

segments with scenic and recreational classifications would be managed to protect their ORVs, possibly which may limit or encourage the development of new roads, if required.

The 36 segments determined not suitable for wild and scenic designation in Alternative 5 would be released from Wild and Scenic River interim protection and effects to roads and rights of way as discussed in Alternative 2 would apply.

Alternative 6 – Recommend river segments recognized by public groups that represent a diversity of river systems in Utah and those that face future threats.

The 40 segments (441 miles) that would be found suitable for wild and scenic designation in Alternative 6 would continue to receive interim protection the effects of which are explained in Alternative 1 analysis, and could be congressionally designated which would then require a comprehensive river management plan be developed within three years of designation. Those segments would be managed to protect their ORVs possibly limiting the creation of new roads or rights of way, if required. Of the 40 segments found suitable in Alternative 6, 11 segments have Rights of Way on them. In this alternative, of the 216 river miles that would be managed as Wild, approximately 30 miles are in areas not already designated as Wilderness or Research Natural Area. The 225 miles of segments with Scenic and Recreational classifications would be managed to protect their ORVs, possibly which may limit or encourage the development of new roads, if required.

The 46 segments determined not suitable for wild and scenic designation would be released from Wild and Scenic River interim protection and effects to roads and rights of way as discussed in Alternative 2 would apply.

3.10 Social and Economic Resources

Introduction - Current Social and Economic Trends in Utah

Utah’s 2006 population of approximately 2.6 million reflects steady growth of 2 to 3% per year over the past decade, with an overall increase of 14.2% since 2000. Eighty percent of Utah’s population lives in the six county area surrounding Salt Lake City (Utah, Salt Lake, Davis, Weber, Box Elder, and Tooele Counties) known as the “Wasatch Front.” However, past and projected population growth varies by county (Table 3.10.1)¹.

Table 3.10.1. Utah population by county 2000-2020 (projected).

County	2000	2005	% growth (2000-2005)	2010 Forecast	% growth forecast (2005-2010)	2020 Forecast	% growth forecast (2010-2020)
Box Elder	42,860	45,142	5.3%	49,254	9.1%	61,675	25.2%
Cache	91,897	102,477	11.5%	114,304	11.5%	147,776	29.3%
Carbon	20,396	19,205	-5.8%	19,023	-0.9%	20,982	10.3%
Daggett	933	967	3.6%	1,024	5.9%	1,141	11.4%
Duchesne	14,397	15,043	4.5%	15,897	5.7%	19,021	19.7%

¹ Variation in population estimates occurs. Data used in preparing this document was drawn from US Census data, the Utah Governor’s Office of Planning and Budget, the Economic Development Corporation of Utah (EDCUTAH), and the Utah Department of Workforce Services.

County	2000	2005	% growth (2000-2005)	2010 Forecast	% growth forecast (2005-2010)	2020 Forecast	% growth forecast (2010-2020)
Emery	10,782	10,492	-2.7%	10,346	-1.4%	11,359	9.8%
Garfield	4,763	4,645	-2.5%	4,955	6.7%	5,973	20.5%
Grand	8,537	8,691	1.8%	9,039	4.0%	9,751	7.9%
Kane	6,037	6,093	0.9%	6,618	8.6%	8,359	26.3%
Millard	12,461	13,305	6.8%	14,199	6.7%	18,386	29.5%
Piute	1,436	1,356	-5.6%	1,503	10.8%	1,790	19.1%
Salt Lake	902,777	970,748	7.5%	1,053,258	8.5%	1,230,817	16.9%
Sanpete	22,846	25,447	11.4%	27,904	9.7%	32,902	17.9%
San Juan	14,360	14,444	0.6%	14,481	0.3%	15,419	6.5%
Sevier	18,938	19,494	2.9%	21,038	7.9%	24,855	18.1%
Summit	30,048	36,417	21.2%	44,511	22.2%	65,001	46.0%
Uintah	25,297	26,317	4.0%	27,071	2.9%	29,289	8.2%
Utah	371,894	453,977	22.1%	527,502	16.2%	661,319	25.4%
Wasatch	15,433	20,138	30.5%	25,516	26.7%	37,082	45.3%
Washington	91,104	125,010	37.2%	162,544	30.0%	251,896	55.0%
Weber	197,541	212,707	7.7%	230,145	8.2%	271,339	17.9%

Source: Utah Governor's Office of Planning and Budget

Economic growth across Utah was strong in 2006. Growth is projected to continue in 2007, although it is expected to moderate somewhat. Specific industry highlights include: 1) travel and tourism, with all five major industry sectors showing growth in 2006 (including a third consecutive year of record skiing visits); 2) increases in metal, coal, and industrial mineral production and prices led to a record \$7.6 billion dollars (estimated) in energy and mineral production across Utah; and 3) changes in the structure of agriculture, with cattle prices declining in 2006 and new demand for grain (corn) as a source of energy. Technology industries continue to grow and provide jobs with higher than average salaries. Growth is also evident in manufacturing and construction sectors.

Data from Utah and across the USA suggest a downward employment trend in traditional rural economics, such as agriculture and mining, in conjunction with increasing service and professional employment (Table 3.10.2).

Table 3.10.2. Utah employment projections by major industry.

Industry	2001	2010	% growth (2001-2010)	2020	% growth (2010-2020)
Natural Resources & Mining	32,282	29,895	-7.4%	28,228	-5.6%
Construction	95,869	114,959	19.9%	141,999	23.5%
Manufacturing	127,828	131,677	3.0%	150,920	14.6%
Trade, Trans., Utilities	259,741	305,185	17.5%	342,687	12.3%
Information	36,535	38,134	4.4%	41,166	8.0%
Financial Activity	130,519	163,555	25.3%	194,359	18.8%
Professional & Business Services	181,034	236,776	30.8%	301,647	27.4%
Education & Health Services	134,218	191,684	42.8%	294,044	53.4%

Industry	2001	2010	% growth (2001-2010)	2020	% growth (2010-2020)
Leisure & Hospitality	115,490	146,355	26.7%	175,690	20.0%
Other Services	72,467	93,441	28.9%	113,366	21.3%
Government	206,594	246,064	19.1%	299,991	21.9%
Total	1,392,577	1,697,725	21.9%	2,084,097	22.8%

Source: Governor's Office of Planning and Budget, 2005 Baseline Projections.

Affected Environment

County Profiles

The unique cultural and natural heritage of each of Utah's counties results in diverse opportunities for economic development across the state. However, all counties face similar challenges for some broad trends. For example, the availability, current use of, and future plans for water resources is of concern across Utah. Changing demographics and growth patterns further affect county growth, influencing a broad spectrum of industries and related resources. Information provided in this section was drawn from Appendix A, Suitability Evaluation Reports, individual county websites and associated economic development reports, the Utah Department of Workforce Services (DWS), the Utah Governor's Office of Planning and Budget, and the Economic Development Corporation of Utah (EDCUTAH).

Box Elder County

Agriculture and manufacturing are major elements of Box Elder's economy. Agricultural production (crops and livestock) accounts for 43 percent of land use. Manufacturing industries include space technology, motor vehicle parts, iron and steel products, and furniture; these account for 40 percent of total nonagricultural employment. As state growth continues into northern areas, pressure to shift land use from traditional agricultural use to residential and commercial use is expected to rise. In 2006, the population of Box Elder County was 44,832. Brigham City, the county seat, had a 2006 population of 17,585. The economy of the local community of Willard (population ~2000) has centered on agriculture; major area employers are the nearby Hill Air Force Base (AFB), Internal Revenue Service (IRS), Thiokol Corporation, and Morton International.

Cache County

Historically, the processing and distribution of agricultural products has been a mainstay of Cache County. Utah State University (USU) employs approximately 6,000 individuals; USU's research activities and operations have stimulated further job growth. Losses in the manufacturing sector are being replaced by service sector jobs, including a growing tourism sector. An expanding population and high rate of growth is resulting in the conversion of agricultural landscapes to urban, commercial, and industrial development. Growth is expected to continue. Logan City, with a 2006 population of 44,295 is the largest city and the county seat.

Carbon County

Historically, coal has dominated the Carbon County economy. During the 1990s, diversification into transportation, trade, government, and services broadened the economic base; the county's position as a regional hub has helped in local diversification. The college of Eastern Utah also provides employment opportunities. Potential growth is limited by available water; the county is dependent on the Wasatch plateau for agricultural, culinary, and industrial water. In 2006, the population of Carbon County was 18,220, with 7,329 people living in the county seat of Price.

Daggett County

Government services and the operation of Flaming Gorge Dam dominate the economy of Daggett County. Traditional land uses of agriculture, timber harvest, and livestock grazing have been important over time. Tourism and outdoor recreation have grown significantly, and are now a major component of the county's economy; economic development while maintaining the county's rural character, culture, and lifestyle is one goal of the county's Economic Development Action Plan. The 2006 population of Daggett County was estimated at 896; the county seat of Manila has approximately 685 residents.

Duchesne County

While oil and gas are integral to the Duchesne County economy, government services, as well as trade, transportation and utilities are growing economic components. In addition, the growth of Ute Tribal enterprises is an important element of the economy in this area. Agriculture, traditional land uses, and tourism are important across the Uintah Basin, particularly in rural environments. Downstream communities are dependent upon water from the watersheds located on public lands. In 2006, the population of Duchesne County was 14,472; Roosevelt is the largest city (2006 population 4,377), and the county seat of Duchesne had 1,413 residents in 2006.

Emery County

Mining, transportation, communications, utilities, and government are mainstays of the Emery County economy. Electricity generation and auxiliary businesses (i.e., fuel provision for power plants) are an important base for the area's economy. Livestock ranching remains an important agricultural use; agricultural specialty products are also part of the economy. Recreation and tourism are emerging and growing as aspects of the county economy. Water in this area is over-appropriated and in relatively short supply. In 2006, the population of Emery County was 10,115, with 1,539 people living in Castle Dale, the largest city and county seat.

Garfield County

The economy of Garfield County has traditionally been based on natural resources. However, industries such as farming, ranching, and timber are under pressure from rising land values. With over one million acres of federal land including portions of the Grand Staircase-Escalante National Monument (GSENM), Bryce Canyon and Capitol Reef National Parks, and Glen Canyon National Recreation Area, over 90% of the county is federal land; recreation and tourism jobs form a large sector of the Garfield County economy. A recent Utah State Visitor Study of the GSENM reported that approximately 600,000 visitors spent approximately \$20.6 million dollars in Garfield and Kane counties. However, unemployment rates in Garfield County are high and personal income levels are low relative to the rest of the state. In 2006, the population of Garfield County was 4,082; the 2006 population of the county seat, Panguitch, was 1,414. Population growth is expected to be low.

Kane County

A gateway to several large, heavily visited national parks (Bryce Canyon, Zion, and Grand Canyon), as well as Lake Powell and the Grand Staircase-Escalante National Monument, Kane County has seen strong growth in the recreation, tourism, and service sectors of the economy. Federal land is prominent in Kane County, largely managed by the Bureau of Land Management (BLM). Traditional natural resource-based activities have historically dominated; recent diversification includes local manufacturing and an animal rescue firm. Second home ownership has increased on private lands. In 2006, the population of Kane County was 5,803; the 2006 population of the county seat, Kanab, was 3,372.

Montrose County, Colorado

Home of Black Canyon of the Gunnison National Park and the Gunnison Gorge National Recreation and Wilderness Areas, Montrose County has 37,500 residents in 2,200 square miles. Public lands (including Forest Service, BLM, and National Park Service lands) make up a large portion of the county; retail trade,

manufacturing, and service industries form the county's economic base. In addition, Montrose County is considered the 'agricultural hub' of the western slope area.

Piute County

One of the smallest counties in Utah (763 square miles), Piute County has recently experienced employment growth in the non-agricultural sector (its traditional base.) Tourism and recreation offer some job opportunities; attractions include nearby parks and reservoirs, the Utah Heritage Highway 89 and ATV trail use. Agriculture (including dairy and beef cattle), and trucking are also important to the local economy. In 2006, the county population was 1,288; the largest city in 2006 was Circleville (population 455); Junction is the county seat (2006 population 156).

Salt Lake County

With a 2006 population of 996,374, and approximately 48% of the state's jobs, Salt Lake County is the heart of state government and financial services. The county's economic base is broad, and includes government, professional services, trade/transportation/utilities, leisure/hospitality, education and health services, and manufacturing. Growth is strong and expected to continue, supported by a well-developed infrastructure as well as proximity and access to other regional centers. Some large employers include the State of Utah, the University of Utah, Delta Airlines, and UPS, among others.

San Juan County

Government, trade, and services related to tourism and recreation form the major bases of San Juan County's economy. A significant portion of the county is State, Federal, or Navajo Reservation Land; access to recreational opportunities including several state parks and National Parks and Monuments supports tourism and recreation-related employment. However, unemployment figures are high; overall San Juan County is economically depressed. The Navajo Nation is home to the state's largest tribe, and occupies much of the southern area of the county. In 2006, the population of San Juan County's was 13,099; the 2006 population of the county seat, Monticello, was 1,675. Blanding, the largest city, had a 2006 population of 2,847.

Sanpete County

Much of Sanpete County's employment is based in agriculture. However, the public sector also accounts for a large part of the employment base, including Snow College, the regional prison in Gunnison, and two regional school districts. Trade, transportation, and utilities, as well as manufacturing, education, health & social services, and leisure & hospitality also contribute to the economy. Snow College, the regional prison in Gunnison, and two regional school districts form a large part of Similar to Carbon County, potential growth is limited by available water; the county is dependent on the Wasatch plateau for agricultural, culinary, and industrial water. In 2006, the county population was 23,049. Although Manti is the county seat, the largest city is Ephraim, with a 2006 population of 4,745.

Sevier County

Sevier County's largest employment sectors are trade, government, and services. Large employers include the Sevier County school district, Canyon Fuels Company, Barney Trucking, and Wal-Mart, among others. Economic activity has varied in the past few years, including periods of overall job losses. However, the recent growth trend (including approximately 400 net new jobs in 2006, primarily as a result of expansion in wholesale trade, retail trade, and transportation) is expected to continue. Richfield is the largest city and county seat (2006 population 6,353); 2006 county population was 18,589.

Summit County

Summit County, once reliant on natural resource extraction, has transformed into a growing service economy; the development of tourism, skiing, and real estate industries reflect the area's scenic appeal and recreational opportunities. Rural areas support cattle ranching and tourism, while the

residential/resort growth of Park City has supported a substantial construction industry, and the 2002 Winter Olympics underlined the role of skiing tourism in the local economy. National Forest System land is quickly becoming a 4-season destination. Leisure and hospitality is the largest employment base, with trade, transportation & utilities, and government also providing significant employment opportunities. In 2006, the population of Summit County was 33,874, with 8,147 people living in Park City; the county seat is Coalville (population 1,338 in 2006).

Uinta County, Wyoming

At 2,088 square miles, Uinta County is one of the smallest counties in Wyoming. Government services, education, health care, and service-related businesses play a fundamental role in the local economy, along with mining and agriculture. Natural-resource based activities are a four-season attraction, and provide some job opportunities. Evanston, the county seat, had approximately 12,000 residents in 2005; the county population in 2003 was 20,729.

Uintah County

Oil and gas development, along with industries such as government, trade, recreation services, and Ute Indian Tribal enterprises shape the Uintah County economy. The Uintah and Ouray Indian Reservation is within and adjacent to county boundaries. In 2006, Uintah County's population was 25,960. Vernal (population 7,497 in 2006) is the largest city and the county seat, followed by Maeser (population 2,855 in 2000) and Naples (population 1300 in 2000). Oil and gas development have led to boom and bust cycles, but the population, economy, and employment are expected to grow. Outdoor recreation/tourist attractions include Dinosaur National Monument, rafting on the Green and Yampa rivers, and winter sports. The Red Cloud Loop Scenic Backway is heavily traveled.

Utah County

Utah County is the second most populated county, with 466,469 residents in 2006. Provo City, the county seat, and the largest city (2006 population: 130,144) is combined with Orem (2006 population: 102,912) to form one of Utah's second largest Metropolitan Statistical Areas (MSA). Brigham Young University (BYU), Utah Valley State College (with University status to be granted July 1, 2008), and computer/technology industries are part of a strong economic base. Utah County is an urban county; approximately 25% (343,000 acres) of the county is farmed.

Wasatch County

Close to, yet insulated from the major urban centers of the Wasatch Front, recreation is a major industry for Wasatch County. Mt. Timpanogos and the Wasatch Mountains attract recreation users; the Strawberry and Jordanelle Reservoirs offer fishing opportunities. Sundance ski area and BYU's Aspen Grove Facility are nearby; both facilities are major attractions that contribute to the economy of the area. Approximately 9% of Wasatch County is farmed. In 2006, Wasatch County's population was 18,384. Heber (population 8,624 in 2006) is the largest city and the county seat, located just 44 miles from Salt Lake City.

Washington County

One of the fastest growing counties in Utah, Washington County has experienced an increase in conflicts over the availability of private land, water, and open space. A booming economy has caused a tight labor market as well as spikes in home prices. Trade, transportation, and utilities form the largest sector of the county's economy; traditional industries, such as farming and ranching have decreased, but are still mainstays of local communities. Overall the economic base is relatively diverse, and job growth is expected to continue. The county's 2006 population was 113,394; the county seat of St. George had a 2006 population of 61,173.

Weber County

The Weber County economy is diverse, with government, trade/transportation/utilities, education, health services, professional and business services, manufacturing, and leisure/hospitality all contributing to steady growth. Proximity to both the urban Wasatch Front and the Wasatch Range ensures access to a variety of employment and recreational opportunities. Snowbasin Ski Resort, in the Ogden Valley, hosted the 2002 Winter Olympics; year-round tourism and recreational opportunities are available in the area. The county's 2006 population was 201,808; the county seat of Ogden had a 2006 population of 76,248.

Environmental Consequences

Measurement Indicators and Outline of the Chapter

Section 3.10 addresses two issues:

Issue 3 – Designation of a Wild and Scenic River could change the economy of a community. measurement indicators used in this analysis are based on river segments by county and include the current population and expected growth of counties, as well as potential economic and/or social impacts (e.g., as related to water uses and development, employment, visitor/recreation use, and resource uses). This information was drawn from Forest Suitability Evaluation Reports (Appendix A, SERs), Utah DWS, Utah GOPB, EDCUTAH, and individual county websites.

Issue 6 – Consistency with state, county, and local government laws and plans. It addresses the measurement indicator: consistency with county plans.

In this section, general economic and social impacts of Alternatives 1 through 6 are discussed. Tables 3.10.3 through 3.10.6 display the counties potentially affected by selected WSR segments for each alternative. Next, applicable alternatives are discussed by county; Tables 3.10.7 through 3.10.44 display the estimated costs and potential impacts of designation for each alternative in each county.

Finally, Table 3.10.45 presents counties' support or opposition to designation in relation to economic and/or social impacts. This information was drawn from applicable suitability factors from the Forest Suitability Evaluation Reports (Appendix A, SERs) and comments received by counties as part of the suitability assessment process. Many, but not all, counties indicated support of or concern with social and economic aspects of designation.

Potential Economic and Social Impacts of Proposed WSR Designation²

National Forests in general make important contributions to local and regional economies, providing water, recreation opportunities that support service enterprises, as well as in the production of forest products. Public concerns about WSR designation include the social and economic aspects of water uses and development, access, employment, visitor/recreation use, and resource uses such as grazing, agriculture, mineral and energy resource extraction, and timber harvest.

Each of the six Alternatives presented in this document may result in a range of social and economic effects on local communities, counties, and the State of Utah. Effects range from no discernible social or

² This document does not provide conclusive effects on local economies (i.e., economic models or statistical analysis). Here, as in each alternative, discussion of potential impacts is based on currently available information, including Suitability Evaluation Reports for each proposed segment, individual county websites, US Census data, resources from the Utah Governor's Office of Planning and Budget (e.g., *People and the Forests*), Utah's Department of Workforce Services, Utah State University's *Draft Final Report: Wild and Scenic River Study*, the Utah Rivers Council, and the Economic Development Corporation of Utah (EDCUTAH).

economic impact to potentially large effects on individuals and specific industries (most commonly with respect to the development of water projects and associated activities.)

Social and economic conditions such as population growth rates, employment rates by sector, established travel and tourism industries, and diversity of the economic base vary across Utah counties. Thus, counties with segments under consideration are likely to experience unique social and economic impacts as a result of WSR designation. Effects on economies dominated by rural industries may be different than effects on economies with an urban industry base. In some instances, impacts may be highly localized (i.e., experienced primarily by a city or town). For example, water is a scarce resource in Utah; decisions such as WSR designation have the potential to impact some counties/areas more than others.

While most of the lands adjacent to the segments under consideration are federally owned, in some cases, private lands adjoin proposed segments. In this situation, it has been suggested that lands adjacent to Wild and Scenic Rivers increase in value post-designation. In addition, recreation-based economic benefits of designation can be substantial. For example, expenditures of visitors using the West Branch of the Farmington River in 2001 and 2002 were calculated to have a total economic impact of \$3.6 million (in current dollars) (in Burr et al. 2007). Overall, however, reliable data on this “designation effect” is limited. Media exposure is expected to increase use, at least in the short term, particularly when promotion and use are already in place (e.g., on a river with commercial rafting use); there is also potential for costs associated with this increased use (e.g., enforcement).

Multiple economic benefits stem from the environmental benefits of protecting Wild and Scenic Rivers. Examples of benefits to natural environments include, but are not limited to: 1) clean water as a result of natural filtration, leading to lower water treatment costs borne by municipalities; and 2) preservation of wildlife habitat and biological diversity, leading to increased recreation opportunities such as hunting and birding. Natural systems may also capture runoff more effectively, holding and releasing water more slowly than more controlled systems. Finally, scenic and amenity values are important in drawing both visitors and new residents to an area.

While recreational impacts (primarily related to both the positive and negative elements of travel and tourism) are commonly considered as a result of WSR designation, additional impacts may include effects on the development of water projects, withdrawal of public lands from disposition, requirements for agency management, and energy/mineral development restrictions. Impacts on other resource activities such as timber harvesting and grazing will vary, based on the existing direction of land management and the type of classification (Wild, Scenic, or Recreational).

However, limited research on the social and economic effects of designation is available. Further, it is difficult to measure the intangible benefits of designation such as “existence values” (knowing that a river is protected) and “bequest values” (the value of preservation for future generations). Perspectives on designation may vary within and across groups at local, regional, and national levels.

Alternative 1 - No action, maintain eligibility of all river segments.

General Economic and Social Impacts

Under this alternative, current management practices for all 86 river segments (840 miles) identified for potential inclusion into the National System would continue. No overall changes in social or economic effects from the current management situation are projected. The county economic profiles presented in Section 3.10 would largely be unaffected by any designation effects; other factors unrelated to WSR designation would continue to direct the economic environments of the affected counties. There may be specific local effects where projects are modified to comply with Chapter 82.5 (Interim Management of

Eligible or Suitable Rivers) of the Forest Service Land Management Planning Handbook (FSH 1909.12). For example, activities that would affect the bed/banks of river stretches or development that would change the setting and classification of river segments may be restricted. As no comprehensive river management plans would be produced, no planning costs would be incurred. Further, as segments would continue to be managed as eligible, no annual administration costs would be incurred.

Alternative 2 - No rivers recommended.

General Economic and Social Impacts

Under this alternative, a determination would be made that all 86 river segments (840 miles) are not suitable and released from Wild and Scenic interim protection. Management of forest resources would continue as directed by Forest Plans and existing laws and regulations. No overall change in social or economic effects from the current management direction is projected. Local zoning by county government regulates land uses on private lands, and would continue to do so. As no comprehensive river management plans would be produced, no planning costs would be incurred. Further, as no designations would occur, no annual administration costs would be incurred.

Effects for Alternatives 1 and 2 are similar; however, with no WSR protections in place, Alternative 2 may be more conducive to economic development pressures. While administrative barriers to proposals may be less apparent, net effects are likely to be minimal, due to current protections in place, including compliance with existing laws and Forest Plan directions.

Alternative 3 - Recommend rivers that best represent Utah ORVs while having the least affect on existing or reasonably foreseeable future water resources projects and other developmental activities.

General Economic and Social Impacts

Overall, the economic and social impacts of Alternative 3 are expected to be minimal. None of the segments in Alternative 3 contain water resources or other development projects that are incompatible with maintaining high quality ORVs. Thus, it is unlikely that existing commodity outputs or other developments that contribute to local economies would be hindered. Conversely, a measurable positive economic impact would not necessarily occur. In some areas, river designation has been shown to contribute to increased tourism and higher property values; in other areas this has not been shown to be the case. Current use levels, access, and established activities may influence the effects of designation. For example, publicized designation of an accessible area, close to an urban population, with established access and activities, may result in increased use and associated impacts (both positive and negative). Conversely, more remote areas with minimal current use and difficult access are less likely to experience social or economic impacts. Overall, designation should not change existing social or economic conditions.

Estimated costs³ for development of Comprehensive River Management Plans (CRMPs) for each of the 24 rivers included in this alternative range from \$29,500 to \$88,212 per year for the 2- to 3-year process. Developing management plans for designated river segments may include, but is not limited to evaluation

³ These estimated costs were developed based on the documents "Estimated Costs of Wild and Scenic Rivers Program V.091104" and "Developing Costs for Administration of Forest Service Administered Wild and Scenic Rivers, July 10, 2001," and on information contained in Suitability Evaluation Reports for each segment. Estimated costs reflect adjustments for inflation (<http://www.bls.gov/cpi>).

from specialists in biology, botany, hydrology, watershed, soils, and range. In addition, resource, ownership, water quality, use, and goals and desired conditions should be evaluated as part of a collaborative process.

Annual administration costs range from \$29,500 to \$88,212. Annual administration costs include ongoing development/management of lands and facilities, use capacity study and monitoring, collection and monitoring of management data, resource protection, enhancement projects, and reporting requirements.

Total estimated costs presented here are based on economies of scale resulting from combined planning and administration processes (i.e., for grouped segments or by forest). Savings of 20 to 40% off the stand-alone costs are projected. Thus, total estimated costs to develop CRMPs for all 24 rivers in this Alternative is \$583,154 to \$777,539 per year for the 2- to 3-year process; estimated total annual administration cost is \$583,154 to \$777,539.

The range of projected costs reflects the variance in complexity of ownership, recreation/visitor use, and resource management issues. Land acquisition is not included in these estimated costs. There are no plans at this time to purchase land in conjunction with the designation process. After designation there may be opportunities to purchase land from willing sellers within designated corridors.

See Tables 3.10.1 through 3.10.44 for a description of impacts by county and river segment.

Alternative 4 - Recommend rivers that best represent Utah ORVs that could be adversely affected by existing or reasonably foreseeable future water resources projects and other developmental activities.

General Economic and Social Impacts

Of the six alternatives, Alternative 4 has the most potential for social and economic impacts, primarily due to several potential water development projects associated with the segments under consideration. Designation of some segments would have an impact on water development projects such as the BOR Narrows Project. Counties with limited water resources, and whose planned growth necessitates the development of water projects, would experience the most impact. Effects on agriculture and industrial activities are primarily related to the availability of water. For example, operations at the Huntington Power Plant and salinity projects for agricultural use may be affected by designation.

There is potential for designation to affect mineral and energy resource development in some areas. However, designation does not necessarily preclude development. Some limitations may be imposed where leasable minerals are subject to conditions necessary to protect the values of the river corridor.

Several segments proposed in this Alternative include private lands. Local zoning (by county government) regulates private land and would continue to do so regardless of designation.

In several of the counties with segments under consideration for designation there is a desire to maintain traditional land uses along with the perception that new and existing service-based employment (e.g., tourism-related jobs) offers fewer benefits, including lower pay. This suggests that Alternative 4 may have some social impact related to economic expectations for development and desire for growth.

Increases in visitor use and tourism are expected to vary by area, depending on level of publicity, access, and existing uses. Areas with established tourism and attractions may see an initial increase in visitation as a result of designation. Although visitor use may increase on some designated sections, significant and

measurable positive economic impact may or may not occur; costs to address increased use (e.g., law enforcement, waste management, etc) may also occur. In some areas, river designation has been shown to contribute to increased tourism and higher property values; in other areas this has not been shown to be the case. Current use levels, access, and established activities may influence the effects of designation. For example, publicized designation of an accessible area, close to an urban population, with established access and activities, may result in increased use and associated impacts (both positive and negative). Conversely, more remote areas with minimal current use and difficult access are less likely to experience social or economic impacts.

Estimated costs⁴ for development of Comprehensive River Management Plans (CRMPs) for each of the 22 rivers included in this alternative range from \$29,500 to \$58,800 per year for the 2- to 3-year process.⁵ Developing management plans for designated river segments may include, but is not limited to evaluation from specialists in biology, botany, hydrology, watershed, soils, and range. In addition, resource, ownership, water quality, use, and goals and desired conditions should be evaluated as part of a collaborative process.

Annual administration costs range from \$29,500 to \$58,800. Annual administration costs include development/management of lands and facilities, use capacity study and monitoring, collection and monitoring of management data, resource protection, enhancement projects, and reporting requirements.

Total estimated costs presented here are based on economies of scale resulting from combined planning and administration processes (i.e., for grouped segments or by forest). Savings of 20 to 40% off the stand-alone costs are projected. Thus, total estimated costs to develop CRMPs for all 22 rivers in this Alternative is \$564,840 to \$753,120 per year for the 2- to 3-year process; estimated total annual administration cost is \$564,840 to \$753,120.

The range of projected costs reflects the variance in complexity of ownership, recreation/visitor use, and resource management issues. Land acquisition is not included in these estimated costs. There are no plans at this time to purchase land in conjunction with the designation process. After designation there may be opportunities to purchase land from willing sellers within designated corridors.

See Tables 3.10.1 through 3.10.44 for a description of impacts by county and river segment.

Alternative 5 – Recommend rivers with low cost for management that are consistent with other Federal wild and scenic studies and which have limited negative impact to community economic development.

General Economic and Social Impacts

Overall, the economic and social impacts of Alternative 5 are expected to be negligible. Development of water resources or other projects is unlikely for the segments in this alternative. Thus, it is unlikely that existing commodity outputs or activities that contribute to local economies would be

⁴ These estimated costs were developed based on the documents “Estimated Costs of Wild and Scenic Rivers Program V.091104” and “Developing Costs for Administration of Forest Service Administered Wild and Scenic Rivers, July 10, 2001,” and on information contained in Suitability Evaluation Reports for each segment. Estimated costs reflect adjustments for inflation (<http://www.bls.gov/cpi>).

⁵ These costs do not include the Fish Creek and Gooseberry Creek, Huntington Creek, and Lower Left Fork of Huntington Creek. Reflecting current and planned projects, the Manti-La Sal Forest has determined costs for each segment based on timelines and needs specific to each segment. These costs are presented and briefly described for each segment in the following sections.

hindered. Conversely, a measurable positive economic impact would not necessarily occur. In some areas, river designation has been shown to contribute to higher property values; in other areas this has not been shown to be the case. Designation should not change existing social or economic conditions.

Increases in visitor use and tourism are expected to vary by area, depending on level of publicity, access, and existing uses. Areas with established tourism and attractions may see an initial increase in visitation as a result of designation. Overall, social and economic benefits related to tourism are expected to be modest. Although visitor use may increase on some designated sections, significant and measurable positive economic impact may or may not occur. In some areas, river designation has been shown to contribute to increased tourism and higher property values; in other areas this has not been shown to be the case.

Estimated costs⁶ for development of Comprehensive River Management Plans (CRMPs) for each of the 50 rivers included in this alternative range from \$29,500 to \$88,212 per year for the 2- to 3-year process. Developing management plans for designated river segments may include, but is not limited to evaluation from specialists in biology, botany, hydrology, watershed, soils, and range. In addition, resource, ownership, water quality, use, and goals and desired conditions should be evaluated as part of a collaborative process.

Annual administration costs range from \$29,500 to \$88,212. Annual administration costs include development/management of lands and facilities, use capacity study and monitoring, collection and monitoring of management data, resource protection, enhancement projects, and reporting requirements.

Total estimated costs presented here are based on economies of scale resulting from combined planning and administration processes (i.e., for grouped segments or by forest). Savings of 20 to 40% off the stand-alone costs are projected. Thus, total estimated costs to develop CRMPs for all 50 rivers in this Alternative is \$972,607 to \$1,296,810 per year for the 2- to 3-year process; estimated total annual administration cost is \$972,607 to \$1,296,810.

The range of projected costs reflects the variance in complexity of ownership, recreation/visitor use, and resource management issues. Land acquisition is not included in these estimated costs. There are no plans at this time to purchase land in conjunction with the designation process. After designation there may be opportunities to purchase land from willing sellers within designated corridors.

See Tables 3.10.1 through 3.10.44 for a description of impacts by county and river segment.

Alternative 6 – Recommend river segments recognized by public groups that represent a diversity of river systems in Utah and those that face future threats.

General Economic and Social Impacts

For some counties, this alternative has potential for impact similar to Alternative 4. Counties with limited water resources, and whose planned growth necessitates the development of water projects, would experience the most impact. Effects on agriculture and industrial activities are primarily related to the availability of water.

⁶ These estimated costs were developed based on the documents “Estimated Costs of Wild and Scenic Rivers Program V.091104” and “Developing Costs for Administration of Forest Service Administered Wild and Scenic Rivers, July 10, 2001,” and on information contained in Suitability Evaluation Reports for each segment. Estimated costs reflect adjustments for inflation (<http://www.bls.gov/cpi>).

However, designation of some segments is not expected to have a measurable impact (i.e., those segments also appearing in Alternatives 3 and 5). In these cases, designation should not change existing social or economic conditions.

Several segments proposed in this Alternative include private lands. Local zoning (by county government) regulates private land and would continue to do so regardless of designation.

Increases in visitor use and tourism are expected to vary by area, depending on level of publicity, access, and existing uses. Areas with established tourism and attractions may see an initial increase in visitation as a result of designation. Overall, social and economic benefits related to tourism are expected to be modest. Although visitor use may increase on some designated sections, significant and measurable positive economic impact may or may not occur. In some areas, river designation has been shown to contribute to increased tourism and higher property values; in other areas this has not been shown to be the case.

Estimated costs⁷ for development of Comprehensive River Management Plans (CRMPs) for each of the 40 rivers included in this alternative range from \$29,500 to \$88,212. Developing management plans for designated river segments may include, but is not limited to evaluation from specialists in biology, botany, hydrology, watershed, soils, and range. In addition, resource, ownership, water quality, use, and goals and desired conditions should be evaluated as part of a collaborative process.

Annual administration costs range from \$29,500 to \$88,212. Annual administration costs include development/management of lands and facilities, use capacity study and monitoring, collection and monitoring of management data, resource protection, enhancement projects, and reporting requirements.

Total estimated costs presented here are based on economies of scale resulting from combined planning and administration processes (i.e., for grouped segments or by forest). Savings of 20 to 40% off the stand-alone costs are projected. Thus, total estimated costs to develop CRMPs for all 40 rivers in this Alternative is \$936,194 to \$1,248,259 per year for the 2- to 3-year process; estimated total annual administration cost is \$936,194 to \$1,248,259.

The range of projected costs reflects the variance in complexity of ownership, recreation/visitor use, and resource management issues. Land acquisition is not included in these estimated costs. There are no plans at this time to purchase land in conjunction with the designation process. After designation there may be opportunities to purchase land from willing sellers within designated corridors.

See Tables 3.10.1 through 3.10.44 for a description of impacts by county and river segment.

Social and Economic Impacts Common to Alternatives 3, 4, 5, and 6 by County

This Section describes the social and economic impacts common to Alternatives 3, 4, 5, and 6. The analysis begins with Tables 3.10.3 through 3.10.6 displaying the counties potentially affected by selected WSR segments for Alternatives 3, 4, 5, and 6. Social and economic impacts are then described by county, alternative, and river segment. Where impacts to alternatives are identical, sections have been combined.

⁷ These estimated costs were developed based on the documents "Estimated Costs of Wild and Scenic Rivers Program V.091104" and "Developing Costs for Administration of Forest Service Administered Wild and Scenic Rivers, July 10, 2001," and on information contained in Suitability Evaluation Reports for each segment. Estimated costs reflect adjustments for inflation (<http://www.bls.gov/cpi>).

Table 3.10.3. Alternative 3 proposed segments by county.

County	Alternative 3 River Segments
Box Elder	Willard Creek: Source to Forest Boundary
Daggett	Lower Main Sheep Creek Middle Main Sheep Creek Green River
Duchesne	Reader Creek Upper Uinta River, including Gilbert Creek, Center Fork, and Painter Draw
Garfield	Pine Creek Mamie Creek Death Hollow Creek Steep Creek – (Located on Dixie NF, but administered by Fishlake NF) The Gulch – (Located on Dixie NF, but administered by Fishlake NF)
Kane	North Fork Virgin River
San Juan	Hammond Canyon
San Juan & Montrose, CO	Roc Creek
Sevier & Piute	Fish Creek
Summit	East Fork Smiths Fork: Red Castle Lake to Trailhead Henry's Fork: Henry's Fork Lake to Trailhead Middle Fork Beaver Creek: Beaver Lake to Confluence with East Fork Beaver Creek West Fork Beaver Creek: Source to Forest Boundary West Fork Blacks Fork: Source to Trailhead
Uintah	Black Canyon
Utah	Fifth Water Creek
Wasatch	Little Provo Deer Creek
Washington	Moody Wash

Table 3.10.4. Alternative 4 segments by county

County	Alternative 4 River Segments
Cache	Beaver Creek: South Boundary of State Land to Mouth Bunchgrass Creek: Source to Mouth Little Bear Creek: Little Bear Spring to Mouth Logan River: Confluence with Beaver Creek to Bridge at Guinavah-Malibu Campground Logan River: Idaho State line to confluence with Beaver Creek Spawn Creek: Source to Mouth Temple Fork: Source to Mouth White Pine Creek Source to Mouth
Carbon, Sanpete, & Utah	Fish Creek and Gooseberry Creek
Emery	Huntington Creek Lower Left Fork of Huntington Creek
Summit	Hayden Fork: Source to Mouth Left, Right, and East Fork Bear River: Alsop Lake and Norice Lake to near Trailhead Little Cottonwood Creek: Source to Murray City Diversion Little East Fork: Source to Mouth Ostler Fork: Source to Mouth Provo River: Trial Lake to U35 Bridge Stillwater Fork: Source to Mouth West Fork Smiths Fork: Source to Forest Boundary
Uintah	Ashley Gorge Creek Lower Dry Fork Creek
Utah	North Fork Provo River

Table 3.10.5. Alternative 5 segments by county.

County	Alternative 5 River Segments
Box Elder	Willard Creek: Source to Forest Boundary
Daggett	Carter Creek Cart Creek Proper Green River Lower Main Sheep Creek Middle Main Sheep Creek Pipe Creek
Duchesne	Garfield Creek Reader Creek Shale Creek and Tributaries Upper Whiterocks River (4 miles) and East Fork Whiterocks River (4 miles) Upper Lake Fork River, including Ottoson and East Basin Creeks (35 miles) and Oweep Creek (20 miles) Upper Rock Creek (21 miles) and Fall Creek (6 miles) Upper Uinta River, including Gilbert Creek, Center Fork, and Painter Draw Upper Yellowstone Creek, including Milk Creek West Fork Rock Creek, including Fish Creek West Fork Whiterocks River
Garfield	Death Hollow Creek East Fork Boulder Creek Mamie Creek Pine Creek Slickrock – (Located on Dixie NF, but administered by Fishlake NF) Steep Creek – (Located on Dixie NF, but administered by Fishlake NF) The Gulch – (Located on Dixie NF, but administered by Fishlake NF)
Kane	North Fork Virgin River
Piute	Manning Creek Pine Creek / Bullion Falls
San Juan	Lower Dark Canyon, including Poison Canyon, Deadman Canyon, and Woodenshoe and Cherry Canyons Mill Creek Gorge Roc Creek (San Juan & Montrose, CO) Upper Dark Canyon, including Horse Pasture, Peavine & Kigalia Canyons
Sevier	Salina Creek
Sevier & Piute	Fish Creek
Summit	East Fork Blacks Fork: Headwaters to confluence with Little East Fork East Fork Smiths Fork: Red Castle Lake to Trailhead Henry's Fork: Henry's Fork Lake to Trailhead Little East Fork: Source to Mouth Middle Fork Beaver Creek: Beaver Lake to Confluence with East Fork Beaver Creek Middle Fork Weber River: Source to Forest Boundary Ostler Fork: Source to Mouth Thompson Creek: Source to Hoop Lake Diversion West Fork Beaver Creek: Source to Forest Boundary West Fork Blacks Fork: Source to Trailhead
Uintah	Black Canyon
Utah	South Fork American Fork
Washington	Moody Wash
Weber	Left Fork South Fork Ogden River: Frost Canyon/Bear Canyon Confluence to Causey

Table 3.10.6. Alternative 6 Segments by County

County	Alternative 6 River Segments
Cache	Beaver Creek: South Boundary of State Land to Mouth Bunchgrass Creek: Source to Mouth

County	Alternative 6 River Segments
	Little Bear Creek: Little Bear Spring to Mouth Logan River: Confluence with Beaver Creek to Bridge at Guinavah-Malibu Campground Logan River: Idaho State Line to Confluence with Beaver Creek Spawn Creek: Source to Mouth Temple Fork: Source to Mouth White Pine Creek: Source to Mouth
Carbon, Sanpete, & Utah	Fish and Gooseberry Creek
Daggett	Green River
Duchesne	Garfield Creek Reader Creek Shale Creek and Tributaries Upper Uinta River, including Gilbert Creek, Center Fork and Painter Draw Upper Whiterocks River Upper Yellowstone Creek, including Milk Creek West Fork Whiterocks River
Emery	Lower Left Fork of Huntington Creek Huntington Creek
Garfield	Death Hollow Creek
Kane	North Fork of the Virgin River
Piute	Manning Creek
San Juan	Upper Dark, Horse Pasture, Peavine & Kigalia Canyons in Upper Dark Canyon Lower Dark Canyon, including Poison Canyon, Deadman Canyon, and Woodenshoe and Cherry Canyons Hammond Canyon
Summit	Beaver Creek: Source to Forest Boundary Boundary Creek: Source to Confluence with East Fork Bear River Hayden Fork Henry's Fork: Henry's Fork Lake to Trailhead Left, Right, and Forks of Bear River: Alsop Lake and Norice Lake to near Trailhead Middle Fork Beaver Creek: Beaver Lake to Confluence with East Fork Beaver Creek Ostler Fork: Source to Mouth Provo River: Trial Lake to UT-35 bridge Stillwater Fork West Fork Beaver Creek: Source to Forest Boundary
Uintah & Duchesne	East Fork Whiterocks River Middle Whiterocks River
Utah	North Fork Provo River
Wasatch	Little Provo Deer Creek
Washington	Moody Wash

Unless otherwise noted, the sources for Tables 3.10.7 through 3.10.44 are: EDCUTAH; Forest Suitability Evaluation Reports; Utah Department of Workforce Services, Utah Governor's Department of Planning and Budget.

In the following sections, tables of potential impacts are presented for each segment in the affected counties. Classification of potential impacts is based on the following descriptions:

Low = Unlikely to adversely effect social or economic environment because the river segment has few, if any, designation conflicts with water rights, land withdrawals, private land, or land uses that are incompatible with maintaining free flow or preserving ORVs.

Moderate = Some likely potential adverse effects to the social or economic environment because the river segment has a number of potential designation conflicts with water rights, land withdrawals, private land, or land uses that are incompatible with maintaining free flow or preserving ORVs.

High = Highly likely potential adverse effects to the social or economic environment because the river segment has known or a high number of potential designation conflicts with water rights, land withdrawals, private land, or land uses that are incompatible with maintaining free flow or preserving ORVs.

Box Elder County

Alternatives 3 and 5 (*The impacts to Alternatives 3 and 5 are identical*).

Recreation use on the Willard Creek segment is very light; panning for gold and diamond mining has occurred in the past. Some dispersed recreation use occurs. Access to the segment is limited; Forest Road 20084 runs within the corridor in the upper half mile, a rough private road provides access to privately owned land, and there is no access by road or trail within the National Forest.

Lands around this segment of the creek are a mix of WCNF and private land (zoned Multiple Use MU-160). No water development potential, grazing, mining/oil/gas, road/transportation, or vegetation management activities were identified.

Table 3.10.7. Estimated costs.

Alternative	Segment	Complexity			Estimated cost to develop CRMP (per year for 2-3 years)	Estimated annual administration costs
		Recreation Use	Ownership	Resource Issues		
3, 5	Willard Creek: Source to Forest Boundary	Low	Moderate	Low	\$29,500	\$29,500

Table 3.10.8. Potential impacts.

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
Willard Creek: Source to Forest Boundary	No	Yes -Groundwater Drinking Source Protection Zone -Special Interest Area -Roadless Area (section of segment)	-Private land development	Low	3, 5

Cache County

Alternatives 4 and 6 (*The impacts to Alternatives 4 and 6 are identical*).

A wide variety of visitor use takes place on these segments and in the surrounding areas. This area contains a State Blue Ribbon Fishery on Bunchgrass Creek, Logan River(2), Temple Fork, White Pine

Creek, and Little Bear Creek; fishing, hiking, biking, rock climbing, whitewater boating, OHV use, skiing, snowmobiling, and skiing are popular activities for locals and visitors.

Multiple dams exist below eligible segments, and proposed water projects exist in this area, including Beaver Narrows Reservoir and several projects along the Logan River, first identified in the 1920s. Development of these proposals would no longer be possible with WSR designation. Grazing and livestock use occurs, and would not be affected by designation. Some segments include areas of private and State and Institutional Trust Lands Administration (SITLA) land; recreation residence areas are present.

Designation would complement the State Blue Ribbon Fishery Designation, the Scenic Byway, and nearby drinking water sources. In addition, designation of Spawn Creek would be helpful to USU's Whirling Disease Study. Local groups have expressed interest in continuing habitat restoration/protection/trash clean-up projects.

Table 3.10.9. Estimated costs.

Alternative	Segment	Complexity			Estimated cost to develop CRMP (per year for 2-3 years)	Estimated annual administration costs
		Recreation Use	Ownership	Resource Issues		
4, 6	Beaver Creek: South Boundary of State Land to Mouth	Low	Moderate to High	Low to Moderate	\$58,800	\$58,800
4, 6	Bunchgrass Creek: Source to Mouth	Low	Low	Low to Moderate	\$29,500	\$29,500
4, 6	Little Bear Creek: Little Bear Spring to Mouth	Low	Low	Low to Moderate	\$29,500	\$29,500
4, 6	Logan River: Confluence with Beaver Creek to Bridge at Guinavah-Malibu Campground	Moderate to High	Moderate	Moderate	\$58,800	\$58,800
4, 6	Logan River: Idaho State line to confluence with Beaver Creek	Moderate	Moderate	Low to Moderate	\$58,800	\$58,800
4, 6	Spawn Creek: Source to Mouth	Moderate	Low	Low to Moderate	\$58,800	\$58,800
4, 6	Temple Fork: Source to Mouth	Moderate	Low*	Low to Moderate	\$58,800	\$58,800
4, 6	White Pine Creek: Source to Mouth	Moderate	Moderate	Low to Moderate	\$58,800	\$58,800

*10 acres of Utah State land within ¼ mile buffer

Table 3.10.10. Potential impacts.

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
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Beaver Creek: South Boundary of State Land to Mouth	No	Yes -Category 1 Fish- bearing Stream Riparian Habitat Conservation Area (RHCA) -Transient Drinking Water Source Protection Zone -Portion of segment within Roadless Area	Yes -Potential private (SITLA) land development -Beaver Narrows Reservoir	Moderate	4, 6
Bunchgrass Creek: Source to Mouth	No	Yes -Category 1 Fish- bearing Stream RHCA -Transient Drinking Water Source Protection Zone -Roadless Area -Blue Ribbon Fishery	No	Low	4, 6
Little Bear Creek: Little Bear Spring to Mouth	No	Yes -Category 1 Fish- bearing Stream RHCA -Portion of segment within Roadless Area -Blue Ribbon Fishery	No	Low	4, 6
Logan River: Confluence with Beaver Creek to Bridge at Guinavah-Malibu Campground	No	Yes -Category 1 Fish- bearing Stream RHCA -Transient Drinking Water Source Protection Zone -Portion of segment within Roadless Area -Blue Ribbon Fishery	Yes -Potential private (SITLA) land development -Reservoirs proposed in scoping comments (most dated in 1920s)	Low to Moderate	4, 6
Logan River: Idaho State line to confluence with Beaver Creek	No	Yes -Category 1 Fish- bearing Stream RHCA -Portion of segment within Roadless Area -Blue Ribbon Fishery	Yes -Potential private and SITLA land development	Low	4, 6
Spawn Creek: Source to Mouth	No	Yes -Category 1 Fish- bearing Stream RHCA -Portion of segment within Roadless Area	-Potential restrictions on activities in area	Low	4, 6

Temple Fork: Source to Mouth	No	Yes -Category 1 Fish-bearing Stream RHCA -Blue Ribbon Fishery	Yes -Potential private and SITLA land development	Low	4, 6
White Pine Creek: Source to Mouth	No	Yes -Category 1 Fish-bearing Stream RHCA -Transient Drinking Water Source Protection Zones (2) -Blue Ribbon Fishery	Yes -Potential private and SITLA land development	Low	4, 6

Carbon, Sanpete, and Utah Counties (Fish Creek and Gooseberry Creek)

Alternatives 4 and 6 (*The impacts to Alternatives 4 and 6 are identical.*)

Visitor use in the area includes the Fish Creek National Recreation trail (10 miles); area attractions include fishing, hiking, hunting, birdwatching, and wildflowers. No formal study on use or capacity has been done.

Development of the BOR Narrows project is seen as critical to securing adequate water for the counties in this area; this program could potentially be affected by a WSR designation. Opportunities to develop potential coal, oil, and gas would continue; some limitations may be imposed where Semi-Primitive Regulation (SPR) stipulations apply. No impacts on current range allotments or timber management are expected. Recreation would be managed according to the current Forest Plan. Lands are a mix of federal and private along Gooseberry Creek.

Table 3.10.11. Estimated costs*.

Alternative	Segment	Complexity			Estimated cost to develop CRMP	Estimated annual administration costs
		Recreation Use	Ownership	Resource Issues		
4, 6	Fish Creek and Gooseberry Creek	Moderate	High	High	\$90,000	\$31,079

**Costs provided by the Manti-La Sal NF based on current projects, timelines, and requirements. Forest Suitability Report estimates first-year startup costs at approximately \$258,862.*

Table 3.10.12. Potential impacts.

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
Fish Creek and Gooseberry Creek	Water is over-allocated	Yes -Semi-primitive recreation use	Yes -Limited potential for mineral and energy resource	Low to moderate for mineral and energy resource	4, 6

			activities -Private land development	activities. High for water development (Narrows Project)	
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Daggett County

Alternative 3

Recreation use in this area is moderate to heavy; opportunities include camping, hiking, fishing, hunting, and visiting interpretive sites. Some winter recreational use occurs. Area attractions include the Sheep Creek Geologic Area and Spirit Lake. In addition, the Green River (a Blue Ribbon fly fishing river) and Flaming Gorge National Recreation Area are national and international destinations, and play an integral role in the local economy. Approximately 1.7 million dollars per year are brought into the area from customers of Green River outfitting guides. Access to the area includes Sheep Creek/Spirit Lake Scenic Backway Loop (Forest Development Road 218) and Flaming Gorge/Uintas National Scenic Byway (Utah State Highway 44).

WSR designation may have an effect on two phosphate leases in the area. No potential water development projects were identified, no permitted grazing allotments exist, and no future timber harvest is expected.

Alternative 5 *(Three of these six segments are included in other alternatives).*

WSR designation may have an effect on two phosphate leases in the area. Little, if any, other mineral/energy resource development activities are expected. No potential water development projects were identified, and no future timber harvest is expected, with the possible exception of the Cart Creek Proper and Pipe Creek areas. There are two grazing allotments in the Carter Creek area, as well as in the Pipe Creek area.

Alternative 6 *(Segment also occurs in Alternatives 3 and 5).*

No past or present mineral or energy development activity occurs along the Green River; little if any are expected in the future. BOR withdrawals occur along the segment, although future water development is not expected and designation into the WSR system does not affect existing, valid water rights and agreements. Limited grazing may occur.

Table 3.10.13. Estimated costs.

Alternative	Segment	Complexity			Estimated cost to develop CRMP (per year for 2-3 years)	Estimated annual administration costs
		Recreation Use	Ownership	Resource Issues		
3, 5	Middle Main Sheep Creek	Low	Moderate	Low	\$29,500	\$29,500
3, 5	Lower Main Sheep Creek	Low	Low	Moderate	\$29,500	\$29,500
3, 5, 6	Green River	Moderate to High	Moderate	Moderate to High	\$88,212+	\$88,212+
5	Carter Creek	Low to Moderate	Low	Low	\$29,500	\$29,500
5	Cart Creek Proper	Low to Moderate	Low	Low	\$29,500	\$29,500

5	Pipe Creek	Low	Low	Low	\$29,500	\$29,500
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Table 3.10.14. Potential impacts.

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
Middle Main Sheep Creek	No	Yes -Sheep Creek National Geologic Area -Dutch John Drinking Water Source Protection Zone	No	Low	3, 5
Lower Main Sheep Creek	No	Yes -Flaming Gorge National Recreation Area -Dutch John Drinking Water Source Protection Zone	-Potential phosphate mining	Low	3, 5
Green River	No	Yes -Flaming Gorge National Recreation Area -Roadless Area (section of segment)	No	Low	3, 5, 6
Carter Creek	No	Yes -Portion of segment within Flaming Gorge National Recreation Area -Dutch John Drinking Water Source Protection Zone -Portions of segment within Roadless Areas	No	Low	5
Cart Creek Proper	No	Yes -Portion of segment within Flaming Gorge National Recreation Area -Dutch John Drinking Water Source Protection Zone -Most of segment within Roadless Areas	No	Low	5
Pipe Creek	No	Yes -Portion of segment within Flaming Gorge National Recreation Area	No	Low	5

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
		-Segment within Roadless Area			

Duchesne County

Alternative 3

Visitor use is moderate to heavy in these areas, and includes day use, backpacking, recreation stock use, and hunting. The wilderness portion of the watershed receives concentrated use around the headwater lakes, with moderate to heavy camping and fishing use in season.

Limited, if any mineral or energy extraction activities are expected and no timber harvest would be expected along the river corridor. No permitted livestock use occurs along the Reader Creek segment; there are two grazing allotments associated with the Upper Uinta River, including Gilbert Creek, Center Fork, and Painter Draw segment. No water developments affecting these segments are known or expected. All known proposed water developments occur downstream and are not expected to alter or be altered by designation.

Alternative 5 (*Two of these segments are included in Alternative 3*).

Limited, if any mineral or energy extraction activities are expected and no timber harvest would be expected along these river corridors. No mineral or energy resource activities would be expected in areas where river segments are in designated wilderness areas. No permitted livestock use occurs along the Reader Creek segment; there are two grazing allotments associated with the Upper Uinta River (including Gilbert Creek, Center Fork, and Painter Draw) segment, two allotments associated with Garfield Creek, two allotments associated with the Upper Lake Fork River (including Ottoson and East Basin Creeks and Oweep Creek), one allotment and Ute Indian Tribe use associated with Upper Rock Creek and Fall Creek, three allotments are associated with Upper Yellowstone Creek, including Milk Creek. High Lakes' stabilization is planned. No other water developments affecting these segments are known or expected. All known proposed water developments occur downstream and are not expected to alter or be altered by designation.

Alternative 6 (*All segments appear within Alternative 5*)

In addition to the analysis presented under Alternative 5, numerous trails provide access to the segments under consideration in this area.

Table 3.10.15. Estimated costs.

Alternative	Segment	Complexity			Estimated cost to develop CRMP (per year for 2-3 years)	Estimated annual administration costs
		Recreation Use	Ownership	Resource Issues		
3, 5, 6	Reader Creek	Moderate	Low	Moderate	\$58,800	\$58,800
3, 5, 6	Upper Uinta River, including Gilbert Creek, Center Fork, and Painter Draw	Moderate	Low	Low	\$29,500	\$29,500
5, 6	Garfield Creek	Low	Low	Low	\$29,500	\$29,500

5, 6	Shale Creek and Tributaries	Moderate	Low	Low	\$29,500	\$29,500
5, 6	Upper Whiterocks River and East Fork Whiterocks River	Moderate	Low	Low	\$29,500	\$29,500
5	Upper Lake Fork River, including Ottoson and East Basin Creeks and Oweep Creek	Low	Low	Low	\$29,500	\$29,500
5	Upper Rock Creek and Fall Creek	Low	Low	Low	\$29,500	\$29,500
5, 6	Upper Yellowstone Creek, including Milk Creek	Moderate	Low	Low	\$29,500	\$29,500
5	West Fork Rock Creek, including Fish Creek	Moderate	Low	Low	\$29,500	\$29,500
5, 6	West Fork Whiterocks River	Moderate	Low	Low	\$29,500	\$29,500

Table 3.10.16. Potential impacts.

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
Reader Creek	No	Yes -Tridell/LaPoint Drinking Water Source Protection Zone -Restoration of native Colorado Cutthroat trout habitat -Roadless Area	No	Low	3, 5, 6
Upper Uinta River, including Gilbert Creek, Center Fork, and Painter Draw	No	Yes -High Uintas Wilderness Area	No	Low	3, 5
Garfield Creek	No	Yes -High Uintas Wilderness Area	High Lakes Stabilization Projects in Area	Low	5, 6
Shale Creek and Tributaries	No	Yes -High Uintas Wilderness Area	No	Low	5, 6
Upper Whiterocks River and East Fork Whiterocks River	No	Yes -Drinking Water Source Protection Zone -Roadless Area	No	Low	5, 6
Upper Lake Fork River, including Ottoson and East Basin Creeks and Oweep Creek	No	Yes -High Uintas Wilderness Area	No	Low	5

Upper Rock Creek and Fall Creek	No	Yes -High Uintas Wilderness Area	No	Low	5
Upper Yellowstone Creek, including Milk Creek	No	Yes -High Uintas Wilderness Area	No	Low	5, 6
West Fork Rock Creek, including Fish Creek	No	Yes -High Uintas Wilderness Area	No	Low	5
West Fork Whiterocks River	No	Yes -Tridell/LaPoint Drinking Water Source Protection Zone -Portion of segment in Roadless Area	No	Low	5, 6

Emery County

Alternatives 4 and 6 *(The impacts to Alternatives 4 and 6 are identical).*

Many recreation opportunities are available in this area, including camping, hiking, horseback riding, OHV use, and rock climbing. Fishing is also popular; currently, water flows are regulated to maintain a Blue Ribbon Fishery. The Left Fork of the Huntington Creek National Recreation Trail runs parallel to the Lower Left Fork of the Huntington. State Route 31 is a National Scenic Byway, promoted as part of the “Energy Loop.”

Lands in the proposed areas are a mix of Forest Service, private (multiple owners), BLM, and State-owned. In the event of non-designation, state protection of non-federal land is unlikely. Multiple diversions and plans for future impoundments (intended for municipal and agricultural use) would be affected by WSR designation. The development of federally assisted water resource developments (e.g., salinity projects), as well as industrial use (e.g., Huntington Power Plant) may also be affected by designation. There may be potential for the county unemployment rate to increase if water development projects are curtailed.

Table 3.10.17. Estimated costs*.

Alternative	Segment	Complexity			Estimated cost to develop CRMP	Estimated annual administration costs
		Recreation Use	Ownership	Resource Issues		
4, 6	Huntington Creek*	Moderate to High	High	Moderate to High	\$85,000	\$57,500
4, 6	Lower Left Fork of Huntington Creek**	Moderate	Low	Moderate to High	\$28,000	\$26,900

*Costs provided by the Manti-La Sal NF based on current projects, timelines, and requirements. Forest Suitability Reports estimate first year funding needs for Huntington Creek are projected to be approximately \$239,000 (including development of management plan), and first year funding needs for the Lower Left Fork of the Huntington of \$65,500.

Table 3.10.18. Potential Impacts

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
Huntington Creek	Water is over-appropriated	Yes -Blue Ribbon Fishery -Drinking Water Source Protection Zone	Yes -Mineral and energy resource activities -Water development projects	High for mineral and energy resource activities. High for water development projects.	4, 6
Lower Left Fork of Huntington Creek	Water is over-appropriated	Yes -Blue Ribbon Fishery -National Recreation Trail	Yes -Water development projects	High	4, 6

Garfield County

Alternative 3

Recreational visitor use of the river segments in this county varies, and includes hiking, backpacking, stock use, and ATV/OHV use. Access to the segments under consideration varies, and includes trails, Forest Service Roads, and motorized trail.

No existing or potential water developments exist on these segments. No mineral or energy resource development is expected within the Steep Creek, The Gulch, or Death Hollow Creek segments, although development in the greater area is possible. Two oil and gas claims in the Mamie Creek river corridor have been suspended. There is potential for some mining/oil & gas activity in the Pine Creek area.

One grazing allotment is active in The Gulch, with three permittees. In the Death Hollow Creek and Mamie Creek segments, there is no grazing; timber and farming are not foreseeable in these areas, or in Pine Creek. One active allotment exists in the Pine Creek area, although there is no grazing within the wilderness.

Alternative 5 *(Five of these seven segments appear in Alternative 3; one in Alternative 6).*

Access to these areas varies, and includes trails, Forest Service Roads, and motorized trail. Recreational visitor use of the river segments in this county varies, and includes hiking, backpacking, stock use, and ATV/OHV use.

No mineral or energy resource development is expected within the Steep Creek, The Gulch, Death Hollow Creek, or East Fork Boulder Creek segments, although development in the greater area is possible. Two oil and gas claims in the Mamie Creek river corridor have been suspended. There is potential for mineral and energy resource activities in the areas near the Pine Creek and Slickrock segments.

One grazing allotment is active in each of The Gulch and Slickrock segments. There is no grazing in the Death Hollow Creek and Mamie Creek segments; timber and farming are not foreseeable in these areas, or in Pine Creek. One active allotment exists in the Pine Creek area, although there is no grazing within the wilderness.

Alternative 6 *(Segment occurs in Alternatives 3 and 5).*

No existing or proposed water developments occur in Death Hollow Creek. No grazing occurs, and no timber harvest or farming is foreseeable. Limited development of two shut-in oil and gas wells could occur.

Table 3.10.19. Estimated costs.

Alternative	Segment	Complexity			Estimated cost to develop CRMP (per year for 2-3 years)	Estimated annual administration costs
		Recreation Use	Ownership	Resource Issues		
3, 5	Pine Creek	Low	Low	Low	\$29,500	\$29,500
3, 5	Mamie Creek	Low	Low	Low	\$29,500	\$29,500
3, 5, 6	Death Hollow Creek	Low	Low	Low	\$29,500	\$29,500
3, 5	Steep Creek	Low	Moderate	Low	\$29,500	\$29,500
3, 5	The Gulch	Low	Low	Low	\$29,500	\$29,500
5	East Fork Boulder Creek	Low to moderate	Low	Low	\$29,500	\$29,500
5	Slickrock	Low	Low	Low	\$29,500	\$29,500

Table 3.10.20. Potential impacts.

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
Pine Creek	No	Yes -Box-Death Hollow Wilderness Area -Roadless Area	-One authorized oil & gas lease in corridor -Shut-in wells with prior existing rights (in wilderness) could be developed	Low	3, 5
Mamie Creek	No	Yes -Box-Death Hollow Wilderness Area -Roadless Area	-Two suspended oil & gas leases	Low	3, 5
Death Hollow Creek	No	Yes -Box-Death Hollow Wilderness Area -Roadless Area	-Two suspended oil & gas leases	Low	3, 5, 6
Steep Creek	No	Yes	No	Low	3, 5
The Gulch	No	Yes	No	Low	3, 5
East Fork Boulder Creek	No	Yes -Entire segment in Roadless Area	No	Low	5
Slickrock	No	Yes	No	Low	5

Kane County

Alternatives 3, 5, and 6 (*Impacts to alternatives 3, 5, and 6 are identical*)

Hiking and sightseeing are popular, leading to heavy use on some trails, particularly those with access to viewpoints (e.g., Cascade Falls National Recreation Trail). Opportunities to study the ecology of Southern Utah are present.

No mineral/energy resource activities are expected; there is one vacant grazing allotment. Some vegetation management may occur.

Table 3.10.21. Estimated costs.

Alternative	Segment	Complexity			Estimated cost to develop CRMP (per year for 2-3 years)	Estimated annual administration costs
		Recreation Use	Ownership	Resource Issues		
3, 5, 6	North Fork of the Virgin River	Moderate	Low	Low	\$29,500	\$29,500

Table 3.10.22. Potential impacts.

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
North Fork of the Virgin River	No	Yes -National Recreation Trail -Drinking Water Source Protection Zone	No	Low	3, 5, 6

Piute County

Alternatives 5 and 6

Both segments discussed here are in a remote area of the county.

Visitor use includes hiking and camping. A non-motorized trail follows Manning Creek; some ATV use has occurred on the upper portion of the trail. Access to this area includes road, ATV, and horse/foot trails. The entire Pine Creek/Bullion Falls segment is within an inventoried roadless area. A foot trail exists along the upper portions of the creek, and there is a semi-developed recreation area near Bullion Falls.

No present or future water developments exist on the Manning Creek segment; an inactive mine is located below the eligible segment. One active cattle grazing allotment is present, although actual use is very low. On the Pine Creek/Bullion Falls segment, historic mining exploration has occurred. While interest in development is periodically expressed, there are currently no known proposals for development.

Table 3.10.23. Estimated costs.

Alternative	Segment	Complexity			Estimated cost to develop CRMP (per year for 2-3 years)	Estimated annual administration costs
		Recreation Use	Ownership	Resource Issues		

5, 6	Manning Creek	Low	Low	Low	\$29,500	\$29,500
5	Pine Creek / Bullion Falls	Low	Low	Low	\$29,500	\$29,500

Table 3.10.24. Potential impacts.

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
Manning Creek	No	Yes	No	Low	5, 6
Pine Creek / Bullion Falls	No	Yes -Roadless Area -Research Natural Area	Potential mineral development	Low	5

San Juan County (and Montrose County, CO)

Alternative 3 (*Alternative 3 includes Montrose County, Colorado*).

No roads exist within the eligible stream corridor. Trailheads outside the corridor offer excellent opportunities for hiking, backpacking, and horseback riding. Guided trips are available, and the trails receive a fair amount of use.

No current mining or energy leases occur within the corridor, old mining claims exist, and three oil and gas leases are nearby. The entire corridor is within a cattle allotment and is used for grazing. Tribal lands have been used in the past for agriculture, and may be used again.

Alternative 5 (*Alternative 5 includes Montrose County, Colorado*).

The Roc Creek segment is entirely on NF lands, although the majority of the segment is in Montrose County, CO. No water developments exist on this segment; several developments/diversions exist above the segment. In the Upper Dark Canyon and Lower Dark Canyon areas, there are no known water resource projects that could be limited by WSR designation. Diversions/developments exist above and below the Mill Creek segment.

Abandoned mines are present in the Roc Creek and Mill Creek areas; future uranium mining is possible. On the Roc Creek segment, only incidental grazing occurs due to the rugged terrain. Two allotments are used in the Upper Dark Canyon area, one allotment exists in each of the Mill Creek Gorge and Lower Dark Canyon areas.

Visitor use in these areas includes hiking, backpacking, fishing, horseback riding, rock climbing, and some OHV use; access is primarily by trail.

Alternative 6 (*Segments occur in Alternatives 3 and 5*).

In Hammond Canyon, no roads exist within the eligible stream corridor. Trailheads outside the corridor offer excellent opportunities for hiking, backpacking, and horseback riding. Guided trips are available, and the trails receive a fair amount of use. Visitor use in the Lower and Upper Dark canyon areas includes hiking, backpacking, fishing, horseback riding, rock climbing, and some OHV use; access is primarily by trail.

No current mining or energy leases occur within the Hammond Canyon corridor, old mining claims exist, and three oil and gas leases are nearby. The entire corridor is within a cattle allotment and is used for grazing. Tribal lands have been used in the past for agriculture, and may be used again. Two allotments are used in the Upper Dark Canyon area, one allotment exists in the Lower Dark Canyon area. In the

Upper Dark Canyon and Lower Dark Canyon areas there are no known water resource projects that could be limited by WSR designation.

Table 3.10.25. Estimated Costs

Alternative	Segment	Complexity			Estimated cost to develop CRMP (per year for 2-3 years)	Estimated annual administration costs
		Recreation Use	Ownership	Resource Issues		
3, 6	Hammond Canyon	Low to Moderate	Moderate	High	\$88,212	\$88,212
5, 6	Lower Dark Canyon, including Poison Canyon, Deadman Canyon, and Woodenshoe and Cherry Canyons	Moderate	Low	Low	\$29,500	\$29,500
5	Mill Creek Gorge	Moderate	Low	Moderate	\$58,800	\$58,800
3, 5	Roc Creek	Low	Low to Moderate	Moderate to High	\$58,800	\$58,800
5, 6	Upper Dark Canyon, including Horse Pasture, Peavine & Kigalia Canyons	Moderate	Low	Low	\$29,500	\$29,500

Table 3.10.26. Potential impacts.

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
Hammond Canyon	No	Yes -Approximately 70% of segment within Roadless Area	-Mining claims and oil & gas leases possible outside of corridor (Designation in conflict with San Juan County Master Plan)	Low	3, 6
Lower Dark Canyon, including Poison Canyon, Deadman Canyon, and Woodenshoe and Cherry Canyons	No	Yes -Majority of corridor is in Dark Canyon Wilderness -Roadless Area	No (Designation in conflict with San Juan County Master Plan)	Low	5, 6
Mill Creek Gorge	No	Yes -Research Natural Area	No (Designation in conflict with San Juan County Master Plan)	Low	5
Roc Creek	No	Yes -Roadless Area	One oil & gas lease within upper portion of	Low	3, 5

			segment		
Upper Dark Canyon, including Horse Pasture, Peavine & Kigalia Canyons	No	Yes -Majority of corridor is in Dark Canyon Wilderness -Roadless Area	No (Designation in conflict with San Juan County Master Plan)	Low	5, 6

Sevier and Piute Counties

Alternatives 3 and 5

Access to Fish Creek is limited to several historic mining routes and a hiking trail; approximately 3 miles of Fish Creek is paralleled by an old road and ATV trail that receives moderate use. No existing or potential water developments have been identified. There are no known plans for future mineral/energy resource development. Two grazing allotments are active.

Salina Creek offers hiking, horseback riding, camping and hunting; access within the segment is by foot/horse trail, with Forest Roads above and below the segment. The segment passes through one active cattle grazing allotment, and no existing or potential water developments have been identified, however, there are plans for subsurface development of coal deposits in the area.

Table 3.10.27. Estimated costs.

Alternative	Segment	Complexity			Estimated cost to develop CRMP (per year for 2-3 years)	Estimated annual administration costs
		Recreation Use	Ownership	Resource Issues		
3, 5	Fish Creek*	Low	Low to Moderate	Low to Moderate	\$58,800	\$58,800
5	Salina Creek**	Low	Low	Low	\$29,500	\$29,500

*Sevier & Piute Counties

**Sevier County only

Table 3.10.28. Potential impacts.

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
Fish Creek*	No	Yes -Headwaters are Research Natural Area	No	Low	3, 5
Salina Creek**	No	Yes -Entire segment within Roadless Area	No	Low	5

*Sevier & Piute Counties

**Sevier County only

Summit County

Alternative 3

Recreation opportunities for these segments are diverse. A variety of Forest Roads and trails offer access to the area. Hiking, horseback, fishing (including a Class II and III fisheries), hunting and other wilderness activities are popular. Heavy use occurs in popular areas. Moderate to heavy use occurs overall, with lower rates of use in the area of West Fork Blacks Fork.

Portions of the segments that lie below the wilderness boundary are within a high oil and gas potential area. There are no diversions or dams along the proposed segments. WSR designation would not affect downstream uses. There are multiple grazing allotments for sheep and cattle; river corridors are used while trailing or herding, and occasionally for recreation stock use.

Alternative 5 (*Five of these segments occur in Alternative 3; two in Alternative 4*)

Recreation opportunities for these segments are diverse. A variety of Forest Roads and trails offer access to the area. Hiking, horseback, fishing (including a Class II and III fisheries), hunting and other wilderness activities are popular. Heavy use occurs in popular areas. Moderate to heavy use occurs overall, with lower rates of use in the area of West Fork Blacks Fork.

Residents of the Wasatch Front form a significant percentage of users, in addition to national and international visitors. Historical resources, hiking, skiing, biking, horseback use, fishing, hunting, and motorized recreation use occur across the area, and some private recreation dwellings are present. Access is primarily by trail, Forest Road, and Scenic Byways.

Alternative 6 (*Segments occur in Alternatives 3, 4, and 5*).

Residents of the Wasatch Front form a significant percentage of users, in addition to national and international visitors. Historical resources, hiking, skiing, biking, horseback use, fishing, hunting, and motorized recreation use occur across the area, and some private recreation dwellings are present. Access is primarily by trail, Forest Road, and Scenic Byways.

A mix of energy/mineral resource use and development (including some areas with high oil and gas potential) and grazing allotments occur on these segments. Some water developments exist on segments. Active vegetation management occurs.

Table 3.10.29. Estimated costs.

Alternative	Segment	Complexity			Estimated cost to develop CRMP (per year for 2-3 years)	Estimated annual administration costs
		Recreation Use	Ownership	Resource Issues*		
3, 5	East Fork Smiths Fork: Red Castle Lake to Trailhead	Moderate	Low	Low to Moderate	\$29,500	\$29,500
3, 5, 6	Henry's Fork: Henry's Fork Lake to Trailhead	Moderate	Low	Low to Moderate	\$29,500	\$29,500
3, 5, 6	Middle Fork Beaver Creek: Beaver Lake to Confluence with East Fork Beaver Creek	Low to Moderate	Low to Moderate	Low to Moderate	\$29,500	\$29,500
3, 5, 6	West Fork Beaver Creek: Source to Forest Boundary	Moderate	Low	Low to Moderate	\$29,500	\$29,500

3, 5	West Fork Blacks Fork: Source to Trailhead	Low	Low to Moderate**	Low to Moderate	\$29,500	\$29,500
5	East Fork Blacks Fork: Headwaters to confluence with Little East Fork	Low	Low	Low	\$29,500	\$29,500
5	Little East Fork: Source to Mouth	Moderate	Low	Low to Moderate	\$29,500	\$29,500
5	Middle Fork Weber River: Source to Forest Boundary	Low to Moderate	Low	Low	\$29,500	\$29,500
5, 6	Ostler Fork: Source to Mouth	Moderate to High	Low	Low to Moderate	\$58,800	\$58,800
5	Thompson Creek: Source to Hoop Lake Diversion	Low	Low	Low to Moderate	\$29,500	\$29,500
6	Beaver Creek: Source to Forest Boundary	High	Moderate	Moderate	\$88,212	\$88,212
6	Boundary Creek: Source to Confluence with East Fork Bear River Hayden Fork	Low	Moderate	Low to Moderate	\$29,500	\$29,500
6	Left, Right, and East Fork Bear River: Alsop Lake and Norice Lake to near Trailhead	Low	Low	Low to Moderate	\$29,500	\$29,500
6	Provo River: Trial Lake to U35 Bridge	Moderate	Moderate	Moderate	\$58,800	\$58,800
6	Stillwater Fork: Source to Mouth	Moderate to High	Low	Low to Moderate	\$58,800	\$58,800

*Primarily due to grazing in the corridor.

**27 acres of private land within corridor.

Table 3.10.30. Potential impacts.

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
East Fork Smiths Fork: Red Castle Lake to Trailhead	No	Yes -High Uintas Wilderness -Category 1 Fish-Bearing Stream Riparian Habitat Conservation Area (RHCA) -Portion of segment within Roadless Area	-Small portion of segment below wilderness is within high oil & gas potential area	Low	3, 5
Henry's Fork: Henry's Fork Lake to Trailhead	No	Yes -High Uintas Wilderness	-Small portion of segment below wilderness is	Low	3, 5, 6

			within high oil & gas potential area		
Middle Fork Beaver Creek: Beaver Lake to Confluence with East Fork Beaver Creek	No	Yes -Wasatch-Cache National Forest Wilderness -Category 1 Fish-Bearing Stream Riparian Habitat Conservation Area (RHCA) -Portion of segment within Roadless Area	-Portion of segment below wilderness is within high oil & gas potential area -Potential private land development	Low	3, 5, 6
West Fork Beaver Creek: Source to Forest Boundary	No	Yes -High Uintas Wilderness -Category 1 Fish-Bearing Stream Riparian Habitat Conservation Area (RHCA) -Portion of segment within Roadless Area	-Portion of segment below wilderness is within high oil & gas potential area	Low	3, 5, 6
West Fork Blacks Fork: Source to Trailhead	No	Yes -High Uintas Wilderness -Category 1 Fish-Bearing Stream Riparian Habitat Conservation Area (RHCA)	-Portion of segment below wilderness is within high oil & gas potential area -Potential private land development	Low	3, 5
East Fork Blacks Fork: Headwaters to confluence with Little East Fork	No	Yes -High Uintas Wilderness -Category 1 Fish-Bearing Stream RHCA -Portion of segment within Roadless Area	-Small portion of segment below wilderness is within high oil & gas potential area	Low	5
Little East Fork: Source to Mouth	No	Yes -Portion of segment within High Uintas Wilderness -Class III fishery -Category 1 Fish-bearing Stream RHCA	Yes -Portion of segment below wilderness boundary within high oil and gas potential area	Low	5
Middle Fork Weber River: Source to Forest Boundary	No	Yes -Category 1 Fish-Bearing Stream RHCA -Portion of segment within Roadless Area	-Segment is within high oil and gas potential area	Low	5

Beaver Creek: Source to Forest Boundary	No	Yes -Category 1 Fish- Bearing Stream RHCA -Drinking Water Source Protection Zone	Yes -Segment within high oil and gas potential area -Potential effects on ability to control beaver; potential effects on irrigators	Low to moderate	6
Boundary Creek: Source to Confluence with East Fork Bear River Hayden Fork	Yes -Portion of segment within high oil and gas potential areas; active lease area in corridor	Yes -Category 1 Fish- Bearing Stream RHCA -Drinking Water Source Protection Zone -Roadless Area	Yes -Potential oil and gas development	Low to moderate	6
Left, Right, and East Fork Bear River: Alsop Lake and Norice Lake to near Trailhead	Yes -Portion of segment within high oil and gas potential areas; active lease in corridor	Yes -Portion of segment in High Uintas Wilderness Area -Category 1 Fish- bearing Stream RHCA -Portion of segment is Roadless Area	Yes -Potential oil and gas development	Moderate	6
Ostler Fork: Source to Mouth	No	Yes -Portion of segment within High Uintas Wilderness -Category 1 Fish- bearing Stream RHCA	No	Low	5, 6
Thompson Creek: Source to Hoop Lake Diversion	No	Yes -High Uintas Wilderness -Category 1 Fish- Bearing Stream RHCA -Portion of segment within Roadless Area	- Portion of segment below wilderness is within high oil & gas potential area	Low	5, 6
Provo River: Trial Lake to U35 Bridge	No	Yes -Category 1 Fish- bearing Stream RHCA -Portions of segment within Roadless Area	Yes -Future private land development -Area is in high oil and gas potential area (no current leases) -Provo River Project	Moderate	6
Stillwater Fork: Source to Mouth	No	Yes -Portion of segment within High Uintas Wilderness	Yes -Area within scenic segment is in high oil and	Moderate	6

		-Category 1 Fish-bearing Stream RHCA -Drinking Water Source Protection Zone	gas potential area -Stillwater Reservoir (potential site)		
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Summit County (with Uinta County, Wyoming and Salt Lake County)

Alternative 4

Residents of the Wasatch Front form a significant percentage of users, in addition to national and international visitors. Historical resources, hiking, skiing, biking, horseback use, fishing, hunting, and motorized recreation use occur across the area, and some private recreation dwellings are present. Access is primarily by trail, Forest Road, and Scenic Byways.

Several non-wilderness areas have O&G potential, with active leases within some stream corridors. Sheep and cattle grazing, as well as potential water developments are present (including diversions and reservoirs both upstream and below segments). Private lands occur on several of the segments considered for designation.

River designation would potentially result in impacts to O&G development, where leasable minerals are subject to conditions necessary to protect the values of the specific river corridor. However, designation does not necessarily preclude development. On specific segments, designation may limit operation of some current water developments (e.g., Alta Fen Project and Salt Lake County Service Area #3).

Table 3.10.31. Estimated Costs

Alternative	Segment	Complexity			Estimated cost to develop CRMP (per year for 2-3 years)	Estimated annual administration costs
		Recreation Use	Ownership	Resource Issues		
4	Hayden Fork: Source to Mouth	Low to Moderate	Low to Moderate	Low to Moderate	\$29,500	\$29,500
4	Left, Right, and East Fork Bear River: Alsop Lake and Norice Lake to near Trailhead	Low	Low	Low to Moderate	\$29,500	\$29,500
4	Little Cottonwood Creek: Source to Murray City Diversion	Moderate	Moderate	Moderate	\$58,800	58,800
4	Little East Fork: Source to Mouth	Moderate	Low	Low to Moderate	\$29,500	\$29,500
4	Ostler Fork: Source to Mouth	Moderate to High	Low	Low to Moderate	\$58,800	\$58,800
4	Provo River: Trial Lake to U35 Bridge	Moderate	Moderate	Moderate	\$58,800	\$58,800
4	Stillwater Fork: Source to Mouth	Moderate to High	Low	Low to Moderate	\$58,800	\$58,800
4	West Fork Smiths	Low	Moderate	Low to	\$58,800	\$58,800

	Fork: Source to Forest Boundary*		to High	Moderate		
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*Summit County, UT and Uinta County, WY

Table 3.10.32. Potential Impacts

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
Hayden Fork: Source to Mouth	Yes -Active oil and gas leases within corridor.	Yes -Category 1 Fish-bearing Stream RHCA -Portion of segment is Roadless Area -Drinking Water Source Protection Zone	Yes -Future private land development	Moderate	4
Left, Right, and East Fork Bear River: Alsop Lake and Norice Lake to near Trailhead	Yes -Portion of segment within high oil and gas potential areas; active lease in corridor	Yes -Portion of segment in High Uintas Wilderness Area -Category 1 Fish-bearing Stream RHCA -Portion of segment is Roadless Area	Yes -Potential oil and gas development	Moderate	4
Little Cottonwood Creek: Source to Murray City Diversion	Historically, locatable minerals have been mined. Stream flows altered by off-site operations.	Yes -Category 1 Fish-bearing Stream RHCA -Drinking Water Source Protection Zone -Portion of segment within Lone Peak Wilderness	Yes -Future private land development -Potential impact to water development projects	Moderate	4
Little East Fork: Source to Mouth	No	Yes -Portion of segment within High Uintas Wilderness -Class III fishery -Category 1 Fish-bearing Stream RHCA	Yes -Portion of segment below wilderness boundary within high oil and gas potential area	Low	4
Ostler Fork: Source to Mouth	No	Yes -Portion of segment within High Uintas Wilderness -Category 1 Fish-bearing Stream	No	Low	4

		RHCA			
Provo River: Trial Lake to U35 Bridge	No	Yes -Category 1 Fish-bearing Stream RHCA -Portions of segment within Roadless Area	Yes -Future private land development -Area is in high oil and gas potential area (no current leases) -Provo River Project	Moderate	4
Stillwater Fork: Source to Mouth	No	Yes -Portion of segment within High Uintas Wilderness -Category 1 Fish-bearing Stream RHCA -Drinking Water Source Protection Zone	Yes -Area within scenic segment is in high oil and gas potential area -Stillwater Reservoir (potential site)	Moderate	4
West Fork Smiths Fork: Source to Forest Boundary*	Yes -Active lease sharing approximately 1.2 miles of stream corridor	Yes -Portion of segment within High Uintas Wilderness -Category 1 Fish-bearing Stream RHCA -Portion of segment within roadless area	Yes -Future private land development -Area within Scenic segment is in high oil and gas potential area	Low to moderate	4

*Summit County, UT and Uinta County, WY

Uintah County

Alternatives 3 and 5 (*Impacts to Alternatives 3 and 5 are identical*)

In the proposed Black Canyon River Segment, no water development projects are proposed on this segment. Designation into the WSR system would not affect downstream projects, nor are existing, valid water rights affected. No large current, nor any future mineral or energy extraction activities are anticipated. One grazing allotment primarily uses the upper two miles of the segment; any future timber harvesting would also occur in the upper watershed. This segment receives light recreation use, including hiking, horseback riding, fishing, and hunting.

Alternative 4

Two river segments are considered for designation in the WSR system: Ashley Gorge Creek (Wild), and Lower Dry Fork Creek (Recreational). Designation is not expected to affect downstream water developments, and is consistent with or would complement currently permitted use and existing direction (e.g., grazing, Drinking Water Protection zones). Some economic impact may result from designation that is inconsistent with conditional county land uses (e.g., oil & gas development, power plants, gravel/rock quarry).

Table 3.10.33. Estimated costs.

Alternative	Segment	Complexity			Estimated cost to develop CRMP (per year for 2-3 years)	Estimated annual administration costs
		Recreation Use	Ownership	Resource Issues		
3, 5	Black Canyon	Low	Low	Low to Moderate	\$29,500	\$29,500
4	Ashley Gorge Creek	Low to Moderate	Moderate	Low	\$29,500	\$29,500
4	Lower Dry Fork Creek	Moderate	Moderate	Low	\$58,800	\$58,800

Table 3.10.34. Potential impacts.

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
Black Canyon	No	Yes -Ashley Spring (Vernal City) Drinking Water Source Protection Zone --Portion of segment within Roadless Area	No	Low	3, 5
Ashley Gorge Creek	No	Yes -Research Natural Area -Drinking Water Source Protection Zone	Yes -BOR CUP	Low	4
Lower Dry Fork Creek	Yes -Several existing mining claims (unlikely future development)	Yes -Drinking Water Source Protection Zone -Surface Water Protection Zone for Ashley Spring (Vernal municipal watershed)	Yes -Potential private land development -Potential reservoir development (2 scoping comments)	Low	4

Uintah and Duchesne Counties

Alternative 6

Recreation/visitor use is light to moderate. Access is primarily by trail, but varies by area. Activities include hunting and fishing.

No past or present mineral or energy resource activity exists. No grazing occurs on either segment. Timber harvest has occurred in some areas; no harvest along the river corridors is expected in the future.

Table 3.10.35. Estimated costs.

Alternative	Segment	Complexity	Estimated cost	Estimated
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		Recreation Use	Ownership	Resource Issues	to develop CRMP (per year for 2-3 years)	annual administration costs
6	East Fork Whiterocks River	Low	Low	Low	\$29,500	\$29,500
6	Middle Whiterocks River	Low	Low	Low	\$29,500	\$29,500

Table 3.10.36. Potential impacts.

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
East Fork Whiterocks River	Dam/outlet structure at upper end of segment	Yes -Roadless Area -Drinking Water Source Protection Zone	No	Low	6
Middle Whiterocks River	No	Yes -Roadless Area -Drinking Water Source Protection Zone -Efforts to restore native Colorado Cutthroat trout	No	Low	6

Utah County

Alternative 3

The hot springs area within this segment is a major recreation attraction, with an estimated 15,000 to 20,000 visitors annually. One developed trail (#015) is available; other activities include dispersed camping, hiking, biking, fishing, hunting, and motorcycle riding. Area access includes paved roads, hiking, biking, ATV, and motorcycle trails. Several guides and outfitters hold permits overlapping the corridor.

The Department of Interior (DOI), Central Utah Project (CUP) has withdrawn or proposed to withdraw lands surrounding Fifth Water Creek. The area is considered high potential for oil and gas, with no salable or locatable developments in the vicinity. One grazing allotment exists.

Alternatives 4 and 6 (*Impacts to Alternatives 4 and 6 are identical*)

Substantial visitor use occurs in the North Fork Provo River area, including approximately 13,000 visitors annually that access Mt. Timpanogos through the river corridor. Wilderness-based activities, such as scenic hiking experiences, are the primary draw, although Sundance Ski Area and BYU's Aspen Grove facility also attract users (approximately 30% of the use in this area is linked to these two sources). In addition, the Alpine Loop Scenic Byway (SR 92) is heavily used.

No mineral/energy resource or grazing activities would be affected by designation. Although 1997 comments from the State of Utah Division of Water Resources expressed no concerns with designation, the North Fork Special Service District, who use water diverted from the corridor, are concerned that designation would result in changes in use. BYU plans exist for building improvements to their Aspen Grove Facility; designation as proposed may result in impacts to their planned activities.

Alternative 5

Visitor use in the corridor is estimated at 9,000/year, primarily as access to the Mt. Timpanogos Wilderness. The Timpooneke National Scenic Trail is partly within the corridor; most recreation use is focused on hiking and horseback riding, with some dispersed camping. In addition, two developed campgrounds with facilities adjoin and/or lie within the corridor.

No grazing, timber harvest, or farming occurs within the corridor; water rights maintained by the USFS are for recreation, wildlife, and stock do not substantially affect streamflows within the segment. No existing or potential water developments have been identified.

Table 3.10.37. Estimated Costs

Alternative	Segment	Complexity			Estimated cost to develop CRMP (per year for 2-3 years)	Estimated annual administration costs
		Recreation Use	Ownership	Resource Issues		
3	Fifth Water Creek	Moderate to High	Low	Moderate to High	\$58,800	\$58,800
4, 6	North Fork Provo River	Moderate to High	Low	Low	\$58,800	\$58,800
5	South Fork American Fork	Moderate	Low	Low to Moderate	\$29,500	\$29,500

Table 3.10.38. Potential Impacts

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
Fifth Water Creek	No	Yes -Mostly Roadless Area	-Withdrawal of surrounding lands by DOI for CUP -Surrounding area under oil & gas lease; considered high potential for oil & gas resources -Fuel management planned within corridor	Low	3
North Fork Provo River	No	Yes, recognizing that wild designation may conflict with future modification/maintenance of current water uses -Portion of segment within Mt. Timpanogos Wilderness, also designation as wildlife viewing area	-Water developments in corridor	Low to moderate	4, 6
South Fork American Fork	No	Yes -Wild segment within Mt.	No	Low	5

		Timpanogos Wilderness -Corridor within Critical Environmental Zone Planning Area of Utah County General Plan			
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Wasatch County

Alternatives 3 and 6 *(The impact to Alternatives 3 and 6 are identical).*

The Little Provo Deer Creek area hosts a variety of dispersed recreation activities, including hunting and camping, with some fishing opportunities. Heavy use of trails occurs in all seasons, for ATV, motorcycle, and snowmobile use. The Cascade Springs Scenic Drive is also heavily used. Sections of three roads, as well as the South Cascade Dispersed Camping site and the Cascade Springs Recreation Site are located within the corridor.

Mineral and energy resource activity potential is low. One vacant grazing allotment exists; no farming or timber use is expected.

Table 3.10.39. Estimated costs.

Alternative	Segment	Complexity			Estimated cost to develop CRMP (per year for 2-3 years)	Estimated annual administration costs
		Recreation Use	Ownership	Resource Issues		
3, 6	Little Provo Deer Creek	Moderate to High	Low*	Moderate	\$58,800	\$58,800

*Corridor truncated at private property boundary

Table 3.10.40. Potential impacts.

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
Little Provo Deer Creek	No	Yes* -Cascade Springs is a designated wildlife viewing areas and interpretive site	No	Low	3, 6

*Some compatibility issues with water development in corridor below end of segment

Washington County

Alternatives 3, 5 and 6 *(The impact to Alternatives 3, 5 and 6 are identical).*

Access to the area includes Forest Service Roads and a non-system, non-motorized trail. Recreation use is low, and includes some ATV/OHV use.

There are no existing or planned water development projects. Overall, mineral and energy resource activity development is low. Two grazing allotments exist. Other uses, such as farming and timber harvest, are unlikely due to limited access, vegetation, and topography.

Table 3.10.41. Estimated costs.

Alternative	Segment	Complexity			Estimated cost to develop CRMP (per year for 2-3 years)	Estimated annual administration costs
		Recreation Use	Ownership	Resource Issues		
3, 5, 6	Moody Wash	Low	Moderate	Low	\$29,500	\$29,500

Table 3.10.42. Potential impacts.

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
Moody Wash	No	Yes -Roadless Area -FS participation in Conservation Agreement for Virgin River Spindace	-Potential private land development	Low	3, 5, 6

Weber County

Alternative 5

Limited access to the segment under consideration keeps recreation use very low. The area is only accessible by boat; no public trails access this property, although private roads and trails exist. Use includes fishing, some hunting and horseback riding.

No grazing or commercial recreation exists; nor are mineral/energy resource activities expected. The Causey Dam, part of the Weber Basin Project, is present below the stream segment. A large parcel of land adjacent to the watershed is privately owned and managed as a ranch, including grazing and guided big game hunting.

Table 3.10.43. Estimated costs.

Alternative	Segment	Complexity			Estimated cost to develop CRMP (per year for 2-3 years)	Estimated annual administration costs
		Recreation Use	Ownership	Resource Issues		
5	Left Fork South Fork Ogden River: Frost Canyon/Bear Canyon Confluence to Causey	Low	Moderate	Low	\$29,500	\$29,500

Table 3.10.44. Potential impacts.

Segment	Competing Uses	Compatibility with current uses	Foreseeable alternative uses	Overall Projected Impact	Alternative
Left Fork South Fork Ogden River: Frost Canyon/Bear	No	Yes -Category 1 Fish-Bearing Stream	-Potential private land development	Low	5

Canyon Confluence to Causey		RHCA -Roadless Area -Surface Water Drinking Water Source Protection Zone			
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Table 3.10.45 presents counties' support for or opposition to designation in relation to economic and/or social impacts. This information was drawn from applicable suitability factors from the Forest Suitability Evaluation Reports (Appendix A, SERs) and comments received by counties as part of the suitability assessment process. Many, but not all, counties indicated support of or concern with social and economic aspects of designation.

Level of county support or opposition is identified as follows:

Support = County supports designation; designation is consistent with county plans.

Neutral = County neither supports nor opposes designation, or no inconsistencies with county plans have been identified at this time. Designation may be consistent with some aspects of county plans but inconsistent with others (e.g., consistent with protection of land/open space and wildlife habitat but inconsistent with stated purpose of agriculture and mining).

Oppose = County does not support designation; county has expressed concern with economic and/or social impacts as inconsistent with aspects of county plans (e.g., for future water development, zoning for area development, agricultural use, mining, oil & gas, forestry, or other uses), or county plans explicitly do not support special designations such as WSR.

Table 3.10.45. County support for WSR designation.

County	River	Consistency or inconsistency with social/economic aspects of county plans and/or goals
Box Elder	Willard Creek: Source to Forest Boundary	-Neutral -No inconsistencies with county plans identified at this time
Cache	Beaver Creek: South Boundary of State Land to Mouth	-Oppose -Designation may conflict with density of subdivision development on SITLA and private land
	Bunchgrass Creek: Source to Mouth	-Oppose -No inconsistencies with county plans identified at this time; county opposes designation
	Little Bear Creek: Little Bear Spring to Mouth	-See above
	Logan River: Confluence with Beaver Creek to Bridge at Guinavah-Malibu Campground	-Oppose -Designation may conflict with density of subdivision development on SITLA and private land -County comment letter (6/29/2007) expresses concern about effects on future water development or storage projects
	Logan River: Idaho State line to confluence with Beaver Creek	-Oppose -Designation may conflict with density of subdivision development on SITLA and private land
	Spawn Creek: Source to Mouth	-Oppose -No inconsistencies with county plans identified at this time; county opposes designation

	Temple Fork: Source to Mouth	-Oppose -Designation may conflict with density of subdivision development on SITLA and private land
	White Pine Creek Source to Mouth	-See above
Carbon, Sanpete, & Utah	Fish Creek and Gooseberry Creek	-Oppose (Carbon County); comment letter (4/8/2007) expresses concern about county stability and growth in relation to water management in the Fish Creek watershed -Oppose (Sanpete County); comment letters (5/10/2007; 6/29/2007) express concern about development of Narrows Water Project -Designation inconsistent with Carbon and Sanpete County Plans -No inconsistencies with Utah County plans identified at this time; Utah County does not support WSR designation
Daggett	Carter Creek	-Oppose -Concerns regarding potential effects to water rights, future development, water management; but county plan does not specifically address WSR designation -Daggett County requested analysis and disclosure of economic impacts (6/29/2007)
	Cart Creek Proper	-See above
	Middle Main Sheep Creek	-See above
	Lower Main Sheep Creek	-See above
	Green River	-Support -Daggett County requested analysis and disclosure of economic impacts (6/29/2007)
	Pipe Creek	-Oppose -Concerns regarding potential effects to water rights, future development, water management; but county plan does not specifically address WSR designation -Daggett County requested analysis and disclosure of economic impacts (6/29/2007)
Duchesne	Garfield Creek	-Oppose all segments outside wilderness areas to maintain flexibility for future water development (this segment is entirely within wilderness area) -County plan policy requires evaluation of effects on local and state economies and related issues; plan generally opposes special designations such as WSR -Oppose for potential downstream effects to water rights and future developments, etc -County comments that support will be withheld until evaluation of social and economic effects (6/27/2007)
	Reader Creek	-Oppose all segments outside wilderness areas to maintain flexibility for future water development -County plan policy requires evaluation of effects on local and state economies and related issues; plan generally opposes special designations such as WSR
	Shale Creek and Tributaries	-Oppose all segments outside wilderness areas to maintain flexibility for future water development (this segment is entirely within wilderness area) -County plan policy requires evaluation of effects on local and state economies and related issues; plan generally opposes special designations such as WSR -Oppose for potential downstream effects to water rights and future developments

	Upper Lake Fork River, including Ottoson and East Basin Creeks (35 miles) and Oweep Creek (20 miles)	-See above
	Upper Rock Creek (21 miles) and Fall Creek (6 miles)	-See above
	Upper Uinta River, including Gilbert Creek, Center Fork, and Painter Draw	-See above
	Upper Yellowstone Creek, including Milk Creek	-See above
	West Fork Rock Creek, including Fish Creek	-See above
Emery	Huntington Creek	-Oppose -Conflict with Emery County's General County Plan (based on water development and associated economic issues)
	Lower Left Fork of Huntington Creek	-See above
Garfield	Death Hollow Creek	-No inconsistencies with county plans identified at this time -County opposes designation
	East Fork Boulder Creek	-See above
	Mamie Creek	-See above
	Pine Creek	-See above
	Slickrock – (Located on Dixie NF, but administered by Fishlake NF)	-See above
	Steep Creek – (Located on Dixie NF, but administered by Fishlake NF)	-See above
	The Gulch – (Located on Dixie NF, but administered by Fishlake NF)	-See above
Kane	North Fork Virgin River	-Oppose -County plan is not specifically referenced, local social and economic impacts are of concern to the county; comment letter (6/29/2007) expresses concern about local property impacts and water development impacts
Piute	Manning Creek	-Neutral -Piute County plan is silent on WSR and Manning Creek -No inconsistencies with county plan identified at this time
	Pine Creek / Bullion Falls	-See above -Sevier County commission has expressed opposition to designation.
Salt Lake County	Little Cottonwood Creek: Source to Murray City Diversion	-Neutral
San Juan	Hammond Canyon	-Oppose -Designation would conflict with San Juan County Master Plan
	Lower Dark Canyon, including Poison Canyon, Deadman Canyon, and Woodenshoe and Cherry Canyons	-See above
	Mill Creek Gorge	-See above
	Upper Dark Canyon, including	-See above

	Horse Pasture, Peavine & Kigalia Canyons	
San Juan & Montrose, CO	Roc Creek	-Neutral -No inconsistencies with Montrose county plan identified at this time
Sevier	Salina Creek	-Oppose -County plan is silent on Wild and Scenic Rivers in general and Salina Creek in particular -Sevier County comment letter (6/26/2007) opposed designation for economic concerns including minerals, oil and gas, agriculture, private lands, etc.
Sevier & Piute	Fish Creek	-Oppose -Both county plans are silent on Wild and Scenic Rivers in general and Fish Creek in particular -Sevier County comment letter (6/26/2007) opposed designation for economic concerns including minerals, oil and gas, agriculture, private lands, etc.
Summit	Beaver Creek: Source to Forest Boundary	-Support -Summit County comment letter 5/30/2007 supports inclusion of all listed segments in the Wild and Scenic Rivers Act designation
	Boundary Creek: Source to Confluence with East Fork Bear River	-Support (see above)
	East Fork Blacks Fork: Headwaters to Confluence with Little East Fork	-Support (see above)
	East Fork Smiths Fork: Red Castle Lake to Trailhead	-Support (see above)
	Hayden Fork: Source to Mouth	-Support (see above)
	Henry's Fork: Henry's Fork Lake to Trailhead	-Support (see above)
	Left, Right, and East Fork Bear River: Alsop Lake and Norice Lake to near Trailhead	-Support (see above)
	Little East Fork: Source to Mouth	-Support (see above)
	Middle Fork Beaver Creek: Beaver Lake to Confluence with East Fork Beaver Creek	-Support (see above)
	Middle Fork Weber River: Source to Forest Boundary	-Support (see above)
	Ostler Fork: Source to Mouth	-Support (see above)
	Provo River: Trial Lake to U35 Bridge	-Support (see above)
	Stillwater Fork: Source to Mouth	-Support (see above)
	Thompson Creek: Source to Hoop Lake Diversion	-Support (see above)
	West Fork Beaver Creek: Source to Forest Boundary	-Support (see above)
West Fork Blacks Fork: Source to Trailhead	-Support (see above)	
Summit County and Uinta County, WY	West Fork Smiths Fork: Source to Forest Boundary	-Support (Summit County) -Oppose (Uinta County, WY); no explicit reference to county plan; comment letter refers to potential negative social-economic impacts.
Uintah	Ashley Gorge Creek	-Oppose

		-County General Plan Draft (2005) for water quality maintenance would be in accordance with WSR; County Public Lands Policy reluctant to accept special designations as potentially detrimental to area economy -Comment letter (7/2/2007) requests analysis and disclosure of potential economic impact resulting from designation
	Black Canyon	-See above
	Lower Dry Fork Creek	-See above
	Middle Whiterocks River	-See above
Uintah & Duchesne	Upper Whiterocks River (4 miles) and East Fork Whiterocks River (4 miles)	-Oppose (Uintah and Duchesne Counties) -Duchesne opposes all segments outside wilderness areas -Duchesne County Plan Policy requires evaluation of effects on local and state economies and related issues -Oppose for potential downstream effects to water rights and future developments, etc
	West Fork Whiterocks River	-Oppose (Uintah and Duchesne Counties) -Concern for limitations on development
Utah	Fifth Water Creek	-Designation appears to be consistent with the zoning allocation of the 1997 Utah County Plan -County comment letter 6/29/2007 opposes designation of all 3, but not for socio-economic reasons
	North Fork Provo River	-See above
	South Fork American Fork	-See above
Wasatch	Little Provo Deer Creek	-Oppose -Wasatch County Public Lands Ordinance of the General Plan concern that special designations can be detrimental to the County's economy, life style, culture, and heritage
Washington	Moody Wash	-No specific reference to county plan -Comment letters 6/29/2007, 9/24/2007 oppose designation but not for socio-economic reasons
Weber	Left Fork South Fork Ogden River: Frost Canyon/Bear Canyon Confluence to Causey	-Neutral -No inconsistencies with county plans identified at this time

3.11 Timber Harvest

Introduction

During the eligibility determination, the National Forests in Utah used Classification Criteria to determine classification as Wild, Scenic, or Recreational rivers. One attribute, among many, was to look at shoreline development and past or ongoing timber harvest. In general, for a Wild classification there was little or no evidence of past timber harvest and no ongoing timber harvest. For a Scenic classification, evidence of past or ongoing timber harvest is acceptable, provided the forest appears natural from the riverbank. For a Recreational classification, the river corridor may show evidence of past and ongoing timber harvest. (FSH 1909.12, Sec. 82.3 – Exhibit 01). There are 45 Wild, 30 Scenic, and 22 Recreational total classifications for the 86 river segments totaling 840 miles.

Detailed information for Section 3.11 came from Appendix A, Suitability Evaluation Reports, “Other

Resource Activities.”

Affected Environment

Twenty-eight segments (281 miles) of the 86 eligible river segments have past, present, and/or reasonably foreseeable timber harvest. All segments were reviewed; however, Table 3.11.1 only shows segments with past, present, or reasonably foreseeable timber harvest. The information was obtained from and is described in more detail in Appendix A, Suitability Evaluation Reports.

Table 3.11.1. River segments with past, present, and reasonably foreseeable timber harvest.

River Segment	Miles	Classification	Past, Present, and/or Reasonably Foreseeable Timber Harvest Activities	Segment Suitable in Alternatives
Ashley NF				
Black Canyon	10	Wild	Past timber harvest in the upper headwaters. Possible future harvest in the upper watershed, with no direct harvest expected along the river corridor.	3, 5,
Cart Creek Proper	10	Scenic	No timber harvest has occurred along the river corridor, but past harvest has occurred in the upper watershed and could potentially occur in the future. Recent salvage logging activities are evident on the lower slopes of the surrounding mountains.	5
Carter Creek	16	Scenic	Past timber harvest has occurred in the upper portions of this watershed. There is a potential for future timber harvest, but it would not be expected along the river corridor.	5
Lower Dry Fork	7	Recreational	Past harvest. Future harvest possible, not expected in river corridor.	4
Middle Whiterocks River	9	Wild	Timber harvest has only occurred in the upstream headwaters of this watershed. The rugged nature and limited access of the river corridor has precluded any harvest, and no harvest activities are expected in the future.	
Pipe Creek	6	Scenic	Past harvest. Future harvest possible, not expected in river corridor.	5
Reader Creek	6	Scenic	Past harvest. Future harvest possible, not expected in river corridor.	3, 5, 6
South Fork Ashley Creek	15	Scenic	Past and recent harvest. Future harvest possible, not expected in river corridor.	*
Upper and East Fork Whiterocks	8	Scenic	Past harvest. Future harvest possible, not expected in river corridor.	5, 6
West Fork Whiterocks	11	Scenic	Past harvest. Future harvest possible, not expected in river corridor.	5, 6
Dixie NF				
Cottonwood Canyon – (Located on Dixie NF, but administered by Fishlake NF)	6	Wild	Possible future aspen regeneration work in the upper one mile of the corridor.	*
North Fork Virgin River	1	Scenic	No past harvest. Below the Virgin River Rim, there is a notable die off of Douglas-fir trees. Timber projects may be pursued in the future (e.g., helicopter logging).	3, 5, 6
Steep Creek – (Located on Dixie NF, but administered by Fishlake NF)	7	Wild	Possible future aspen regeneration work in the upper one half mile of the Steep Creek corridor.	3, 5
Fishlake NF				
N/A.				
Manti-La Sal NF				
Chippean and Allen Canyons	21	Scenic (2.6 mi.); Recreational (19 mi.)	Future harvest possible at upper end of Chippean Canyon.	*
Huntington Creek	19	Recreational	Spruce throughout the corridor are dead or dying and create a potential hazard for campers and those traveling the Scenic Byway. These trees will eventually be removed.	4, 6
Lower Left Fork Huntington	5	Scenic	Past timber harvest.	4, 6

River Segment	Miles	Classification	Past, Present, and/or Reasonably Foreseeable Timber Harvest Activities	Segment Suitable in Alternatives
Creek				
Roc Creek	9	Wild	Some timber harvesting has occurred on the adjacent mesa tops some of it within a ¼ mile of the eligible segment. This use could potentially occur again in the area.	3, 5
Upper Dark Canyon Including Horse Pasture Canyon, Peavine & Kigalia Canyon	26	Recreational	Timber harvest potential exists in the heads of the canyons outside the Wilderness and Roadless Areas.	5, 6
Uinta NF				
Fifth Water Creek	8	Scenic	Fuels management activities are planned within the corridor above Sheep Creek-Rays Valley Road.	3
Wasatch-Cache NF				
Beaver Creek: Source to Forest Boundary	6	Recreational	Two current timber projects: the Ponderosa Pine Restoration project is within the upper portion of this stream corridor and the Roadside Salvage project is within the stream corridor.	6
Boundary Creek: Source to Confluence with East Fork Bear River	4	Wild	East Fork Salvage Sale near future.	6
Left, Right, and East Forks Bear River: Alsop Lake and Norice Lake to near Trailhead	13	Wild	Past (approx. 100 years) evidence of tie-hacking.	4, 6
Little Bear Creek	1	Scenic	Historical timber harvests visible from stream segment. No current or planned projects within this stream corridor.	4, 6
Main Fork Weber	6	Scenic	Past fuels treatment work conducted along the Forest boundary with the private land to provide defensible space to the Alpine Acres subdivision. No other current or planned projects within stream corridor.	*
Middle Fork Beaver Creek	11	Wild (6.9 mi.); Scenic (4.2 mi.)	Past evidence of harvest. No future harvest.	3, 5, 6
Middle Fork Weber	6	Wild	Past fuels treatment work conducted along the Forest boundary with the private land to provide defensible space to the Alpine Acres subdivision. No other current or planned projects within stream corridor.	5
Provo River	20	Recreational	The area around the Upper Setting Road on the north side of the segment has had many past timber harvests. There are three vegetation/fuels treatments planned for this area: the Ponderosa Restoration Prescribed Burn, Roadside Salvage, and the Murdock Basin Fuels Treatment.	4, 6
West Fork Smiths Fork	14	Wild (4 mi.); Scenic (10 mi.)	Portions of this reach have been logged in the past. There are active timber harvest activities on the private lands within this stream segment.	4
28 river segments	281 Total Miles			

*Only found in Alternatives 1 and 2.

Table 3.11.2. Miles of segments found suitable with past present, and reasonably foreseeable timber harvest or fuels activities, by classification and alternative.

Segments with Timber Harvest / Fuels Activities		Alternatives					
		1	2	3	4	5	6
Total # of Segments	28	0	0	8	8	14	14
Total Miles	281	0	0	52	79	127	131
Recreation Miles	97	0	0	0	46	26	71
Scenic Miles	110	0	0	19	16	62	36
Wild Miles	75	0	0	33	17	39	24

The Timber Harvest section will describe the effects of WSR designation on harvesting practices on Federal lands located within WSR Corridors, harvesting practices outside the WSR corridors, and private timber harvesting if future projects were proposed.

Currently, most river corridors (riparian zones) are already protected by other laws and regulations and Forest Plans, and best management practices. If timber harvesting activities are proposed on or adjacent to the eligible river segment, it would be analyzed in a separate NEPA document, outside of this process.

Environmental Consequences

See Table 3.1.1 for restriction to activities within stream corridors based on classification. Refer to Table 3.1.2 for a list of basic assumptions.

Section 3.11 addresses one issue:

Issue 2 – Uses and activities may be precluded, limited or enhanced if the river segment and its corridor were included in the National System. The measurement indicator for is miles of river affected by timber harvesting.

This resource will be analyzed by alternative, and the effects will be generally displayed. Currently, most river corridors (riparian areas) are already protected by other laws and regulations and Forest Plans, and best management practices. If timber harvesting activities are proposed on or adjacent to the eligible river segment, it would be analyzed in a separate NEPA document, outside of this process.

General Environmental Impacts

Harvesting on Federal Lands located within Wild and Scenic River Corridors

Harvesting practices on federal lands located within WSR corridors must be designed to help achieve land-management objectives consistent with the protection and enhancement of the values which caused the river to be added to the National System. WSR designation is not likely to significantly affect timber harvesting or logging practices beyond existing limitations to protect riparian zones and wetlands which are guided by other legal mandates and planning direction. (Marsh 2006)

Once designated as Wild, Scenic, or Recreational, the river must be managed to maintain that classification within the established corridor. Wild river segments have no roads or railroads along them nor ongoing timber harvest. The degree of protection and enhancement is a management prerogative based on an appropriate level of analysis typically done through the river planning process. For example, if scenery is identified as an ORV, then visual resources must be protected by developing appropriate objectives to guide management activities both within and outside the river corridor. (Marsh 2006)

Federal and state regulations which protect wildlife, visual values, water quality, etc., may prohibit timber harvesting from streamside areas regardless of whether or not a river is designated (Marsh 2006).

Timber Harvest Practices Outside the Wild and Scenic River Corridor

Federal timber management activities outside the WSR corridor will be designed to not adversely affect the values which caused the river to be designated. Values such as water quality, scenery, and riparian-dependent resources would be considered. These types of resources are addressed in the river planning process to guide action both inside and outside the designated river corridor. (Marsh 2006)

In addition, timber harvesting would be further analyzed under a site-specific NEPA process outside of the current process.

Private Timber Management Practices

Private timber management practices are guided by state and local authorities, along with management agencies who may provide technical assistance to mitigate incompatible or inappropriate activities. Under the Act, the only way the federal government can restrict private timber harvesting is through purchase of timber rights (in easement or fee title) or under cooperative agreement. (Marsh 2006)

Alternative 1 – No action, maintain eligibility of all river segments.

All 86 river segments (840 miles) would continue to be managed for their potential inclusion into the National System, and the Forest Service would continue to use its existing authorities to protect free flow, water quality, recommended classification, and ORVs.

If timber harvesting activities are proposed on Federal land adjacent to the eligible river segment or on any of the 19 segments with reasonably foreseeable timber harvesting (see Table 3.11.1), it would be analyzed in a separate NEPA document, outside of this process. Harvesting practices on federal lands located within WSR corridors would be designed to help achieve land-management objectives consistent with the protection and enhancement of the values which caused the river to be added to the National System. River corridors would be protected by existing laws, regulations, and standards within Forest Plans, and best management practices.

Alternative 2 – No rivers recommended.

Under Alternative 2, a determination would be made that all 86 river segments (840 miles) are not suitable and released from Wild and Scenic River interim protection. There would be no impact to reasonably foreseeable timber harvesting activities on 19 river segments (see Table 3.11.1). If timber harvesting activities are proposed on federal lands adjacent to the eligible river segment or on any of the 19 segments, it would be analyzed in a separate NEPA document, outside of this process. River corridors would continue to be protected by other laws and regulations and standards within Forest Plans, and best management practices.

Impacts Common to Alternatives 3, 4, 5, or 6

There are eight river segments (52 miles) with past, present, or reasonably foreseeable timber harvesting activities under Alternative 3; eight segments (79 miles) under Alternative 4; fourteen segments (127 miles) under Alternative 5; and fourteen segments (131 miles) under Alternative 6 (see Table 3.11.2). Following selection of any of the action alternatives, and designation of a river segment, timber management practices would be evaluated during comprehensive river management plan by the river administering agency. Harvesting practices on federal lands located within WSR corridors must be designed to help achieve land-management objectives consistent with the protection and enhancement of the values which caused the river to be added to the National System. Federal timber management activities outside the WSR corridor will be designed to not adversely affect the values which caused the river to be designated. Values such as water quality, scenery, and riparian-dependent resources would be considered. WSR designation is not likely to significantly affect timber harvesting or logging practices beyond existing limitations to protect riparian zones and wetlands which are guided by other legal mandates and planning direction.