Environmental Assessment

North Platte River Recreation Area Management Plan

September 2013

BLM

High Desert District: Rawlins Field Office, Wyoming

The Bureau of Land Management's (BLM) multiple-use mission's is to sustain the health and productivity of the public lands for the use and enjoyment of present and future generations. The BLM accomplishes this by managing such activities as outdoor recreation, livestock grazing, mineral development, and energy production, and by conserving natural, historical, cultural, and other resources on public lands.

DOI-BLM-WY-030-2013-0094-EA

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
RAWLINS FIELD OFFICE

ENVIRONMENTAL ASSESSMENT

EA Number:	**DOI-BLM-WY-030-2013-0094-EA**
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Table of Contents

I. Identifying Information 1
II. Purpose and Need 2
  A. Purpose 2
  B. Need 3
III. Conformance 4
  A. Conformance with Land Use Plans 4
  B. Relationship with Statutes, Regulations, or Other Plans 4
IV. Summary Results of Inventory and Monitoring Data 5
  A. Entire Planning Area 5
  B. Bennett Peak Campground 8
V. Scoping 10
  A. Summary of Scoping 10
  B. Key Issues 11
  C. Issues Raised and Removed from Further Consideration 11
VI. Description of Alternatives Including the Preferred Alternatives 11
  A. No Action 12
  B. Range of Alternatives 12
  C. Alternatives 12
  D. Alternatives Considered but Eliminated from Detailed Analysis 18
VII. Affected Environment 18
  A. Visual Resources 18
  B. Recreation 20
  C. Cultural Resources 22
  D. Water Resources 22
  E. Vegetation 23

F. Livestock Grazing 24
G. Soils 25
H. Fisheries 25
I. Wildlife 28
VIII. Environmental Consequences 32
A. Visual Resources 32
B. Recreation 38
C. Cultural Resources 45
D. Water Resources 46
E. Vegetation 52
F. Livestock Grazing 55
G. Soils 58
H. Fisheries 61
I. Wildlife 62
IX. Cumulative Impacts 66
X. Implementation and Future Monitoring Strategies 67
XI. Tribes, Individuals, Organizations, and Agencies Consulted 69
XII. Acronyms 69
XIII. References 72
XIV. Appendix A: Tables, Figures, and Photos 73
XV. Appendix B: Maps of Preferred Alternatives 96
XVI. Appendix C: Recreation Setting Characteristics Matrix 101
XVII. Appendix D: Reclamation Plan 104

I. Identifying Information

The North Platte River Special Recreation Management Area (SRMA) is located from Prospect Wilderness Study Area (WSA) north to Seminoe Reservoir in the valleys and foothills west of the Snowy Range. The SRMA includes 5,060 acres administered by the Bureau of Land Management (BLM), Rawlins Field Office (RFO). The scope of the planning area for the North Platte River RAMP (NPRRAMP) includes parcels of land within the SRMA boundary from the Prospect Creek confluence to Seminoe Reservoir covering 110 river miles of which the BLM public lands cover approximately 10 percent of the surface area. The remainder of land ownership is predominantly private followed by State of Wyoming. A map of the planning area is available on the RFO website:
http://www.blm.gov/style/medialib/blm/wy/information/NEPA/rfodocs/n_platte_ramp.Par.86993.File.dat/NPlatteMap.pdf.

Private land ownership (i.e., checkerboard) is predominant on the Lower North Platte Watershed as well as on the Upper North Platte Watershed between Treasure Island and Saratoga. From south of Treasure Island to the Colorado border, ownership on the Upper Platte Watershed is predominantly federally managed public lands (BLM and United States Forest Service(USFS)) with some exceptions. The rules concerning navigation and river access on the North Platte River through private land can often be complex. A number of public easements for fishing and floating are managed by the Wyoming Game and Fish Department (WGFD) on the Lower North Platte and provide some limited public access. Public river access on the Upper North Platte, primarily, requires access to federally managed boat launches. Portages onto private lands require following special rules, under direction of case law. This case allows the carrying of boats (only) through private land within the bounds of the natural river channel and portaging must be justified by obstacles impeding progress down the river (see 1961 Day v. Armstrong, Wyoming Supreme Court decision).

The North Platte River is a central feature of the BLM's RFO area. The river descends through whitewater in the North Gate Canyon and sections bordering the Prospect Wilderness Study Area before widening and gently meandering through the agricultural Saratoga valley. The SRMA provides diverse and popular recreation opportunities for residents of south central Wyoming and the Colorado Front Range, including fishing, camping, wildlife viewing, Off-Highway Vehicles (OHV) touring, hunting, floating, swimming, picnicking, hiking, horseback riding, and whitewater paddling.

In close proximity to a growing population in nearby Fort Collins and Boulder, Colorado, the SRMA has seen growth in visitation since the 1990s and receives peak visitor use during seasons with higher stream flows. This peak use has resulted in impacts to social and physical resources which include concerns over congestion and crowding that necessitates the establishment of an appropriate management strategy. This strategy will guide use and management of recreation resources for the next15 years.

This Environmental Assessment (EA) has been prepared by the RFO to present a range of potential management strategies for the SRMA and analyze the potential effects on visual resources, recreation, cultural resources, water resources, vegetation, livestock grazing, soils, fisheries, and wildlife within the SRMA. Alternatives include a range of opportunities for the development of overnight use, day use, education, and river access, as well as the allocation of Special Recreation Permits (SRPs).

The EA was reviewed during a formal comment period ending on April 12, 2013. This first review period included an open house meeting at the Saratoga Library, 503 West Elm St., Saratoga, WY, on April 8, 2013, from 4 until 6 p.m. Stakeholders, agencies, and members of the general public were encouraged to provide substantive comments regarding the action alternatives. The NPRRAMP EA is located at the following website: http://www.blm.gov/wy/st/en/info/NEPA/documents/rfo/rfo/n_platte_ramp.html.

Public comments were most helpful if they cited specific actions or impacts, and offered supporting information. Written substantive comments were scheduled to be received by September 6, 2013, and e-mailed to BLM_WY_North_Platte_River_RAMP@blm.gov, ("North Platte RAMP Comment" was requested to be listed in the subject line). The RFO also accepted mailed or hand-delivered comments arriving during regular business hours (7:45 a.m. to 4:30 p.m.) to: BLM, RFO, North Platte RAMP Comment, 1300 N. Third St., Rawlins, WY, 82301.

Taking the comments into account, the BLM formulated and released a second Draft Recreation Area Management Plan (RAMP) and EA, which is now inclusive of all site-specific analysis of proposed projects and decisions.

II. Purpose and Need

A. Purpose

The BLM seeks to provide a management plan to address management of the planning area. The BLM's purpose in rewriting the RAMP is to use new information to better manage the planning area for high-quality recreation opportunities, reduce conflict, as well as to meet standards for public safety and health as stated in the 2008 Rawlins RMP.

The purpose of developing the North Platte River RAMP is to establish a long-term framework that will determine how recreation opportunities are provided for and managed within the North Platte River SRMA. Relevant management strategies pursued within this RAMP correspond to the management actions prescribed within the 2008 Rawlins RMP (pg. 2-27). To address the current RMP management objectives and actions for the SRMA, as well as issues which emerged during scoping, management strategies proposed in this RAMP include the following:

- Provide high quality recreational opportunities, especially for floating, fishing, camping and sightseeing.

- Pursue access opportunities to the North Platte River.
- Manage commercial outfitting to disperse river usage.
- Manage river parcels to meet Middle Country Setting guideline (see Appendix C) and reclaim undesirable vehicle routes.
- Manage the North Platte River area to meet the Wyoming Standards for Healthy Rangelands.
- Identify preferred alternatives that the BLM would take to implement these strategies

B. Need

In defining recreation as a multiple-use resource, the Federal Land Policy and Management Act (FLPMA) of October 21, 1976 [Sec.103(c), 43 U.S.C.1702], as amended, mandates the BLM to consider the following:

- periodic adjustments in use to conform to changing needs and conditions
- the long-term needs of future generations for renewable and non-renewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values
- harmonious and coordinated management of these resources without permanent impairment of the productivity of the land and the quality of the environment

The BLM-Administered SRMA provides diverse recreational opportunities for South central Wyoming and Northern Colorado Front Range residents. Continued population growth in the urban and non-urban areas and shifting demographic patterns in Wyoming and Colorado have increased the demand for outdoor recreation within the planning area and nearby areas. This increased demand for outdoor recreation has translated into increased use on the North Platte River.

Since the 1985 RAMP, concerns about human impacts and visitor use density have been identified by the public, WGFD, USFS and the BLM, as well as other agency stakeholders. Since these concerns were identified in the 1990s, the BLM, WGFD, and USFS have conducted extensive visitor surveys and counts to identify trends in social conditions and service quality on the North Platte River. The management objectives, stated within the 2008 RFO RMP, include "maintaining or improving the quality of river-related recreational experiences…to provide high-quality experiences and benefits to local residents and visitors" (2008 Rawlins RMP, 2.3.10.1, pg. 2-27). The increasing levels of peak use observed at Bennett Peak Campground has caused waiting lines and issues with overflow parking impeding traffic flow. Littering and trespassing, as well as crowded put-ins, take-outs, parking areas, and campgrounds degrade the quality of visitor experience and create conflicts within the SRMA during periods of peak use. Crowded parking and boat launch wait times during peak weekends have been identified as

an issue by the public, the BLM, and cooperating agencies (see monitoring data results in Chapter IV).

Currently, there is a moratorium on new Special Recreation Permits (SRPs; i.e., permitted fishing outfitters and guides) for the SRMA. Considerations for eliminating the moratorium and providing additional guidelines for allocating SRPs has been identified as a critical issue to address in this document. Currently, there is a waiting list of potential SRPs applicants who have indicated an interest in obtaining a permit and are awaiting a decision on the moratorium.

III. Conformance

A. Conformance with Land Use Plans

The 2008 Rawlins RMP and other related planning documents were reviewed for decisions applicable to the proposed North Platte River RAMP and EA. These decisions are listed below:

The proposed RAMP would update the1985 North Platte River RAMP. Relative to managing the SRMA, the 2008 Rawlins RMP (pg. 2-27) states that the management goal is to ensure the continued availability of outdoor recreation opportunities. Furthermore, the objectives for the SRMA include: 1) maintain and enhance recreational opportunities to accommodate existing niche activities, 2) mitigate conflicts with other resource values and uses as appropriate, in coordination and cooperation with affected interests, 3) maintain or improve the quality of river-related recreation experiences and provide high-quality recreation experiences and benefits, and 4) maintain, restore, and enhance areas to meet Wyoming Standards for Healthy Rangelands.

The NPRRAMP EA is in conformance with all prescribed management actions and objectives for the SRMA as stated within the 2008 Rawlins RMP (pg. 2-27).

B. Relationship with Statutes, Regulations, or Other Plans

The 1985, NPRRAMP and other related planning documents were reviewed for decisions applicable to the proposed NPRRAMP:

Table 1. Guiding Documents to the North Platte River RAMP and EA

Document	***Resource***
16 U.S.C 433, Antiquities Act, as amended	Cultural
16 U.S.C 470aa, Archaeological Resource Protection Act of 1979	Cultural
16 U.S.C 470, National Historic Preservation Act of 1966, as amended	Cultural
43 U.S.C., Federal Land Policy and Management	Federal Actions

Act of 1976	
16 U.S.C 4601-4, Land and Water Conservation Act, as amended	Realty
33 U.S.C. §1251, Clean Water Act, as amended	Hydrology
43 CFR 8340, Public Lands Recreation and Recreation Areas Traffic Regulations	OHV
43 USC 1201, Power of Secretary or Designated Officer	OHV
Executive Order 11644 (as amended by Executive Order 11989)	OHV
BLM Manual 8341, Conditions of Use (Off-Road Vehicles)	OHV
BLM Manual 8342 Designation of Roads and Trails	OHV
42 U.S.C. National Environmental Policy Act of 1969, as amended	Planning
BLM Manual Special Recreation Permit 8372	SRP
BLM Handbook H-8372-2	SRP
BLM Manual Handbook H-8410-1 and H-8431-1	Visual Resources
BLM Manual 1601-1 Land Use Planning Handbook	Land Use Planning
BLM Manual H-2930-1 Recreation Permit Administration	Recreation
BLM Manual H-4180-1 Rangeland Health Standards	Range
BLM Manual H-9113-1 and H-9115-2, Roads Design	Engineering
16 U.S.C. 670, et seq., Sikes Act of 1974	Wildlife
16 U.S.C. 703-712, Migratory Bird Treaty Act of 1918, as amended	Wildlife
7 U.S.C. § 136, 16 U.S.C. § 1531, Endangered Species Act, as amended	Wildlife
Upper North Platte Watershed Standards and Guidelines Assessment, September 2005	Range and Hydrology
Lower North Platte Watershed Standards and Guidelines Assessment, September 2004	Range and Hydrology

IV. Summary Results of Inventory and Monitoring Data

A. Entire Planning Area

The BLM Outdoor Recreation Planners reported that the number of visits to the SRMA peaked in 2010. Approximately 68,000 visits were recorded in 2010 followed by 2004 with 51,000, 2005 with 48,000, and 2006 with 45,000, respectively. The years with the lowest levels of use were

2008 with approximately 25,000 visits and 2009 with 31,000 visits. The number of vehicle passes and visits corresponded to a formula to determine the number of visitor days at 2.45 visitors per vehicle where:

1) 2 recorded passes = 1 vehicle pass

2) 1 vehicle pass =1 visit

3) Visits multiplied by 2.45 = visitor days

This formula was generated through agreement among several prior outdoor recreation planners from extensive field observations. Over the past six field seasons, visitor days peaked in 2010 at, approximately 48,000, followed by 2004 and 2005 both at 35,000, 2006 at 34,000, 2009 at 30,000, and 2008 at 26,000 (see Figure 2).

In 2010, the BLM conducted a count of visitor encounters during a Recreation Opportunity Spectrum Inventory over a period of 16 days (totaling 61.5 hrs (see Table 5). Results indicated relatively higher visitor use at Dugway Campground, Bennett Peak Campground, Corral Creek Campground, and Prospect Creek Undeveloped Recreation Site. The method of counting encounters utilized by the Outdoor Recreation Planner in 2009 and 2010 was to count all visitors observed including vehicles, shoreline visitors, and craft.

By comparison, the WGFD reported, approximately, 24,000 visits to Treasure Island boat launch in 2009, followed by 2001 at 19,000, 2006 at 18,000, and 2008 at 17,000. Treasure Island is the primary take-out used by the majority of the BLM visitors who launch at Bennett Peak Campground. The Treasure Island take-out is also frequently utilized by those visitors who put-in on the Encampment River above the confluence with the North Platte River. Therefore, the WGFD visitation data should not correlate with BLM visitation data for the North Platte River.

According to data collected at the U.S. Geological Survey (USGS) North Gate Canyon Gauge, from May-September, between 2002 and 2012, the average seasonal stream flows were at 78.4 cubic feet per second (cfs) in 2002, followed by 2003 at 544 cfs, 2004 at 289 cfs, 2005 at 837 cfs, 2006 at 527 cfs, 2007 at 369 cfs, 2008 at 1011 cfs, 2009 at 718 cfs, 2010 at 796 cfs, 2011 at 2004 cfs, and 2012 at 176 cfs. Overall, higher streamflows corresponded closely to increases or decreases in visitor use during the majority of seasons reported. One exception to this trend was demonstrated in 2004, a year reported as having low average discharge (cfs) and moderate visitor use.

The BLM surveyed visitors during the summers of 2009 and 2010. Eighty-two mail-back questionnaires were completed at 10 different study locations along the North Platte River. In 2009 there was approximately a 70 percent mail-back questionnaire return rate. In 2010, there was a 25 percent return rate. Ninety-five percent of the study sample consisted of private boaters, while five percent were commercial users. The most frequent reported cities of residence were Boulder, Colo. (12.2 percent), followed by Denver (9.8 percent), Saratoga (7.3 percent), and Laramie and Fort Collins (4.9 percent). Nineteen and a half percent of the respondents were first time visitors with the majority of the sample being repeat visitors (80.5 percent). A majority, 20.7 percent, of respondents visited in group sizes of three followed by 18.3 percent traveling in groups of two and 18.3 percent traveling in groups of four. The duration of visits for most visitors was one day (30.5 percent), followed by two days (28 percent), and three days (18.3 percent).

The average expenditure during a visit was $904. A total of $65,100 was spent among 72 survey respondents reporting expenditures (approximately 70% spent in Wyoming and 58 percent in Carbon County during the 2009 season). About half of respondents were non-Wyoming residents staying overnight.

There was very high satisfaction on the river. Approximately 96 percent of survey respondents were either satisfied or very satisfied with their trip on the North Platte River while only 1.2 percent were very dissatisfied. Physical impacts from river use were not perceived as being high. No respondents indicated that physical impacts were extremely high and only 5.19 percent perceived there to be moderately high impacts from river use. Most respondents perceived physical impacts as extremely low.

An average of 9.16 boats were seen on the river. Seventy-six and a half percent of respondents felt that the number of boats seen was about right while only 3.7 percent felt there were far too many. The average number of people seen by respondents was 24. The majority of respondents, 75 percent, felt that the amount of people seen was about right, on their float trip while approximately 22 percent of respondents felt that they saw either somewhat or far too many people during their float trip.

When comparing the 2008 and 2010 outfitter use, Hack's Tackle reported the highest number of visitor days with nearly 800 visitor days reported in 2008 and over 750 visitor days in 2010. In 2010, Grand Slam Outfitters had just over 200 visitor days followed by Stoney Creek and Kingfisher Drifters both at approximately 125 visitor days reported.

After public comments were received and considered during the review period of the Draft EA, the NPRRAMP Interdisciplinary Team (IDT) and Sounding Board further reviewed the average number of self-reported customer days by the float fishing SRPs. In 2011, there was an average of 260.8 customer days self-reported among float fishing SRPs followed by 2010 with 181.87 customer days, and in 2009 with 170.33 customer days, respectively.

Water quality was monitored by the USGS and reported to the BLM by the Wyoming Department of Environmental Quality (WY DEQ), which provides the following body contact guidelines for fecal coliform:

(a) High use swimming areas - 235 organisms per 100 milliliters

(b) Moderate full body contact - 298 organisms per 100 milliliters

(c) Lightly used full body contact - 410 organisms per 100 milliliters

(d) Infrequently used full body contact - 576 organisms per 100 milliliters

The USGS data from October 2003 to August 2012 at the USGS Sinclair Gauge demonstrated that fecal coliform counts increased with turbulence and higher peak streamflows (cfs), causing excessive run-off and corresponding to an increase in total solids during most high flow years. On May 24, 2005, there was a peak coliform bacteria count of 250 per 100 ml, which was the highest reported in the last seven years (see Figures 1a and 1b). This count does not exceed the above guidelines for moderate full body contact (i.e., wade fishing). On May 24, 2005, the gauge

indicated that the peak streamflow was at 6610 cfs. Total suspended solids (TSS) on this same day were reported to be 147 mg per liter while *Escherichia coli* (*E Coli*) was at 230 counts per 100 ml. *E coli* counts were much lower than they were 20 years ago before the Sage Creek Watershed conditions were improved through various range projects (i.e., 600 counts per 100 ml in May 1992). Overall, USGS monitoring data indicated that fecal coliform counts rarely rise above the limit for high use swimming areas.

Additional monitoring data for water resources, vegetation, soils, fisheries, weeds, and water quality is available in the 2004 Lower Platte River Watershed Standards and Guidelines Assessment and 2005 Upper Platte River Watershed Standards and Guidelines Assessment.

These assessments are required on all BLM lands and are the basis for evaluating and monitoring conditions for Healthy Rangelands.

B. Bennett Peak Campground

Site-specific monitoring data for Bennett Peak Campground was analyzed because of the high number of crowding complaints and conflicts reported to the BLM for this location (i.e., 30 complaints reported in one week to the RFO in the summer of 2007). These complaints primarily concerned the blocking of traffic in the parking area and the waiting lines at the put-in during peak weekend and holiday use.

In 2010, approximately 24,000 visitor days were recorded followed by 2009 at 15,000 and 2012 at 12,000 (see Figure 5a). Between 2004 and 2010, the average visitation climbed in June, peaked in early July, and declined toward the latter half of September. Weekends which corresponded to ideal stream flows for float fishing during the month of June, as well as July 4, tended to have the highest concentration of use. Overall, the average yearly visitor use at Bennett Peak tends to follow higher average river flow years. For example, in 2010, the highest average visitor use peaked when the nearby Northgate Canyon USGS Gauge reached an average of 796 cfs for the season (May-September).

In 2013, a BLM boat count inventory was conducted at Bennett Peak Boat Ramp. Results indicated that 5.93 craft were on the river per day just below Bennett Peak Boat Ramp (i.e., primarily rafts and hard bottomed drift boats as well as several canoes/kayaks). This number included craft observed launching, passing craft, shoreline visitors, and vehicles. An inventory of self-reported boats launched by current SRPs was also conducted using post-use reports submitted by outfitters. At Bennett Peak, in 2008, 100 boats were self-reported as being launched by SRPs, followed by 70 in 2009, 161 in 2010, and 204 in 2011 (assumes 120 day season (May 15-Sept 15); 2012 post-use reports were not submitted to the BLM by 2 float fishing SRPs).

Based on the above self-reported SRP boat launch data and the 2013 boat counts, a 15 year growth projection for the average number of craft encounters for the Bennett Peak to Treasure Island segment was computed by the BLM Outdoor Recreation Planner for a typical 120 day Season from May 15 to Sept 15 (see Figure 5b).

The method for computing the forecasting model displayed in Table 5 was as follows:

1) The number of self-reported boats launched at Bennett was tabulated from SRP Post-Use Reports for 2008-2011. The 2012 post-use reports were deficient and, therefore, excluded.

2) The average number of SRP boats launched at Bennett per day by SRPs was tabulated using a typical season of May 15 to Sept. 15.

3) The average private craft encountered per day in 2013 at Bennett Peak Boat Ramp was estimated using a 120 day season of May 15 to Sept. 15.

4) The average private and commercial boats encountered per day at Bennett Peak was tabulated by adding items 2 and 3 above.

5) The average private and commercial boats encountered per day in a typical 120 day season from 2008 to 2011 was plotted and a baseline (green line) was provided in Figure 5b.

6) Six scenarios were then projected including the baseline (continuing the moratorium) as well as adding two, four, six, eight, and 10 new SRPs. When computing the growth projection, the average number of boats launched at Bennett Peak per day for an average SRP was multiplied by the number of new SRPs added (two, four, six, eight, and 10).

During the 15 year planning duration of this RAMP, it is projected in Figure 5b that there would be no exceedances of the current Middle Country Setting limit of 22 craft encounters with the addition of up to six new SRPs. The growth projection model forecasts that any addition above six new SRPs would exceed this limit of boat encounters.

A WGFD angler study was conducted in 2000. One set of angler surveys was conducted on the river bank and another set of angler surveys was filled out on boats. The WGFD study revealed that, overall, the majority of fishermen were somewhat satisfied to very satisfied. Forty-three percent of bank fishermen were somewhat satisfied while 39 percent were very satisfied. Among boat anglers, 81 percent were very satisfied and 13 percent were somewhat satisfied. The activity of floating vs. bank fishing appeared to influence satisfaction ratings.

Among the BLM study respondents in 2009-2010, 96.4 percent of visitors were very satisfied with their river trip when surveyed at Bennett Peak Campground, no respondents were dissatisfied, and only two respondents were neutral. The factors that were listed as detracting from the trip includes the following responses in order of highest frequency: bad weather, high water levels, rough roads (washboard from lots of trailers), private property limiting access points, lack of space, crowded, need to widen launches, restroom maintenance, and range allotment odors (see Figure 6). Twenty-nine percent of visitors commented that the North Platte was a good river. Another 29 percent of customers commented that Bennett Peak was a well maintained campground and boat launch. Twenty-four percent of customers felt that the wildlife added to the trip quality and commented that wildlife encounters were more frequent than in the past. Thirty-four percent of customers preferred to fish on the river while 31.4 percent indicated that they were camping at Bennett Peak.

In a separate campground survey conducted by the BLM during 2010 at Bennett Peak Campground, 75 percent of visitors surveyed indicated that the existing facilities at Bennett Peak Campground met their needs. In the same campground survey, customers were asked which facilities would meet their needs, approximately, 80 percent of customers responded that more

information would be helpful. Fifty-eight percent of respondents would like to see better signs, 80 percent more trails, 80 percent more campsites, and 60 percent more restrooms at Bennett Peak Campground.

V. Scoping

A. Summary of Scoping

The NPRRAMP EA external scoping and public involvement consisted of an initial informational meeting on March 24**,** 2009, from 7:00 p.m. to 8:30 p.m. at the Platte Valley Community Center in Saratoga, Wyo. Letters were sent to interested agencies, state representatives, senators, and public stakeholders. Two additional open house public meetings were held on March 4, 2010, from 2:00 p.m. to 6:00 p.m. and March 9, 2010, from 2:00 p.m. to 6:00 p.m. An interested agencies meeting was held at the BLM, RFO on November 29, 2012, from 1:30 p.m. to 3:30 p.m. and a public meeting was held at the Platte Valley Community Center in Saratoga on December 18, 2012, from 4:00 p.m. to 6:00 p.m. An outfitters meeting was held on January 15, 2013, from 1:00 p.m. to 3:00 p.m. at the Carbon County Library in Saratoga, Wyo. An additional public meeting took place in Saratoga, Wyo. on April 8, 2013. In addition, internal scoping was conducted among the NPRRAMP IDT members at the RFO.

The BLM received numerous comments from the public and agencies. Comment letters, received before the draft review period, included the following interested agencies and members of the public:

- Kingfisher Drifters - 1/02/2013
- Centennial Canoe Outfitters - 12/17/2012
- North Platte Trouters - 1/11/2013
- A Bar A Ranch – 04/01/2010
- Michael B. Enzi, U.S. Senator – 4/02/2009
- Harrison's Guest House & Guide Service – 2/26/2010, 3/26/2009, 2/21/2013, 3/07/2013
- Spur Outfitters – 2/19/2009, 3/27/2009
- Old Baldy Club – 2/27/2009
- Will Faust – 2/18/2009
- John H. Collamer – 3/25/2009
- Saratoga/Platte Valley Chamber of Commerce – 3/27/2009
- Hack's Tackle – 2/23/2009
- Fred Caccese – 07/16/2010

Public and agency comments received during the Draft EA review period are presented in Appendix I of the Finding of No Significant Impact (FONSI) which is also available on the BLM

RFO website (http://www.blm.gov/style/medialib/blm/wy/information/NEPA/rfodocs /n_platte_ramp.Par.62365.File.dat/RAMPComments.pdf).

B. Key Issues

A planning issue is defined as a matter of controversy, dispute, or general concern over resource management activities, the environment, or land uses. The goal of this planning effort is to effectively address these issues through a comprehensive recreation management strategy. Listed below are issues that were identified through the internal and external scoping process:

- Increased visitor use and crowding at Bennett Peak Campground on peak weekends
- Widen boat ramp and provide additional parking at Bennett Peak Campground
- Provide additional restrooms
- Create additional campsites within existing campgrounds
- Provide additional campgrounds (boat-in campground, tent site at Prospect Creek boat launch)
- Provide an additional boat launch at Corral Creek (i.e., canoe slide)
- Provide additional put-ins/take-outs
- Address human waste issues between Bennett Peak Campground and Treasure Island
- Provide road and launch improvements at Big Creek
- Improve Prospect Creek Road erosion improvements
- Consider ending moratorium on new SRPs
- Determine method of allocating future SRPs (if moratorium is lifted)
- Improve boat ramp at Dugway Recreation Site

C. Issues Raised and Removed from Further Consideration

Certain issues raised during scoping will not be addressed in the North Platte RAMP EA because they are either outside the scope of this planning process or the authority of the BLM.

- Develop easements with private land owners for additional river access
- Campground development near the Rochelle Easement requiring state land agreements
- Address human waste issues between Treasure Island and Saratoga

Alternatives considered but eliminated from detailed analysis are also discussed in Chapter VI.

VI. Description of Alternatives Including the Preferred Alternatives

This chapter describes the alternatives that were analyzed in detail within the NPRRAMP EA. Aside from the No Action Alternative, the management actions described in each alternative were intended to resolve issues identified by the interested public, agencies, and the BLM IDT.

A. No Action

If this alternative were selected, it would involve no changes to the current level of recreation resource management in the SRMA planning area. The BLM would not implement the proposed NPRRAMP. Planning issues, identified by the interested public, agencies, and the BLM IDT in the proposed NPRRAMP, would remain unresolved. Multiple recreation and resource protection opportunities would be compromised and potentially lost in the long-term. Social and resource concerns would likely escalate to higher-risk status until addressed by the BLM in a more reactive rather than proactive approach to planning.

B. Range of Alternatives

The key actions for five sets of alternatives are described in Table 2. These alternatives provide a range of potential development and management in order to provide the opportunity to consider a variety of conditions and experiences within the SRMA during the planning process. Each row within the table represents a set of alternatives for a specific development or management direction that is being considered.

If the preferred alternatives for all key actions (see Table 2 on pgs. 14-18), are selected, planning would involve implementing the NPRRAMP EA in its entirety. The actions would guide management of the recreation sites within the SRMA, as well as the design of specific project plans. The proposed alternatives are intended to resolve issues identified by the interested public, agencies, and NPRRAMP IDT.

C. Alternatives

The following key actions were given a complete site-specific analysis in this document: 1 (Boat-in Campground), 2 (Leave-No Trace Education), 3 (North Platte River SRP Allocations), 4 (Additional Parking Lot and Boat Ramp at Bennett Peak Campground), 5 (Improvement of Corral Creek Campground), 6 (Improvement of Prospect Creek Undeveloped Recreation Site), and 7 (Improvement of Big Creek Undeveloped Recreation Site). The selected alternatives for each of these seven key actions would be in full force and effect with immediate implementation upon signature of the Record of Decision. The range of alternatives for Key Action 3 (North Platte River SRP Allocations) were developed with guidance from the following members of the NPRRAMP Sounding Board: Thomas Powell, Carbon County Planner; John Zeiger, Mayor of Saratoga; Brian Waugh, USFS Recreation Planner; John Russell, BLM Project Manager; Robin Fehlau, BLM Idaho Recreation State Lead; and Christopher D. Jones, BLM Outdoor Recreation Planner and NPRRAMP Project Lead. All recommendations from the Sounding Board for Key Action 3 were submitted to the BLM, RFO, Field Manager, Dennis Carpenter, for approval as a Preferred Alternative. All issues and opportunities identified through internal and external scoping were also presented to the field manager for determination of preferred alternatives.

Table 2. Key Actions and Range of Alternatives for the North Platte SRMA RAMP and EA

Key Action		No Action/ Existing Condition	Preferred Alternative	Alternative 1	Alternative 2
1	Boat-In Campground Location: Township 19N, Range 85W, Section 22	No provision would be made for supplying/managing a boat-in campground.	Pursue a primitive to developed boat-in campground (see Map 1). Initially provide only site and boundary marking signs to designate the proposed camping area. Provide ongoing monitoring to determine future adaptive management. Future adaptive management could possibly include the additions of a toilet, metal fire rings, tent pads, and picnic tables (if resource conditions warrant). Pursue BLM administrative access for potential future maintenance.	Pursue a fully developed boat-in campground to initially include a toilet, fire rings, grills, tent site pads, trails, and boat-tie offs. Maintenance would be performed annually (see Map 1). Private/public land boundary sign markers would be placed along the project area section boundaries. Provide ongoing monitoring to determine adaptive management.	Same as Preferred
2	Leave-No-Trace Education	No provision would be made for a Leave-No Trace educational program.	Provide a Leave-No-Trace educational program on a voluntary basis. Provide ongoing monitoring to determine adaptive management. If unacceptable impacts are identified, mitigation measures would be implemented after monitoring (i.e., pit toilets, carry-in/carry-out).	Provide a Leave-No-Trace educational program. The public would supply their own carry-in/carry-out supplies on a voluntary basis. No agency cost reimbursement for Leave-No-Trace supplies.	Provide a Leave-No-Trace educational program. Carry-in/carry-out would be voluntary. Seek reimbursement for Leave-No-Trace supplies and services.

Table 2 cont…

Key Action		No Action/ Existing Condition	Preferred Alternative	Alternative 1	Alternative 2
3	North Platte River SRP Allocations	No action. Continue moratorium of new SRPs on the North Platte River SRMA.	Provide for allocation of commercial SRPs using the average Middle Country limit to be no more than 22 craft encountered per day on any one section of the North Platte River SRMA. The number of visitor days would be allocated to SRPs, according to their actual levels averaged over the last three years, at such a time that this Middle Country limit has been reached. Up to three SRP requests on the current waiting list will be considered for permit approvals every other year until such time as the above Middle Country limit has been reached. This SRP release schedule is subject to adjustment if future monitoring data indicate that SRMA objectives are not being met (i.e., resource conditions). Wade fishing SRPs would be exempt from the above allocation and limits until further notice.	Provide for allocation of commercial SRPs using the Front Country Setting limit of an average of 30 or more craft encountered per day on any one section of the North Platte River SRMA. The number of visitor days would be allocated to SRPs, according to their actual levels averaged over the last three years, at such a time that this Front Country limit has been reached. All SRP requests on the current waiting list will be considered for permit approvals in the first year and beyond until such time as the above Front Country limit has been reached. This SRP release schedule is not subject to adjustment based on future monitoring data. Wade fishing SRPs would be exempt from the above allocation and limits until further notice.	Provide for allocation of commercial SRPs using the Back Country Setting limit of an average of no more than 11 craft encountered per day on any one section of the North Platte River SRMA. The number of visitor days would be allocated to SRPs, according to their actual levels averaged over the last three years, at such a time that this Back Country limit has been reached. One SRP request on the current waiting list will be considered for permit approval every fourth year until such time as the above Back Country limit has been reached. This SRP release schedule is subject to adjustment if monitoring data indicate that backcountry conditions are exceeded. Wade fishing SRPs would be exempt from the above allocation and limits until further notice.

Table 2 cont.…

Key Action		No Action/ Existing Condition	Preferred Alternative	Alternative 1	Alternative2
4	Additional Parking Lot and Boat Ramp at Bennett Peak Campground Location: Township 15N, Range 82W, Sections 14 and 15	No provision would be made for a new parking lot or boat ramp expansion at Bennett Peak Campground.	Provide a primitive overflow parking lot north of Bennett Peak boat ramp (Map 2). Expand the existing concrete boat ramp to two or three trailer spaces (Map 2). Provide u-bolt anchors for boats within 10-20 feet downstream of boat ramp. Pursue a campground host to assist in monitoring and education. Provide a native-colored educational kiosk with updated ownership maps, education materials, and regulations. Provide ongoing monitoring to determine adaptive management.	Provide a parking lot in front of Bennett Peak boat ramp by removing round-about island and creating new parking spaces (Map 2). Provide ongoing monitoring to determine adaptive management.	Same as Preferred
5	Improvement of Corral Creek Campground Location: Township 15N, Range 82W, Sections 14 and 23	No provision would be made for improvements at Corral Creek Campground	Provide ongoing monitoring to determine adaptive management. Initially, in the first season, conduct a lottery and issue a limited number of keys to the gated river access through a Special Recreation Permit Application. Stipulations to protect the resource would be included in these SRPs. In this initial stage, provide no improvements or maintenance of the two-track river access. Any future improvements, reroutes, realignments, and/or maintenance of the existing river access at Corral Creek would need to be justified by future monitoring data results of resource conditions. Initially, provide an unimproved overflow parking area (Map 3) and upgrade the campground to current BLM fee site standards. Provide horse corral(s). Pursue a campsite fee.	Pursue a canoe slide, additional parking, reliable water source, and a campsite fee. Pursue an upgrade of the campground to current BLM fee site standards. Provide ongoing monitoring to determine adaptive management.	Pursue a canoe slide and no other additional services. Campsite would remain free of charge.

Table 2 cont.…

Key Action		No Action/ Existing Condition	Preferred Alternative	Alternative 1	Alternative 2
6	Improvement of Prospect Creek Undeveloped Recreation Site Location: Township 13N, Range 81W, Section 1	No provision would be made for improvements or routine maintenance of Prospect Road.	Provide current and future maintenance of the existing, two-track known as Prospect Creek Rd. Pursue rerouting of the current road to avoid the steep grade by providing a switchback to connect to an adjacent, existing two-track(Map 4). Pursue space for passing vehicles on the existing two-track. Clear bordering vegetation to enlarge the existing unimproved parking area at boat launch. Provide ongoing monitoring to determine adaptive management.	As needed, pursue maintenance of the existing two-track known as Prospect Creek Road. Provide ongoing monitoring to determine adaptive management.	Same as Preferred

Table 2 cont.…

Key Action		No Action/ Existing Condition	Preferred Alternative	Alternative 1	Alternative 2
7	Improvement of Big Creek Undeveloped Recreation Site Location: Township 14N, Range 81W, Section 17 and 20	No provision would be made for creating new two-tracks or any other additional river access at Big Creek Undeveloped Recreation Site. As per the 1985 North Platte River RAMP, the current two-track administered by BLM would be maintained as a primitive four-wheel drive trail. Other maintenance actions could be provided to maintain the existing administrative and/or resource condition (see Map 5).	Same as No Action	Provide ongoing monitoring to determine adaptive management. In addition to the maintenance continued under the No Action Alternative, pursue an interagency agreement with the U.S. Forest Service to provide realignment of existing two tracks and switchbacks at Big Creek Undeveloped Recreation Site (Map 5). Pursue improvements of the boat launch and add a parking area.	Same as Preferred

D. Alternatives Considered but Eliminated from Detailed Analysis

Develop a Campground in the Rochelle Easement

The BLM IDT determined that the development of a new campground at this site would be unlikely to disperse use away from congested areas on the Upper Platte River. This campground would involve access on state land and would require a Memorandum of Understanding which was not supported by WGFD. Accessing a suitable camping area within this area would require extensive reconstruction of an overgrown two-track over rough terrain. This two-track would be both difficult to reconstruct and maintain for public access. Many of the other access areas within the easement would not allow for a suitable public campground site because of topography and/or private land access concerns.

Provide a New River Access Road to Big Creek Undeveloped Recreation Site

Previously submitted public comments overwhelmingly disapproved of this proposal.

Provide Additional Put-ins/Take-outs Created Through Private Easements

The BLM has no authority over private easements and little support was expressed during agency, public, or internal BLM meetings.

Provide Boat Ramp Repairs at Dugway Campground

Boat ramp repairs were already made by the BLM Engineering at Dugway Boat Ramp in the spring of 2012, and since construction no further concerns have been identified.

Provide a Canoe Slide at Bennett Peak Campground

This action lacked support during the public and agency meetings. Agency members and outfitters stated that a canoe slide would be utilized by a small percentage of users. The BLM IDT members stated that a proposed separate boat ramp or canoe slide at Bennett Peak could potentially interfere with handicapped accessible fishing due to its close proximity. Furthermore, a potential canoe slide access area just downstream from the existing boat ramp would not be compatible with the current roundabout. The potential loading of craft onto the canoe slide would likely impede traffic flow on the current roundabout in an area with existing traffic flow concerns.

VII. Affected Environment

A. Visual Resources

The North Platte River's viewshed is surrounded by mountains, foothills, and rolling meadows creating the perception of a relatively natural and agrarian landscape. The SRMA exhibits a variety of scenic qualities ranging from large intact stands of lodgepole pine and aspen along the boundaries of Prospect WSA to predominantly cottonwoods and sage brush in agrarian areas downstream from the forest. The scenic qualities that exist within the North Platte River SRMA are managed through

the assignment of Visual Resource Management (VRM) Classifications. The Upper North Platte has a high level of scenic quality with canyons carved through the mountains and large, rounded boulders creating rapids, which contrast with the clear water and darkness of the surrounding pine forest. The attributes of the Lower North Platte consist of rolling hills and meadows surrounded by agricultural and range developments, with much deeper water and fewer rapids. The Lower North Platte gives the paddler a sense of mystery as the river often curves and meanders sharply.

The SRMA lies within three different VRM Classes. The following class designations reflect the updated 2012 Approved Record of Decision for the Chokecherry and Sierra Madre Wind Energy Project EIS: Visual Resource Management Plan Amendment (pg. 2-2). This amendment modified the VRM class designations in the 2008 Rawlins RMP for the majority of the SRMA (for the planning area south of I-80). The VRM Classes just north of I-80 are still designated within the 2008 Rawlins RMP.

There is a VRM Class II designation for planning area sections from Prospect WSA to Bennett Peak Campground and from just south of Dugway Developed Recreation Site to Seminoe Reservoir. Visual Resource Management objectives for VRM Class II are to retain the existing character of the landscape and landscape change should be low. For VRM Class II, any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features.

The planning area sections from Bennett Peak Campground to Saratoga and from just north of I-80 to just south of the Dugway Developed Recreation Site are designated VRM Class III. Objectives for VRM Class III are to partially retain the existing character of the landscape while landscape change should be moderate. Changes in VRM Class III areas should repeat the basic elements found in the predominant natural features of the characteristic landscape.

The planning area sections from Saratoga to just north of I-80 are designated as VRM Class IV. Objectives for VRM Class IV include management activities causing major modification to the landscape character and landscape change can be high. Every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements of the landscape (BLM Handbook H-8410-1).

Past changes to the SRMA have included Best Management Practices (BMPs) to mitigate the impacts to visual resources and provide natural appearing settings for recreation activities. For example, restrooms, gates, and other facilities within Dugway, Corral Creek, and Bennett Peak Campgrounds have been painted with the BLM Standard Environmental Colors or used native-colored building materials (i.e., wooden ties or posts) to reduce the contrast with surrounding scenery.

The SRMA has not experienced intensive development. However, existing development within the SRMA includes agricultural and recreation site developments as well as maintained and unmaintained access roads and two-tracks. The viewshed surrounding the Lower Platte River includes numerous two-track roads and range improvements such as fences and hay meadows. The landscape is open with little relief, and its ability to absorb man-made structures is low. The viewshed surrounding the Upper Platte River is enclosed by the surrounding mountains and forest, and the ability to absorb man-made structures is moderate.

B. Recreation

Entire Planning Area

The North Platte River and its tributaries are among Wyoming's most important fisheries and offer world class trout fishing and non-motorized floating. The North Platte River from the Colorado state line to the confluence with Sage Creek has been designated as a Class I Water Resource by the WYDEQ. This designation suggests that this section of the river provides ideal conditions for game fishing and world-class trout fishing, which is the primary focus of the BLM's recreation management program in Carbon County. Fishing as both outdoor recreation and outfitted guiding is increasing, thereby, creating a growing need to manage its recreational use. Visitor use of the SRMA is dependent on water levels and stream flows. For example, during a drought year in 2012, use decreased by as much as 50 percent. During the drought year of 2012 an estimated 41,234 visited the SRMA; whereas during 2000, a high water year, 71,248 visitor days were recorded.

From Saratoga to the Colorado state line, non-motorized boating is allowed, while motorized boating is permitted from Saratoga to Seminoe Reservoir. The North Platte River from the Colorado border downstream to Sanger Public Access Area is a popular paddling trip for canoeing, kayaking, and rafting. From Saratoga downstream to Fort Steele, visitation is lower than on the Upper North Platte, but is still a frequented section for recreational fishing and paddling. This section is more popular for overnight visitors who camp along the shoreline while paddling the length of this 44 mile float trip.

Commercial fly-fishing guiding, instruction, and outfitting are becoming more popular on the Upper North Platte River. The BLM granted 12 active Special Recreation Permits (SRPs) in 2012 for commercial fly-fishing companies to access the SRMA. Permitted guides may access BLM public lands along the North Platte for launching, taking out, anchoring, and wade-fishing. SRPs are not required for State of Wyoming or WGFD access locations or on private lands. The SRMA currently has a moratorium with regard to approving new SRP which was initiated, primarily, because of parking capacity and visitor use density concerns at the Bennett Peak boat launch and parking area.

The SRMA is also a popular destination for big and small game hunting. Primary big game species for hunting include deer, elk, antelope, moose, black bear, and mountain lion. Primary small game species include blue grouse, Greater Sage-Grouse, waterfowl, and cottontail rabbit. The planning area contains elk, mule deer, and antelope units. Other popular recreation activities within the SRMA planning area include camping, wildlife viewing, sightseeing, and OHV touring.

Much of the Lower North Platte River is surrounded by the checkerboard land ownership pattern, where public and private sections of land are adjacent to each other. Sections of private land underneath the water and along the riverbanks often prevent the public from gaining access to desired boat launches, take-outs, or convenient facilities along the river (i.e., restrooms). Many outfitters and members of the public get permission or pay an access fee to private landowners for the use of their private land. Some private landowners have provided recreational easements

for public use (i.e., the Rochelle Easement). Boundary markers for recreational easements, BLM public lands, and state lands are painted blue while private land markers are painted red.

Recreation Sites within the SRMA

The **Prospect Creek Undeveloped Recreation Site** is located 16 miles southeast of Encampment, Wyo. The elevation ranges from 7,400 to 8,430 feet. This recreation site is primarily utilized as a river launch for BLM visitors taking out at Bennett Peak Campground and as a take-out for USFS visitors, who launch at the Six Mile and Routt launches. Prospect Creek provides a variety of recreational activities, including fishing, hunting, sightseeing, hiking, camping, rock hounding, and wildlife viewing. The area is used by local residents and nonresidents. The site offers a primitive, sandy boat launch and primitive access on a rugged, steep two-track. The existing steep grade and condition of the two-track limits the number of visitors due to the need to access the area using a high-clearance, four-wheel drive (4WD) vehicle. The rocky wash-out areas on this two-track have caused many vehicles and trailers to receive extensive damage. Most SRP holders and members of the public avoid this recreation site due to the current condition of the access road.

The **Big Creek Undeveloped Recreation Site** is approximately six miles downstream from Prospect Creek. This area is currently accessed by high-clearance four-wheel drive vehicle through F.S. 211, which connects to this recreation site within the SRMA. The majority of recreation activities at this site include fishing, camping, hunting, hiking, OHV touring, and wildlife viewing. The poor maintenance condition of F.S. 211 currently prevents most SRPs and members of the public from accessing the boat launch and recreation site.

Corral Creek Campground is approximately eight miles downstream from the Big Creek Undeveloped Recreation Site and sits at approximately 7,200 feet in elevation. The area is located off of County Road 660, which leads to Bennett Peak Road (BLM 3404). The primary recreation activities at Corral Creek Campground are camping, fishing, floating, and hunting. The area has six campsites, a vault toilet, day use parking, and two foot trails for wade fishing. Seasonal openings typically occur from June 1 to November 15. Game species in this area include bighorn sheep, pronghorn, elk, wild turkey, mule deer, mountain lion, and grouse, as well as rainbow and brown trout. There are currently no fees required for camping at this recreation site and the campsite is in a semi-primitive condition without hardened campsites.

Bennett Peak Campground is approximately one mile downstream from Corral Creek Campground and is also on Bennett Peak Road (BLM 3404). This recreation site is at approximately 7,100 feet and is the most popular and heavily visited recreation site within the RFO. The primary recreation activities at Bennett Peak Campground are fishing, floating, camping, sightseeing, OHV riding, wildlife viewing, and hunting. There are 11 campsites along with a vault toilet, hand pump well, boat ramp, day use parking, and accessible fishing area. There is currently a $10 per night fee required for camping at this recreation site. Seasonal openings and game species would be identical to Corral Creek Campground. The Bennett Peak Campground was reconstructed in 1996. There is currently a hardened boat ramp that is one vehicle wide and a boat ramp parking area for six vehicles with trailers. All campsites, picnic areas, and a handicap accessible fishing area are also hardened at Bennett Peak.

The **Dugway Developed Recreation Site** is approximately seven miles north of the Sinclair exit on County Road 351. It is located on a bend in the North Platte River and is popular for fishing, floating, camping, sightseeing, OHV riding, wildlife viewing, and hunting. The area has five hardened campsites (one pull-through, four spurs) along with a group site, vault toilet, picnic tables, fire pit, boat ramp, and day use parking. There is currently no fee required to camp at this recreation site. The area is open year round due to the low elevation of this recreation site at 6400 feet. Boaters primarily retrieve their craft rather than launch at Dugway Recreation Site because a control crest/low-head dam hazard just downstream of the ramp.

C. Cultural Resources

Archeological investigations in the general NPRRAMP area indicated that people have inhabited the area for at least 12,000 years, from the Paleo-Indian time period to present. Although prehistoric sites represent the largest percentage of cultural resource sites within the general area, historic-age sites including ranching and mining related properties, are also common. Additional information about cultural resources in the general NPRRAMP area can be found in the RFO RMP FEIS Ch. 3, pp. 3-10 through 3-18.

Cultural resource inventories have been completed for the areas of disturbance proposed under the Preferred Alternative for each of the Key Actions. The cultural resource inventories were completed to identify any historic properties that may be adversely affected by the proposed projects in conformance with the National Historic Preservation Act (NHPA) of 1966, as amended. No historic properties that would be adversely affected were identified within any of the project areas. If additional disturbance areas are identified during site-specific project design and implementation, additional cultural resource inventories would be completed to identify any historic properties are present that may be adversely affected.

D. Water Resources

The North Platte River originates in North Park, Colorado, flows north into Casper, Wyoming and then south/southeast into Nebraska. Major tributaries in Wyoming include the Encampment, Medicine Bow, Sweetwater, and Laramie Rivers. All water within the North Platte drainage in Wyoming is allocated for beneficial use (under U.S. Supreme Court decree), much of which is irrigation. The preferred alternatives along with other alternatives, are planned to occur in the Upper North Platte watershed, which is approximately 2,500,000 acres. Annual peak flow occurs in May or June as a result of snowmelt; June has the greatest average discharge at 4,400 cfs. Peaks also occur later in summer due to thunderstorms. The majority of the Upper North Platte River is a Rosgen type C channel.

Wyoming Department of Environmental Quality classifies water bodies according to their designated uses; this classification is largely based on water quality. The North Platte from Sage Creek upstream to the Colorado line is classified as a Class 1 water body, which means it supports all designated uses including drinking water and fish consumption. The WGFD has currently classified the Upper North Platte as a “Blue Ribbon Fishery,” which means that this stretch of river is a resource considered to be of national importance. Blue Ribbon streams are

weighted relatively high when the United States Army Corp of Engineers (USACE) and other regulating agencies mitigate adverse impacts under their respective permit authority. According to the last rangeland assessment performed by the RFO, most of the Upper North Platte watershed was meeting the standard for watershed health and the entire watershed was meeting the standard for water quality. In the Upper North Platte Watershed, the Prospect Mountain allotment, which includes the Prospect Creek Undeveloped Recreation Site, failed the standard for riparian health due to erosion issues from roads.

In the Lower North Platte watershed, the Sage Creek allotment failed the standard for riparian health due to livestock grazing. Sage Creek is a tributary that flows into the North Platte River. Sage Creek was on the State of Wyoming 303(d) list of impaired water bodies due to its significant contribution of Total Dissolved Solids (TDS) and/or Total Suspended Solids (TSS) to the North Platte River. Since it was contributing so much sediment to the North Platte River, the area failed Standard #5-Water Quality. A watershed effort that started in 1997 resulted in decreased sedimentation into the North Platte and consequently the stretch was delisted in 2008 by the State of Wyoming – Department of Water Quality. This effort addressed livestock grazing practices, off channel water development, improved road management, grade control structures, and water diversion, as well as vegetation filtering to reduce sediment loading. The proposed development addresses sedimentation and would not result in an increase in soil erosion in the Lower North Platte Watershed.

E. Vegetation

Vegetation communities found along the SRMA corridor are influenced by soil type and water availability, and by human activities such as agricultural practices (grazing and irrigation) and recreation use.

In the Upper North Platte River Watershed, upland vegetation is predominantly sagebrush-grass intermixed with mountain shrub and aspen communities at higher elevations. Mountain big sagebrush is the most common species of sagebrush, followed by basin and black sagebrush. Mountain shrubs, which include bitterbrush, snowberry, serviceberry, chokecherry, and mountain mahogany, occur in zones with 10-inch or higher precipitation and may be intermixed with sagebrush and aspen. Aspen woodland is usually found above 7,000 feet in small pockets on north and east-facing slopes where snow accumulates or there is some other source of additional moisture. Conifer woodlands occur above 7,500 feet, with limber pine and juniper in drier areas and lodgepole pine, subalpine fir, and spruce in wetter areas. There is also a mix of scattered ponderosa pine.

Riparian and wetland habitats occur on small percentages of public lands. Cottonwood woodlands occur along the North Platte River and other major drainages, such as the forks of Spring and Cow Creek, Cottonwood Creek, and lower stretches of Big Creek. Spruce/fir woodlands occur along the highest elevation foothill and mountain streams, within steep gradients and confining canyons, such as Prospect, Centennial and Heather Creeks. Other smaller drainages to the North Platte River tend to be herbaceous or willow dominated riparian communities. Nebraska and beaked sedge are common herbaceous species. Willow communities are composed of Geyer, Booth, sandbar and yellow willows.

In the lower portion of the watershed, upland vegetation consists predominantly of sagebrush-grass or saline-influenced communities. Wyoming big sagebrush is the most common species amongst the nine species or subspecies of sagebrush shrubs commonly occurring together or in site-specific habitats. Gardner's saltbush and black greasewood are the distinctive species of the saline-influenced communities.

Riparian and wetland habitats are even more limited in these portions of the watershed. Some side drainages, such as Jack Creek, Sage Creek, and Pass Creek have riparian vegetation consisting of herbaceous or willow dominated vegetative communities, while many others are more ephemeral in nature. The North Platte River alternates between herbaceous or willow dominated to cottonwood galleries through this section; they are composed of the species listed for the upper portion of the watershed.

Non-native species within the entire river corridor include Kentucky bluegrass, smooth brome, sweetclover, timothy, leafy spurge, saltcedar, Russian olive, Russian and spotted knapweed, houndstongue, oxeye daisy, yellow toadflax, musk and Canada thistle, whitetop, perennial pepperweed, marsh sowthistle, and cheatgrass.

Noxious species present along the upper portion of the corridor are predominantly leafy spurge, Canada thistle, and musk thistle. Other noxious species include spotted knapweed, yellow toadflax, oxeye daisy, and houndstongue. Noxious species present along the lower portion of the corridor are predominantly leafy spurge, Canada thistle, and Russian knapweed. Other noxious species include perennial pepperweed, whitetop, saltcedar, Russian olive, and marsh sowthistle. There are also invasive species present which are normally restricted to disturbed areas. These include Russian thistle, halogeton, and cheatgrass.

F. Livestock Grazing

There are 19 allotments permitted for grazing use on public lands in the RAMP analysis area. Grazing use in these allotments is predominantly cattle use, including both cow/calf and yearling operations. Table 4 lists the allotment name, number, and season of use for these allotments. Seasons of use are primarily winter and spring at lower elevations, and summer/fall at higher elevations. As mentioned in the Water Resources section, there are some allotments in the Upper and Lower North Platte watersheds that failed Standard 2: Riparian/Wetland Health due to livestock grazing. For this analysis, riparian areas that failed the standard will be defined specifically by action.

Hay meadows are common on private lands along the North Platte River from the forest to nearly Seminoe Reservoir. Hay production includes both alfalfa and grass hay, with ground preparation and fertilization in the spring, summer irrigation, followed by haying during the summer. Livestock, in many cases, may then be turned out on the hay meadows for the fall and winter season.

All of the allotments within the analysis area have cattle permitted during high recreational use timeframes. Potential conflicts with ongoing livestock operations depends on whether there is

public access to the river. In the BLM public recreation areas, increased human activity is common from spring until hunting season.

Several of the grazing operators in the area do not allow public access across their private lands, thereby further concentrating recreational access at legal public access locations. Because of limited access along the river, incidental and/or willful trespass by the recreating public is often common.

G. Soils

Soils vary along the SRMA corridor and are influenced by topography and geology. Soils along the upper river corridor are mostly loamy sands and sandy loams, sometimes with numerous boulders and cobbles throughout. Toward the lower end of the corridor, soils shift to loams and clay loams with higher salt content. Soils exposed from disturbance typically have higher erosion rates and may get compacted, leading to increased difficulty in revegetation.

The Standards and Guidelines Assessment failed five acres in the Prospect Mountain area for Standard #1 Watershed Health. The access route to the North Platter River at Prospect Mountain was identified by the ID team as the worst erosional area in the assessment. Multiple routes up steep slopes with associated severe erosion occurring in the oldest and deepest set of ruts. This erosion eventually ends up in the North Platte River during spring or seasonal high flow events. The assessment recommended that improved and two-track roads with erosional areas be repaired or the road should be closed and reclaimed. In addition, the assessment recommended expanding public education, particularly regarding impacts to roads from OHV activities.

H. Fisheries

Fisheries are recognized for various species of trout, which have all been introduced into streams and ponds for recreational use. Increasing attention is being directed at non-game fish species found in the North Platte River drainage. Recreational fisheries within the assessment area cover substantial portions of the BLM-administered lands including the North Platte River, Encampment River, and Big Creek. These fisheries afford the opportunity to catch several species of salmonid fish (i.e., trout), including brown trout, rainbow trout, and brook trout. These fisheries represent a somewhat limited resource in this arid region of Wyoming. Specifically, the North Platte River, Encampment River, and Big Creek currently receive substantial visitor use within the assessment area; and therefore, are a priority for the BLM and cooperating agencies.

Public access to recreational fisheries on the North Platte River remains limited throughout the assessment area. Public demand for access to recreational fisheries continues to increase within the Platte River Valley. Though the pursuit of additional access points has remained a priority, additional interest in private land easements or acquisition of access through land trades is needed to meet public demand.

There are currently no special status native fish species known to occur within the assessment area, though additional investigations would be required to assess the distribution and status of native fish.

Invasive Species

On February 3, 1999, Executive Order 13112 on Invasive Species was signed. This order directed federal agencies to:

> "use relevant programs and authorities to: (i) prevent the introduction of invasive species; (ii) detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner; (iii) monitor invasive species populations accurately and reliably; (iv) provide for restoration of native species and habitat conditions in ecosystems that have been invaded; (v) conduct research on invasive species and develop technologies to prevent introduction and provide for environmentally sound control of invasive species; and (vi) promote public education on invasive species and the means to address them…" as well as "…not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless, pursuant to guidelines that it has prescribed, the agency has determined and made public its determination that the benefits of such actions clearly outweigh the potential harm caused by invasive species; and that all feasible and prudent measures to minimize risk of harm will be taken in conjunction with the actions."

Figure 7. Zebra mussel. Actual size is approximately ¾ inch.

Figure 8. New Zealand mud snail.

Introduced pathogens of concern in the assessment area include *Myxobolus cerebralis*, which can causes whirling disease in salmonid fish, and Chytrid fungus, which can impact amphibian populations. Whirling disease is a parasitic infection that attacks the nerves and cartilage of small trout, reducing their ability to feed and avoid predators. These infections can impact wild trout populations. The parasite responsible for causing whirling disease is known to occur at locations in the North Platte River drainage within the assessment area. Chytrid fungus has been cited as a major cause of declines in amphibian populations. Chytrid fungus attacks keratin of metamorphosed amphibians and can lead to 90-100 percent mortality in some species. The Boreal Toad Recovery Team (BTRT) has cited Chytrid fungus as a major concern in the southern Rocky Mountain population (BTRT, 2001). Both of these pathogens can be transported via contaminated waders or other equipment

Invasive species of concern in the assessment area include the zebra mussel and New Zealand mud snail. Zebra mussels have become widely distributed in the United States, particularly east of the 100th meridian. These exotic mussels have been discovered as close as Colorado, likely the result of overland transport by trailered boats. These mussels can be found in large lakes, ponds, and river systems throughout their range in the U.S. A major transport mechanism of these mussels is through their attachment to boats and trailers. New Zealand mud snails appear to prefer flowing water habitats with stable flows. Springs, spring creeks, and river sections downstream from dams are all places where they thrive. They are typically found on larger cobble substrates or on pieces of wood. These snails are known to occur in the Great Lakes region, as well as in isolated regions of the west, including Yellowstone National Park. New Zealand mud snails can be transported through fishing waders or other equipment that has been exposed to infected waters. The dispersal of these snails has been associated with recreational fisheries exhibiting high angler use. Neither zebra mussels nor New Zealand mud snails are currently known to occur in the analysis area and preventing their spread into this region will be particularly challenging. Mitigation for invasive species would be provided with rules and education included in the educational kiosk proposed within the Preferred Alternative for Key Action 4, as well as educational programs provided by cooperating agencies.

I. Wildlife

Wildlife is abundant and diverse throughout the project area. Antelope, mule deer, and elk are common big game species, with limited numbers of bighorn sheep and moose. Greater sage grouse are an important species of interest and a majority of the analysis area is within Greater Sage Grouse core area. Blue grouse are found in higher elevation aspen and conifer woodlands. Raptors include bald and golden eagles; ferruginous, red-tailed, and Swainson's hawks; burrowing owls; and other hawks, harriers, and owls. Horned lizards and prairie rattlesnakes are the most common reptiles, while tiger salamanders are the most abundant amphibian species. Other commonly observed wildlife include coyotes, badger, beaver, muskrat, cottontail and jackrabbits, prairie dogs, ground squirrels, waterfowl, and songbirds.

Raptors

There are several raptor species that have been observed within the analysis area, or their nests have been identified within the area. Raptors known to nest within the area include the bald eagle, ferruginous hawk, golden eagle, Swainson's hawk, great-horned owl, Cooper's hawk, prairie falcon, red-tailed hawk, burrowing owl, and kestrel. Although nests have not been identified for the northern harrier, northern goshawk, long-eared owl, short-eared owl, and sharp-shinned hawk, these species have the potential to nest within the project area. The bald eagle, ferruginous hawk, burrowing owl, and northern goshawk have been identified as BLM-State Sensitive Species.

Big Game

The project area is within portions of five antelope herd units. These herd unit areas are identified as the: (1) Big Creek Herd Unit; (2) Elk Mountain Herd Unit; (3) Iron Springs Herd Unit; (4) Medicine Bow Herd Unit; and (5) South Ferris Herd Unit. The North Platte River serves as the boundary between portions of these herd units. The project is within portions of crucial winter range for antelope, as well as other seasonal ranges. Antelope rely heavily on Wyoming big sagebrush habitat, in addition to other "open" communities like saltbush steppe, greasewood, and short grasslands, as well as open juniper woodlands. During the winter, antelope diets consist primarily of Wyoming big sagebrush. However, spring and summer diets include higher amounts of forbs, grasses, and other shrubs.

The project area is within portions of four elk herd units. These herd units are identified as the: (1) Ferris Herd Unit; (2) Shirley Mountain Herd Unit; (3) Sierra Madre Herd Unit; and (4) Snowy Range Herd Unit. The project is within portions of crucial winter range for elk, as well as other seasonal ranges. In addition, elk parturition (calving) areas overlap the project area. Elk normally prefer to stay close to cover; therefore, are most often associated with conifer and aspen woodlands or tall shrublands. They prefer grasses and have a diet overlap with cattle, but will include more forbs in their spring diets and more shrubs in their winter diets.

There are two mule deer herd units that are located primarily within the watershed area. These herd units are identified as the: (1) Ferris Herd Unit; and (2) Platte Valley Herd Unit. The project is within portions of crucial winter range as well as other seasonal ranges. Mule deer

prefer areas with cover and higher precipitation with forbs, which tend to occur close to the mountains, rims, and along stream drainages and lakes. Mule deer select forbs and grasses when green and more nutritious, shifting primarily to shrubs in the fall and winter, and prefer a mixture of sagebrush and other shrubs during the winter.

Three bighorn sheep herd units occur in portions of the analysis area. These herd unit areas are identified as the: (1) Douglas Creek Herd Unit; (2) Encampment River Herd Unit; and (3) Ferris-Seminoe Herd Unit. The project area overlaps both crucial winter range and parturition (lambing) areas for bighorn sheep. The Douglas Creek and Encampment River sheep herds appear to be stagnant. Currently, efforts are concentrated on management of the Ferris-Seminoe Herd Unit.

The project area overlaps the Snowy Range/Sierra Madre Herd Unit. Moose occupy forest and drainage bottom lands within the analysis area and have attained population levels, which allow a limited annual harvest in the Snowy Range and Sierra Madre Mountains. The species is not considered native to the area. The current population colonized Wyoming from populations introduced into the North Park area of Colorado during the late 1970s.

Whitetail deer also inhabit a portion of the analysis area. They are mostly limited to the bottoms of major creeks and drainages containing the heavy cover, which they prefer. Found mainly in the valley bottoms and on irrigated agricultural land in the drainage, they are limited predominantly to deeded lands, although, they can be found sporadically on public tracts. Habitat for whitetail deer within the planning area includes yearlong and winter habitat.

Threatened and Endangered Species

There are 17 endangered, threatened, proposed, and/or candidate wildlife species that may be found, or have the potential to be found, within the RFO area.

The project area may also provide travel corridors for Canada lynx (*Lynx candensis*). The only species with the potential to occur along the North Platte River is Ute ladies' tresses (*Sprianthes diluvialis*).

Canada Lynx

The current status of the Canada lynx is threatened. Lynx occur in the boreal, sub-boreal, and western montane-forests of North America. Snowshoe hares are the primary food source of lynx, comprising 35-97 percent of their diet throughout the range. Other prey species include red squirrels, ground squirrels, mice, voles, porcupine, beaver, and ungulates as carrion or occasionally as prey. Lynx prefer to move through continuous forests and use ridges, saddles and riparian areas. Lynx have been known to cross large rivers and lakes and have been documented in habitats such as shrub-steppe, juniper, and ponderosa pine. Although it is highly unlikely that lynx will reside within the analysis area, there is the potential for travel corridors through the watershed, specifically using riparian habitats

Ute ladies' tresses

The current status of Ute ladies' tresses is threatened. It is a perennial, terrestrial orchid. The plant blooms from late July through August; however, depending on location and climatic conditions, orchids may bloom in early July or still be in flower as late as early October. The Ute ladies' tresses is endemic to moist soils in mesic or wet meadows near springs, lakes, seeps, and riparian areas within the 100-year flood plain of perennial streams ranging from 4,300-7,000 feet in elevation. It colonizes early successional riparian habitats, such as point bars, sand bars, and low lying gravelly, sandy, or cobbly edges, persisting in those areas where the hydrology provides continual dampness in the root zone throughout the growing season.

Sensitive Species

The objective of the sensitive species designation is to ensure that the BLM considers the overall welfare of these species when undertaking actions on public lands, and do not contribute to the need to list the species under the provisions of the ESA. The lack of demographic, distribution, and habitat requirement information compounds the difficulty of taking management actions for many of these species. It is the intent of the sensitive species policy to emphasize the inventory, planning consideration, management implementation, monitoring, and information exchange for the sensitive species on the list in light of the statutory and administrative priorities.

There are nine mammals, 17 birds, five fish, three amphibians, and seven plant species on the BLM Wyoming State Director's Sensitive Species List (sensitive) with the potential to be found or be affected by projects that may occur within the RFO area.

It was determined that there is potential habitat for the following BLM sensitive species within the project area: long-eared myotis, fringed myotis, Townsend's big-eared bat, white-tailed prairie dog, Wyoming pocket gopher, swift fox, western boreal toad, white-faced ibis, trumpeter swan, northern goshawk, ferruginous hawk, peregrine falcon, Greater Sage Grouse, long-billed curlew, burrowing owl, bald eagle, sage thrasher, loggerhead shrike, Brewer's sparrow, sage sparrow, mountain plover, cedar rim thistle, Gibbens' beardtongue, and persistent sepal yellow cress. A description of the habitat type that each species is associated with is shown in Table 3.

Table 3: BLM State Sensitive Species That May Occur In the Project Area

Mammals		
Common Name	**Scientific Name**	**Habitat Types**
Long-eared myotis	*Myotis evotis*	Conifer and deciduous forests, caves and mines
Fringed myotis	*Myotis thysanodes*	Conifer forest, woodland, caves and mines
Townsend's big-eared bat	*Corynorhinus townsendii*	Forests, basin-prairie shrub, caves and mines

White-tailed prairie dog	*Cynomys leucurus*	Basin-prairie shrub, grasslands
Wyoming pocket gopher	*Thomomys clusius*	Meadows with loose soil
Swift fox	*Vulpes velox*	Grasslands
Amphibians		
Common Name	**Scientific Name**	**Habitat Types**
Western Boreal Toad	*Bufo boreas boreas*	Pond Margins, Wet Meadows and Riparian Areas
Birds		
Common Name	**Scientific Name**	**Habitat Types**
Bald Eagle	*Haliaeetus leucocephalus*	Rivers, streams, lakes and waterways
White-faced ibis	*Plegadis chihi*	Marshes, wet meadows
Trumpeter Swan	*Cygnus buccinator*	Lakes, ponds, rivers
Northern goshawk	*Accipiter gentilis*	Conifer and deciduous forests
Ferruginous hawk	*Buteo regalis*	Basin-prairie shrub, grassland, rock outcrops
Peregrine falcon	*Falco peregrinus*	Tall cliffs
Greater Sage Grouse	*Centrocercus urophasianus*	Basin-prairie shrub, mountain-foothill shrub
Long-billed curlew	*Numenius americanus*	Grasslands, plains, foothills, wet meadows
Burrowing owl	*Athene cunicularia*	Grasslands, basin-prairie shrub
Mountain plover	*Charadrius Montanus*	Short-grass prairie, shrub-steppe, prairie dog towns
Sage thrasher	*Oreoscoptes montanus*	Basin-prairie shrub, mountain-foothill shrub
Loggerhead shrike	*Lanius ludovicianus*	Basin-prairie shrub, mountain-foothill shrub
Brewer's sparrow	*Spizella breweri*	Basin-prairie shrub
Sage sparrow	*Amphispiza billineata*	Basin-prairie shrub, mountain-foothill shrub

Plants		
Common Name	**Scientific Name**	**Habitat Types**
Cedar rim thistle	*Cirsium aridum*	Barren, chalky hills, gravelly slopes, & fine textured, sandy-shaley draws at 6,700'-7,200'
Gibbens' beardtongue	*Penstemon gibbensii*	Sparsely vegetated shale or clay slopes – 5,500' to 7,700'
Persistent sepal yellow cress	*Rorippa calycina*	Riverbanks & shorelines, sandy soils near high water line

VIII. Environmental Consequences

A. Visual Resources

Impacts Common to All Action Alternatives

The action alternatives proposed in the NPRRAMP EA have the potential to directly and indirectly impact visual resources. The surface disturbing activities proposed in Key Actions 1 and 4-6 would create additional visual contrasts to the surrounding natural landscape. These visual impacts would be mitigated through the use of BLM Standard Environmental Colors, naturalized building materials, as well as BMPs for reclaiming disturbance areas of soils and vegetation. Indirect visual impacts would occur through potential increases in recreational use as a result of additional recreational facilities developed during the implementation phase of these action alternatives.

Key Action 1: Development of a Boat-in Campground

No Action: Implementation of the no action alternative would result in the continuation of current visual resource conditions.

Preferred Alternative: The preferred alternative includes the addition of a boat-in campground, which would initially be developed as a primitive camping area (Map 1). Initially, the only installations or developments would include a BLM campground designation sign (12 x 24 inches) and BLM boundary marking signs (8 x 12 inches) installed with posts set in concrete. These BLM signs would be colored with a brown background and white lettering constructed in a high intensity, prismatic, reflective sheeting and mounted to a 12-year marine grade plywood. The background color, lettering, and size of the signs would be specified under Federal Highway Sign Standards and the Manual on Uniform Traffic Control Devices (MUTCD).

The existing disturbances include rock fire rings and exposed soils and sands surrounding previous tent sites. Other existing visual impacts include those from cattle grazing in the area (areas of soil erosion and concentrations of manure along the riverbank), as well as adjacent two-tracks. When considering the existing visual disturbances, the presence of the BLM signs would create a low visual contrast to the surrounding characteristic landscape. The short-term analysis of this proposed action can be classified as nonintrusive. During the construction phase of placing signs, visual impacts would be limited to equipment consisting of a raft, post-hole diggers, and hand tools. This equipment would not cause noticeable line, color, texture, and form contrasts within the characteristic landscape. However, the designation of the campground could, potentially, cause soil compaction and trampling of vegetation within an estimated total disturbance area of 5.31 acres.

Overall, the low visual contrast created by the project would be in conformance with the VRM Class II objective for this area. Although the BLM signs would decrease the visual value of the landscape, the low contrast of these developments within a previously disturbed landscape would not attract the attention of the casual observer. Given the context and intensity of the proposed action, this project is not anticipated to cause a significant visual impact to this Visual Resource Inventory Class II area.

Alternative 1: Visual impacts would be similar to the Preferred Alternative with the exception of visual impacts from the following developments: toilet, fire rings, grills, tent pads, trails, and boat-tie offs as well as annual maintenance of these facilities. The short-term analysis of this proposed action can be classified as intrusive. During the construction phase of the project, visual impacts from heavy equipment and large trucks would be evident at the proposed campground. The equipment would cause noticeable line, color, texture, and form contrasts within the characteristic landscape by creating, relatively, small disturbance areas to the soil and vegetation within an estimated total disturbance area of 5.31 acres.

Overall, the low visual contrast created by this project would be in conformance with the VRM Class II objective of this area.

Alternative 2: Same as the Preferred Alternative

Key Action 2: Leave-No-Trace Education

No Action: Implementation of the no action alternative would result in the continuation of current visual resource conditions.

Preferred Alternative: Negative visual impacts are not expected from the administrative actions of implementing a voluntary Leave-No-Trace Educational Program. However, positive impacts to the visual resource are anticipated from the implementation of this educational program. It is expected that near-view visual impacts will be reduced by an anticipated lower frequency of littering, as well as decreased soil and vegetation damage along the banks of the river and within recreation sites and campgrounds.

Alternative 1: Visual impacts would be similar to the preferred alternative.

Alternative 2: Visual impacts would be similar to the preferred alternative.

Key Action 3: North Platte River SRP Allocations

No Action: Implementation of the no action alternative would result in the continuation of current visual resource conditions.

Preferred Alternative: Significant visual impacts are not expected from the administrative actions of implementing an SRP allocation system. However, ending the moratorium for new SRPs would cause an increase in the number of outfitters and guides, and the number of visitor days would likely increase as a result. This increase in use would cause additional visual contrast within near-view scenes, such as soil and root exposure, soil compaction, trampling of vegetation, removal of ground cover, and littering. The connected action of implementing a Leave-No-Trace program would likely mitigate these impacts through education and practice of low-impact techniques. Any potential impacts resulting from implementation of the preferred alternative would result in minimal contrast to the surrounding landscape and, therefore, would conform to VRM Class II, III, and IV management objectives represented within the boundaries of the SRMA.
Alternative 1: Visual impacts would be similar to the preferred alternative.

Alternative 2: Visual impacts would be similar to the preferred alternative.

Key Action 4: Additional Parking Lot and Boat Ramp at Bennett Peak Campground

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: The preferred alternative includes the addition of an overflow parking lot and the widening of the existing boat ramp. When considering the contrast of existing campground disturbances, these two ground disturbance areas (.325 surface acres) and the presence of native-colored surfacing material would create a low visual contrast to the surrounding characteristic landscape. The short-term analysis of this proposed action can be classified as intrusive. During the construction phase of the project, visual impacts from equipment and related activities would consist of large trucks and earth moving equipment at the campground and along Bennett Peak Road. Equipment would cause noticeable line, color, texture, and form contrasts within the characteristic landscape. While BMPs would be utilized, including soil and vegetation reclamation, and the application of BLM Standard Environmental Colors (CC-001, June 2008) to blend the project with the surrounding landscape, the visual intrusion of this project would produce a low visual contrast. The visual contrast of the proposed action is reduced by the existing parking areas, facilities, and access roads. The low visual contrast created by the project would be in conformance with the VRM Class II objective for this area. Although these developments would decrease the visual value of the landscape, the low contrast of these developments, within a previously disturbed landscape, would not attract the attention of the casual observer. Given the context and intensity of the proposed action, this

project is not anticipated to cause a significant visual impact to this Visual Resource Inventory Class II area.

Alternative 1: Impacts to visual resources from Alternative 1 would be similar to the Preferred Alternative, but with less visual contrast due to having less ground disturbance area, surfacing material, and vegetation removal.

Alternative 2: Same as the Preferred Alternative

Key Action 5: Improvement of Corral Creek Campground

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: This alternative proposes the following projects which would visually impact the site: 1) provide for the opening of an existing gated two-track during peak use, 2) provide for an overflow parking area (grass surface), 3) upgrade existing campsites to current BLM fee site standards, and 4) provide a wooden horse corral(s).

The short-term analysis of this proposed action can be classified as intrusive. During the construction phase of the project, visual impacts from equipment and related activities would consist of large trucks and earth moving equipment. Equipment would cause noticeable line, color, texture, and form contrasts within the characteristic landscape by creating new areas of disturbance to the soil and vegetation. It is estimated that the proposed project would create a new disturbance area of .68 acres (including the parking area and horse corral).

The visual contrast of the proposed action would be reduced by the existing developments at the campground which include fire rings, picnic tables, grills, parking areas, fences, user trails, two-tracks, a roundabout, signs, a gate, and areas of soil and vegetation disturbance. While BMPs would be utilized including soil and vegetation reclamation and the application of BLM Standard Environmental Colors (CC-001, June 2008) to blend the project with the surrounding landscape, the visual intrusion of this project would produce a low visual contrast within the existing developed recreation site. The low visual contrast created by the project would be in conformance with the VRM Class II objective for this area. Although the proposed developments would decrease the visual value of the landscape, the low contrast of these developments within a previously disturbed landscape would not attract the attention of the casual observer. Given the context and intensity of the proposed action, this project is not anticipated to cause a significant visual impact to this Visual Resource Inventory Class II area.

Alternative 1: This alternative proposes to pursue the development of a canoe slide, additional parking, and a campsite fee. The visual impacts caused by the implementation of Alternative 1 would be similar to the Preferred Alternative.

The short-term analysis of this proposed action can be classified as intrusive. During the construction phase of the project, visual impacts from equipment and related activities would consist of large trucks and earth moving equipment. Equipment would cause noticeable line,

color, texture, and form contrasts within the characteristic landscape by creating new areas of disturbance to the soil and vegetation. The proposed canoe-slide would create a new area of linear visual disturbance from the parking lot to the riverbank. This visual disturbance would consist of long steel bars and poles, wooden steps consisting of gravel and ties, and the removal of several existing trees, shrubs, and groundcover vegetation within a narrow corridor along the slide. It is estimated that the proposed projects at Corral Creek would create the following disturbance areas: 1) parking area = .165 acres; 2) canoe slide = .080 acres. The proposed project covers a total disturbance area of 0.245 acres.

The low visual created by the project would be in conformance with the VRM Class II objective for this area.

Alternative 2: Same as the Preferred Alternative

Key Action 6: Improvement of Prospect Creek Undeveloped Recreation site

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: The Preferred Alternative includes the provision of maintenance of the current two-track, as well as rerouting to avoid a steep grade by providing a switchback to connect to another existing two-track. The switchback connector would cover a disturbance area of approximately 140 x 12 feet (.04 surface acres). The Preferred Alternative also proposes to provide mowing of existing vegetation to widen the existing parking area for the boat launch.

The short-term analysis of this proposed action can be classified as intrusive. During the construction phase of the project, visual impacts from equipment and related activities would consist of large trucks and earth moving equipment at the campground and along Prospect Creek Road. The presence of equipment and the creation of initial areas of soil and vegetation disturbance would cause noticeable line, color, texture, and form contrasts within the characteristic landscape. While BMPs would be utilized, including soil and vegetation reclamation, and the application of BLM Standard Environmental Colors (CC-001, June 2008) to blend the project with the surrounding landscape, the visual intrusion of this project would produce a low visual contrast. The visual contrast of the proposed action is reduced by the existing parking areas and numerous access roads/two-tracks within the viewshed. The low visual contrast created by the project would be in conformance with the VRM Class II objective for this area. Although these developments would decrease the visual value of the landscape, the low contrast of these developments within a previously disturbed landscape would not attract the attention of the casual observer. Given the context and intensity of the proposed action, this project is not anticipated to cause a significant visual impact to this Visual Resource Inventory Class II area.

Alternative 1: Impacts to visual resources from Alternative 1 would be similar to the Preferred Alternative but with less visual contrast due to having less ground disturbance area, surfacing material, and vegetation removal.

Alternative 2: Same as the Preferred Alternative

Key Action 7: Improvement of Big Creek Undeveloped Recreation Site

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: Same as the No Action/Existing Condition Alternative

Alternative 1: This alternative includes the pursuit of an interagency agreement with the USFS to provide a realignment of the existing two-track and switchbacks to improve road conditions to Big Creek Undeveloped Recreation Site. Alternative 1 also proposes to provide improvements to the existing boat launch and add a parking area.

The short-term analysis of this proposed action can be classified as intrusive. During the construction phase of the project, visual impacts from equipment and related activities would consist of large trucks and earth moving equipment at Big Creek Undeveloped Recreation Site and on the river access roads, including the BLM-administered two-track which connects to F.S. 211. The presence of equipment and the creation of initial areas of disturbance to soils and vegetation, would cause noticeable line, color, texture, and form contrasts within the characteristic landscape. While BMPs would be utilized to blend the project with the surrounding landscape, including soil and vegetation reclamation, the visual intrusion of this project would produce a low visual contrast. When considering the existing contrast of eroded two-tracks, boat launch, and pit toilet, the proposed action would create a low visual contrast to the surrounding characteristic landscape. This low visual contrast would be in conformance with the VRM Class II objective for this area. Although these developments would decrease the visual value of the landscape, the low contrast of these developments within a previously disturbed landscape would not attract the attention of the casual observer. Given the context and intensity of the proposed action, this project is not anticipated to cause a significant visual impact to this Visual Resource Inventory Class II area.

B. Recreation

Impacts Common to All Action Alternatives

There will be positive and negative impacts to the recreation setting under each alternative. However, these changes to the setting would conform to Middle Country recreation setting objectives (Appendix D). Primary changes will include expansion of unimproved parking areas, campground facilities, access roads, boat ramps, and administrative approaches to education and permit allocations. These setting changes would impact the nature, accessibility, and availability of recreation opportunities, visitation frequency, use density, and dispersion of use as well as visitor satisfaction within the planning area. Action alternatives, which enhance recreation opportunities desired by one visitor group (i.e., fly fishermen), may diminish those for competing visitor groups (i.e., canoeists and campground users). The project implementation schedule, subsequent shifts in recreation site preferences, and increases in regional population growth will have an effect on the overall visitation trends within the SRMA. Temporal trends in visitation will continue with peak weekends and holidays providing the highest visitor use density levels. Current land uses, such as grazing and other agricultural uses, adjacent to the planning area would continue. Impacts from recreational use will become more evident at dispersed sites, as well as undeveloped and developed recreation sites.

Key Action 1: Development of a Boat-in Campground

No Action: Implementation of the no action alternative would result in the continuation of current recreation conditions.

*Preferred Alternative***:** The preferred alternative includes the addition of a primitive campground with public access only available via watercraft. The implementation of the preferred alternative would initially include a campground designation and private/public boundary signs.

Impacts of the proposed action to the physical setting would be negligible and long-term. The physical setting of this section within the SRMA would be changed by the additional ground disturbance caused by seasonal trampling and portaging of watercraft onto the grassy shoreline. Social trails and other overnight camping impacts (i.e., rock fire rings, tent sites, and catholes) would likely become more evident with the area becoming designated as a primitive campground. However, the existing condition of the site includes a number of existing rock fire rings and trampling caused by previous dispersed camping.

Impacts to the social setting would also be negligible and long-term. The social setting characteristics would change for day use opportunities and for overnight use. The proximity of the proposed boat-in campground along the river would allow noise levels to be in close proximity to day-use visitors.

Impacts to the visitor experience and use of the area would primarily be beneficial. This section of the river is used infrequently by the public and there are currently no designated areas for camping on this section of the North Platte River. Because of the remoteness of this section of the river, it is unlikely that the signing of a primitive campground would attract a high frequency of

visitation where conflicts and crowding could create negative experiences. Some opportunities for visitor solitude and privacy could potentially decrease if the campground gained some level of popularity. However, overall visitor satisfaction within the proposed project area should increase with the availability of a designated camping area and, the overall social experience should be enhanced.

Impacts to the administrative setting would be negligible and long-term. Key changes to the administrative setting would include the presence of signage and rules for camping. The impacts of the proposed action would be beneficial to law enforcement and public safety. The presence of public/private boundary signs would inform and, subsequently, deter the visiting public from entering private land unlawfully. The lack of proposed facilities at the campsite would have little effect on current campground maintenance operations in the RFO. Signs would need to be maintained periodically (i.e., as needed due to flood damage, vandalism, and weathering).

Alternative 1: This alternative includes the pursuit of a fully developed boat-in campground (fire rings, grills, tent pads, trails, and toilet).

The physical setting for overnight use would be changed by the additional ground disturbance of the tent pads, leveling of campsites, toilet, construction of user trails, collection of firewood, and metal fire rings. The anticipated presence of a higher number of visitors and their boats to a fully developed campground would also change the physical setting. Trampling of the site and shoreline erosion would be more evident with a higher visitation level. The above physical impacts would be partially mitigated if the connected action of Leave-No-Trace education was implemented.

Impacts to the social setting would be similar to the Preferred Alternative with the exception of the potential for a higher level of visitor use. Characteristics would change for day use opportunities and for overnight use. The proximity of a developed campground to the river could result in higher instances of user conflicts between overnight and day users. Opportunities for visitor solitude and privacy would decrease with a fully developed campground, which is likely to attract a higher number of visitors.

Impacts to the administrative setting would be substantial and long-term. Key changes to the administrative setting would include the maintenance of picnic tables, fire rings, water pump, restroom, tent pads, and trails, as well as scheduled mowing of the site. Because of the remoteness of the site, maintenance would be a challenge and would likely be provided using watercraft to transport maintenance staff to the site. Maintenance would need to be routine (at least monthly during the season) to provide service to the facilities. The administrative impact to law enforcement and public safety would be negative due to fact that a high number of users could be attracted to the campground and law enforcement would need to access the area for any incident calls by boat. Again, the presence of signs would be beneficial by deterring trespass onto private land.

Alternative 2: Same as the Preferred Alternative

Key Action 2: Leave-No-Trace Education

No Action: Implementation of the no action alternative would result in the continuation of current recreation conditions as described in the affected environment section of this EA.

Preferred Alternative: Negative impacts to recreation are not expected from the administrative actions of implementing a voluntary LNT educational program. However, positive impacts to the recreation resource are anticipated from this implementation. It is expected that the social and physical settings will be enhanced with low-impact practices resulting in a decrease in litter, human waste, and camping impacts. Furthermore, the decrease in physical impacts would likely decrease conflicts among visitors and perceptions of congestion on the river. Mitigating visitor impacts through LNT would support a resource condition which conforms to the current Middle Country recreation setting objectives of the SRMA (see BLM IM 2011-004, Attachment 5).

Alternative 1: Impacts to the recreation resource would be similar to the preferred alternative.

Alternative 2: Impacts to the recreation resource would be similar to the preferred alternative.

Key Action 3: North Platte River SRP Allocations

No Action: Implementation of the no action alternative would result in the continuation of current recreation resource conditions.

Preferred Alternative: Physical, social, economic and administrative impacts would occur as a result of the administrative action of implementing an SRP allocation system. Ending the moratorium for new SRPs would cause an increase in the numbers of outfitters and guides and the number of visitor days would likely increase as a result. This increase in use could cause potential conflicts and crowding within the social setting. Impacts to the physical setting would include additional recreational user impacts, such as soil and root exposure, soil compaction, trampling of vegetation, removal of ground cover, and littering. The connected action of implementing a LNT program would potentially mitigate these impacts through education and practice of low-impact techniques. Administrative impacts would include the overall demand for services and staffing caused by the potential increase in visitation. These services may require additional staffing hours, maintenance, and oversight of public safety.

Allowing additional SRPs and providing permit allocation limits would promote recreational opportunities in the area to be consistent with the current Middle Country recreation setting objectives for the SRMA. This system of permit allocation would also allow for the overall financial sustainability of the outfitting, guiding, and tourism industry in the local community and the region. The business communities of Saratoga, Encampment, and Riverside would obtain a long-term benefit from potential tourism growth while Front Range outfitters could also receive economic benefits. Overall, local and regional businesses that provide outfitting and guiding services would continue to thrive as a result of the growing popularity of the river.

Alternative 1: Impacts to recreation would be similar to those of the preferred alternative.

Alternative 2: Impacts to recreation would be similar to those of the preferred alternative.

Key Action 4: Additional Parking Lot and Boat Ramp Expansion at Bennett Peak Campground

No Action: Implementation of the no action alternative would result in a continuation of current trends.

*Preferred Alternative***:** The preferred alternative includes the addition of an overflow parking lot and the expansion of the existing boat ramp within Bennett Peak Campground, a developed recreation site. This preferred alternative would cause changes to the physical setting, as well as changes to the social and administrative settings. The physical setting for overnight use would be changed by the additional ground disturbance of the overflow parking lot and expanded boat ramp, and the presence of additional vehicles utilizing these new areas of physical disturbance. The physical setting on the Upper North Platte River would also change with the number of craft launching simultaneously from the expanded boat ramp. The physical setting of Bennett Peak Road could potentially change with additional vehicles accessing the convenience of the expanded boat ramp and additional parking.

Social setting characteristics would change for day use opportunities and for overnight use. The proximity of the overflow parking lot to nearby campsites would allow noise levels to be in closer proximity to overnight visitors and would likely result in higher instances of user conflict. However, overall visitor perceptions of crowding at the boat ramp are likely to decrease with decreased waiting times at the boat ramp and less congestion caused by undesignated parking along the roundabout. Overall visitor satisfaction with the recreation site during peak weekends should increase with less congestion and conflicts for parking and wait times at the ramp.

A displacement effect would likely occur for visitors who prefer greater solitude and privacy. These visitors will likely disperse to less developed and managed settings within the SRMA, nearby USFS recreation sites, or to private and public lands elsewhere in the region. Those visitors who access the campground for camping or wade fishing could potentially perceive greater conflict with the presence of more vehicles and boaters accessing the area.

Key changes to the administrative setting would include the presence of additional signage and rules for parking. Levels of managerial presence would increase notably through the presence of a volunteer host stationed within view of the boat ramp and campsites. Increased levels of visitor contact and monitoring of visitors would be present at the site. The addition of an overflow parking lot and expansion of the boat ramp would require additional maintenance, staffing, and administrative oversight.

Alternative 1: Impacts to recreation from Alternative 1 would be similar to the Preferred Alternative with the exception of the social setting. Removal of the existing roundabout to expand the existing parking lot would concentrate vehicles in close proximity to the boat ramp. This concentration of parking next to the ramp would create higher levels of visitor use density

allowing the potential for increased visitor conflicts and perceptions of crowding during peak use.

Alternative 2: Same as the Preferred Alternative

Key Action 5: Improvement of Corral Creek Campground

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: This alternative proposes the following projects which would impact the recreation of this developed recreation site: 1) provide for the opening of an existing gated two-track during peak use, 2) provide for an overflow parking area (grass surface), 3) upgrade existing campsites to current BLM fee site standards, and 4) provide a wooden horse corral(s). This preferred alternative would cause changes to the physical setting, as well as changes to the social and administrative settings.

The physical setting for overnight use would be changed by the additional ground disturbance of the overflow parking lot and horse corral(s), and the presence of additional SRP vehicles utilizing the gated river access. The physical setting of the campground would change with additional parking of vehicles with horse trailers and boat trailers as well as the presence of horses in the corrals. The physical setting on the Upper North Platte River would also change with a limited number of SRP craft launching at Corral Creek.

Social setting characteristics would change for day use and overnight use opportunities. The proximity of the horse corrals and overflow parking area to overnight campers would likely result in higher instances of user conflict from the noise and odor from horses. Also, the primitive nature of the site would change with increased development and use driven by the popularity of the site and the permitted river access. Visitor solitude and privacy would decrease from this increased use and those users who prefer greater solitude would disperse to less developed sites within the SRMA and nearby national forest. However, the availability of potable water as well as the increased level of maintenance and improvements to the campground, which would be required for a BLM fee site, should create a higher level of overall visitor satisfaction within the campground.

The administrative setting would change with regard to increased maintenance, monitoring, and law enforcement of the site. The addition of an overflow parking lot, horse corral(s), water pump, restrooms, and improved campsites (i.e., tent pads, tables, and fire rings) would require a higher level of maintenance and staffing than the current condition. The administrative setting would also change with regard to the administration of SRPs provided with river access under the lottery system.

Alternative 1: Impacts to recreation from the implementation of Alternative 1 would be similar to the Preferred Alternative with the exception of the impacts from the proposed installation of a canoe slide as opposed to opening the gated river access. Overall, the canoe slide would be beneficial to recreation. Negative impacts to recreation would be negligible and primarily

involve the social setting. An increase in private boating use would be foreseeable as the canoe slide would be installed in a location where there is currently a pull-through parking and camping location for large recreational vehicles (RVs). There is potential for some user conflicts between private boaters and campers caused by noise from the canoe slide and the close proximity to popular RV campsites. RV camping is currently the most popular mode of camping in this campground. Furthermore, the noise and physical disturbance caused by the canoe slide would also be intrusive to nearby wade fishing on the river.

Alternative 2: Impacts would be similar to Alternative 1, with the exception that there would be decreased administrative impacts for administering a fee site. For example, there would be less maintenance of facilities/services, fee collection, monitoring, and law enforcement.

Key Action 6: Improvement of Prospect Creek Undeveloped Recreation site

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: The Preferred Alternative includes providing erosion control measures (i.e., water bars with filters, fill in depressions) and scheduled maintenance of Prospect Creek Road. This alternative also includes the provision of a new switchback and passing areas along the road as well as the widening of the existing parking area at the boat launch (mowing bordering vegetation). The steep grade below the proposed switchback and poor road conditions on the existing road are a public safety concern for the BLM. In addition, this area failed Standard 2 Riparian/Wetland Health due to increased erosion from road issues.

The physical setting of Prospect Creek would benefit by the proposed action through erosion control and maintenance on the road. The road would be safer and less destructive to the vehicles of recreation users. The impacts of recreational users and their vehicles to the physical setting would decrease with erosional controls and the provision of a switchback.

Social setting characteristics would change for day use and overnight use opportunities. The improvements to Prospect Creek road would cause increased visitation to this recreation site. Despite being designated under a Middle Country recreation setting objective, the current condition of this site is relatively primitive and provides opportunities for solitude due to the remoteness and poor condition of the current access road. As a result of increased use of the proposed road, the level of solitude and privacy could decrease relative to the current condition. Those visitors who prefer a higher level of solitude would be displaced to nearby areas, which are less developed (i.e., Prospect WSA or nearby national forest wilderness areas). Furthermore, there are currently herds of big horn sheep and a resident moose reported at the site. Wildlife viewing opportunities would likely decrease with increases in visitation.

The administrative setting would change with regard to increased maintenance of Prospect Creek Road and the parking area, monitoring of impacts and recreational use, and law enforcement of the site. The provision of a switchback and water bars would also require increased maintenance and staffing. Scheduled maintenance of the two-track would require engineering staff to provide scheduled maintenance of the road.

Alternative 1: Impacts to recreation from the implementation of Alternative 1 would be similar to the Preferred Alternative with the exception of less visitation to the recreation site due to the lack of a switchback, steeper road conditions, and less parking availability at the boat launch. Having less visitation and road improvements would provide more beneficial opportunities for visitor solitude and primitive conditions within the social setting.

Alternative 2: Same as the Preferred Alternative

Key Action 7: Improvement of Big Creek Undeveloped Recreation Site

No Action: Implementation of the No Action/Existing Condition Alternative would result in the continuation of current conditions.

Preferred Alternative: Same as the No Action/Existing Condition Alternative

Alternative 1: Impacts to recreation from the implementation of Alternative 1 would include changes in the physical, social, and administrative settings.

The physical setting of Big Creek Undeveloped Recreation Site would primarily be benefitted by the proposed action to provide realignment of the existing two-track and switchbacks to allow boat trailers to navigate the road. The road would be safer and less destructive to the vehicles of recreation users. The provision of a boat launch and parking area would also provide convenient river access to allow recreation users to launch their boats directly into the river. This would result in an increased number of vehicles entering the recreation site.

Social setting characteristics would change from the existing primitive condition of this site. The improvements to the access road would cause increased visitation to this site and on downstream river sections of the Upper North Platte River. Due to the poor road conditions of the current access road, the Upper North Platte River downstream of the Big Creek Confluence allows for a primitive experience of solitude while floating. With a foreseeable increase in use of an improved road, the social condition would change during peak use conditions to having less solitude and privacy. Nearby landowners and ranch visitors who access the river with their clients would also experience these same conditions on the river changed by higher levels of use. There would be a displacement effect for those visitors seeing solitude and privacy during peak use weekends. Wildlife viewing opportunities as well as the abundance of game for hunting would also decrease with increases in visitation.

The administrative setting would change from the existing condition with regard to a foreseeable increase in visitation to the recreation site. There would be increased maintenance of the parking area, boat ramp, and access road as well as monitoring of impacts, recreational use, and law enforcement.

Alternative 2: Impacts from implementing Alternative 2 would be similar to Alternative 1 with the exception of negligible changes to the physical, social, and administrative setting caused by the installation of a new restroom facility and the lack of a boat launch and parking area.

Additional maintenance would be required to administer the restroom facility. Positive changes to the physical setting would occur as a result of providing a restroom facility which would decrease litter within the recreation site. However, the lack of a boat launch and parking area would cause less maintenance for these facilities and would likely decrease the level of visitation to the site. The lack of a boat ramp would likely maintain the existing primitive condition on the river as providing opportunities for solitude and privacy.

C. Cultural Resources

Impacts Common to All Action Alternatives

Implementation of the NPRRAMP has the potential to directly and indirectly impact historic properties (cultural sites that are eligible for listing in the National Register of Historic Places). Surface disturbing activities, such as those proposed in the action alternatives, have the potential to physically destroy or displace cultural materials. Displacement of cultural resources adversely affects the potential to understand the context of the site and limits the ability to extrapolate data regarding prehistoric settlement and subsistence patterns. The potential for these types of impacts are minimized though site specific cultural resource inventories and appropriate avoidance or mitigation measures.

Under all of the alternatives, indirect impacts may occur to cultural resource from the continued recreational use of these areas. This could be either through illegal collection and disturbance of the physical remains, or the secondary effects of wind and water erosion caused by resource development and the removal of vegetation by recreation activities. Additional information regarding impacts to cultural resources and mitigation can be found in the RFO, RMP FEIS Ch. 4, pp. 4-12 through 4-32.

There is the potential for increased recreational use with the implementation of action alternatives which provide the public and outfitters additional access to the North Platte River. To mitigate potential impacts to cultural resources, the BLM will provide signs at the proposed Bennett Peak Campground kiosk which address cultural resources and provides rules to avoid illegal activities.

Key Action 1: Development of a Boat-in Campground, 4: Additional Parking Lot and Boat Ramp at Bennett Peak Campground, 5: Improvement of Corral Creek Campground, 6: Improvement of Prospect Creek Undeveloped Recreation Site, and 7: Improvement of Big Creek Undeveloped Recreation Site

No Action: Under the No Action alternative, impacts to cultural resources from Key Actions 1, 4, 5, 6, and 7 would be minimal. No new surface disturbing activities with the potential to affect historic properties would be pursued. Continued recreational use of the NPRRAMP area would still have the potential to affect cultural properties through artifact collection and erosion.

Preferred Alternative: Under the Preferred Alternative, surface disturbing activities associated with the implementation of Key Actions 1, 4, 5, 6, and 7 would have the potential to directly impact cultural resources. Site-specific cultural resource inventories have been completed within

the areas of potential effect for each of these development areas. No historic properties were identified during the cultural resource inventories that would be adversely affected by these Key Actions under the Preferred Alternative. Standard cultural resource design features that address buried discoveries apply and would minimize the potential for the loss or destruction to unanticipated historic properties should they be encountered during construction.

Alternative 1: Under Alternative 1, impacts to cultural resources would be similar to those identified under the Preferred Alternative for Key Actions 1, 4, 5, 6, and 7. No historic properties have been identified that would be adversely affected by the proposed developments. If additional disturbance areas are identified during site-specific project design and implementation, additional cultural resource inventories would be completed to identify if any historic properties are present that may be adversely affected.

Alternative 2: Under Alternative 2, impacts to cultural resources would be similar to those identified under the Preferred Alternative for Key Actions 1, 4, 5, 6, and 7. No historic properties have been identified that would be adversely affected by the proposed developments. If additional disturbance areas are identified during site-specific project design and implementation, additional cultural resource inventories would be completed to identify if any historic properties are present that may be adversely affected.

Key Action 2: Leave-No-Trace Education, and 3: North Platte River SRP Allocations

No impacts to cultural resources are anticipated under any of the alternatives for the administrative actions in Key Action 2, Leave-No Trace Education and Key Action 3, North Platte River SRP Allocations.

D. Water Resources

Impacts Common to All Action Alternatives

The potential for increased recreational use caused by implementation of the action alternatives could affect the water resource conditions within and surrounding the planning area. Trampling, dispersed camping, vehicle and OHV ground disturbance and dust could potentially affect soil stability and water quality within the Upper and Lower North Platte River watersheds. In addition, the level of incidental human waste occurring through a potential increase in overall recreational use could also contribute to a degradation in water quality within and downstream of the planning area. Impacts caused by human waste, trampling, camping and OHV use would be mitigated with the proposed implementation of any of the action alternatives for Key Action 2: Leave-No-Trace Education (i.e., stay on designated trails and roads, carry-in/carry-out of human waste). Speed limit signs would be posted and maintained to mitigate the levels of dust and ground disturbance generated by vehicles within the planning area. Potential impacts from surface run-off could occur at proposed parking areas without proper mitigation. Parking spaces and tent sites would remain covered with native grasses or sand. Reclamation plans including the seeding of native grasses would provide for mitigation of the potential impacts of surface runoff. Runoff would be similar to the existing condition with reclamation. Monitoring of erosional

features will occur and if monitoring shows that there is accelerated erosion occurring, erosion and sedimentation controls will be implemented until native, stabilizing vegetation is established.

Key Action 1: Boat-in Campground

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: Impacts from the preferred alternative would include an increase in erosion and sedimentation due to the removal of vegetation and compaction of soil. Increases in erosion would have a negative impact on water quality within the North Platte River. Bank stabilization could also be impacted, potentially causing a localized decrease in stability from repeated use from boaters. BMPs would mitigate but not eliminate impacts from the project.

Alternative 1: Impacts from alternative 1 would be similar to impacts from the preferred alternative except that they would be to a greater extent.

Alternative 2: Impacts from alternative 1 would be similar to impacts from the preferred alternative.

Key Action 2: Leave-No-Trace Education

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: Depending on the public reception of LNT responsibilities, there would be a positive impact to water quality in the North Platte. Without the implementation of carry-out actions, pollutants are deposited along the river bank and floodplain and are then washed down river when a flood event occurs. If the public chooses to adhere to LNT guidelines, there would be fewer pollutants deposited along the river banks and consequently fewer risks to water quality.

Alternative 1: Impacts from alternative 1 would be similar to impacts from the preferred alternative.

Alternative 2: Impacts from alternative 1 would be similar to impacts from the preferred alternative.

Key Action 3: North Platte River SRP Allocations

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: The preferred alternative would increase the number of boats and recreationists on the river. Increased boats could potentially cause a decrease in bank stability as more boats are tied up to banks, more recreationists walking up and down banks, and more

trailers utilizing boat ramps, roads, and parking areas. A decrease in bank stability would cause a decrease in water quality and would negatively impact the functionality of the river. More recreationists utilizing the river could also mean more human waste being deposited along the river banks, which would cause a threat to water quality. However, the level of human waste would be mitigated with the proposed implementation of a LNT Education program (Key Action 2).

Alternative 1: Impacts from alternative 1 would be similar to impacts from the preferred alternative but to a greater extent.

Alternative 2: Impacts from alternative 2 would be similar to impacts from the preferred alternative but to a lesser extent.

Key Action 4: Additional Parking Lot and Boat Ramp Expansion at Bennett Peak Campground

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: The proposed alternative would remove the most amount of stabilizing vegetation along the river bank and floodplain; it would also expose the most amount of soil to compaction from vehicular traffic. The preferred alternative would remove approximately 14,500 ft^2 of vegetation. Vegetation removal and soil compaction would cause an increase in storm water runoff, as well as storm water runoff velocity. Increases in runoff volume and velocity would decrease storm water infiltration causing more runoff to reach the North Platte River, therefore, increasing erosion and sedimentation. Increased erosion and sedimentation would have a negative impact on water quality within the North Platte.

BMPs would be implemented to mitigate negative impacts from vegetation removal. New parking areas would be cleared of brush and left in a native grass cover. The boat ramp extension would be stabilized with gravel and concrete slabs. A buffer of native vegetation would be left in place between the additional parking areas and the river. This buffer area would act as a sediment trap for sediment being carried by storm water runoff from the parking areas. It is expected that the in situ vegetative buffer along with additional BMPs as needed would reduce anticipated impacts to a level that would not produce a measurable difference in stream flow, channel morphology, or water quality, thereby reducing impacts to an acceptable level.

Alternative 1: Impacts to water resources from alternative 1 would be similar to the preferred alternative but with less ground disturbance and vegetation removal. Approximately 6,350 ft^2 of vegetation would be cleared. BMPs would be implemented to mitigate impacts to water resources to an acceptable level.

Alternative 2: Impacts to water resources from alternative 2 would be similar to the preferred alternative but with less ground disturbance and vegetation removal. Approximately 6,565 ft^2 of vegetation would be cleared. BMPs would be implemented to mitigate impacts to water resources to an acceptable level.

Key Action 5: Improvement of Corral Creek Campground

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: The proposed alternative would re-open a closed, reclaimed two-track that parallels Corral Creek within 25 feet in certain areas. The road was originally closed over 15 years ago due to unacceptable amounts of erosion from the road entering Corral Creek and causing sedimentation, water quality degradation, as well as habitat degradation. Plans to avoid resource damage have been formulated and include limiting use of the reclaimed road to SRP holders, who are typically outfitters, and limiting use to late spring and early summer. Limiting use of the reclaimed road is designed to avoid removal of the sparse vegetation that is currently stabilizing the road and preventing excessive erosion and stabilization. If limiting use is not effective and the vegetation is removed due to vehicular traffic, excessive erosion would ensue and be difficult to control until stabilizing vegetation is re-grown, which could take several years.

The two-track was reclaimed but there is still evidence of past disturbance from vehicular traffic and on-going erosion caused by this past disturbance. Re-opening the reclaimed two-track to traffic during peak use and peak water levels could easily cause unacceptable amounts of soil to erode from the road and deposit into Corral Creek and the North Platte River, if strict monitoring and regulation are not enforced. Peak use and peak water levels occur in the spring and early summer; this is also a time that soils are normally more sensitive to destabilization due to their higher water content from the recent spring runoff and spring rains. The proposed action would be to open the road during a time that soils would be more saturated and sensitive to destabilization and erosion. The road should not be driven on when the soils are saturated; this would destroy the current reclamation that took over 15 years to establish and would further damage soil and water resources on and near the road. When the road is extremely saturated, inexperienced drivers could lose control of their vehicle and slide off the road into Corral Creek, which would cause further resource damage and pose a significant safety hazard to the public.

The reclaimed road is currently in-sloped and water concentrates on the inside curve of the road, and runs down the road until it reaches a point where the road flattens out for a short distance; the water and any suspended sediment then flows across the road and directly into Corral Creek. Re-opening this road to vehicular traffic could easily remove the stabilizing vegetation, which would cause the concentrated water to cut rills and gullies in the road. Once the formation of rills and gullies began, it would be difficult to reclaim and stabilize them. A road similar to the current "problem" road into Prospect Recreation Site could form with deep gullies that continue to cut into the soil and cause sedimentation downstream in Corral Creek and the North Platte River. Erosion and sedimentation that could be caused by the proposed action would degrade water quality by increasing turbidity and by introducing other contaminants into the water. Channel form, function and stability of Corral Creek could be affected by erosive forces of increased runoff volumes eroding the channel bank and by depositing sedimentation in the channel, which would alter channel flow dynamics. Aquatic habitat could be negatively impacted by the increased turbidity and by the channel bottom being covered over with sediment from the road.

Currently, no erosion or sedimentation controls are planned in areas along the road. Corral Creek is within a 25-foot buffer of the road. There is not enough room between the road and creek to have a sufficient sediment removing buffer, whether the buffer be a natural vegetative buffer or anthropogenic, stormwater controls. Due to the relatively small buffer space between the road and the creek, should stabilizing vegetation be removed from the road due to vehicular traffic, extensive stormwater BMPs would be minimally effective at preventing sediment from entering Corral Creek and would not bring erosion and sedimentation levels to an acceptable level. Anthropogenic buffers such as waddles and silt fences, could be used to prevent some sediment from entering Corral Creek, but would require nearly constant maintenance and would only be partially effective.

In addition to possible resource damage from re-opening the road, there would also be resource damage from the reintroduction of vehicular traffic and increased foot traffic in the riparian area along the river. The proposed action includes no plans to designate where the road would end. Recreationists would have the opportunity to drive as close to the river as they wish to launch their boats, camp, fish, picnic or hike. Recreationists are currently using this area, but to allow them to drive to the end of the re-opened road would have negative impacts on riparian vegetation, habitat, and water quality, as well as the North Platte River's floodplain. Riparian vegetation would be driven over and if not monitored closely, it would be destroyed. Soil could be compacted as well as eroded in areas. This would have a negative impact on Standard 2 (Riparian/Wetland) of the Wyoming Standards for Healthy Rangelands. The area at the end of the re-opened road is part of the North Platte River's floodplain and is normally either flooded or saturated during the time that the reclaimed road is proposed to be opened. Vehicles have a greater probability of becoming stuck as a result of the saturated soil conditions.

The proposed parking area would be within 300 feet of Corral Creek and the proposed horse corral(s) would be within 400 feet of Corral Creek. If not controlled, erosion from the parking area and corral would reach Corral Creek and deposit sediment within the drainage. A buffer of native vegetation would be left in place between the additional parking area and the creek as well as between the corral(s) and creek. This buffer area would act as a sediment trap for sediment being carried by storm water runoff from the parking areas. It is expected that the vegetative buffer, along with additional BMPs as needed, would reduce anticipated impacts from additional parking and horse corral(s) to a level that would not produce a measurable difference in stream flow, channel morphology, or water quality, thereby reducing impacts to an acceptable level.

Alternative 1: Impacts to water resources from alternative 1 would include impacts from a canoe slide and additional parking. Depending on the location and type of canoe slide, there should be minimal impacts to water resources. Foot traffic would be limited to the area immediately around the slide. Any erosion could be mitigated with natural vegetative buffers and the design mitigations discussed in the Soils section of this chapter (pg. 61). A small amount of riparian vegetation would be removed but it would be done in a controlled manner and any erosion or sediment loss would be mitigated through BMPs. Impacts from the addition of parking areas would be similar to that described under the preferred alternative.

Alternative 2: Impacts to water resources from alternative 2 would be similar to alternative 1 with the exception of the additional parking area.

Key Action 6: Improvement of Prospect Creek Undeveloped Recreation Site

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: The proposed alternative would provide for maintenance and re-routing of the existing road into Prospect Creek Recreation site. There are currently severe erosion problems associated with the road and they are not being mitigated. Providing for re-routing and maintenance of the road would allow for stormwater controls to be implemented and maintained which would reduce the amount of erosion and sedimentation that enters Prospect Creek and the North Platte River.

Vegetation removal and soil compaction associated with the proposed parking area would cause an increase in storm water runoff volume, as well as storm water runoff velocity. Increases in runoff volume and velocity would decrease storm water infiltration causing more runoff to reach the North Platte River, thereby, increasing erosion and sedimentation. Increased erosion and sedimentation would have a negative impact on water quality within the North Platte.

BMPs would be implemented to mitigate negative impacts from vegetation removal. New parking areas would be cleared of brush and left in a native grass cover. A buffer of native vegetation would be left in place between the additional parking areas and the river. This buffer area would act as a sediment trap for sediment being carried by storm water runoff from the parking areas. It is expected that the vegetative buffer along with additional BMPs as needed would reduce anticipated impacts to a level that would not produce a measurable difference in stream flow, channel morphology or water quality, thereby reducing impacts to an acceptable level.

Alternative 1: Impacts to water resources from alternative 1 would be similar to the preferred alternative, but with less ground disturbance and vegetation removal.

Alternative 2: Impacts to water resources from alternative 1 would be similar to the preferred alternative, but with less ground disturbance and vegetation removal.

Key Action 7: Improvement of Big Creek Undeveloped Recreation Site

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: Impacts to water resources from the preferred alternative would be same as the No Action alternative.

Alternative 1: Monitoring to determine adaptive management would have the same impacts as the No Action alternative. A site specific analysis was not conducted for this alternative; impacts

from realignment of roads were not analyzed because these impacts would occur on USFS Road 211 rather than on a BLM-administered road. Impacts to water resources of the boat launch and parking area would be similar to the impacts described under the Preferred Alternative for Key Action 4: Additional Parking Lot and Boat Ramp at Bennett Peak Campground. If this alternative were selected, a site-specific National Environmental Policy Act analysis of the proposed boat launch and parking area would be conducted along with a plan of development.

E. Vegetation

Impacts Common to All Action Alternatives

The potential for increased recreational use caused by implementation of the action alternatives could affect the vegetation conditions within and surrounding the planning area. In areas where recreational visitors can access the river, use is concentrated during the spring and summer when riparian vegetation is growing. This recreational use could cause an increase in the spread of weeds within the planning area. Trampling, dispersed camping, and OHV use within the planning area would cause root exposure, tree scarring, and social trails which would reduce vegetative cover. Trampling, scarring, and root exposure would be mitigated with implementation of any of the action alternatives for Key Action 2: LNT Education. In addition, dust caused by vehicles and OHVs traveling on access roads would settle on the vegetation. This dust could potentially affect the quality and regenerative capacity of roadside vegetation. Speed limit signs would be posted to mitigate the levels of dust generated within the planning area.

Key Action 1: Development of a Boat-in Campground

No Action: There would be no additional disturbance to vegetation from this alternative.

Preferred Alternative: Vegetation consists mainly of rhizomatous wheatgrass, greasewood, willow, and cottonwoods, with many young willows and cottonwoods. The site is heavily infested with leafy spurge. There would be trampling and crushing of vegetation from recreationists. Use would be dispersed, but some trails could be formed by walking the same path repeatedly, potentially resulting in a loss of vegetation in these narrow areas. Tents or other uses would crush vegetation, but it should grow back unless repeated use were to occur on the same area. The young cottonwoods and willows would continue to grow and thicken making trails hard to spot from the river, and campsites harder to access in the future. The leafy spurge would continue to occupy the site and could be spread downstream by campers. Eradication is not possible due to the lack of coordinated treatment among landowners along the river and the lack of access. If future management actions are implemented, additional vegetation disturbance would occur and impacts would be the same as those described under Alternative 1.

Alternative 1: The proposed projects would involve vegetation removal, but disturbed areas not needed for the projects in the long-term would be revegetated where possible. The tent pad, vault toilet, fire ring/grill areas, and trails would have vegetation removed for long-term. The young cottonwoods and willows would continue to grow and thicken making trails hard to spot from the river, and campsites harder to access in the future. The leafy spurge would continue to occupy the site and could be spread downstream by campers.

Alternative 2: This alternative is the same as the preferred alternative.

Key Action 2: Leave-No-Trace Education and 3: North Platte River SRP Allocations

Impacts to vegetation from the implementation of the LNT Education and the North Platte River SRP Allocations alternatives were previously analyzed in the Recreation section of Environmental Consequences.

Key Action 4: Additional Parking Lot and Boat Ramp Expansion at Bennett Peak Campground

No Action: Implementation of the no action alternative would result in the continuation of current vegetation conditions.

Preferred Alternative: The existing big sagebrush plants (*Artemisia tridentata*) in the proposed overflow parking area (less than one surface acre) would be removed to provide for additional vehicle parking during high use periods of the campground, and to delineate the parking area. Two junipers (*Juniperus occidentalis*) would also be removed to complete the clearing of the area. The existing forbs and grasses (mainly lupine, Indian ricegrass, and wheatgrass) would be left to hold the soil in place and maintain the scenic quality of the campground area.

The area between the existing road and proposed boat ramp expansion (less than 0.1 surface acre) would have all vegetation removed for vehicle access, visibility, and safety. Musk thistle is in the area to be cleared for the proposed boat ramp expansion. These would be removed, along with the other vegetation, during construction and would be removed if they returned after construction. There are some weedy species (gum weed, wild licorice, and cheatgrass) along the existing campground road which may spread as a result of the increased vehicle parking in the overflow area. They would be reduced either mechanically or chemically if needed. Construction equipment would be cleaned prior to being brought in to this project area to prevent the introduction of any new species.

Alternative 1: Vegetation in the round-about area would be removed to allow for additional parking.

Alternative 2: Same as the Preferred Alternative.

Key Action 5: Improvements to Corral Creek Campground

No Action: There would be no additional disturbance to vegetation from this alternative.

Preferred Alternative: Vegetation in the campground consists mainly of big sagebrush, juniper, cottonwoods, rabbitbrush, Indian ricegrass, needle and thread grass, crested wheatgrass, and threadleaf sedge. Vegetation would be crushed and possibly some shrubs killed during seasonal use of the existing vegetated two-track. If the use resulted in grasses being removed, leading to increased erosion, management actions would be implemented to reverse the trend. If future

management actions were implemented (road improvements, reroutes, or realignments), long-term loss of vegetation would occur.

Shrubs would be mowed to delineate the additional parking area, leaving the grasses and forbs. Parking use may result in the loss of grasses and forbs over time, depending upon the frequency of use.

The horse corral(s) would result in vegetation removal. A foot-trail may be created by repetitive travel to/from the corral, which would also result in long-term vegetation removal.

Alternative 1: The additional parking area would have the same impacts as described under the Preferred Alternative. The canoe slide would involve long-term vegetation removal mostly of cottonwoods, junipers, and some grasses. Removal of stabilizing riparian vegetation could degrade the functionality of the North Platte River at this location.

Alternative 2: Impacts from the canoe slide would be the same as described under Alternative 1.

Key Action 6: Improvements to Prospect Creek Undeveloped Recreation Site

No Action: There would be no additional disturbance to vegetation from this alternative.

Preferred Alternative: There would be a loss of vegetation from re-routing the existing two-track and in widening the road to allow vehicle passage. The vegetation is composed of big sagebrush, wheatgrass, and basin wildrye. The road re-route would initially result in complete vegetation removal, but the borrow areas would be reclaimed, along with the eroding two-tracks. There would be a small, long-term vegetation loss from widening the road to allow vehicles to pass. Some willows, aspen, and water birch would be mowed or removed permanently to widen the area for vehicle parking at the boat launch area.

Alternative 1: There would be some additional soil disturbance from road maintenance, but it would be aimed at reducing erosion from vehicle traffic and road design, thus reducing erosion over time.

Alternative 2: This alternative is the same as the preferred alternative.

Key Action 7: Improvements to Big Creek Undeveloped Recreation Site

No Action: There would be no additional disturbance to vegetation from this alternative.

Preferred Alternative: This alternative is the same as the No Action alternative.

Alternative 1: The potential maintenance and realignment of the road would result in some vegetation loss, but some areas would be revegetated, leaving just the road surface without vegetation. Therefore, the current amount of vegetation would be maintained for the most part. The boat launch improvement would result in in long-term cottonwood and grass loss. The parking area would be maintained with vegetative (grasses) cover, if possible. Disturbance

would be kept to a minimum during construction to leave as much of the root mass in place for natural revegetation.

F. Livestock Grazing

Impacts Common to All Action Alternatives

The potential for increased recreational use caused by implementation of the action alternatives would affect the livestock grazing conditions within and surrounding the planning area. In areas where rafters can access the river, use is concentrated during the spring and summer when calves are younger and more susceptible to injury. This can also cause disruption to livestock operations through the potential of harassment and disturbance. Fences and gates may be damaged or left open resulting in livestock movement to other allotments. The potential for trespass would increase with an increase in recreational use if not properly mitigated. However, the additional signage proposed in the action alternatives for Key Actions 1 and 4 would mitigate this potential impact and is expected to cause a decrease in the number of trespassing violations. Furthermore, the risk of fire due to additional campsites would also have the potential to increase without proper mitigation. All proposed campsites (Key Actions 1 and 5) would be developed to contain metal fire rings which would actually decrease the risk of fire in comparison to existing conditions with dispersed camping. Increased erosional issues with respect to roads may also result in reducing the available forage for both livestock and wildlife. In addition, fugitive dust caused by vehicles traveling along access roads settles on vegetation used as forage, especially alongside roadway corridors with heavy traffic. Dust potentially affects the quality and regenerative capacity of roadside grasses and forbs, as well as decreases the palatability of the forage for livestock/wildlife use and potentially increases operating costs by affecting livestock health.

Key Action 1: Development of a Boat-in Campground

The proposed boat-in campground is located within the Bolten/Pine Grove allotment, which is used spring/summer/fall by cattle, and occasionally by horses. The Bolten/Pine Grove Allotment contains over 60 different pastures that are managed in an intensive grazing rotation which has enabled the willows and cottonwoods in this area to respond, accordingly. Continuation of this grazing management would result in a dense community of willow and cottonwood. This allotment was not identified as failing any Rangeland Standard due to livestock grazing.

No Action: There would be no additional impacts to livestock grazing from this alternative.

Preferred Alternative: There would be minimal impacts to livestock grazing from this alternative. Increased recreational use would reduce livestock use in the area when people were present. Crushing and trampling of existing vegetation would reduce the total available forage for livestock use. Trails created by recreational users would be used by livestock as well. Tent sites in cleared areas may be used as loafing areas by livestock.

Alternative 1: This alternative would also result in minimal impacts to livestock grazing. Permanently cleared areas would attract livestock to the area when unoccupied by campers.

Structures may be be used for scratching posts and/or weather protection. Vegetation control to maintain the camping sites would encourage herbaceous plants, which would attract livestock to the area.

Alternative 2: This alternative is the same as the preferred alternative.

Key Action 2: Leave-No-Trace Education and 3: North Platte River SRP Allocations

No negative impacts to livestock grazing are anticipated from the administrative actions of implementing a Leave-No Trace Education program. Positive impacts from this proposed educational program are described in the Impacts Common to All Action Alternatives section of this chapter. The implementation of action alternatives for Key Action 3: SRP Allocations could provide indirect and cumulative impacts to livestock grazing as described in Impacts Common to All Action Alternatives and Cumulative Impacts sections of this document. Implementation of these two action alternatives would not be expected to cause any site-specific impact to livestock grazing.

Key Action 4: Additional Parking Lot and Boat Ramp Expansion at Bennett Peak Campground

Livestock are excluded from Bennett Peak Campground; therefore, implementation of any of the action alternatives would not affect livestock grazing.

Key Action 5: Improvements to Corral Creek Campground

The Corral Creek Campground is located within the Bennett Peak allotment, which is used during spring/summer/fall by cattle. This allotment was identified in the watershed assessment as failing Standard 2, Riparian/Wetland Health Standard, due to livestock grazing. Riparian areas, including the North Platte River, have been negatively impacted by season-long use by livestock. Livestock use is concentrated on the creek bottoms due to steep upland topography.

No Action: There would be no additional impacts to livestock grazing from this alternative.

Preferred Alternative: Seasonal use of the existing vegetated two-track may result in vegetation removal and thereby available forage. If enough of the vegetation were removed to affect erosion, management actions would be taken to stabilize the site and restore vegetation availability. If future management actions were implemented (road improvements, reroutes, or realignments), impacts to livestock grazing would occur. These impacts could include increased disturbance during construction activities and long-term loss of forage production.

Mowing of shrubs for the additional parking area would make the herbaceous vegetation more productive and accessible to livestock use. However, if parking impacts affect the plant community negatively this herbaceous forage could be lost.

Alternative 1: The additional parking area would have the same impacts as described under the Preferred Alternative. The canoe slide may attract cattle to trail along it to the river and further impact riparian conditions.

Alternative 2: The impacts from the canoe slide would have the same impacts as described under Alternative 1.

Key Action 6: Improvements to Prospect Creek Undeveloped Recreation Site

The Prospect Creek Undeveloped Recreation Site is located within the Prospect Mountain allotment which is used by cattle in the summer and fall. This allotment was identified in the watershed assessment to be failing Standard 2 Riparian/Wetland Health Standard. Specifically a portion of Prospect Creek that drains into the North Platte River failed the standard but was not livestock related. Factors identified included excessive erosion from the uplands and gully erosion from a series of roads leading into the draw.

No Action: There would be no additional impacts to livestock grazing from this alternative.

Preferred Alternative: There would be short term disturbance of livestock during construction of the re-routed two-track. In addition, there would be a loss of forage due to widening of the road. Removal of woody vegetation at the boat launch area could improve herbaceous forage accessible to livestock.

Alternative 1: Other than short term disturbance of livestock during road maintenance activities, there would be no additional impacts from this alternative.

Alternative 2: This alternative is the same as the preferred alternative.

Key Action 7: Improvements to Big Creek Undeveloped Recreation Site

The Big Creek Undeveloped Recreation Site is located in the A Cross Ranch allotment, which is permitted for cattle during spring/summer/fall. This allotment was not identified in the watershed assessment for failing any Rangeland Health Standards.

No Action: There would be no additional impacts to livestock grazing from this alternative.

Preferred Alternative: This alternative is the same as the No Action alternative.

Alternative 1: The potential maintenance and realignment of the road would result in some vegetation loss, but some areas would be revegetated, leaving just the road surface without vegetation. Therefore, the current amount of vegetation would be maintained. The boat launch improvement would result in long-term cottonwood and grass loss. The parking area would be maintained with vegetative (grasses) cover if possible. Disturbance would be kept to a minimum during construction to leave as much of the root mass in place for natural revegetation.

Alternative 2: Improving the road surface would result in the removal of vegetation during reconstruction of the road. The borrow areas would be re-vegetated, resulting in no overall loss of vegetation.

G. Soils

Impacts Common to All Action Alternatives

The potential for increased recreational use caused by implementation of the action alternatives could affect the soil conditions within and surrounding the planning area. This recreational use could cause an increase in soil exposure from trampling, camping, OHV use, and the creation of trails. The exposure would be mitigated with implementation of any of the action alternatives for Key Action 2: LNT Education. Soil erosion from OHV use on designated routes and two-tracks would occur. Soil erosion from other proposed improvements would be mitigated through the design and implementation of site-specific reclamation plans.

Key Action 1: Development of a Boat-in Campground

No Action: There would be no additional disturbance to soils from this alternative.

Preferred Alternative: There would be no additional disturbance to soils from this alternative as proposed. If future management actions were implemented, soil disturbance would occur and impacts would be the same as those described under Alternative 1.

Alternative 1: Soils in the project area are mostly deep loamy sands. Other soil types are shallow to moderately deep loams with small inclusions of different soils. The proposed projects would involve soil disturbance, but most of it would be covered by facilities or revegetated through reclamation. Therefore, soil erosion would not be increased in these areas. The tent pad areas and trails would have long-term soil exposure and experience increased soil erosion rates. Soil disturbance would be kept to a minimum in order to leave the root mass in place for revegetation of the sites, depending upon the amount of foot traffic the trails received. The sandy soils are fairly erosion resistant, so the slow soil loss combined with regrowth would be acceptable.

Alternative 2: This alternative is the same as the preferred alternative.

Key Action 2: Leave-No-Trace Education and 3: North Platte River SRP Allocations

No impacts to soils are anticipated from the administrative actions including the Leave-No Trace Education or the North Platte River SRP Allocations moratorium.

Key Action 4: Additional Parking Lot and Boat Ramp Expansion at Bennett Peak Campground

No Action: There would be no additional disturbance to soils from this alternative.

Preferred Alternative: Soils in Bennett Peak Campground are mostly deep loamy sands. They are very well drained, have low erosion hazard potential on gentle to flat slopes, and do not compact well. There would be very little soil disturbance from delineating the overflow parking area by removing big sagebrush and two junipers. The large rocks would be moved and used either as part of the overflow parking area delineation or as boat tie-up anchors downstream of the boat ramp.

The proposed boat ramp expansion area would be leveled for placement of the concrete blocks. Soil disturbance would be kept to a minimum to leave the root mass in place for revegetation of the site. The area between the existing road and proposed boat ramp expansion (less than 0.1 acre) would have all vegetation removed for vehicle access. Very little soil would be moved to level the area and it would be graveled, if needed, to minimize soil erosion.

If needed in the future, the overflow parking area would be inter-seeded with grasses (species to be determined at that time) or graveled to minimize soil erosion. Access to the expanded boat ramp would also be graveled, if needed, to ensure there would be no increase in soil erosion. The limited soil disturbance associated with this action would not require revegetation, and no additional reclamation practices are anticipated. The project would be monitored by BLM personnel and if an issue arose, it would be addressed at that time.

Alternative 1: The round-about area would be filled in and graveled, if necessary, to create additional parking. Fill and gravel would come from an approved, weed-free source. The filled area would create more soil surface exposedure, thereby accelerating erosion.

Alternative 2: This alternative is the same as the preferred alternative.

Key Action 5: Improvements to Corral Creek Campground

No Action: There would be no additional disturbance to soils from this alternative.

Preferred Alternative: Soils in the project area are mostly shallow to deep loamy sands and sands around rock outcrops. They are very well drained and the erosion hazard potential is low on the gentle-sloped areas. There would be no soil disturbance from short-term, seasonal use of the existing vegetated two-track. Use during peak use/peak river levels should result in the road being used by very few vehicles, which would crush the vegetation, but should not kill or remove the vegetation and expose the soil, except for the shrubs. If erosion were to be increased above current levels, management actions would be taken to reverse that trend. If future management actions were implemented (road improvements, reroutes, or realignments), soil disturbance would occur and erosion would be increased on those areas above what is currently present.

Creation of the additional parking area by mowing the existing brush would not result in soil disturbance. The remaining grasses would hold the soil in place, thereby not increasing erosion beyond what is currently occurring. This area has a gentle slope, very well-drained soil, and low erosion hazard potential. If the area received enough use to destroy the remaining vegetation, the soil would be exposed and erosion would be increased.

The horse corral(s) would result in long-term vegetation disturbance. Initially, the soil would be exposed as animal use removed the vegetation. Concurrently though, leftover hay and straw, as well as manure, would be added to the surface, which would effectively mulch the area. This mulch would reduce soil erosion compared to having the soil exposed at all times. A foot trail may be created by repetitive use, but the corral(s) would be designed so that any runoff and sedimentation would flow into the corral(s), filtering the sediment with the "mulch" or native vegetation. This would reduce soil movement downslope from the corrals to an acceptable level.

Alternative 1: The additional parking area would have the same impacts as described under the Preferred Alternative. The canoe slide would involve soil disturbance (moving, leveling, etc.), but most of the disturbed soil would be covered with the following: 1) concrete steps enclosed with sideboards, 2) landing pad below the bottom step, and/or 3) revegetated through reclamation. Therefore, soil erosion should not be increased as a result of the canoe slide.

Alternative 2: The impacts from the canoe slide would be the same as described under Alternative 1.

Key Action 6: Improvements to Prospect Creek Undeveloped Recreation Site

No Action: There would be no additional disturbance to soils from this alternative.

Preferred Alternative: There would be disturbance to soils from re-routing the existing two-track and in widening the road to allow vehicle passage. Soils are fine sandy loams with severe erosion hazard potentials. The road re-route would initially result in increased soil mixing and exposure, but would ultimately result in a reduction in erosion from closing and re-vegetating the current two-tracks and installing erosion control structures, such as water bars. There would be an increase in exposed soil from widening the road to allow vehicles to pass, but this would occur on a relatively flat section so long term erosion would be minimized. There would be no surface disturbance from mowing the vegetation for parking at the boat launch area.

Alternative 1: There would be some additional soil disturbance from road maintenance, but it would be aimed at reducing erosion from vehicle traffic and road design, thus reducing erosion over time.

Alternative 2: This alternative is the same as the preferred alternative.

Key Action 7: Improvements to Big Creek Undeveloped Recreation Site

No Action: There would be no additional disturbance to soils from this alternative.

Preferred Alternative: There would be no additional disturbance to soils from this alternative.

Alternative 1: Soils in the project area are very shallow to deep, well drained, loamy sands and rock outcrops with low to moderate erosion hazard potentials (dependent upon slope). The potential maintenance and realignment of the road would result in soil mixing and exposure, but with proper BMPs most of the soil would remain on the road surface. Therefore, the existing

condition of current soil erosion rates would be maintained or reduced in these areas. The boat launch improvement would result in short term soil disturbance, but then the soil would be covered with concrete or revegetated, thereby resulting in no long term soil erosion. The parking area would be maintained with vegetative (grasses) cover, if possible. This flat, sandy area, if exposed, would experience very little erosion, but would have increased rates compared to grass-covered areas. Soil disturbance would be kept to a minimum during construction to leave the root mass in place for natural revegetation of the soil.

H. Fisheries

Impacts Common to All Action Alternatives

Developments that cause ground disturbance and roads can affect fish populations through concentration of overland flow which can result in stream channel adjustments, and increased sediment delivery where the ground surface has been disturbed. In addition, concentrated overland flow may generate greater water velocities that are foreign to the stream channel. The stream channel can, in turn, adjust to these increased velocities by changing its geometry through erosional processes, such as channel incision. Fragmentation of stream habitats can limit access to habitat features that are required by stream fish. Stream fish require habitats for spawning, rearing, feeding, and refuge from environmental extremes (Schlosser and Angermeier 1995). The spatial distribution of these required habitats can necessitate the seasonal movement of fish among habitats. If barriers to movement are present, such as those caused by improperly designed road crossings, fish may not have access to all of the habitats necessary to fulfill their life history requirements. Additionally, barriers can interrupt metapopulation dynamics that allow for the re-colonization of habitats that have experienced local extirpations.

Additional impacts of roads on fish communities are associated with increased sedimentation. The concentration of overland flow and increased rill and gully erosion associated with roads can affect required fish habitats. Increased sediment delivery to the stream can lead to the embedding of stream gravels. Some stream fish, such as trout species, require clean gravels for successful reproduction. Clean stream gravels are also necessary for the production of macro invertebrates – a key food source for many stream fish.

An example of a North Platte River access road currently affecting both sedimentation rates and public access is the Prospect Mountain Road. Incorporation of appropriate design criteria to limit erosion and increase its effectiveness and safety as an access road to the North Platte River would be a benefit to both fish habitats and recreationists.

Non-native fish have been introduced and become naturalized in much of the assessment area. Their impacts on native fish are not fully described in this area. As in other areas of the West, the use of desirable non-native fish for their recreational and aesthetic values will need to be balanced with the needs of native fish. Emphasis should be placed on managing habitats for a diversity of fish, including providing habitats for native and desirable non-native fish.

Invasive Species

The spread of several invasive species has been attributable to boaters. Education of the angling community in relation to effective disinfection procedures has proven a difficult undertaking to many State and Federal resource management agencies. Angler use and, therefore, the potential for angler transport of invasive species are at their greatest within this portion of the RFO. The BLM's opportunity to educate boaters about the problems associated with invasive species and appropriate disinfection procedures also have their greatest potential within this portion of the RFO. The use of interpretive sites at access points along the North Platte River, Encampment River, and Big Creek to provide the angling public with information relative to invasive species represents the RFO's greatest potential to control the spread of invasive aquatic species.

As the distribution of invasive species is not fully known, disinfecting equipment and materials that have been used in riparian or wetland environments should be considered as standard precautions.

I. Wildlife

Impacts Common to All Action Alternatives

Raptors

The primary impact to raptors would be the disruption from human activities during the breeding and nesting season. Currently, recreational activity already occurs in the area. Even with expected increases in use, impacts to raptors are not expected to be significant due to implementation of any selected action alternatives. Although construction activities may occur, timing stipulations would be applied to surface disturbing and disruptive activities. These stipulations would prevent disturbance during critical time periods, unless an evaluation of the area, under the exception request process, reveal that activities would not be detrimental to raptors in the area.

Big Game

The primary impact to big game species would be disruption from human activity, especially during critical time periods or in critical habitats, such as parturition areas and crucial winter range. For the most part, recreational activities are very low during the crucial winter period. However, there is potential for activity during the parturition time frame of May 1 – June 30. During this time human activity could displace or disrupt big game species during lambing/calving. This could result in reduced lamb/calf survival, but it is not expected to impact big game populations at the herd level. Currently, there is some level of activity associated with recreation in the area. Implementation of the NPRRAMP is not expected to significantly increase impacts to big game in the project area. Construction activities that disturb new ground would result in additional habitat loss. This would result in big game utilizing adjacent habitats and increased competition for space and resources with individuals using the area. Project implementation that results in surface disturbing or disruptive activities would include mitigations that would stipulate the time of year that activities could occur, in order to protect big game during critical time periods.

Threatened and Endangered Species
Canada Lynx

There should not be any management issues with the Canada lynx since this species only use the riparian habitats between ranges during dispersal and it would be unlikely that this species would be traveling through the analysis area, although this may occur. There should not be any impacts to this species as a result of implementing actions within the area. If site specific analysis determines that a specific project could potentially impact Canada lynx, consultation with the U.S. Fish and Wildlife Service would be initiated. The proposed improvement projects would have No Effect on Canada lynx.

Ute ladies' tresses

Impacts could occur to Ute ladies' tresses if construction or surface disturbing activities occurred within a population of the plant. Site specific surveys were completed for the proposed improvement projects. No Ute ladies' tresses were found during site visits. Therefore, the proposed improvement projects would have No Effect on Ute ladies' tresses.

Sensitive Species

Impacts to sensitive species would be disruptions due to human activity and loss of habitat due to construction of projects associated with the plan implementation. Currently, recreational activities already occur in the area. Even with expected increased use, impacts to sensitive species would be similar to what is currently occurring. Surface disturbing activities would result in some level of habitat loss for some species, as well as displacement of individuals utilizing that habitat. This would result in increased competition for space and resources of those individuals. As identified, stipulations would be applied to projects that would prevent surface disturbing or disruptive activities from occurring during critical time periods. These stipulations would be applied on a project/site specific basis and would provide some level of protection for all species within the project areas.

Key Action 1: Development of a Boat-in Campground

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: Impacts would be similar to those discussed in Impacts Common to All Alternatives. In addition, there are four golden eagle nests within one mile and one unknown raptor nest within three-quarter mile of the proposed boat-in campground area. Therefore, timing stipulations would apply from February 1 – July 31 and would preclude construction during this time period in order to protect nesting raptors. The area is also within mule deer crucial winter range. Stipulations would apply that will preclude construction from November 15 – April 30 to protect big game during the critical winter period. In order to protect Greater Sage Grouse during the nesting and brood rearing time period, stipulations would apply that would preclude construction from March 1 – July 15.

Alternative 1: Impacts would be similar to those discussed in the Preferred Alternative.

Alternative 2: Impacts would be similar to those discussed in the Preferred Alternative.

Key Action 2: Leave-No-Trace Education

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: There would be no impacts to wildlife from implementing LNT Education program.

Alternative 1: There would be no impacts to wildlife from implementing LNT Education program.

Alternative 2: There would be no impacts to wildlife from implementing LNT Education program.

Key Action 3: North Platte River SRP Allocations

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: Impacts would be similar to those discussed in Impacts Common to All Alternatives.

Alternative 1: Impacts would be similar to those discussed in the Preferred Alternative.

Alternative 2: Impacts would be similar to those discussed in the Preferred Alternative.

Key Action 4: Additional Parking Lot and Boat Ramp at Bennett Peak Campground

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: Impacts would be similar to those discussed in Impacts Common to All Alternatives. There are no raptor nests within the specified buffer of the Bennett Peak Campground. The Bennett Peak Campground is within mule deer, elk, and bighorn sheep crucial winter range. Timing stipulations would apply that would preclude construction in the project area from November 15 – April 30 to protect big game during the critical winter period. A density and disturbance calculation was completed for the proposed construction area in order to ensure that the project complies with BLM WY IM 2012-019. In addition, to protect Greater Sage Grouse during the nesting and brood rearing time period, stipulations would apply that would preclude construction from March 1 – July 15.

Alternative 1: Impacts would be similar to those discussed in the Preferred Alternative.

Alternative 2: Impacts would be similar to those discussed in the Preferred Alternative.

Key Action 5: Improvement of Corral Creek Campground

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: Impacts would be similar to those discussed in Impacts Common to All Alternatives. There is a Cooper's hawk nest and an unknown raptor nest within three-quarter mile of the Corral Creek Campground area. Therefore, timing stipulations would apply from February 1 – July 31 that would preclude construction during this time period in order to protect raptors during the nesting time period. The campground is within elk and bighorn sheep crucial winter range. A stipulation will apply that will preclude construction in the project area from November 15 – April 30 to protect big game during the critical winter period.

A density and disturbance calculation was completed for the proposed construction area in order to ensure that the project complies with BLM WY IM 2012-019. In addition, to protect Greater Sage Grouse during the nesting and brood rearing time period, stipulations would apply that would preclude construction from March 1 – July 15.

Alternative 1: Impacts would be similar to those discussed in the Preferred Alternative.

Alternative 2: Impacts would be similar to those discussed in the Preferred Alternative.

Key Action 6: Improvement of Prospect Creek Undeveloped Recreation Site

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: Impacts would be similar to those discussed in Impacts Common to All Alternatives. There are no raptor nests within the specified buffer of the Prospect Creek Recreation Area. The area falls within elk crucial winter range. Stipulations would apply that would preclude construction from November 15 – April 30 to protect big game during the critical winter period.

Alternative 1: Impacts would be similar to those discussed in the Preferred Alternative.

Alternative 2: Impacts would be similar to those discussed in the Preferred Alternative.

Key Action 7: Improvement of Big Creek Undeveloped Recreation Site

No Action: Implementation of the no action alternative would result in the continuation of current conditions.

Preferred Alternative: Impacts would be the same as No Action Alternative.

Alternative 1: Impacts would be similar to those discussed in Impacts Common to All Alternatives. There are no raptor nests within the specified buffer of the Big Creek Undeveloped Recreation Site. The area is within elk, mule deer and bighorn sheep crucial winter range. Stipulations would apply that would preclude construction in the project area from November 15 – April 30 to protect big game during the critical winter period.

The recreation site and a portion of the access road are within the Greater sage grouse Core Area. If surface disturbing activities were proposed, a density and disturbance calculation would be completed for the proposed construction area in order to ensure that the project complies with BLM WY IM 2012-019. In order to protect Greater Sage Grouse during the nesting and brood rearing time period, stipulations would apply that would preclude construction from March 1 – July 15.

IX. Cumulative Impacts

The North Platte River SRMA has a number of multiple uses, which incrementally impact the resource with implementation of the action alternatives. Increasing the number, convenience, and type of recreational opportunities has the potential to cause an incremental increase in the number of recreation-impacted areas of visual disturbance. Visual contrast related to soil erosion, root exposure, and soil compaction would occur with additional trampling, camping, removal of vegetation and ground cover for fire rings, vehicle use, and littering. In addition, the growing number of recreation users and their vehicles have the potential to increase the spread of non-native weeds throughout the SRMA.

These cumulative impacts are particularly salient when considering the incremental impacts of development at Bennett Peak Campground. Cumulative impacts from implementation of the action alternatives at Bennett Peak would be low given the relatively small area of ground disturbance and implementation of BMPs. This implementation would provide conveniences for larger visitor group sizes, as well as higher overall visitation. These increased use levels could cause incrementally higher levels of resource impacts at developed, undeveloped, and dispersed recreation sites.

Enhancing recreation opportunities within the planning area could potentially increase economic benefits to the surrounding communities of Saratoga, Encampment, and Riverside. Improving roads, campgrounds, parking, and facilities would provide additional recreation opportunities for nearby residents and tourists to access the SRMA. The combination of past, present and future recreation management actions within the planning area is likely to result in increased recognition of the SRMA as destination for a wide range of recreation activities and opportunities. The improvements to campgrounds and two-tracks would result in additional administrative maintenance for the BLM (i.e., fee collection, increased maintenance of fee sites, and increased maintenance of existing two-tracks and river access roads).

Developments for recreation, grazing, tourism, and seasonal homes are being cleared of vegetation and causing fragmentation of native habitat for a number of wildlife species. Recent concerns expressed from WGFD include the cumulative impacts of increased recreation use on mule deer winter range along the North Platte River. OHV use and trails within the SRMA have contributed to additional fragmentation of habitat and disturbance of mule deer and their winter range migrations as well as additional erosion. Overall, increases in recreational use of the SRMA could have the potential for future increases in habitat fragmentation. However, the proposed actions would not directly contribute to this fragmentation.

On the Lower North Platte River, livestock grazing, and mining are the primary land uses. There are impacts to shoreline areas of the North Platte River due to grazing, recreational use, and the subsequent invasion of non-native weeds. In limited areas, cottonwood and willow recruitment may be affected by wildlife and livestock.

The 2008 RFO, RMP provides management direction for multiple uses within and surrounding the planning area. The overall past, present, and reasonably foreseeable actions included multiple uses which could contribute to cumulative impacts. These multiple uses include overall increases in energy development projects, range improvements and livestock grazing, land exchanges, future recreational developments and uses, mineral development, as well as vegetation, soils, and watershed restoration projects. Many of the project sites for these multiple uses involve extensive road establishment and maintenance which, when combined with the effects of the proposed projects of this NPRRAMP, have the potential to incrementally increase sedimentation and run-off within the Upper and Lower North River watersheds. To mitigate these cumulative impacts, the BLM, RFO, would continue to implement BMPs including restoration and maintenance work to improve road stability, removal of barriers to aquatic habitat at stream crossings, range improvement projects, and erosion control measures.

When considering the combined effects of the proposed actions and the above multiple uses occurring within and surrounding the planning area, there is also the potential for an overall incremental degradation in visual quality, as well as impacts to wildlife and fisheries, recreation opportunities, and livestock grazing. However, the implementation of a LNT program, if selected under the Preferred Alternative, could possibly have an incremental effect of lowering fecal coliform counts, as well as near view visual impacts of trash and soil erosion. Monitoring of impacts to each of the above resources will continue to provide for appropriate mitigation strategies (i.e., BMPs) and adaptive management to minimize cumulative and indirect impacts.

X. Implementation and Future Monitoring Strategies

Upon implementation of the RAMP, the BLM would monitor resource conditions to evaluate trends and outcomes of implementing the selected action alternatives. Monitoring results for the various resource conditions would be utilized to determine the effectiveness of management strategies and conformance with SRMA goals and objectives.

Compliance and effectiveness monitoring would be conducted in the planning area through routine inspections during the implementation phase and periodic site inspections would be conducted after implementation. The results of the monitoring would provide an opportunity to identify needed corrective actions to protect resources, enhance visitor experiences, and address health and safety. Site-specific and planning area-wide outcome measures would be established to determine compliance and effectiveness of any selected actions and the results of this assessment would be recorded and available for public review upon request.

To evaluate the effectiveness of project implementation and management strategies, monitoring approaches have been divided into three categories: Physical Resource Conditions, Social Resource Conditions, and Administrative Resource Conditions. Baseline monitoring studies would be designed in Spring 2014 and would be implemented beginning in Summer 2014.

Physical Resource Conditions:

- Noxious and invasive weed inventory
- The planning area would be assessed for conformance with the six Wyoming Standards for
- Healthy Rangelands every 10-12 years. The Upper Platte River Watershed would be assessed for these standards in 2014 while the Lower North Platte River Watershed is being assessed this year
- The percentage of vegetation cover on Corral Creek Road

Social Resource Conditions:

- Vehicle counts to determine visitor days at developed and undeveloped recreation sites
- Number of craft to craft encounters while floating the river
- Waiting times to launch and retrieve, and number of boats launched and retrieved
- Number of commercial versus private visitors, and number of visitors per SRP holder
- Visitor perceptions of social and physical conditions and economic expenditures (visitor surveys)
- Mitigation of recreational impacts
- Observed conflicts
- Distance between craft
- Visitor registration boxes would be used to monitor and record use and collect comments to assess the effectiveness of SRMA management

Administrative Resource Conditions:

- Update carrying capacity of camping and parking facilities after implementation of action alternatives
- Determine the effectiveness of implementing the LNT Program and evaluate corrective actions
- Record management actions completed each year (campgrounds and landing site upgrades, parking areas stabilized, miles of road upgraded, miles of road closed/reclaimed, noxious, and invasive weeds treated, and restoration projects

implemented/successful)

- Monitor road and trail conditions on all currently existing routes including photo points

XI. Tribes, Individuals, Organizations, and Agencies Consulted

Native Americans were contacted for the North Platte RAMP and EA. No properties that may be important to Native American tribes were identified within the proposed project areas described in this document.

Tribes, Agencies, and Organizations Consulted:

Northern Cheyenne Tribe
The Ute Tribe of the Uintah and Ouray Reservation
Eastern Shoshone Tribe of the Wind River Reservation
Northern Arapaho Tribe
Bureau of Reclamation
Carbon County
Town of Encampment
City of Rawlins
Town of Riverside
City of Saratoga
Saratoga-Encampment-Rawlins Conservation District
State of Wyoming Senate
State of Wyoming, House of Representatives
U.S. Fish and Wildlife Service
U.S. House of Representatives (Wyoming)
U.S. Senate (Wyoming)
U.S. Forest Service
Wyoming Department of Environmental Quality
Wyoming Game and Fish Department
Wyoming State Parks
Trout Unlimited
Saratoga/Platte Valley Chamber of Commerce

XII. Acronyms

BLM: Bureau of Land Management

BMP: Best Management Practice

BTRT: Boreal Toad Recovery Team

CFS: Cubic Feet per Second

EA: Environmental Assessment

EIS: Environmental Impact Statement

ESA: Endangered Species Act of 1973, as amended

FEIS: Final Environmental Impact Statement

FLPMA: Federal Land Policy and Management Act of 1976

IDT: Interdisciplinary Team

IM: Interoffice Memorandum

NEPA: National Environmental Policy Act of 1969, as amended

NHPA: National Historic Preservation Act of 1966, as amended

NPRRAMP: North Platte River Recreation Area Management Plan

OHV: Off-Highway Vehicle

RAMP: Recreation Area Management Plan

RFO: Rawlins Field Office

RMP: Resource Management Plan

SD: Standard Deviation

SRMA: Special Recreation Management Area

SRP: Special Recreation Permit

TSS: Total Suspended Solids

USACE: United States Army Corps of Engineers

USFS: United States Forest Service

USGS: United States Geological Survey

VRI: Visual Resource Inventory

VRM: Visual Resource Management

WSA: Wilderness Study Area

WGFD: Wyoming Game and Fish Department

WY DEQ: Wyoming Department of Environmental Quality

XIII. References

BTRT. 2001. Boreal toad conservation plan and agreement for the southern Rocky Mountain population of the boreal toad (*Bufo boreas boreas*). Colorado Division of Wildlife, Denver, CO.

Bureau of Land Management Interoffice Memorandum 2011-004, Attachment 5, Recreation Setting Characteristics Matrix: http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/im_attachments/2011.Par.42876.File.dat/IM2011-004_att5.pdf.

Bureau of Land Management, Rawlins Field Office, North Platte River Recreation Area Management Plan, Project Map. 2013. http://www.blm.gov/style/medialib/blm/wy/information/NEPA/rfodocs/n_platte_ramp.Par.86993.File.dat/NPlatteMap.pdf

Record of Decision for the Chokecherry and Sierra Madre Wind Energy Project and Approved Visual Resource Management Plan Amendment. 2012. Bureau of Land Management, Rawlins Field Office, Rawlins, Wyoming.

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Schlosser, I. J., and P. L. Angermeier. 1995. Spatial variation in demographic processes of lotic fish: conceptual models, empirical evidence, and implications for conservation. Pages 392-401 in J. L. Nielsen, editor. Evolution and the aquatic system: defining unique units in population conservation. American Fisheries Society, Symposium 17, Bethesda, Maryland.

XIV. Appendix A: Tables, Figures, and Photos

Table 4. Allotments within the Planning Area and Seasons of Use

Allotment Name	Allotment Number	Season of Use
Prospect Mountain	11049	1-June through 15-October
A Bar A Ranch	11001	Yearlong
A Cross Ranch	11027	1-May through 30-September
Bennett Peak	11004	1-May through 31-October
John Rouse	11052	25-May through 24-June
Beaver Creek Hills	11024	1-May through 30-June
Arthur Rouse	11023	10-May through 30-September
Rainbow Canyon	21053	1-June through 1-September
North Lake Creek	00863	1-June through 28-August
Corpening	00861	18-April through 31-May
Platte River	20613	1-April through 15-November
Pine Grove/Bolten	10623	1-March through 31-December
Lone Tree Allotment	00839	16-May through 31-October
Fort Steele Breaks	00816	Yearlong
East Sinclair	00704	Yearlong
Haystack River Pasture	00708	Yearlong
North Walcott	00819	Yearlong
Haystack	00707	Yearlong
Seminoe	10218	Yearlong

Table 5. 2010 and 2013 Recreation Opportunity Inventory: Number of Visitors Encountered in the North Platte River SRMA.

Township, Range, Section	Name of Site	Hours Spent at Site	Number of Visitors Encountered[1]	Date
21n 85w sec 10	Just Upstream of Sinclair Rec. Park	2	0	7-6-10
21n 85w sec36	Just South of Ft. Steele I-80 Exit	8	0	8-11-10
22n 86w sec14	Dugway Campground	3	14	6-10-10
13n 81w sec1	Prospect Creek Undeveloped Rec. Site	5	8	6-23-10
15n 82w sec 14	Corral Creek Campground	2	9	6-23-10
15n 82w sec 23	Just upstream of Corral Creek	1.5	0	6-22-10
15n 82w sec15	Bennett Peak Campground	2	6	7-21-10
18n 85w sec 2	Just downstream of Pick Bridge	1	0	8-11-10
18n 85w sec 12	Just downstream of Pick Bridge	1	2	8-11-10
19n 85w sec 2	Just upstream of Eagle's Nest Boat Launch	8	0	8-11-10
19n 85w sec 14	Just upstream of Oxbow Bend	10	0	8-11-10
19n 85w sec 20	Just upstream of Proposed Boat-In Campground	1	0	8-11-10
19n 85w sec 22	At section containing Proposed Boat-In Campground	1	4	8-11-10
19n 85w sec 34	Near Frazier Campground	1	0	8-11-10
20n 85w Sec10	Upstream of Ft. Steele I-80 Exit	4	5	7-9-10
21n 85w Sec 4	Downstream of Ft. Steele St. Park	2	0	7-6-10
15n 82w sec15	Bennett Peak Campground	8	6	6-1-2013
15n 82w sec15	Bennett Peak Campground	8	2	6-13-2013
15n 82w sec15	Bennett Peak Campground	8	10	6-14-2013
15n 82w sec15	Bennett Peak Campground	8	7	6-15-2013
15n 82w sec15	Bennett Peak Campground	8	14	6-16-2013

15n 82w sec15	Bennett Peak Campground	8	9	6-17-2013
15n 82w sec15	Bennett Peak Campground	8	5	6-20-2013
15n 82w sec15	Bennett Peak Campground	8	2	6-23-2013
15n 82w sec15	Bennett Peak Campground	8	9	6-24-2013
15n 82w sec15	Bennett Peak Campground	8	3	6-25-2013
15n 82w sec15	Bennett Peak Campground	8	4	6-26-2013
15n 82w sec15	Bennett Peak Campground	8	4	6-27-2013
15n 82w sec15	Bennett Peak Campground	8	4	6-28-2013
15n 82w sec15	Bennett Peak Campground	8	4	6-29-2013

[1]The 2009 and 2010 counts included encounters with river craft, shoreline visitors, and passing vehicles, which were collected by previous BLM Recreation Planners. The 2013 counts only included encounters with river craft (per the guidance of the 2013 NPRRAMP Sounding Board).

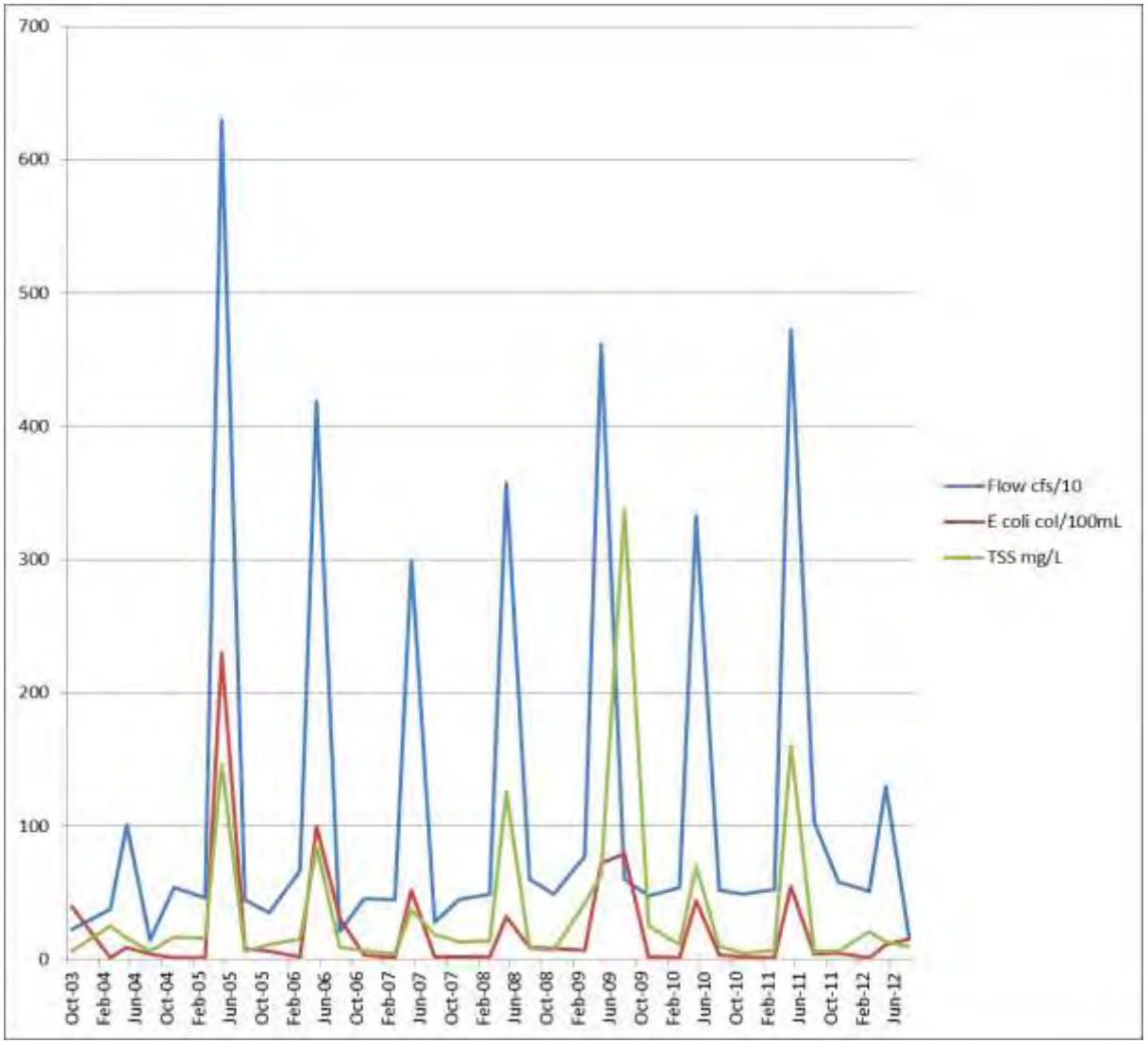


Figure 1a. 2003-2012 USGS: *E. Coli*, Instantaneous Flow, and Total Suspended Solids at the Sinclair USGS Gauge.

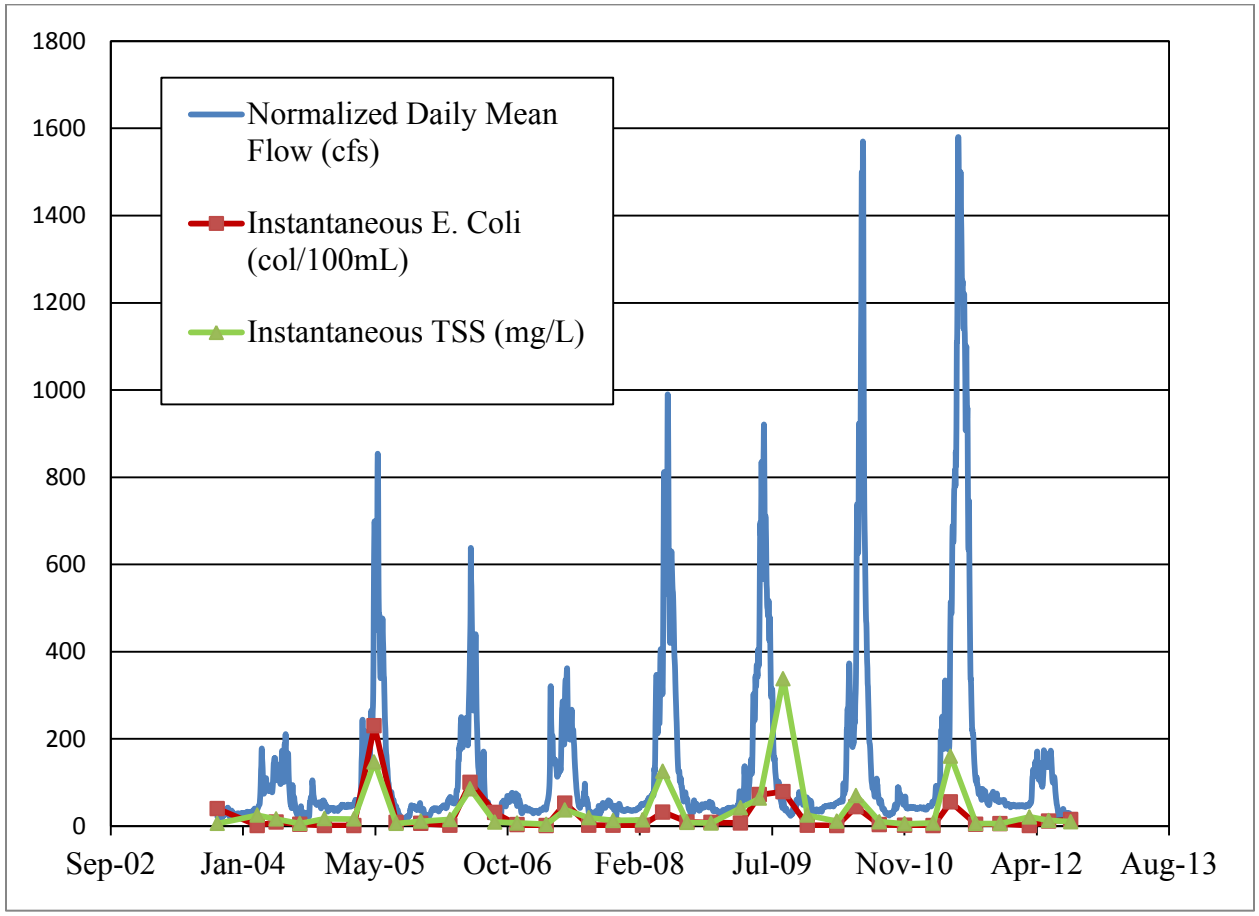


Figure 1b. 2001-2012USGS: Average flow, *E. Coli*, and Total Suspended Solids (TSS) at Sinclair USGS Gauge.

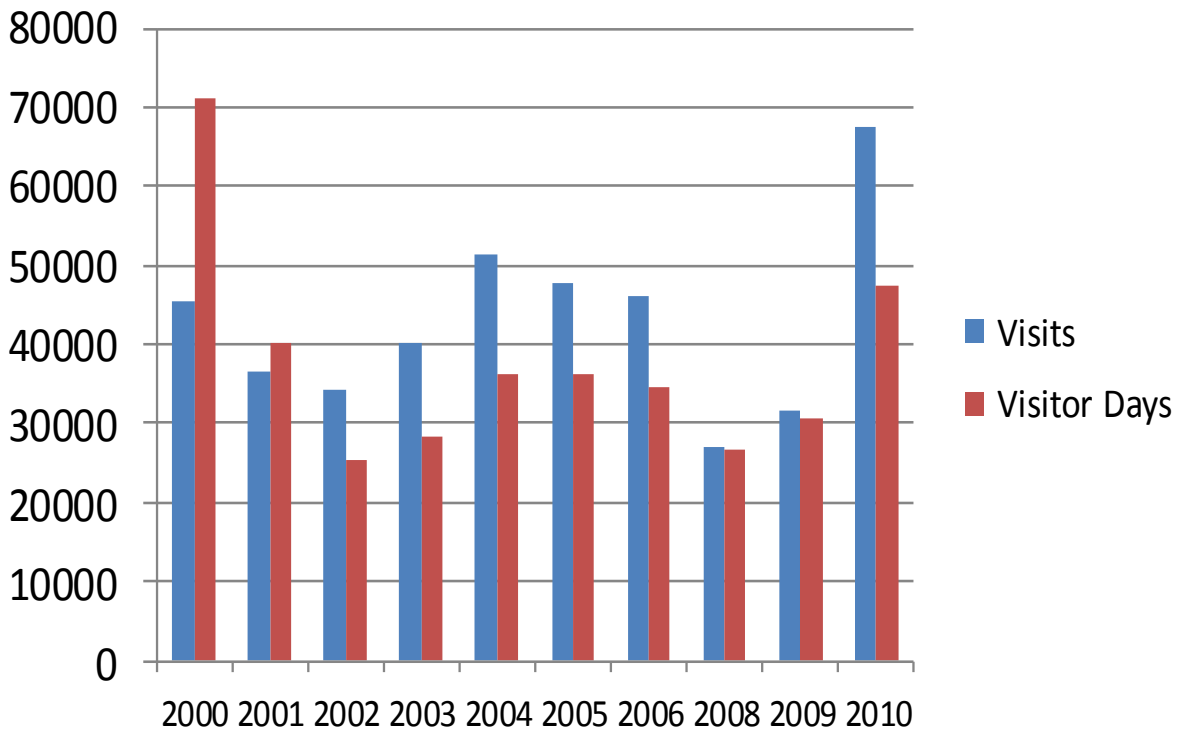


Figure 2. BLM North Platte River SRMA Visits and Visitor Days 2000-2010

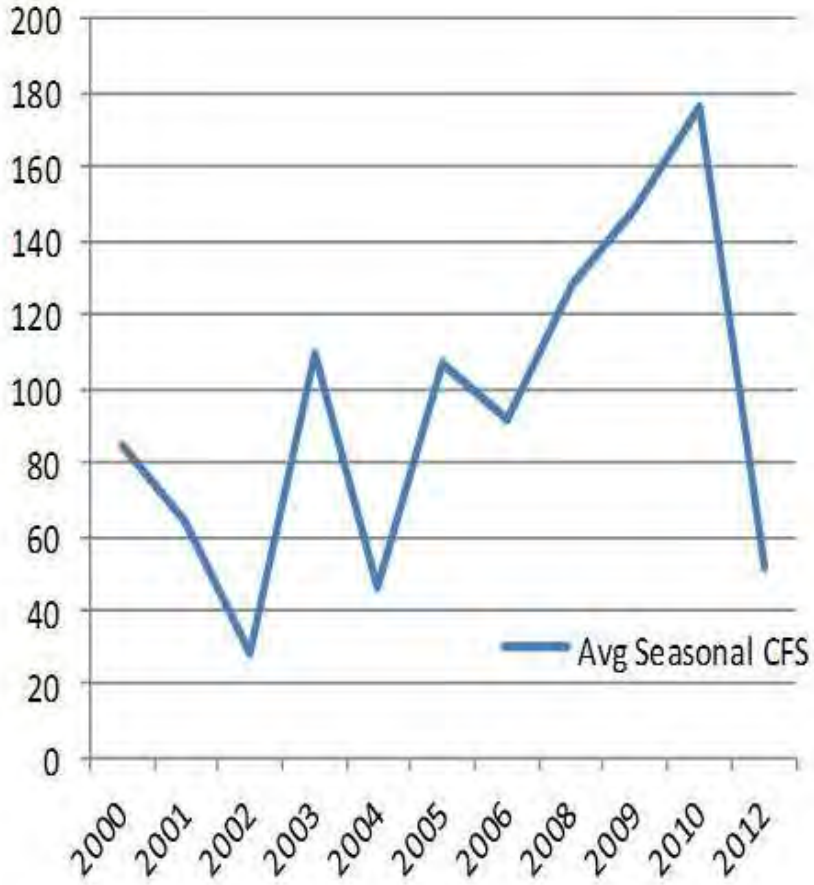


Figure 3. 2000-2012 USGS Average Seasonal CFS – Brush Creek Gauge

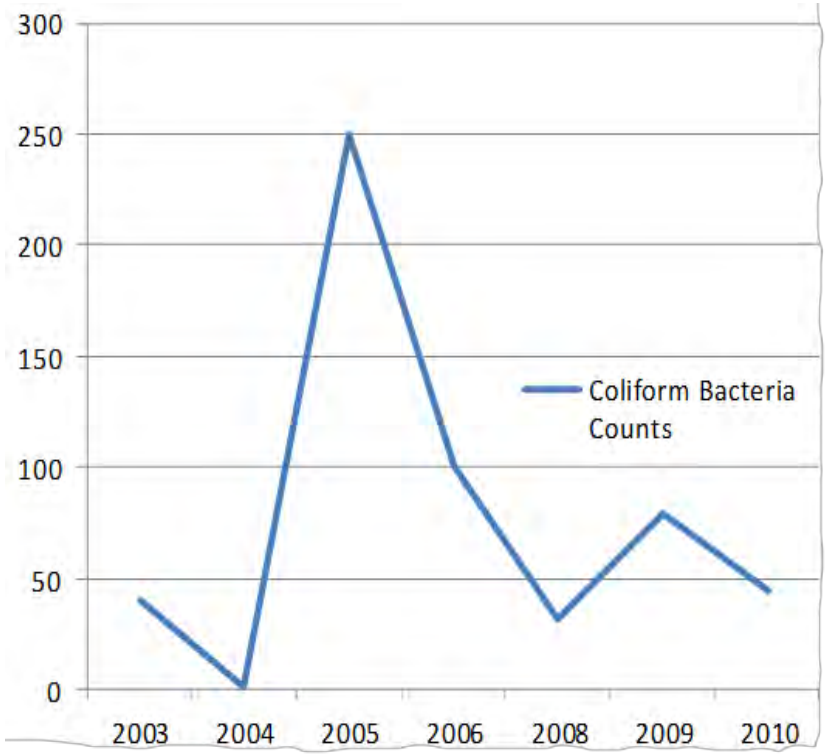


Figure 4. USGS Fecal Coliform Bacteria Counts, USGS Sinclair Monitoring Station

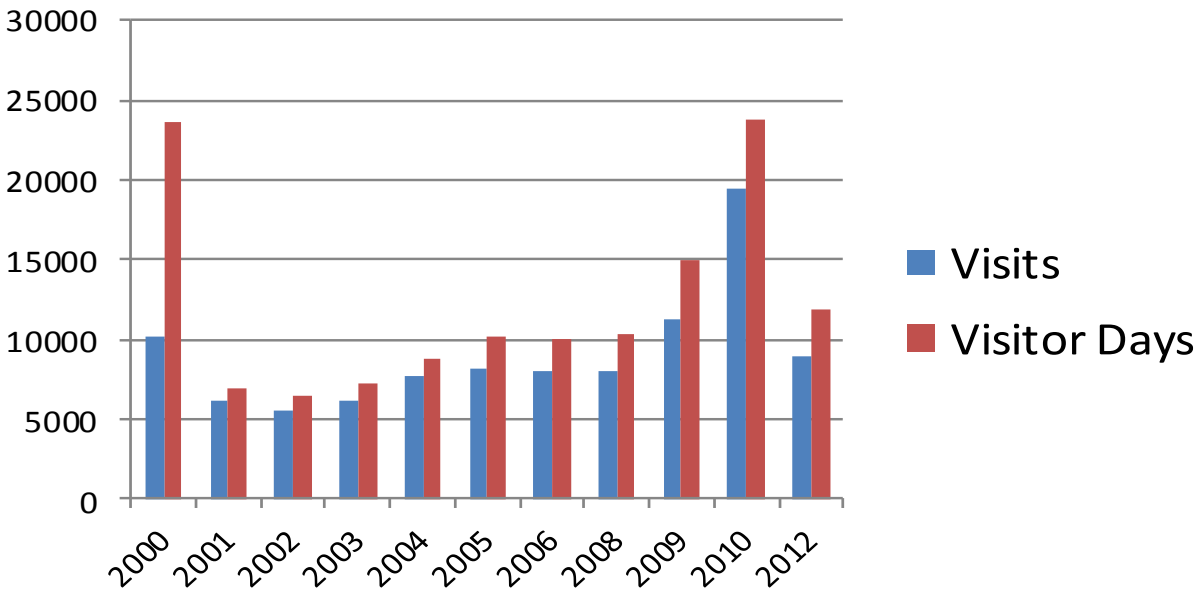


Figure 5a. 2000-2012 BLM Visits and Visitor Days at Bennett Peak Campground

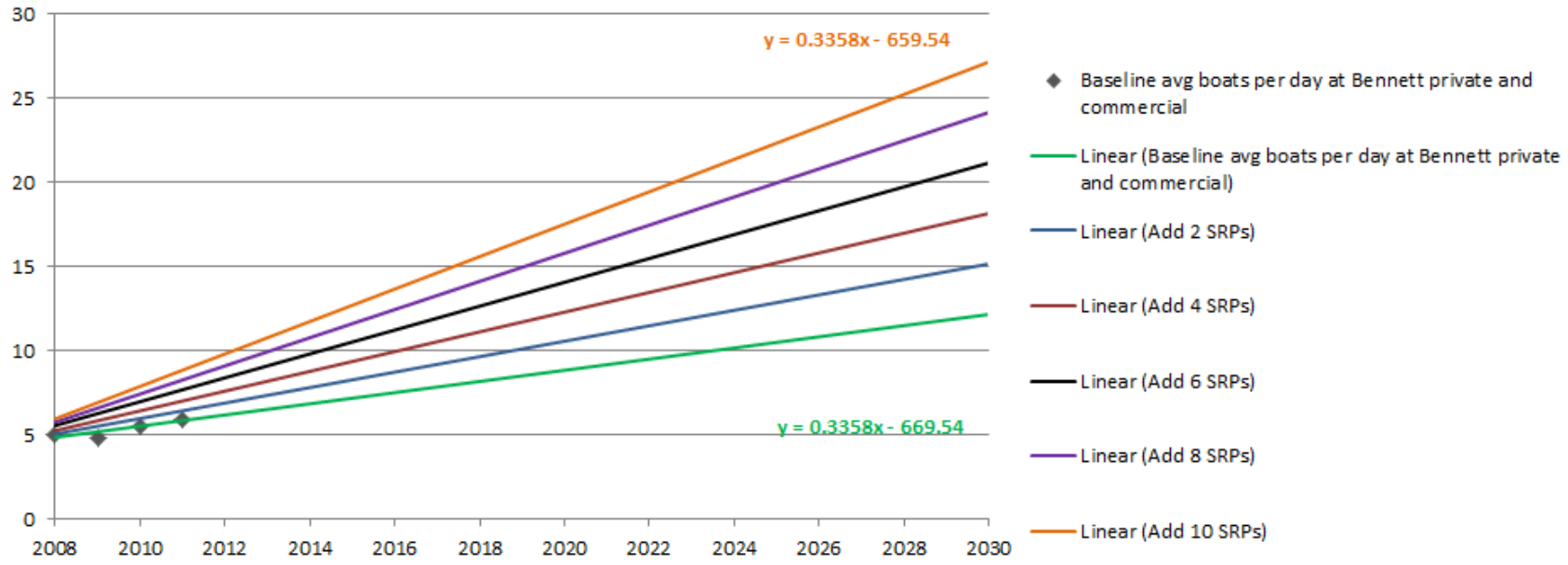


Figure 5b. 15 Year Growth Projection for Average Number of Craft Encountered Per Day at Bennett Peak to Treasure Island Segment, May 15 – Sept. 15

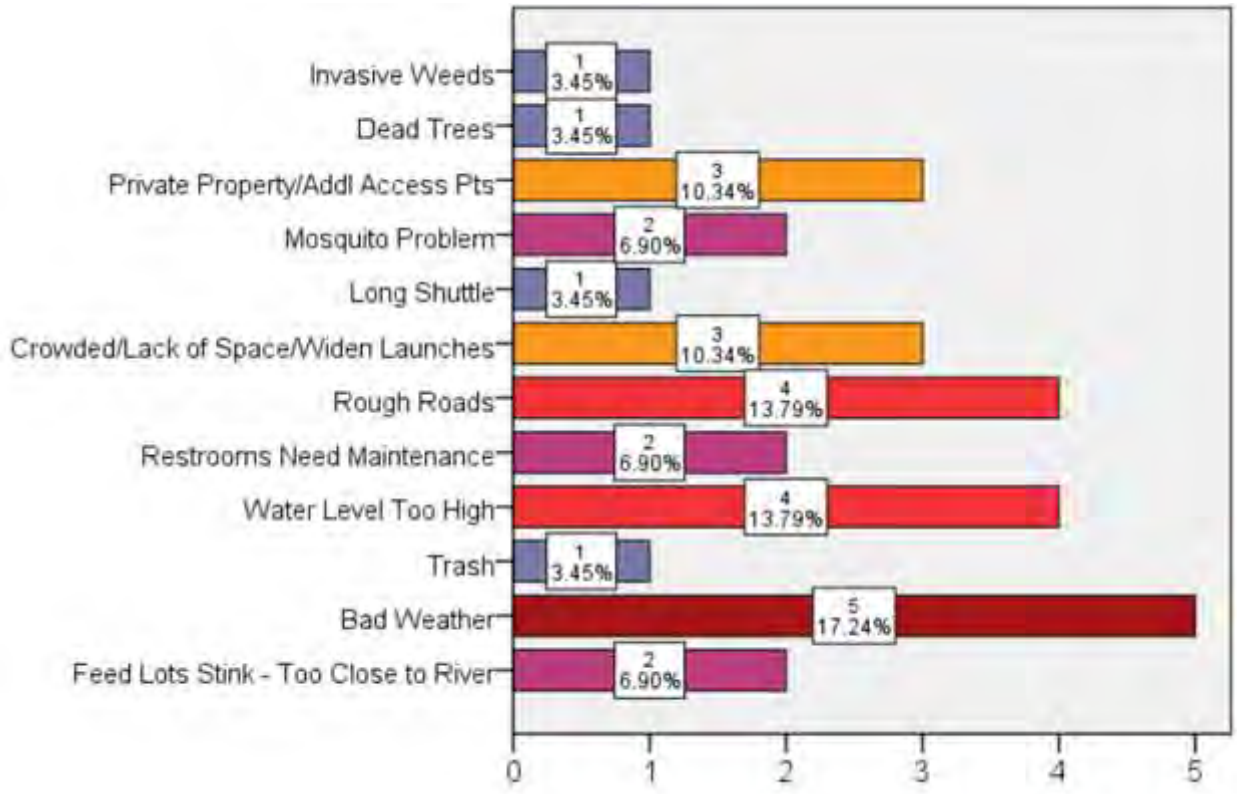


Figure 6. BLM 2009-2010 Survey Results: Visitor Reported Factors that Detracted from Trip Quality at Bennett Peak Campground

Photo 1: Bennett Peak Boat Ramp Parking Lot - Peak Use Weekend

Photo 2: Bennett Peak Boat Ramp looking north toward proposed expansion area in the Preferred Alternative

Photo 3: Bennett Peak Boat Ramp, Proposed Expansion Area is to the right (between sign and raft), Preferred Alternative

Photo 4: Bennett Peak Boat Ramp Round-About (proposed for removal under Alternative 1)

Photo 5: Bennett Peak Campground, Proposed Parking Area, Preferred Alternative

Photo 6: Bennett Peak Campground, Proposed Parking Lot, Alternative 1 (Simulation)

Photo 7: Corral Creek Campground, Proposed river access on existing reclaimed two-track, Preferred Alternative

Photo 8: Corral Creek Campground, Proposed river access on existing reclaimed two-track, Preferred Alternative

Photo 9: Corral Creek, Proposed Canoe Slide Opportunity, Alternatives 1 and 2

Photo 10: Corral Creek, Potential Canoe Slide Opportunity, Alternatives 1 and 2

Photo 11: Prospect Creek Road, currently being maintained by outfitters but would be maintained by the BLM under the Preferred Alternative

Photo 12: Prospect Road Boat Launch, would remain in the current condition under the Preferred Alternative

XV. Appendix B: Maps of Preferred Alternatives

Map 1: Preferred Alternative, Boat-In Campground

Proposed Overflow Parking & Horse Corral Area

Surface Ownership

Bureau of Land Management

State

Water

N

0 265 530 1,060 1,590 2,120 Feet

No warranty is made by the Bureau of Land Management for data purposes not intended by the BLM.

Map 2: Preferred Alternative at Bennett Peak

Overflow Parking

Expansion of Boat Ramp

Educational Kiosk

N

0 25 50 100 150 200 Feet

No warranty is made by the Bureau of Land Management for data purposes not intended by the BLM.

Map 3: Preferred Alternative and Alternative 1 for Corral Creek Campground

Preferred Alternative: Proposed Overflow Parking & Horse Corral Area

Preferred Alternative: Existing Gated Two-Track Proposed for Limited Peak Season Access

Alternative 1: Proposed Canoe Slide Only

N

0 35 70 140 210 280 Feet

No warranty is made by the Bureau of Land Management for data purposes not intended by the BLM.

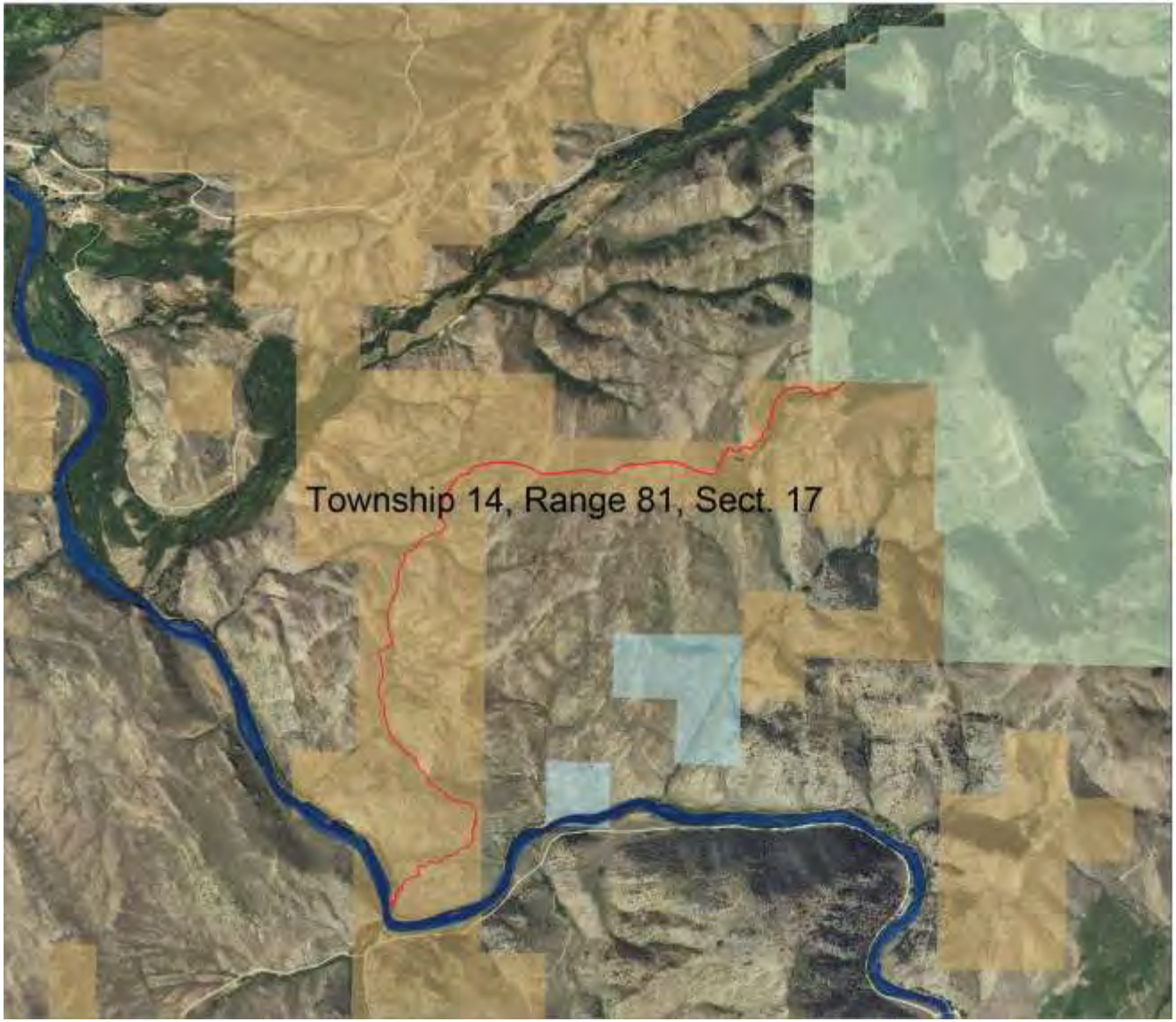
Map 4: Preferred Alternative: Proposed Improvements to Prospect Creek Rd.

Proposed Switchback & Realignment to Existing Two-Track

N

0 0.005 0.01 0.02 0.03 0.04 Miles

No warranty is made by the Bureau of Land Management for data purposes not intended by the BLM.



Map 5: No Action Alternative: Big Creek Access

Existing Two-Track

Surface Ownership

- Bureau of Land Management
- Forest Service
- State
- Water

N

0 0.1 0.2 0.4 0.6 0.8 Miles

No warranty is made by the Bureau of Land Management for data purposes not intended by the BLM.

XVI. Appendix C: Recreation Setting Characteristics Matrix

RECREATION SETTING CHARACTERISTICS MATRIX

PHYSICAL COMPONENT – Qualities of the Landscape

	Primitive	*Back Country*	*Middle Country*	*Front Country*	*Rural*	*Urban*
Remoteness (approx. distance from routes)	More than ½ mile from either mechanized or motorized routes.	Within ½ mile of mechanized routes.	Within ½ mile of four-wheel drive vehicle, ATV and motorcycles routes.	Within ½ mile of low-clearance or passenger vehicle routes (includes unpaved County roads and private land	Within ½ mile of paved/primary roads and highways.	Within ½ mile of streets and roads within municipalities and along highways.
Naturalness (landscape texture form, line, color)	Undisturbed natural landscape.	Natural landscape with any modifications in harmony with surroundings and not visually obvious or evident (e.g. stock ponds, trails)	Character of the natural landscape retained. A few modifications contrast with character of the landscape (e.g. fences, primitive roads).	Character of the natural landscape partially modified but none overpower natural landscape (e.g. roads, structures, utilities).	Character of the natural landscape considerably modified (agriculture, residential or industrial).	Urbanized developments dominate landscape.
Facilities	No structures. Foot/horse and water trails only.	Developed trails made mostly of native materials such as log bridges. Structures are rare and isolated.	Maintained and marked trails, simple trailhead developments and basic toilets.	Rustic facilities such as campsites, restrooms, trailheads, and interpretive displays.	Modern facilities such as campgrounds, group shelters, boat launches, and occasional exhibits.	Elaborate full-service facilities such as laundries, restaurants, and groceries.

SOCIAL COMPONENT – Qualities Associated with Use

	Primitive	*Back Country*	*Middle Country*	*Front Country*	*Rural*	*Urban*
Contacts (avg. with any other group)	Fewer than 3 encounters/ day at camp sites and fewer than 6 encounters/	3–6 encounters/day off travel routes (e.g., campsites) and 7–15 encounters/day on travel routes.	7–14 encounters/day off travel routes (e.g., staging areas) and 15–29 encounters/day on travel routes.	15–29 encounters/day off travel routes (e.g., campgrounds) and 30 or more encounters/day on travel routes.	People seem to be generally everywhere.	Busy place with other people constantly in view.
Group Size (average - other than you own)	Fewer than or equal to 3 people per group.	4–6 people per group.	7–12 people per group.	13–25 people per group.	26–50 people per group.	Greater than 50 people per group.
Evidence of Use	No alteration of the natural terrain. Footprints only observed. Sounds of people rare.	Areas of alteration uncommon. Little surface vegetation wear observed. Sounds of people infrequent.	Small areas of alteration. Surface vegetation showing wear with some bare soils. Sounds of people occasionally heard.	Small areas of alteration prevalent. Surface vegetation gone with compacted soils observed. Sounds of people regularly heard.	A few large areas of alteration. Surface vegetation absent with hardened soils. Sounds of people frequently heard.	Large areas of alteration prevalent. Some erosion. Constantly hear people.

OPERATIONAL COMPONENT – Conditions Created by Management and Controls over Recreation Use

	Primitive	***Back Country***	***Middle Country***	***Front Country***	***Rural***	***Urban***
Access (types of travel allowed)	Foot, horse, and non-motorized float boat travel.	Mountain bikes and perhaps other mechanized use, but all is non-motorized.	Four-wheel drives, all-terrain vehicles, dirt bikes, or snowmobiles in addition to non-motorized, mechanized use.	Two-wheel drive vehicles predominant, but also four wheel drives and non-motorized, mechanized use.	Ordinary highway auto and truck traffic is characteristic.	Wide variety of street vehicles and highway traffic is ever-present.
Visitor Services (& information)	No maps or brochures available on-site. Staff rarely present to provide on-site assistance.	Basic maps, staff infrequently present (e.g. seasonally, high use periods) to provide on- site assistance.	Area brochures and maps, staff occasionally (e.g. most weekends) present to provide on- site assistance.	Information materials describe recreation areas & activities, staff periodically present (e.g. weekdays & weekends).	Information described to the left, plus experience and benefit descriptions, staff regularly present (e.g. almost daily).	Information described to the left, plus regularly scheduled on-site outdoor demonstratio ns and clinics.
Management Controls	No on-site posting/signing of visitor regulations, interpretive information or ethics. Few use restrictions.	Basic user regulations at key access points. Minimum use restrictions.	Some regulatory and ethics signing. Moderate use restrictions. (e.g. camping, human waste).	Rules, regulations and ethics clearly posted. Use restrictions, limitations and/or closures.	Regulations strict and ethics prominent. Use may be limited by permit, reservation, etc.	Enforcement in addition to rules to reduce conflicts, hazards, and resource damage.

NOTE: This matrix can be customized to meet particular planning needs: 1) classes can be added, split, or merged; 2) characteristics can be added or deleted; 3) class names can be changed; and 4) the text can be modified. <u>However,the concept of a spectrum must remain intact</u>. The entire North Platte River SRMA is classified as a Middle Country Recreation Setting.

XVII. Appendix D: Reclamation Plan

This reclamation plan was being prepared by the RFO to present the mitigation and best management practices for surface disturbing activities of the proposed actions and range of alternatives for the North Platte River Area Management Plan. The SRMA is located from Prospect WSA north to Seminoe Reservoir in the valleys and foothills west of the Snowy Range. The SRMA includes 5,060 acres administered by the BLM, RFO. The scope of the planning area for the NPRRAMP includes parcels of land within the SRMA boundary from the Prospect Creek confluence to Seminoe Reservoir covering 110 river miles of which the BLM public lands cover approximately 10 percent of the surface area. The remainder of land ownership is predominantly private followed by State of Wyoming. A map of the planning area is available on the RFO website: http://www.blm.gov/style/medialib/blm/wy/information/NEPA/rfodocs/n_platte_ramp.Par.86993.File.dat/NPlatteMap.pdf.

Boat-In Campground

The proposed boat-in campground is located in Section 22, Township 19 North, Range 85 West, 6th principal meridian, Carbon County, Wyoming. The average annual precipitation is 9-11 inches per year. The proposed boat in campground is relatively flat and slopes slightly away from the river to the west. The proposed Rochelle Boat-In Campground is currently open for use by wildlife and livestock grazing.

Map 1 in Appendix B shows the proposed Rochelle Boat-In Campground within the yellow polygon overlay on 2009 NAIP aerial photography.

Vegetation for the proposed boat-in campground was documented through photography. The photo documentation would allow for monitoring of the vegetation at the site.

Photos E1 and **E2** show the lowland (left) and upland (right) areas for the proposed Boat-In Campground

Management of waste materials

LNT education would cover waste issues

Subsurface integrity and eliminate sources of ground and surface water contamination

This project should not affect the subsurface integrity of any aquifers. Proper surface erosion control would be applied to the project, as needed.

Re-establish slope stability, surface stability, and desired topography

This project would have dispersed recreational use. The area is vegetated, which will be left in place to protect soil surface. Banks would need to be monitored to determine if any instability were occurring. If needed, the BLM would implement erosion control measures to reduce potential sedimentation to the river.

Reconstruct and stabilize water courses and drainage features

Through monitoring the BLM would determine if armoring the banks of the North Platte River would be needed for stabilization and erosion issues.

Maintain the biological, chemical and physical integrity of the topsoil and subsoil

This project was designed to minimize the level of surface disturbance. No topsoil is planned to be salvaged for this project.

Prepare site for re-vegetation

Re-vegetation is not needed at this time.

Establish a desired self-perpetuating native plant community

If any disturbances require stabilization, broadcast seeding with native species would occur. The seed mix would be selected at that time. The topsoil would be raked and then seed would be broadcast by a handheld broadcaster. The soil would then be raked again to cover the seeds and allow for better seed to soil contact, and to prevent the seed from blowing away or being exposed to birds and rodents.

Reestablish a complementary visual composition

No alteration of the current visual composition is planned at this time.

Manage invasive plants

The proposed boat-in campground was found to have Leafy spurge (*Euphorbia esula* L.) present at the location. Leafy spurge is a deep-rooted perennial noxious weed that can crowd out

desirable plant species and is toxic to cattle and horses. This noxious weed would need to be monitored and could be treated on an annual basis. Some of the control methods that could be utilized by the BLM include mechanical, chemical, and biological controls.

Monitoring

The site would be monitored annually to determine if any amendments to this plan are needed. This monitoring should include an ocular estimate of invasive and noxious weeds, and an ocular inspection of the Rochelle Easement campground to determine if there is any surface disturbance that needs to be mitigated. Also the Rochelle Easement would be monitored for major erosion issues caused by recreational activities.

Additional Parking Lot and Boat Ramp at Bennett Peak Campground

Site description

Map 2 in Appendix B shows the proposed overflow parking area in red, the boat ramp extension in orange, and the educational kiosk in yellow. This reclamation plan was prepared in response to the proposed boat ramp extension and parking area expansion at the Bennett Peak Campground. The Bennett Peak Campground is a BLM; RFO managed recreation facility located in T.15N R.82W Sec.15 of Carbon County, Wyo. The main uses at Bennett Peak Campground include: camping, fishing, floating the river, and other recreational activities. The proposed boat ramp extension is located on the east bank of the North Platte River which has a slight slope. The area receives an average of 12 inches per year of precipitation (average from 1895 to 2012) and has a five year average of 11.5 inches.

Management of waste materials

The only anticipated waste material is trash. Trash would be placed into lined containers present on-site and disposed of in an authorized disposal facility. No waste material would be buried at the location.

Subsurface integrity and eliminate sources of ground and surface water contamination

This project would not affect the subsurface integrity of any aquifers. Proper surface erosion control would be applied to the project as needed.

Re-establish slope stability, surface stability, and desired topography

This project would be a long term disturbance. The parking area expansion is naturally level and vegetated; existing sagebrush would be brush hogged, leaving the mulch to protect the soil surface. The slope at the extended boat ramp would not be adjusted. Existing herbaceous vegetation would be left in place to maintain surface stability around the boat ramp extension. If needed, the BLM would implement erosion control measures to reduce potential sedimentation to the river.

Reconstruct and stabilize water courses and drainage features

The extended boat ramp into the North Platte River would armor the river bank and would be low profile so that the natural flow of the river is maintained. This project would not alter the existing profile of the bank.

Maintain the biological, chemical and physical integrity of the topsoil and subsoil

This project has been designed to minimize the level of surface disturbance. If needed, the extended parking area would be inter-seeded to stabilize the soil. The area exposed for access to the extended boat ramp would be surfaced, if necessary, to reduce erosion. No topsoil is planned to be salvaged for this project.

Prepare site for re-vegetation

Bare areas next to the ramp that need erosion control would have the appropriate BMPs installed and would be raked.

Establish a desired self-perpetuating native plant community

If any disturbances require stabilization, broadcast seeding with native species would occur. The seed mix would be selected at that time. The topsoil would be raked and then seed would be broadcast by a handheld broadcaster. The soil would then be raked again to cover the seeds and allow for better seed to soil contact, and to prevent the seed from blowing away or being exposed to birds and rodents.

Reestablish a complementary visual composition

Visual composition would not be restored as the areas would be used for parking and as a boat ramp for the long term.

Manage invasive plants

The Bennett Peak Campground currently has several invasive species present: Canada thistle, cheatgrass, leafy spurge, musk thistle, and spotted knapweed. The noxious species have been treated and would continue to be controlled by the RFO.

The new disturbances proposed by the expanded boat ramp and the extended parking area would be monitored for invasive species annually.

Noxious species would be controlled and/or eradicated using an integrated management approach. This may include manual removal, chemical treatment, or other appropriate management techniques depending upon the species.

Improvement of Corral Creek Campground

Map 3 in Appendix B displays Corral Creek Campground with the proposed projects outlined in red and blue on 2009 NAIP aerial photography. The Corral Creek Campground is located in T15N R82W Sections 14 and 23. The blue is the proposed parking area and horse corrals. The green line to the North Platte River is the canoe slide considered in Alternative 1. The red road is reclaimed two-track that takes off the southeast part of the loop and runs parallel to Corral Creek (green area) to the bottom.

Management of waste materials

The only waste material anticipated is trash. Trash would be placed into lined containers present at the site and disposed of in an authorized disposal facility. No waste material would be buried at the location.

Subsurface integrity and eliminate sources of ground and surface water contamination

Construction Control Actions:

The overflow parking lot would be located on native vegetation. The native vegetation would be removed mechanically and minimal soil disturbance should occur. Should the soil be disturbed during the construction (removal of large boulders, rutting, etc.) the appropriate erosion control method would be used to minimize soil loss. An example of this erosion control that most likely would be implemented is silt fence or wattles.

The re-opening of the existing gated two-track during peak river use and peak river levels would not have any new construction; however, it would need to be monitored for erosion during the times of use to determine if erosion is increasing (Table E3 and Table E4). This two-track is within 500 feet of Corral Creek and would require additional erosion control Best Management Practices (BMPs) to minimize sediment run-off .
The canoe slide would have minimal construction control actions needed. The project would need a BMP (Silt fences or wattle) to reduce the sediment leaving the construction site.

Re-establish slope stability, surface stability, and desired topography

Erosion Control:
The overflow parking lot would be monitored for erosion annually. The goal of the monitoring is to determine if the overflow parking lot has accelerated erosion of the soil to a level that requires application of best management practices. Refer to the Monitoring section for the soil monitoring protocol.

The re-opening of the gated two-track at Corral Creek to limited users would require monitoring to determine if erosion and sediment control are required to reduce the level of sedimentation from the project into Corral Creek and the North Platte River. Currently, the proposal is to use the native vegetation to maintain the current level of erosion and sediment run-off. No anthropogenic erosion or sedimentation controls are planned other than limiting use on the road.

The road would be intensively monitored for signs of vegetation removal and accelerated erosion. Monitoring would show if and when the road would require re-closure due to unacceptable impacts from vehicular traffic. There is not adequate buffer space between the road and Corral Creek to allow erosion from vehicular traffic to continue while attempting to remove suspended sediment from runoff form the road, therefore should erosion become evident on the road, the road would be re-closed to vehicular traffic.

Should the road be re-closed, the road would be re-seeded as well as stormwater control and stabilization BMPs would be implemented in order to accelerate the rate at which stabilizing vegetation is re-grown on the road. BMPs could include but are not limited to wattle, silt fences, erosion blankets and hydromulching Wattles (9 inch, 12 inch or 20 inch in diameter) could be used along the in-slope of the two-track to slow runoff rates, decrease erosive forces acting on exposed soil and to filter eroded sediment from stormwater runoff. Another option that could be used in conjunction with wattles would be the use of biodegradable erosion control blankets on exposed soil of the two-track. These BMPs would reduce but not eliminate the effects of accelerated erosion from two-track until stabilizing vegetation is re-established. Any installed BMP would require monitoring and periodic maintenance. The two-track may be re-contoured to a form that blends with the natural topography but large machinery such as dozers would not be used. The use of large machinery poses challenges and potential impacts when used in such close proximity to a perennial drainage such as Corral Creek.

Reconstruct and stabilize water courses and drainage features

No water courses or drainage features would be affected.

Maintain the biological, chemical and physical integrity of the topsoil and subsoil

This project has been designed to minimize the level of surface disturbance. If needed, the extended parking area and access to the river would be inter-seeded to stabilize the soil. No topsoil is planned to be salvaged for this project.

Reestablish a complementary visual composition

Visual composition would not be restored as the areas would be used for parking and as horse corrals for the long term.

Manage invasive plants

The new disturbances proposed would be monitored for invasive species annually (Table E4). Noxious species would continue to be controlled and/or eradicated using an integrated management approach. Cheatgrass (*Bromus tectorum*) would be managed according to the RFO's Weed Management Plan.

Prepare site for re-vegetation

Bare areas that need erosion control would have the appropriate BMPs installed and would be raked.

Establish a desired self-perpetuating native plant community

If any disturbances require stabilization, broadcast seeding with native species would occur. The seed mix would be selected at that time. The topsoil would be raked and then seed would be broadcast by a handheld broadcaster. The soil would then be raked again to cover the seeds and allow for better seed to soil contact, and to prevent the seed from blowing away or being exposed to birds and rodents. If the proposed parking area is determined to need stabilization through monitoring, the proposed seed mixture below could be used to help stabilize the site. Other options also could include gravelling the parking area or closing the parking area. A solution would be determined by the site monitoring to determine the proper action. The seed bed would be prepped by roughing the surface mechanically (chaining) or by hand (raking). The area would then be broadcast seeded (Table E1) and the soil raked to cover the seed. The goal would be to seed in the fall to capture the winter moisture; however, this could change based upon the monitoring. If the campground is very busy in the fall and the overflow parking is used, then it might be better to seed in the early spring.

Species	Variety
Slender wheatgrass (*Elymus trachycaulus*)	Prior
Western wheatgrass (*Pascopyrum smithii*)	Rosana
Thickspike wheatgrass (*Elymus lanceolatus*)	Critana
Indian ricegrass (*Achnatherum hymenoides*)	Rimrock
Green needlegrass (*Stipa viridula*)	Lordon

Table E1: Stabilization Seed Mixture

Species	Variety
Western wheatgrass (*Pascopyrum smithii*)	Rosana
Thickspike wheatgrass (*Elymus lanceolatus*)	Critana
Indian ricegrass (*Achnatherum hymenoides*)	Rimrock
Green needlegrass (*Stipa viridula*)	Lordon
Big sagebrush (*Artemisia tridentata* ssp. *vaseyana*)	
Winterfat (*Krascheninnikovia lanata*)	
Lewis flax (*Linum lewsii*)	Maple Grove
Firecracker penstemon (*Penstemon aristata*)	

Table E2: Final Reclamation Seed Mixture

Monitoring

The Corral Creek parking area would be monitored by the BLM for erosion issues, and noxious/invasive weed issues (Table E3 and E4)

Erosion would be monitored to determine issues based on the following factors:

- Degree of pedestalling
- Flow patterns
- Presence of rills

- Presence of gullies

Photo 3 shows the gate of the closed two-track at Corral Creek Campground in 15N 82W Section 23 looking South/Southwest. Photo 4 shows the reclaimed two-track at Corral Creek Campground. Note the in-slope of the road from previous blading.

Improvement of Prospect Creek Undeveloped Recreation Site

Map 4 in Appendix B shows the vicinity of the proposed switchback. The proposed switchback is in T13N Range 81 West Section 1. The red line is to give the reader and idea of the extent of the road that would be redone.

Management of waste materials

The only waste material anticipated is trash. Trash would be placed into lined containers present at the site and disposed of in an authorized disposal facility. No waste material would be buried at the location.

Subsurface integrity and eliminate sources of ground and surface water contamination

This project is not known to affect the subsurface integrity of any aquifers. Proper surface erosion control would be applied to the project as needed.

Construction Control Actions:

During the maintenance of the Prospect Creek Road there would need to be several construction control actions applied. For the reroute of the Prospect Creek Road in Township 13 North Range 81 West, Section 1, there would need to be sediment control installed for construction. These would likely include silt fencing and wattles placed at the extent of disturbance as a BMP.

Re-establish slope stability, surface stability, and desired topography

Erosion Control:

With the improvement to the Prospect Creek Road there is the potential for increased erosion and sedimentation. To mitigate the erosion and sedimentation, the BLM is proposing to use Storm Water Control Best Management Practices (BMPs). To help mitigate the erosion of the soil the BLM is proposing to use stabilization BMPs on the road reroute where the cut and fill slope would be created for the switchback. These BMPs may include the use of erosion blankets (straw or coconut), crimped straw or grass, or the use of hydromulch. These BMPs should reduce the velocity of water and reduce the amount of soil/sediment that is moved by the water. Where the water is being channeled by the road, the BLM is proposing the use of wattles and rock check dams slow the velocity of the water and drop sediment out.

Reconstruct and stabilize water courses and drainage features

See above. Also the management of the washed out two-track that is adjacent to the rebuilt road would need to have water management. This could be done with a series of wing ditches to move the water to the existing channel and installation of velocity controls (rock check dams) and sediment controls (wattles).

Maintain the biological, chemical and physical integrity of the topsoil and subsoil

For this project a minimum of six inches of topsoil would be saved for reclamation during construction. During the reclamation of the road improvement the topsoil would be spread on the in-slope of the ditches for re-vegetation.

Prepare site for re-vegetation

Bare areas not used for operation of the road would be raked and have the appropriate BMPs installed (These BMPs may include the use of erosion blankets (straw or coconut), crimped straw or grass, or the use of hydromulch.).

Establish a desired self-perpetuating native plant community

The seed mix in table E1 would be used for re-establishing the vegetation on the cut and fill slopes of the realignment of the road. The old two track would be prepared in the same manner as above (Prepare site for re-vegetation), but would then be seeded with the seed mix in table E2.

Species	Variety
Slender wheatgrass (*Elymus trachycaulus*)	Prior
Western wheatgrass (*Pascopyrum smithii*)	Rosana
Thickspike wheatgrass (*Elymus lanceolatus*)	Critana
Indian ricegrass (*Achnatherum hymenoides*)	Rimrock
Green needlegrass (*Stipa viridula*)	Lordon

Table E1: Stabilization Seed Mixture (Repeat)

Species	Variety
Western wheatgrass (*Pascopyrum smithii*)	Rosana
Thickspike wheatgrass (*Elymus lanceolatus*)	Critana
Indian ricegrass (*Achnatherum hymenoides*)	Rimrock
Green needlegrass (*Stipa viridula*)	Lordon
Big sagebrush (*Artemisia tridentata* ssp. *vaseyana*)	
Winterfat (*Krascheninnikovia lanata*)	
Lewis flax (*Linum lewsii*)	Maple Grove
Firecracker penstemon (*Penstemon aristata*)	

Table E2: Final Reclamation Seed Mixture (Repeat)

Reestablish a complementary visual composition

Visual composition would have some restoration if the seeding is successful on the new alignment and the reclaimed alignment.

Manage invasive plants

The pre-disturbance evaluation of the Prospect Creek Road did not identify any noxious or invasive weeds present at the site. Because of the level of disturbance associated with the reroute, the amount of recreation traffic, grazing, and other land uses the site would need to be monitored for weed establishment. The new disturbances proposed by would be monitored for invasive species annually (Table E4).

Monitoring

The Prospect Creek Road would be monitored by the BLM for erosion issues, and noxious/invasive weed issues (Table E3 and E4).

Erosion would be monitored to determine issues based on the following factors:

- Degree of pedestalling
- Flow patterns
- Presence of rills
- Presence of gullies

Erosion Monitoring Form

Table E3. Ratings for components used for determining erosion potential

Pedestals				
Pedestals are mostly less than 0.1 inch high and/or less frequent than 2 pedestals/100 ft^2 **0**	Pedestals are between 0.1 and 0.3 inch high and/or have a frequency of 2.5 pedestals/100 ft^2 **6**	Pedestals are between 0.3 and 0.6 inch high and/or have a frequency of 5-7 pedestals/100 ft^2 **9**	Pedestals are between 0.6 and 1.0 inch high and/or have a frequency of 7-10 pedestals/100 ft^2 **12**	Pedestals are more than 1.0 inch high and/or are more frequent than 10 pedestals/100 ft^2 **14**
Flow Patterns				
2% or less of area shows evidence of recent translocation and deposition of soil and litter **0**	2-10% of area shows evidence of recent translocation and deposition of soil and litter **6**	Between 10 and 25% of area shows evidence of recent translocation an deposition of soil and litter **9**	Between 25 and 50% of area shows evidence of recent translocation and deposition of soil and litter **12**	Over 50% of area shows evidence of recent translocation and deposition of soil and litter **15**
Rills				
Rills are less than 0.5 inch deep and generally at infrequent intervals over 10 ft **0**	Rills are mostly 0.5 to 1.0 inch deep and generally at infrequent intervals over 10 ft **6**	Rills are mostly 1.0 to 1.5 inches deep and generally at 10 ft intervals **9**	Rills are mostly 1.5 to 3.0 inches deep and generally at intervals of 5 to 10 ft **12**	Rills are 3.0 inches deep or greater and at intervals of less than 5 ft **14**
Gullies				
If present, less than 2% of channel bed and walls show active erosion; gullies make up less than 2% of total area **0**	2-5% of channel bed and walls show active erosion; or gullies make up 2-5% of total area **6**	5-10% of channel bed and walls show active erosion; or gullies make up 5-10% of total area **9**	10-50% of channel bed and walls show active erosion; or gullies make up 10-50% of total area **12**	Over 50% of channel bed and walls show active erosion; or gullies make up over 50% of total area **14**

Stable: 0-10
Slight: 11-20
Moderate: 21-30
Critical: 31-40
Severe: 41-50
Extremely Severe: 51-57

Table E4. Monitoring form that would be used to evaluate a project site:

Modified from Table A36-1 in the Rawlins RMP, Record of Decision, Appendix 36.

General	Project Name
	Qtr/Qtr Sec, T, R, County, State
Disturbance	Disturbance Dates
Reclamation	Area (Acres or Square Feet)
Seeding	Seeding Date
	Seeding
	Seeding Method (Drill, Broadcast, Depths)
	Copy of Seed Tag (Species %, Purity %, Germination %)
	Area Seeded (Acres or Square Feet)
Other	Soil Amendments Used (Describe)
	Mulching/Erosion Netting/Tackifier
Weeds	Type(s) of Weed Treated
	Weed Contractor Name
	Contractor License #
	Weed Treatment Date
	Weed Treatment Type (Chemical, Mechanical)
	Chemicals Used and Rates Applied
	Area Treated (Acres or Square Feet) (GIS Extent and Location)
Inspection	Inspector's Name
	Inspection Date
	Time After Seeding
	Seedlings/Square Feet Growing

Table E4 Cont…

	% and Extent of Bare Soil
	% Ground Cover (Describe)
	% Desirable Species (Describe)
	% Noxious/Invasive Weeds (Describe)
	Erosion Features Present? (Describe)
	Evidence of Livestock Grazing (Describe)
	Reclamation Successful (Yes/No)
Monitoring	Permanent Reference Point
	Reference Photos
	Close-Up Photos
Future Management Prescription	Reseeding
	Weed Control Needed
	Erosion control Needed
	Grazing/Predation Issues
	Other Cultural or Mechanical Needs