0% (0)	1.44	9
Subsidence	33.3% (3)	55.6% (5)	11.1% (1)	1.78	9
Landslide	100.0% (9)	0.0% (0)	0.0% (0)	1.00	9
Drought	22.2% (2)	66.7% (6)	11.1% (1)	1.89	9
Extreme Heat	22.2% (2)	77.8% (7)	0.0% (0)	1.78	9
Wildfire	55.6% (5)	44.4% (4)	0.0% (0)	1.44	9
Earthquake	88.9% (8)	11.1% (1)	0.0% (0)	1.11	9
Hazardous Materials / Man Made	55.6% (5)	44.4% (4)	0.0% (0)	1.44	9
Terrorism	100.0% (9)	0.0% (0)	0.0% (0)	1.00	9

Appendix A: Hazard Mitigation Survey Results continued...

4. What is the vulnerability (amount of potential damage to structures and loss of life) of the community to the following hazards? 1. Insignificant. No injuries or fatalities. 2. Minor. Small number of injuries but no fatalities; 3. Moderate. Minimal disruption of infrastructure services 4. Major. Extended disruption of infrastructure services to an extended area (i.e., water, sewer, power, gas, etc.) 5. Catastrophic. Extended disruption of infrastructure services to an extended area (i.e., water, sewer, power, gas, etc.) Considerations* Injuries and deaths from the public* Emergency responders required/level of response required* Social Aspects* Costs* Property Damage* Reputation* Environmental Impact

	Insignificant	Minor	Moderate	Major	Catastrophic	Rating Average	Response Count
Flood	0.0% (0)	22.2% (2)	44.4% (4)	22.2% (2)	11.1% (1)	3.22	9
Severe Storms & Tornados	0.0% (0)	33.3% (3)	22.2% (2)	33.3% (3)	11.1% (1)	3.22	9
Winter Storms	11.1% (1)	22.2% (2)	44.4% (4)	22.2% (2)	0.0% (0)	2.78	9
Land/Mine	11.1% (1)	66.7% (6)	22.2% (2)	0.0% (0)	0.0% (0)	2.11	9
Subsidence	11.1% (1)	55.6% (5)	33.3% (3)	0.0% (0)	0.0% (0)	2.22	9
Landslide	33.3% (3)	55.6% (5)	0.0% (0)	11.1% (1)	0.0% (0)	1.89	9
Drought	22.2% (2)	33.3% (3)	44.4% (4)	0.0% (0)	0.0% (0)	2.22	9
Extreme Heat	22.2% (2)	55.6% (5)	22.2% (2)	0.0% (0)	0.0% (0)	2.00	9
Wildfire	33.3% (3)	33.3% (3)	22.2% (2)	11.1% (1)	0.0% (0)	2.11	9
Earthquake	11.1% (1)	11.1% (1)	22.2% (2)	22.2% (2)	33.3% (3)	3.56	9
Hazardous Materials / Man Made	22.2% (2)	0.0% (0)	33.3% (3)	33.3% (3)	11.1% (1)	3.11	9
Terrorism	22.2% (2)	0.0% (0)	11.1% (1)	66.7% (6)	0.0% (0)	3.22	9

Appendix A: Hazard Mitigation Survey Results continued...

1. Hazard mitigation goals are the guiding principles of the plan which provide the “vision” for success for all actions taken under the plan. The goals help align mitigation measures to ensure efforts are focused and coordinated toward the desired outcome. In order to accomplish the vision of Hazard Mitigation, a list of goals has been created. Please rank each goal.

	#1 Rank	#2 Rank	#3 Rank	#4 Rank	#5 Rank	#6 Rank	#7 Rank	#8 Rank	#9 Rank	Response Count
Protect and provide services to vulnerable populations, i.e. elderly, disabled, and low income	11.1% (1)	22.2% (2)	22.2% (2)	0.0% (0)	22.2% (2)	11.1% (1)	0.0% (0)	0.0% (0)	11.1% (1)	9
Provide additional services and structures to protect the community from flooding	0.0% (0)	0.0% (0)	0.0% (0)	12.5% (1)	12.5% (1)	12.5% (1)	37.5% (3)	0.0% (0)	25.0% (2)	8
Provide additional services and education to protect the community from manmade incidents to Rock Springs	0.0% (0)	25.0% (2)	0.0% (0)	25.0% (2)	12.5% (1)	0.0% (0)	12.5% (1)	25.0% (2)	0.0% (0)	8
To strengthen and enhance the sustainability of government buildings in the event of natural or manmade disasters	0.0% (0)	22.2% (2)	22.2% (2)	0.0% (0)	0.0% (0)	0.0% (0)	22.2% (2)	11.1% (1)	22.2% (2)	9
To provide sustainability for the Rock Springs water system	66.7% (6)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	11.1% (1)	11.1% (1)	11.1% (1)	0.0% (0)	9
Increase public education to reduce the risk to hazardous events	0.0% (0)	12.5% (1)	25.0% (2)	25.0% (2)	12.5% (1)	0.0% (0)	0.0% (0)	25.0% (2)	0.0% (0)	8
Provide additional services and structures to protect the community from extreme weather situations	0.0% (0)	12.5% (1)	25.0% (2)	25.0% (2)	12.5% (1)	12.5% (1)	0.0% (0)	12.5% (1)	0.0% (0)	8
Provide additional services and education to protect the community from public health concerns	0.0% (0)	11.1% (1)	0.0% (0)	11.1% (1)	22.2% (2)	33.3% (3)	0.0% (0)	0.0% (0)	22.2% (2)	9
Reduce loss of life and property from manmade / pipeline incident	11.1% (1)	0.0% (0)	11.1% (1)	11.1% (1)	11.1% (1)	22.2% (2)	11.1% (1)	11.1% (1)	11.1% (1)	9

Appendix A: Hazard Mitigation Survey Results continued...

2. Provide additional services and structures to protect the community from flooding. Please rank the following projects from highest importance to least importance to the City of Rock Springs.

	#1 Rank	#2 Rank	#3 Rank	#4 Rank	#5 Rank	#6 Rank	#7 Rank	#8 Rank	#9 Rank	#10 Rank	Rating Average	Response Count
Replace or improved bridges that cross Bitter Creek and Dead Horse Canyon	0.0% (0)	14.3% (1)	0.0% (0)	14.3% (1)	14.3% (1)	0.0% (0)	0.0% (0)	14.3% (1)	28.6% (2)	14.3% (1)	6.71	7
Replace/improve bridges, box culverts over Bitter Creek	0.0% (0)	0.0% (0)	28.6% (2)	14.3% (1)	0.0% (0)	14.3% (1)	0.0% (0)	28.6% (2)	14.3% (1)	0.0% (0)	5.86	7
Channel improvements, erosion control throughout the length of Bitter Creek	0.0% (0)	14.3% (1)	42.9% (3)	0.0% (0)	0.0% (0)	0.0% (0)	28.6% (2)	0.0% (0)	0.0% (0)	14.3% (1)	5.00	7
Complete projects identified in the Bitter Creek reconstruction plan	28.6% (2)	14.3% (1)	0.0% (0)	14.3% (1)	28.6% (2)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	14.3% (1)	4.00	7
Channel improvements throughout the City	0.0% (0)	28.6% (2)	0.0% (0)	28.6% (2)	28.6% (2)	14.3% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	4.00	7
Erosion mitigation for areas of steep slope	0.0% (0)	14.3% (1)	0.0% (0)	14.3% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	42.9% (3)	28.6% (2)	7.57	7
Public education campaign addressing emergency warning system	14.3% (1)	14.3% (1)	0.0% (0)	0.0% (0)	0.0% (0)	14.3% (1)	28.6% (2)	28.6% (2)	0.0% (0)	0.0% (0)	5.57	7
Complete 430 South Detention	14.3% (1)	0.0% (0)	0.0% (0)	0.0% (0)	14.3% (1)	28.6% (2)	14.3% (1)	0.0% (0)	0.0% (0)	28.6% (2)	6.43	7
Update the flood hazard map	14.3% (1)	0.0% (0)	14.3% (1)	14.3% (1)	14.3% (1)	14.3% (1)	0.0% (0)	14.3% (1)	14.3% (1)	0.0% (0)	5.14	7
Enhance emergency warning system	28.6% (2)	0.0% (0)	14.3% (1)	0.0% (0)	0.0% (0)	14.3% (1)	28.6% (2)	14.3% (1)	0.0% (0)	0.0% (0)	4.71	7

Appendix A: Hazard Mitigation Survey Results continued...

3. Provide additional services and education to protect the community from manmade incidents to Rock Springs. Please rank the following projects from highest importance to least importance to the City of Rock Springs.

	#1 Rank	#2 Rank	#3 Rank	Rating Average	Response Count
Provide training for HAZMAT incidents	83.3% (5)	0.0% (0)	16.7% (1)	1.33	6
Map hazardous materials storage locations	16.7% (1)	33.3% (2)	50.0% (3)	2.33	6
Survey the routes within the City for types of hazardous materials being transported	0.0% (0)	66.7% (4)	33.3% (2)	2.33	6

4. To strengthen and enhance the sustainability of government buildings in the event of natural or manmade disasters. Please rank the following projects from highest importance to least importance to the City of Rock Springs.

	#1 Rank	#2 Rank	#3 Rank	#4 Rank	#5 Rank	Rating Average	Response Count
Identify facilities for hardening (windows, doors, eliminated flooding, back up power)	0.0% (0)	28.6% (2)	28.6% (2)	14.3% (1)	28.6% (2)	3.43	7
Update zoning codes to ensure new governmental facilities are reviewed for their appropriate locations versus risk to hazards	0.0% (0)	14.3% (1)	28.6% (2)	0.0% (0)	57.1% (4)	4.00	7
Protect digital and paper data from hazards by providing redundancy at an alternate location, for government documents	0.0% (0)	14.3% (1)	14.3% (1)	71.4% (5)	0.0% (0)	3.57	7
Back up generator systems and alternative locations to maintain government functionality before, during and after a hazard event	85.7% (6)	14.3% (1)	0.0% (0)	0.0% (0)	0.0% (0)	1.14	7
Create sustainability plan for government buildings	14.3% (1)	28.6% (2)	28.6% (2)	14.3% (1)	14.3% (1)	2.86	7

Appendix A: Hazard Mitigation Survey Results continued...

5. To provide sustainability for the Rock Springs water system. Please rank the following projects from highest importance to least importance to the City of Rock Springs.

	#1 Rank	#2 Rank	#3 Rank	#4 Rank	#5 Rank	#6 Rank	Rating Average	Response Count
Identify hardening options for existing water system	0.0% (0)	28.6% (2)	28.6% (2)	0.0% (0)	28.6% (2)	14.3% (1)	3.71	7
Create post disaster water supply protocol	28.6% (2)	0.0% (0)	42.9% (3)	28.6% (2)	0.0% (0)	0.0% (0)	2.71	7
Transmission line redundancy	14.3% (1)	14.3% (1)	0.0% (0)	14.3% (1)	42.9% (3)	14.3% (1)	4.00	7
Treatment for surface water	14.3% (1)	0.0% (0)	14.3% (1)	14.3% (1)	0.0% (0)	57.1% (4)	4.57	7
Increase water quality across the system	14.3% (1)	14.3% (1)	14.3% (1)	28.6% (2)	14.3% (1)	14.3% (1)	3.57	7
Back up power supply for individual pump stations	28.6% (2)	42.9% (3)	0.0% (0)	14.3% (1)	14.3% (1)	0.0% (0)	2.43	7

Appendix A: Hazard Mitigation Survey Results continued...

6. Increase public education to reduce the risk to hazardous events. Please rank the following projects from highest importance to least importance to the City of Rock Springs.

	#1 Rank	#2 Rank	#3 Rank	#4 Rank	#5 Rank	#6 Rank	Rating Average	Response Count
Identify weaknesses in ability to notify all residents	14.3% (1)	28.6% (2)	14.3% (1)	14.3% (1)	28.6% (2)	0.0% (0)	3.14	7
Public education on notification – siren, NOAA, HAR	0.0% (0)	28.6% (2)	28.6% (2)	28.6% (2)	14.3% (1)	0.0% (0)	3.29	7
Public education on evacuation	28.6% (2)	0.0% (0)	28.6% (2)	14.3% (1)	28.6% (2)	0.0% (0)	3.14	7
Public education on sheltering	0.0% (0)	42.9% (3)	28.6% (2)	0.0% (0)	28.6% (2)	0.0% (0)	3.14	7
Interagency communication FD / PD / WYDOT	57.1% (4)	0.0% (0)	0.0% (0)	42.9% (3)	0.0% (0)	0.0% (0)	2.29	7

Appendix A: Hazard Mitigation Survey Results continued...

7. Provide additional emergency services and safe structures to protect the community from extreme weather situations Please rank the following projects from highest importance to least importance to the City of Rock Springs.												
	#1 Rank	#2 Rank	#3 Rank	#4 Rank	#5 Rank	#6 Rank	#7 Rank	#8 Rank	#9 Rank	#10 Rank	Rating Average	Response Count
Identify shelter locations for motorists and a system for informing	14.3% (1)	28.6% (2)	14.3% (1)	28.6% (2)	0.0% (0)	14.3% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	3.14	7
Provide services and resources for stranded motorists	0.0% (0)	14.3% (1)	28.6% (2)	14.3% (1)	42.9% (3)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	3.86	7
Develop a program for obtaining crews and equipment to provide snow removal to all res. areas	14.3% (1)	0.0% (0)	28.6% (2)	14.3% (1)	14.3% (1)	28.6% (2)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	4.00	7
Enlist personnel to remove snow on sidewalks in areas where elderly live	0.0% (0)	0.0% (0)	0.0% (0)	14.3% (1)	0.0% (0)	14.3% (1)	57.1% (4)	0.0% (0)	14.3% (1)	0.0% (0)	6.71	7
Unblock snow drains to minimize flooding	0.0% (0)	14.3% (1)	0.0% (0)	0.0% (0)	14.3% (1)	0.0% (0)	14.3% (1)	42.9% (3)	14.3% (1)	0.0% (0)	6.71	7
Develop a vegetation mgmt. program to keep trees from falling on lines and interrupting service	14.3% (1)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	14.3% (1)	0.0% (0)	28.6% (2)	28.6% (2)	14.3% (1)	7.29	7
Develop a notification system	42.9% (3)	0.0% (0)	14.3% (1)	14.3% (1)	0.0% (0)	14.3% (1)	0.0% (0)	14.3% (1)	0.0% (0)	0.0% (0)	3.43	7
Provide NOAA radios to citizens	14.3% (1)	0.0% (0)	0.0% (0)	14.3% (1)	0.0% (0)	0.0% (0)	0.0% (0)	14.3% (1)	14.3% (1)	42.9% (3)	7.43	7
Establish Involvement protocol for communication systems	0.0% (0)	42.9% (3)	0.0% (0)	0.0% (0)	14.3% (1)	14.3% (1)	14.3% (1)	0.0% (0)	0.0% (0)	14.3% (1)	4.86	7
Close non-essential public facilities to limit exposure	0.0% (0)	0.0% (0)	14.3% (1)	0.0% (0)	14.3% (1)	0.0% (0)	14.3% (1)	0.0% (0)	28.6% (2)	28.6% (2)	7.57	7

Appendix A: Hazard Mitigation Survey Results continued...

8. Reduce loss of life and property from manmade / pipeline incident Please rank the following projects from highest importance to least importance to the City of Rock Springs.

	#1 Rank	#2 Rank	#3 Rank	#4 Rank	#5 Rank	#6 Rank	Rating Average	Response Count
Enhance ability to notify the public.	28.6% (2)	14.3% (1)	28.6% (2)	14.3% (1)	14.3% (1)	0.0% (0)	2.71	7
Inventory of lines and updated contact information	33.3% (2)	33.3% (2)	16.7% (1)	16.7% (1)	0.0% (0)	0.0% (0)	2.17	6
Pipeline Association (GRBPA) meetings and seminars	0.0% (0)	0.0% (0)	42.9% (3)	14.3% (1)	42.9% (3)	0.0% (0)	4.00	7
Awareness campaigns	14.3% (1)	14.3% (1)	14.3% (1)	42.9% (3)	14.3% (1)	0.0% (0)	3.29	7
School education (color book, activity books)	0.0% (0)	14.3% (1)	0.0% (0)	0.0% (0)	0.0% (0)	85.7% (6)	5.43	7
Get sponsorship for stronger fines pertaining to one call violations	28.6% (2)	28.6% (2)	0.0% (0)	14.3% (1)	14.3% (1)	14.3% (1)	3.00	7

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