

# Uinta-Wasatch-Cache National Forest



## State of the Forest Report For Uinta Planning Area Fiscal Year 2011

September 2012

## Introduction and Purpose

On April 7, 2003, Intermountain Regional Forester Jack Troyer signed the *Record of Decision* approving the *Uinta National Forest's 2003 Land and Resource Management Plan* (2003 Forest Plan). The 2003 Forest Plan has been amended 4 times and corrected 8 times:

Uinta Forest Plan Amendments		
#	Title	Date
1	Winter Motor Vehicle Use Opportunities	August 10, 2007
2	Wild and Scenic River Suitability Study for National Forest System	November 2008
3	West-Wide Energy Corridor	February 14, 2009
4	Uinta Oil and Gas Leasing	February 2011
Uinta Forest Plan Corrections / Errata		
#	Title	Date
1	ROS – 2 Standard	November 12, 2004
2	FEIS Appendix B, page B-50: Rangeland capability water criterion	November 27, 2006
3	Standard M&E1 (recommend develop recreation areas and administrative sites to the BLM for withdrawal from locatable mineral entry)	November 27, 2006
4	Guidelines WL&F-6 (sage grouse dates for Strawberry and Vernon)	November 27, 2006
5	Objective 3-2 (timber ASQ)	November 27, 2006
6	Additional Timber Harvest Standard (opening > 40 acres)	June 28, 2010
7	Table D-1 RHCA criteria	September 20, 2010
8	Uinta Oil and Gas Leasing	February 21, 2012
9	Table D-1 RHCA criteria corrected and Guideline Timber -14	October 19, 2012

The *State of the Forest Report* is intended to help National Forest managers, other agency managers, and the public evaluate environmental conditions and trends, and the effects of Uinta National Forest land management activities and supporting programs.

*Note: In March 2008 the Uinta National Forest and the Wasatch-Cache National Forest were combined into one administrative unit. Each of these Forests is still operating under individual Forest Plans approved in 2003. When the term 2003 UNF LRMP is used it refers to the Uinta Planning Area of the Uinta-Wasatch-Cache National Forest.*

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1. Are Forest management activities affecting **Management Indicator Species**, and what are the population trends and habitat relationships?

**DFC:** As required by the planning regulations, each National Forest, through its Land and Resource Management Plan (Forest Plan), must identify species to be used to evaluate and monitor management practices. These species serve as ecological indicators of the effects of management actions on communities. A description of each of these species and the communities they represent is included with the monitoring data.

Indicator	Monitoring
<p><b>Northern Goshawk:</b></p> <ul style="list-style-type: none"> <li>a. Goshawk territory activity (every 5 years)</li> <li>b. Habitat conditions (every 5 years)</li> </ul>	<p>In addition to being a MIS, northern goshawk is also classified as sensitive by the Forest Service’s Intermountain Region. This species is widely distributed throughout North America and Eurasia. Goshawks are typically permanent residents or short-distance migrants, and are widely distributed throughout the mountainous areas of Utah. Goshawks are broadly associated with forested vegetation types on the Forest; occurring in aspen, spruce/fir, Douglas-fir/white fir, and forested riparian types. Goshawks nest in relatively dense, mature stands, and forage in a variety of habitat types, including open habitats and early-seral vegetation types. They prey on a wide variety of birds and small mammals. Most common prey species include woodpeckers, jays, grouse, snowshoe hares, and red squirrels. Goshawk populations on the Forest are most likely to be potentially impacted by timber, fire, and vegetation management activities.</p> <p>In March of 2000 a Decision Notice (DN) for the “<i>Utah Northern Goshawk Project Environmental Assessment</i>” (EA) was approved. This EA was developed to respond to “<i>Conservation Strategy and Agreement for the Management of Northern Goshawk Habitat in Utah</i>” (USDAFS1998a). This DN amended the 1984 Uinta Forest Plan, and included monitoring territory occupancy as an indicator of goshawk population trends. The direction relative to goshawk management and monitoring was carried forward and incorporated into the 2003 Forest Plan. Data collected after approval of the DN is used as a baseline.</p> <p>In 2010 it became clear that the terms “<i>occupied</i>” and “<i>active</i>” were being applied to both territories and nests. To eliminate the confusion between occupied territories and active nests, all datasheets for all monitoring years were reviewed and the analyses corrected to reflect the differences between the two.</p> <p>a. <u>Goshawk Territory Occupancy</u>: <i>Subgoal-2-33 in the 2003 Forest Plan describes the desired intention for goshawk territory occupancy: “Maintain occupation and/or use of known active northern goshawk” ... “nest sites during vegetation treatment project activities” (pg. 2-10). The Forest Plan also contains standards and guidelines (i.e., WL&amp;F-8, WL&amp;F-9, WL&amp;F-10) designed to achieve this by protecting goshawks in critical areas/seasons (pg. 3-11 thru 3-12).</i></p> <p><i>For this monitoring item, the Forest Plan notes that projects in potential habitat are surveyed, and that known territories have been monitored for activity. The Forest Plan states that the monitoring frequency for this item is that at least 33% of known territories be monitored annually.(pg., 6-5)</i></p>

Indicator	Monitoring
	<p style="text-align: center;"><b><u>FY 2011:</u></b></p> <p>The number of known territories has changed over time. New territories were identified and added in 2004 (D02T07), 2005 (D02T08), and 2008 (D53T11). Territories were removed from the list in 2008 (D08T04) and 2010 (D02T06) after monitoring indicated they had remained unoccupied for 7 consecutive years. As of 2010, there are 14 known territories on the Forest. Results of territory occupancy monitoring are summarized in the following table:</p> <p>The number of know territories and monitored territories have changed over the years as territories were deleted after seven years of non-use and new territories have been found. The number of know territories have ranged from 12 to 14 with the number of monitored territories ranged from 11 to 14. The percent of occupied territories has ranged from 29% in 2006 to 67% in 2002. In 2011 ten (10) of the 12 known territories were monitored. Four (4) of the 10 monitored (40%) were found occupied. The spring of 2011 was one of the wettest on records and it is believed that this may have caused a number of territories and nests to be abandoned.</p> <p>As noted in the preceding paragraph, goshawk territory occupancy has fluctuated over time. As noted by Woodbridge et. al.<sup>1/</sup>: <i>“The ability of any particular survey method to determine territory occupancy or reproductive status is affected by the probability that a territory is occupied or by the probability of a territory having an active or successful nest. Work conducted to date indicates that northern goshawks exhibit high degrees of annual variation in reproduction” ... “The proportion of territorial pairs with active nests varied from 22 to 86 percent on the Kaibab Plateau in Arizona during the 1990s.” ... “Annual variation in reproduction is associated with variation in prey and weather” ... “Annual variation in reproduction can have a large impact on the outcome of surveys”.</i> Whether the population trend is a reflection of survey intensity, or if it truly reflects population trends changing in response to habitat conditions or other is unknown. After reviewing the territories and surrounding management actions, the exact cause could not be determined.</p> <p>b. <u>Habitat Conditions</u>: <i>The Forest Plan contains a Forest-wide goal (FW-Goal-2) to maintain or enhance biologically diverse, sustainable ecosystems for native flora and fauna... (pg. 2-1) In addition, the Forest Plan contains two subgoals (G-2-31 and G-2-32) to provide and maintain specific key goshawk habitats. (Forest Plan, pg. 2-10) The Forest Plan also contains several standards and guidelines (e.g., WL&amp;F-8, WL&amp;F-9, WL&amp;F-10, Veg-8) for protection of these habitats. (pg., 3-13 and 3-19)</i></p> <p><i>The monitoring frequency for this item is every 5 years. (Forest Plan, pg., 6-5) Therefore, the information presented below was not updated for this annual monitoring and evaluation report.</i></p> <p>Changes in the amount of potential suitable habitat occurred over annually due to the effects of vegetation management activities, wildfire, and insect activity on the Forest. <i>“Goshawk populations are most likely to be potentially impacted by three of the primary management activities on the Forest: timber management, fire, and vegetation management.” (2003 Forest Plan FEIS. Pg. E-74) These activities should lead to increased prey for</i></p>

Indicator	Monitoring
	<p>goshawk. Reproductive success and population levels of goshawks are typically correlated with levels of prey abundance.</p> <p>When the Forest Plan was prepared, GIS analysis indicated approximately 342,200 acres of the Uinta National Forest was occupied by vegetation cover types dominated by large trees potentially suitable for goshawk nesting habitat. Another 286,600 acres of pinyon-juniper, oak-maple and mountain brush potentially suitable for foraging areas occur on the UNF (Forest Plan, pg. 3-128 to 3-163).</p> <hr/> <p><sup>1/</sup> Woodbridge, B. and Hargis., C.D. 2006. Northern goshawk inventory and monitoring technical guide. Washington, DC : USDA Forest Service.</p> <p><sup>2/</sup> Forest Service, U.S. Department of Agriculture. Goshawk monitoring report, 2011, Uinta Planning Area, Uinta-Wasatch-Cache National Forest. Provo, UT.</p>
<p><b>American beaver:</b> Number of active beaver dams (every 5 years)</p>	<p>Subgoal-2-40 in the 2003 Forest Plan describes the desired intention for beaver populations: “<i>Maintain active beaver colonies in at least 80 percent in the 6<sup>th</sup> level Hydrologic Unit Code (HUC) watersheds within each management area, except in the Vernon and West Sheeprock Management Areas on the Vernon Unit</i>” (pg. 2-11). The Forest Plan also contains numerous standards and guidelines to protect habitat utilized by beavers, but none are specific to beaver.</p> <p>Beaver were widely distributed across Alaska, Canada, and the continental U.S. prior to 1800. By the mid-1800s many beaver populations had been eliminated or dramatically reduced by trapping. Populations have reestablished throughout much of the U.S. and Canada and generally are increasing range-wide. Beaver are widely distributed across the Forest. They inhabit a broad variety of riparian habitats in drainages that are not too steep and have permanent stream flow and sufficient woody food resources. On the Forest, primary woody food resources are willow, aspen, and in lower-elevation riparian forests, cottonwood and alder. Beaver are trapped in Utah, but trapping pressure is not considered to be heavy enough to significantly impact overall population levels.</p> <p>Livestock grazing, fire, water uses, and vegetation management are the management activities on the Forest most likely to impact beaver. Livestock grazing impacts important food resources for beaver. Water use projects can result in inadequate stream flows to support beavers and their habitat. Many ecologists believe that fire suppression efforts that reduced the occurrence of wildfire during the past century are resulting in conifer encroachment and loss of aspen in many areas. Loss of aspen forest negatively affects beaver because aspen is such an important source of food and construction material for beavers. Prescribed burning and mechanical treatments designed to reduce conifer encroachment and increase areas of young aspen improve beaver habitat.</p> <p>The beaver is a useful indicator species because it is a riparian obligate species and forest management activities/ uses can impact riparian vegetation communities. Population trends for beaver provide an indication of how the Uinta National Forest is managing its important riparian communities.</p>

Indicator	Monitoring														
	<p>For this monitoring item, the Forest Plan notes that selected streams and watersheds have been inventoried. The Forest Plan also states that at least 20% of sample streams/watersheds will be monitored annually, and a Forest-wide monitoring protocol will be developed (pg. 6-5).</p> <p style="text-align: center;"><b><u>FY 2011<sup>U</sup>:</u></b></p> <p>The Forest Plan states that a Forest-wide monitoring protocol for monitoring beavers will be developed (p.6-6). In 2003 a beaver monitoring protocol was developed. The protocol consisted of: (1) randomly selecting 54 sections across the Forest; (2) determining if the selected sections contained potential beaver habitat; and (3) evaluating beaver colony activity using ground surveys. Colonies were considered active if there was evidence of recent use, or if beavers were seen. Of the 54 survey sections, 26 were identified as containing no suitable habitat. Of the remaining 28 sections, 25 sections were found to contain suitable habitat to be monitored.</p> <p>These have been surveyed in various years since 2004. FY 2011 results are summarized in the following table:</p> <p style="text-align: center;"><b>Uinta National Forest Beaver Monitoring Results, FY 2011</b></p> <table><tr><th>Sections surveyed</th><th>Sections with <math>\geq 1</math> active colony (% of suitable sections)</th><th>Active Colonies Observed</th><th>Active Colonies per Section Surveyed</th><th>Active Colonies per Section</th><th>Miles of Perennial Stream Surveyed</th><th>Active Colonies/mile of Perennial Stream</th></tr><tr><td>23</td><td>2(9%)</td><td>2</td><td>0.09</td><td>0.04</td><td>28.8</td><td>0.07</td></tr></table> <p>Prior to 2009, monitoring data indicates relatively stable beaver populations. The percentage of sections surveyed containing active colonies ranged from 38 to 43%, the number of active colonies/section surveyed ranged from 0.35 to 0.42, and the number of active colonies/mile of perennial stream surveyed ranged from 0.67 to 0.89.</p> <p>From 2009 to 2011, the beaver populations appear to have declined. These declines occur for all metrics (colonies/section, colonies/mile, etc.) and exist across a wide area. A combination of factors such as high runoff in some years, an increase in trapping pressure from a higher price/pelt, and observer error together could potentially explain the trend. These factors are discussed below:</p> <p>High runoff may have affected the results in some years. For example, in 2011 precipitation was about 12 inches above the 30-year average. Higher than normal runoff may have destroyed some dams, or made beaver activity less detectible when surveys were conducted. The Uinta area had particularly high runoff in 2010 because of higher than normal snowpack combined with a rapid change from cool weather to hot weather. This resulted in several areas with flooding. We conducted most of our 2010 surveys in July, and many of the beaver colonies may not have had time to rebuild before our surveys. Thus we may not have detected some beaver activity in 2010. Failure of beaver dams has been documented due to several causes, including high runoff. In cases of failure due to runoff, beavers have been reported to</p>	Sections surveyed	Sections with $\geq 1$ active colony (% of suitable sections)	Active Colonies Observed	Active Colonies per Section Surveyed	Active Colonies per Section	Miles of Perennial Stream Surveyed	Active Colonies/mile of Perennial Stream	23	2(9%)	2	0.09	0.04	28.8	0.07
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Indicator	Monitoring
	<p>rebuild dams by the following year.</p> <p>An important assumption of the population monitoring protocol is that surveyors will consistently identify active and inactive colonies. It is quite possible that this assumption was not met in 2007 and 2009. If this is the case the estimated population may have not been accurately represented the true population of beaver in those years. For this reason additional training has been implemented.</p> <p>From 2005 and 2011, prices for beaver pelts averaged \$13.29 per pelt, which is \$0.21 above the 28 year average of \$13.08/pelt. The higher value for pelts may have affected results, especially where streams are easily accessible. There may also be sampling error in some years. This may have resulted due to revisions in data collection/reporting, and surveyor error (particularly in 2007 which appears out of line with before and after years).</p> <p>In 2007, a capability and suitability analysis for beaver habitat on the Forest was conducted<sup>2/</sup>. GIS analysis indicates approximately 31%, or 277,080 acres, of the 898,220 acre Uinta National Forest is occupied by water or by vegetation cover types (aspen, aspen-other species, herbaceous riparian, bottomland hardwood, willow/birch riparian, or wet meadow) that could provide habitat for beavers. GIS indicates there are about 810 miles of perennial and 2,030 miles of intermittent stream on the Forest that could potentially provide habitat. The capability and suitability analysis considered vegetative cover type, stream gradient, proximity to perennial water, lake/reservoir size (larger water bodies were excluded), and Forest Plan management prescription. This analysis indicated there are about 30,560 acres of land and 880 miles of stream are suitable for beaver habitat on the Forest.</p> <p>Historically, willow eradication treatments, dam breaching, and loss of aspen and willow cover due to conifer encroachment, grazing and fire exclusion were common. The loss of aspen and willow has negatively affected beaver habitat on the Forest. The 2003 Forest Plan contains several standards and guides designed to protect aquatic and riparian habitats, and willow eradication and dam breaching activities have virtually been stopped. The only exception to this is when dams have been removed to allow critical fish passage. Through increased use of fire and mechanical treatments, aspen and willow on the Forest can be maintained or enhanced. Mature conifer species are currently experiencing a high level of mortality due to insect infestations. (see the Vegetation section of this Monitoring Report) This reduction in conifers will likely improve conditions for aspen, which should increase available habitat for beaver over the next 50 years.</p> <hr/> <p><sup>1/</sup> Forest Service, U.S. Department of Agriculture. Beaver monitoring report, 2011, Uinta Planning Area, Uinta-Wasatch-Cache National Forest. Provo, UT: 1/2011.</p> <p><sup>2/</sup> Forest Service, U.S. Department of Agriculture. 2007. Capability and suitability analysis, management indicator species – American beaver -- Uinta National Forest. Provo, Utah : unpublished, July, 2007.</p>

Indicator	Monitoring
<p><b>Three-toed woodpecker:</b></p> <p>a. Index of population abundance (annually)</p>	<p>In addition to being a MIS, the American three-toed woodpecker (i.e., ‘three-toed woodpeckers’) is classified as a ‘priority species’ by the Utah Partners in Flight, and as a ‘sensitive species’ by the Forest Service’s Intermountain Region. This species is widely distributed throughout boreal and subalpine forests of North America. It occurs throughout mountainous areas of Utah, and is considered common in the Uinta Mountains but uncommon elsewhere in the state. Three-toed woodpeckers do not migrate, although periodic irruptions occur, presumably due to failure of the food supply. The three-toed woodpecker inhabits conifer forest types, and is most closely associated with the spruce/fir forest type. The woodpeckers excavate cavities in snags and dead portions of live trees. Most of their diet consists of wood-boring beetles and caterpillars that attack conifers.</p> <p>a. <u>Population Abundance:</u> <i>Subgoal-2-33 in the 2003 Forest Plan describes the desired intention for three-toed woodpecker nest protection: “Maintain occupation and/or use of known active”... “three-toed woodpecker nest sites during vegetation treatment project activities” (pg. 2-10). The Forest Plan also contains standard WL&amp;F-7 requiring seasonal protection of three-toed woodpecker nest sites during vegetation management activities (pg. 3-11). For this monitoring item, the Forest Plan notes that projects in potential habitat are surveyed, three Breeding Bird Surveys (BBS) are conducted annually, and an additional Forest-wide monitoring protocol will be developed. (pg. 6-6).</i></p> <p>Timber management and fire are the activities on the Forest most likely to affect three-toed woodpecker populations. The three-toed woodpecker is closely associated with old forest structural characteristics in spruce/fir forests, the forest type in which much of the timber harvesting on the Uinta National Forest occurs. Although population levels of three-toed woodpeckers are known to fluctuate considerably over short periods of time, its long-term population trend is likely to reflect changes in forest management practices on the Forest.</p> <p><b><u>FY 2011:</u></b></p> <p><b>Breeding Bird Surveys:</b> The three BBS routes located on the Uinta National Forest have been surveyed annually for many years (Beck 1990, Soapstone 1992, Heber Mountain 1996). Since these surveys were initiated, the total number of three-toed woodpeckers detected never exceeded 3 birds until 2011. No three-toed woodpeckers have been detected on the Beck route since the survey started. Three-toed data from the 2011 survey is summarized in the following table:</p>



Indicator	Monitoring			
	<b>Breed Bird Survey Route<sup>1</sup> (number)</b>			Total
	Beck (#85174)	Soapstone (#85156)	Heber Mountain (#85206)	
	Number of three-toed woodpeckers detected (FY2011)	0	4	0
<p>Although three-toed woodpeckers are widely distributed, they occur at relatively low densities in most areas.</p> <p><b>Project Surveys:</b> In the past, many areas have been surveyed to determine if three-toed woodpeckers occurred within the survey areas. Each detection represents a confirmed sighting of at least one three-toed woodpecker (1 to 4 three-toed woodpeckers were observed at each site). Three-toed woodpeckers were detected in spruce/fir, Douglas-fir, and lodgepole pine forest types, and were commonly detected in areas with spruce beetle activity.</p> <p>The number of additional detections varies widely from year to year (from 45 in 2005 to 0 in 2008-2011). In FY 2011 no additional detections were made thru project surveys. The year to year variability in these detections could reflect differences in the amount of primary habitat potentially being affected by proposed projects. Because of this, these sightings are not useful indicators of overall three-toed woodpecker populations, but are useful in identifying sites that need to be protected in accordance with Forest Plan direction.</p> <p><b>Forest-wide Monitoring:</b> The Forest Plan states that an additional Forest-wide monitoring protocol will be developed. In 2003, a three-toed woodpecker monitoring protocol was developed and tested. A random sample of survey stations across the Uinta National Forest was established, and these were monitored by conducting broadcast surveys (playing a recording) at each survey station and determining the percentage of total survey stations at which three-toed woodpeckers respond.</p> <p>In 2011 monitoring was conducted in accordance with the protocol. Forty-eight (48) sites were surveyed, and detections were recorded at 12 sites (25% of sites surveyed). During the 2004 thru 2010 period, the percentage of sites surveyed with detections ranged from 16% (2008) to 40% (2005). An analysis of the data from the surveys is shown in the following table. From 2010 to 2011 there was a slight increase in the number of three-toed woodpeckers detected. Over the past seven years however the population has remain relatively stable.</p>				

<sup>1</sup> This is the official data off the BBS website.

Indicator	Monitoring									
	Change from previous year's survey in occupied sites	Comparison Years (surveyed both Fiscal Years)				Proportion of overlapping surveys showing percentage in each category				Percent change between number of sites where birds were found and lost.
		Birds Found	Birds Lost	No Change	Total Change	Total Number of Overlapping Survey Sites	Birds Found	Birds Lost	No Change	
		2004-05	11	8	23	3	42	26%	19%	55%
		2005-06	4	6	32	-2	42	10%	14%	76%
		2006-07	1	4	10	-3	15	7%	27%	67%
		2007-08	2	2	5	0	9	22%	22%	56%
		2008-09	3	0	19	3	22	14%	0%	86%
		2009-10	3	5	15	-2	23	13%	22%	65%
		2010-11	5	4	25	1	34	15%	12%	73%

Indicator	Monitoring
<p><b>Colorado River cutthroat trout:</b></p> <p>a. Population estimates (every 5 years)</p> <p>b. Habitat conditions (every 5 years)</p>	<p>In addition to being a MIS, Colorado River cutthroat trout (CRCT) is also classified as sensitive by the Forest Service's Intermountain Region. CRCT is provided special protection by various government entities (e.g., USDA Forest Service, USDI Bureau of Land Management, and Utah Division of Wildlife Resources), and the species receives special management emphasis within the State of Utah.<sup>4/</sup> In addition, CRCT has been petitioned for listing under the Endangered Species Act, although found not warranted for listing<sup>2/</sup>. Conservation of CRCT depends on eliminating or reducing the impact of activities that threaten the species existence. Common problems and threats include the present or threatened destruction, modification, or curtailment of habitat or range; over-utilization for commercial, recreational, scientific, or educational purposes; disease, predation, competition, and hybridization; inadequate regulatory mechanisms; and other natural or human-induced factors affecting continued existence of the species<sup>3/</sup>.</p> <p>a. <u>Population Trends</u>: Subgoal-2-21 in the 2003 Forest Plan (pg. 2-8 thru 2-9) provides: <i>“Protect and maintain the following 14 conservation populations and one metapopulation of Colorado River cutthroat trout in the following subunits: &lt;&gt; Four populations in the White River/Price River drainages of the South Tavaputs Plateau Subunit of the Southeastern Geographic Management Unit (GMU)<sup>1/</sup>, &lt;&gt; Nine populations in the South Slope Uinta Mountains portion of the Green River drainage of the South Slope Uinta Subunit of the Northeastern GMU<sup>1/</sup>, &lt;&gt; One population in the Strawberry River drainage of the North Tavaputs Plateau Subunit of the Northeastern GMU<sup>1/</sup>, and &lt;&gt; One metapopulation consisting of three waterbodies in the West Fork Duchesne River drainage of the South Slope Uinta Subunit of the Northeastern GMU”</i>. The Forest Plan also contains several standards and guidelines to protect CRCT habitat (see part b. of this section of the document).</p> <p>Populations of Colorado River cutthroat trout and their habitat are monitored to determine the distribution, abundance, and health of this species. The 2003 Forest Plan calls for monitoring at least one-third of the sample streams to be monitored annually. The 2003 Forest Plan also notes that a more detailed monitoring protocol would be developed (pg. 6-6). This protocol was completed in 2004<sup>5/</sup>. The FEIS for the 2003 Forest Plan provided that cutthroat trout would be monitored as a MIS in systems that contain designated conservation or persistence populations of CRCT (pg. 3-222). These streams were known populations of CRCT on the Forest.</p> <p style="text-align: center;"><b><u>FY 2011:</u></b></p> <p>In 2003, the Uinta National Forest identified 4 meta-populations/populations of Colorado River cutthroat trout, which included the 16 streams named in Table 2-2 of the Uinta Forest Plan (pg. 2-9). These streams have been monitored since that time. This monitoring was intense the first few years to establish a baseline of information (see the table below). In recent years, the sampling frequency has declined since a baseline has been established. From 0% to 100% of these streams have been surveyed each year since 2003, averaging 53% per year. On average, each year the Forest has collected fish and or habitat information on six additional streams within the Colorado River Basin over this same time frame (see the following tables).</p>

Indicator	Monitoring																																																																																																																																																																																																																																																																																	
<p>Since 2003 two fish migration barriers have been installed to prevent the spread of non-native species into native species habitat. These two barriers were on the West Fork of the Duchesne River and were installed to prevent the spread of whirling disease upstream into the drainage. The most upstream barrier prevents fish from Vat Creek from moving upstream into the rest of the West Fork of the Duchesne River. Downstream movement of fish can still occur.</p> <p>Sterile fish are also being used to supply sport fish needs in many Colorado Basin water bodies to prevent the spread and interbreeding with native cutthroat trout populations.</p> <p><b>2011 Colorado River Cutthroat Trout MIS Monitoring of Conservation Populations<sup>b/</sup></b></p> <table> <tr> <th rowspan="2">Meta-Population</th><th rowspan="2">Stream Sampled</th><th colspan="9">Fiscal Year Monitored</th><th rowspan="2">Trend</th><th rowspan="2">Comments</th></tr> <tr> <th>2003</th><th>2004</th><th>2005</th><th>2006</th><th>2007</th><th>2008</th><th>2009</th><th>2010</th><th>2011</th></tr> <tr> <td rowspan="8">Currant Creek</td><td>Jones Cabin Creek</td><td>-</td><td>yes</td><td>yes</td><td>yes</td><td>yes</td><td>-</td><td>-</td><td>-</td><td>yes</td><td rowspan="8">Stable</td><td rowspan="8">Identified as a single meta-population, this area consists of a number of smaller populations that are fragmented because of culverts and historic fish migration barriers. 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Indicator	Monitoring
	<p>migration of non-native fish into the West Fork of the Duchesne River. In 1998 upstream fish migration barrier was installed above this diversion to prevent the spread of whirling disease into Currant Creek Reservoir. This effort was unsuccessful in that whirling disease was found in Currant Creek Reservoir in 2010. These barriers however secure much of this habitat from non-native fish which is a major threat to native cutthroat trout populations. Similar older barriers are also found in the Currant Creek drainage to limit upstream non-native fish movement out of Currant Creek Reservoir.</p> <p>Several other (In addition to the conservation population streams identified in the 2003 Uinta Forest Plan) fish-bearing waters occur on the Forest within the historic range of the CRCT. Many of these may not currently contain CRCT. In2011 one of these, Currant Creek, was monitored. This stream was also monitored in 2006 and 2008.</p> <p>b. <u>Habitat Conditions</u>: The Forest Plan contains a Forest-wide goal (FW-Goal-2) <i>to maintain or enhance biologically diverse, sustainable ecosystems for native flora and fauna...</i> (pg. 2-1) The Forest Plan also contains numerous standards and guidelines designed to protect fisheries habitat (e.g., Aqua-1 thru Aqua-8, pg 3-2 thru 3-3; MP-3.3-6, pg. 3-44; S&amp;W-9 thru S&amp;W-11, pg. 3-9 thru 3-10; WL&amp;F-13 and WL&amp;F-14, pg. 3-13; Fire-7, pg. 3-14).</p> <p><i>The monitoring frequency for this item is every 5 years.</i> (Forest Plan, pg., 6-5) Therefore, the information presented below was not updated for this annual monitoring and evaluation report.</p> <p>In 2006, a Forest-wide analysis was conducted to identify CRCT habitat on the Forest. All streams and lakes currently occupied by CRCT and within the Colorado River Basin were considered suitable for this species. Stream systems in which CRCT historically occurred but are no longer present are located in the upper Strawberry River drainage. Although CRCT historically occurred in this drainage, these streams are no longer suitable for CRCT because they are currently managed for the Bear Lake strain of Bonneville cutthroat trout by the UDWR. Based on this analysis, about 45 miles of stream and 290 acres of lake were found to contain suitable habitat.<sup>6/</sup></p> <p>UDWR's fisheries management objective for the Strawberry River Drainage above Soldier Creek Dam is for sport fish. This system was chemically treated in the last 1980's and the native Colorado River cutthroat trout was replaced with the more piscivorous Bonneville cutthroat trout from Bear Lake. Many of the other populations/meta-populations are suspected of being impacted by non-native species either through direct competition or predation. Generally habitat conditions are good. Current habitat impacts are occurring from existing roads that are found adjacent to the stream. These roads often include stream crossing that fragment habitat into smaller blocks further splitting up small isolated populations. Recent efforts by the forest have been to reconnect these populations be replacing culverts that are fish migration barriers with fish passable culverts where passage benefits cutthroat trout populations. Livestock grazing also can have a direct and indirect effect of these populations and efforts are being made to improved protection through implementing the forest plan</p>

Indicator	Monitoring
	<p>standards and guidelines. Recreational impacts also occur as forest visitors camp and recreate along and in streams. Few impacts are occurring from timber harvest where riparian buffer are generally prescribed.</p> <p><sup>1/</sup> Utah Department of Natural Resources. Division of Wildlife Resources. 1997. <i>Conservation agreement and strategy for Colorado River cutthroat trout (Oncorhynchus clarki pleuriticus) in the state of Utah</i>. Prepared by Leo Lentsch and Yvette Converse. Publication number 97-20. March.</p> <p><sup>2/</sup> Office of Federal Register. 2007. Federal Register, Vol. 72, Issue No. 113. Published 6/13/2007. Washington, DC.</p> <p><sup>3/</sup> Fairchild, M. 2010. <i>Monitoring Report for Aquatic Management Indicator Species on the Uinta-Wasatch-Cache National Forest: Monitoring Years 2007, 2008, 2009</i>. Uinta-Wasatch-Cache National Forest, Provo, Utah. 55 pp.</p> <p><sup>4/</sup> Colorado River Cutthroat Trout Task Force. 2001. <i>Conservation agreement and strategy for Colorado River cutthroat trout (Oncorhynchus clarki pleuriticus) in the States of Colorado, Utah, and Wyoming</i>. Colorado Division of Wildlife, Fort Collins. 87p.</p> <p><sup>5/</sup> Smith, R.W. and C. Lyman. 2004. <i>Cutthroat Trout Monitoring Plan and Protocols for the Uinta National Forest</i>. Uinta National Forest. Provo, UT. 4 pp.</p> <p><sup>6/</sup> Uinta National Forest. 2006. Capability and Suitability Analysis, Management Indicator Species – Colorado River Cutthroat Trout, Uinta National Forest. Uinta National Forest. Provo, UT. Unpublished report dated 9/21/2006. 47 pp.</p>
<p><b>Bonneville cutthroat trout:</b></p> <p>a. Population estimates (every 5 years)</p> <p>b. Habitat conditions (every 5 years)</p>	<p>In addition to being a MIS, Bonneville cutthroat trout (BCT) is classified as sensitive by the Forest Service’s Intermountain Region. In addition, BCT has been petitioned for listing under the Endangered Species Act, although found not warranted for listing<sup>2/</sup>. Conservation of BCT depends on eliminating or reducing the impact of activities that threaten the species existence. Common problems and threats include the present or threatened destruction, modification, or curtailment of habitat or range; over-utilization for commercial, recreational, scientific, or educational purposes; disease, predation, competition, and hybridization; inadequate regulatory mechanisms; and other natural or human-induced factors affecting continued existence of the species<sup>3/</sup>.</p> <p>a. <u>Population Trends</u>: Subgoal-2-20 in the 2003 Forest Plan provides the following direction: “<i>Protect and maintain 10 conservation populations, 12 persistence populations, and one meta-population (consisting of six water bodies in the Diamond Fork drainage)</i><sup>1/</sup> of Bonneville cutthroat trout within the Utah Lake/Provo River drainage of the Northern Bonneville Geographic Management Unit” (pg. 2-7 to 2-8). The Forest Plan also contains several standards and guidelines to protect habitat utilized by BCT (see part b. of this section of the document).</p> <p>Populations of Bonneville cutthroat trout and their habitat are monitored to determine the distribution, abundance, and health of this species. The 2003 Forest Plan calls for monitoring at least one-third of the sample streams to be monitored annually. The 2003 Forest Plan also notes that a more detailed monitoring protocol would be developed (pg. 6-6). This protocol was completed in 2004<sup>6/</sup>. The FEIS for the 2003 Forest Plan provided that cutthroat trout would be monitored as a MIS in systems that contain designated conservation or persistence populations of BCT</p>

Indicator	Monitoring
	<p>(pg. 3-222). These streams were most of the known BCT populations on the Forest.</p> <p style="text-align: center;"><b><u>FY 2011:</u></b></p> <p>The 2003 Forest Plan (pg. 2-8) identified 8 meta-populations/populations of Bonneville cutthroat trout, which included 22 named streams. These streams have been monitored since that time. From 9% to 100% of these streams have been surveyed each year since 2003, averaging 54% per year. On average, each year the Forest has collected fish and or habitat information on four additional streams within the Bonneville Basin over this same time frame (see the following tables).</p> <p>Since 2003 two fish migration barriers have been installed to prevent the spread of non-native species into native species habitat. These were the main stem Diamond Fork, and Dip Vat Creek in the Diamond Fork Drainage. These barriers were rebuilt in the fall 2011 after heavy runoff in the spring of 2011 damaged both of them. Associated with this, non-native fish were removed and native fish restored in over 25 miles of stream. These structures have been modified periodically to improve their performance as fish migration barriers.</p> <p>Sterile fish are also being used to supply sport fish needs in most locations to prevent the spread and interbreeding with native cutthroat trout populations.</p> <p>The overall trend for Bonneville cutthroat trout on the Forest is stable. This is primarily due to the Diamond Fork Drainage where the Diamond Fork meta-population is protected from non-native fish through the use of an upstream fish migration barrier. The Dip Vat population is also protected from non-native fish through the use of an upstream fish migration barrier.</p> <p>High spring flows in 2011 had a direct effect on the crew's ability to collect fish in 2011. In some drainage fish numbers were believed to be decreased because of these flows pushing fish downstream out of survey reaches.</p> <p>Most of the other populations/meta-populations are known to be or are suspected of being impacted by non-native species either through direct competition, predation or genetic contamination through crossbreeding with rainbow trout.</p>

Indicator	Monitoring												
	2011 Bonneville Cutthroat Trout MIS Monitoring of Conservation and Persistence Populations <sup>(d)</sup>												
	Meta-Population	Stream Sampled	Fiscal Year Monitored								Trend	Comments	
			2003	2004	2005	2006	2007	2008	2009	2010			2011
	Thistle	Nebo Creek <sup>(c)</sup>	yes	yes	yes	yes	yes	yes	-	-	yes	down	The likelihood of long term population persistence is low, despite the observed stability of the low density population of cutthroat trout. Holman Creek likely contributes to the few cutthroat found in Nebo Creek. The upper extent of Nebo Creek may also contain an intact cutthroat population. The overall downward trend is most likely in response to the completion and predation of non-native brown trout the outnumber cutthroat trout by 33 to 1. The only way to reverse this trend would be to remove non-native brown trout.
		Holman Creek <sup>(c)</sup>	yes	yes	yes	yes	-	-	yes	-	yes		
Deer	South Fork Deer Creek <sup>(p)</sup>	-	-	yes	yes	-	-	-	-	yes	down	The population may have responded negatively to the 2003 Cascade II Burn that burned out of prescription. Data from the 2010 sample was lost due to equipment failure.	



## 2011 Uinta NF State of Forest Report

Indicator	Monitoring												
	Soapstone Basin	Soapstone Creek <sup>(p)</sup>	-	yes	yes	yes	yes	yes	-	-	yes	up	<b>Soapstone Creek –</b> Population contraction in this small watershed is a concern because we are unaware any risks or threats to this isolated population. Brook trout were first captured in the basin in 2011.
	Upper Provo River	Little South Fork Provo <sup>(c)</sup>	-	yes	yes	yes	yes	-	yes	-	yes	up	<b>South Fork Provo River –</b> The overall trend for this metapopulation is up. Brown trout have moved into the Little South Fork Provo River for the first time in 2011.
		Bench Creek <sup>(p)</sup>	-	yes	yes	yes	-	-	yes	-	yes		
		Upper South Fork Provo <sup>(p)</sup>	-	yes	yes	yes	yes	-	-	-	yes		
	Total # of the 22 Conservation Population Streams Surveyed		3	18	22	22	16	2	8	9	7	-	-
	Percent Surveyed (of the 22 Streams)		14%	82%	100%	100%	73%	9%	36%	41%	32%	-	-
<p>Yes = Fish sampling was conducted.</p> <p>-- = No fish sampling was conducted.</p> <p>(1) In 2010 the Soldier Creek survey site was relocated downstream onto National Forest Lands. Cutthroat trout were found at the new location.</p> <p>(p) = Persistence Populations as identified in the Forest Plan (pg. 2-8)</p> <p>(c) = Conservation Populations as identified in the Forest Plan (pg. 2-8)</p> <p>(d) Streams listed in Table 2-1 (pg. 2-7 thru 2-8) in the 2003 Forest Plan.</p> <p>In addition to the monitoring described above, non- Conservation or Persistence populations BCT on the Forest have also been periodically monitored (populations monitored ranged from 9 in 2006 to 0 in 2003 and 2011). These populations include those in the Strawberry Reservoir watershed, some waters in the Diamond Fork watershed, Left Fork Hobbie Creek, Salt Creek, Summit Creek, Deer Creek, and Little Valley and Vernon Creek in the Sheeprock Mountains. The Bear Lake strain of Bonneville cutthroat trout is not native in the Strawberry River drainage and therefore, is not considered a MIS population.</p> <p>In FY 2011, no additional (non- Conservation or Persistence) populations of BCT on the Forest were monitored.</p>													

Indicator	Monitoring
	<p>b. <u>Habitat Conditions</u>: The Forest Plan contains a Forest-wide goal and numerous standards and guidelines for protection of fisheries habitat. See the previous discussion for Colorado River Cutthroat Trout, habitat conditions.</p> <p><i>The monitoring frequency for this item is every 5 years.</i> (Forest Plan, pg., 6-5) Therefore, the information presented below was not updated for this annual monitoring and evaluation report.</p> <p>In 2006, a Forest-wide analysis was conducted to identify BCT habitat on the Forest. All streams and lakes currently occupied by BCT and within the historic range of BCT are considered suitable for this species. Based on this analysis, about 146 miles of stream were found to contain suitable habitat. No lakes were identified as containing suitable habitat on the Forest<sup>7/</sup>.</p> <p>Most of the other populations/meta-populations are suspected of being impacted by non-native species either through direct competition, predation or genetic contamination through crossbreeding with rainbow trout. Generally habitat conditions are good. Current habitat impacts are occurring from existing roads that are found adjacent to the stream. These roads often include stream crossing that fragment habitat into smaller blocks further splitting up small isolated populations. Recent efforts by the Forest have been to reconnect these populations by replacing culverts that are fish migration barriers with fish passable culverts where passage benefits cutthroat trout populations. Livestock grazing also can have a direct and indirect effect of these populations and efforts are being made to improved protection through implementing the forest plan standards and guidelines. Recreational impacts also occur where the public camps and recreates along streams. Few impacts are occurring from timber harvest where riparian buffer are generally applied to protect aquatic resources.</p> <p><sup>1/</sup> As defined in the glossary and in the Range-wide Conservation Agreement and Strategy for Bonneville Cutthroat Trout (<i>Oncorhynchus clarki utah</i>). Utah Division of Wildlife Resources. 2000. pp. 17-18.</p> <p><sup>2/</sup> Office of Federal Register. 2008. Federal Register, Vol. 73, Issue No. 175. Published 9/9/2008. Washington, DC.</p> <p><sup>3/</sup> Fairchild, M. 2010. <i>Monitoring Report for Aquatic Management Indicator Species on the Uinta-Wasatch-Cache National Forest: Monitoring Years 2007, 2008, 2009</i>. Uinta-Wasatch-Cache National Forest, Provo, Utah. 55 pp.</p> <p><sup>4/</sup> BVCT State of Utah Conservation Team. 2008. <i>Conservation agreement for Bonneville cutthroat trout (Oncorhynchus clarki utah) in the State of Utah</i>. Utah Division of Wildlife Resources. Salt Lake City, Utah.</p> <p><sup>5/</sup> Utah Department of Natural Resources. 1997. <i>Conservation agreement and strategy for Bonneville cutthroat trout (Oncorhynchus clarki utah) in the state of Utah</i>. Prepared by Leo Lentsch, Yvette Converse, and Jane Perkins. Publication number 97-19. March 1997. 73pp.</p> <p><sup>6/</sup> Smith, R.W. and C.Lyman. 2004. <i>Cutthroat Trout Monitoring Plan and Protocols for the Uinta National Forest</i>. Uinta National Forest. Provo, UT. 4 pp.</p> <p><sup>7/</sup> Uinta National Forest. 2006. <i>Capability and Suitability Analysis, Management Indicator Species – Bonneville Cutthroat Trout, Uinta National Forest</i>. Uinta National Forest. Provo, UT. Unpublished report dated 9/21/2006. 61 pp.</p>

2. Is the Forest protecting **Federally-listed Threatened and Endangered Species** and their habitat while implementing the Forest Plan?

**DFC:** Known populations of all federally-listed threatened, endangered, proposed, or candidate species occurring on the Forest are maintained or increased.

Indicator	Monitoring
<p><b>Bald eagle:</b> Index of winter roosting activity on the Forest (annually)</p>	<p>In 2003 the bald eagle (<i>Haliaeetus leucocephalus</i>) was classified as threatened under the Endangered Species Act. The U.S. Fish and Wildlife Service (USFWS) were petitioned in 2001 to remove the bald eagle from the List of Threatened and Endangered Species. In 2007 the USFWS determined that the best available information indicated the bald eagle has recovered, and therefore, removed the bald eagle in the lower 48 states from the Federal List of Endangered and Threatened Wildlife. This delisting was fueled by a reduction in threats, and an associated increase in breeding pairs (from 487 breeding pairs in 1963 to 9,789 in 2007).<sup>1/</sup></p> <p>Very few bald eagles have nested in Utah in recent years, and prior to 2008 no nests were known to be located on or near the Uinta National Forest. Bald eagles do occur as migrants and winter residents on and near the Forest. They are most commonly observed foraging and roosting along rivers between November and March. They have often been seen during the winter in Heber Valley, the Vernon Unit, in canyons along the Wasatch Front (including Provo Canyon, American Fork, Hobbie Creek, White River, and Diamond Fork), and on the Nebo Unit along Salt Creek.</p> <p>Bald eagle roost and nesting surveys, which occur primarily off-Forest, indicate populations are increasing. Although there has been improvement in the overall habitat and environment used by this species, it is not likely that population increases are due to Forest management activities as roost sites on the Forest are limited. An increase in sightings and use of the Forest has occurred concurrently with the overall increase in the population.</p> <p style="text-align: center;"><b><u>FY 2011:</u></b></p> <p><u>Winter Raptor Surveys:</u> Bald eagle counts from Utah Division of Wildlife Resources (UDWR) winter raptor surveys are used as indicator of bald eagle winter roosting activity on the Forest. UDWR has established several standardized routes for monitoring winter raptor populations. Although none of these routes occur on the Uinta National Forest, three routes are in vicinity of the Forest. One route (Rush Valley Route) starts north of the Forest in Vernon, and goes toward Rush Valley and Ophir Canyon. A second route (Cedar Valley Route) starts in Lehi, goes west to Saratoga Springs, south along Utah Lake, and then west and north to Fairview. The third route (Sanpete Route) starts near Fountain Green (southeast of the Nebo Unit), travels around Moroni, Freedom and Wales, and heads down through the Sanpete Valley. While these routes are not located on the Forest, the Forest has habitat in some areas similar to what is found along these routes. Bald eagle counts from these routes are displayed in the following table:</p>

Indicator	Monitoring																																																											
	<div>UDWR Winter Raptor Survey</div> <div>2003 – 2011 Bald Eagle Counts<sup>1/</sup> for Selected UDWR Winter Survey Routes</div> <table><tr><th rowspan="2">UDWR Winter Raptor Survey Route</th><th colspan="9">Survey Year</th></tr><tr><th>2003</th><th>2004</th><th>2005</th><th>2006</th><th>2007</th><th>2008</th><th>2009</th><th>2010</th><th>2011</th></tr><tr><td>Rush Valley</td><td>53</td><td>52</td><td>-</td><td>10</td><td>34</td><td>33</td><td>23</td><td>3</td><td>20</td></tr><tr><td>Cedar Valley</td><td>-</td><td>-</td><td>41</td><td>-</td><td>26</td><td>28</td><td>16</td><td>11</td><td>18</td></tr><tr><td>Sanpete</td><td>84</td><td>86</td><td>94</td><td>55</td><td>81</td><td>80</td><td>56</td><td>75</td><td>63</td></tr><tr><td>Combined</td><td>137<sup>2/</sup></td><td>138<sup>2/</sup></td><td>135<sup>2/</sup></td><td>65<sup>2/</sup></td><td>141</td><td>141</td><td>95</td><td>89</td><td>101</td></tr></table> <div><sup>1/</sup> Utah Division of Wildlife Resources. 2012. Spreadsheet containing unpublished data from winter raptor surveys of Rush Valley, Cedar Valley and Sanpete Valley survey routes. 3pg. (Personal communication Kimberly Hersey, UDWR Biologist with Paul Cowley4 September 2012)</div> <div><sup>2/</sup> Incomplete data set. Data was not collected for one of the survey routes.</div> <div><u>Other Bald Eagle Observations:</u> In 2008, a bald eagle was found nesting on the Forest in the area below the dam at Strawberry Reservoir. This nest has been monitored since, but has not been occupied by bald eagles. It has been occupied by golden eagles for the past 3 years (person communication with Russ Findlay, Bureau of Reclamation; and Paul Cowley, USFS; September 12, 2012).</div> <div><sup>1/</sup> U.S. Fish andWildlife Service (2007). Endangered and threatened wildlife and plants; Removing the bald eagle in the lower 48 states from the list of endangered and threatened wildlife, 50 CFR Part 17. Federal Register, 72, 37346–37372.</div>	UDWR Winter Raptor Survey Route	Survey Year									2003	2004	2005	2006	2007	2008	2009	2010	2011	Rush Valley	53	52	-	10	34	33	23	3	20	Cedar Valley	-	-	41	-	26	28	16	11	18	Sanpete	84	86	94	55	81	80	56	75	63	Combined	137 <sup>2/</sup>	138 <sup>2/</sup>	135 <sup>2/</sup>	65 <sup>2/</sup>	141	141	95	89	101
UDWR Winter Raptor Survey Route	Survey Year																																																											
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Indicator	Monitoring
<p><b>Canada lynx:</b> Documentation of observations (every 5 years)</p>	<p>Canada lynx (<i>Lynx canadensis</i>) is a federally listed (2000) threatened species. Although lynx are known to have historically occurred in Utah, no critical habitat for lynx is currently designated within Utah<sup>7/</sup>. The 2003 Forest Plan designated two Lynx Analysis Units (LAUs) on the Uinta National Forest. They are located on the northern part of the Heber-Kamas Ranger District in the Upper Provo River and West Fork Duchesne River drainages. These watersheds contain much of the forest's spruce/fir forest, and connect to high-elevation conifer forests to the north and northeast in the Uinta Mountains where lynx historically occurred.</p> <p>The 2003 Forest Plan contains 5 sub-goals describing the management intent relative to Canada lynx and its habitat. These sub-goals provide direction to maintain, protect (including disturbance at key times from human activities) and improve key habitat. Key habitats addressed include denning and habitat and travel/linkage corridors (Subgoal-2-23, Subgoal-2-26 thru Subgoal-2-29; pgs. 2-9 thru 2-10). The 2003 Forest Plan also contains 2 objectives (Objective-2-18 and Objective 2-19) specific to lynx. These call for surveying the 2 LAUs for lynx presence by 2013 and mapping the location and intensity of snow compacting activities on designated routes, trails, and play areas within LAUs (pg. 2-15).</p> <p>Information on the status of Canada lynx on the Uinta National Forest was summarized as part of the viability assessment completed during revision of the Forest Plan. Lynx inhabit boreal and montane habitats dominated by coniferous or mixed forest with thick undergrowth. They require forested landscapes with abundant prey, preferably snowshoe hare, or when hares are absent, red squirrel. Den sites are typically in hollow trees, under stumps or logs, or in thick brush within mature or old growth stands with high log densities<sup>1/</sup>. In the western United States, lynx are primarily associated with lodgepole pine, Engelmann spruce, and subalpine fir<sup>2/</sup>.</p> <p>There are no known breeding populations of lynx in Utah, although historically the species regularly occurred throughout the Uinta Mountains. Hair-snare surveys were conducted for lynx as part of the National Lynx Survey during 1999, 2000, and 2001 within the two LAUs, but no lynx was detected.<sup>3/</sup></p> <p style="text-align: center;"><b><u>FY 2011:</u></b></p> <p>Between 1999 and 2007, 22 of the 218 lynx reintroduced into the Colorado Rockies were documented in Utah. Five (5) of these, all males, showed up in Utah within 180 days from when they were released. Seven of the reintroduced lynx were documented for 2 consecutive years in Utah.<sup>4/</sup> The satellite collars take readings once a month. These collars only last about 18 months, and consequently, none of these are currently still working. The radio-collars last about 5 years. Though reproduction has never been documented in Utah, the continuous presence of lynx in Utah from 2003-2009 suggests there is potential for year-round residency and reproduction in the State.<sup>5/</sup></p> <p>In 2010-11 and 2011-12 the Uinta-Wasatch-Cache and Ashley National Forests initiated lynx surveys within the Uinta Mountains. These surveys were largely located on the Wasatch-Cache planning area and Ashley National</p>

Indicator	Monitoring
	<p>Forest, but did include 4 survey routes extending into the Uinta National Forest planning area.</p> <p>In 2010-11, about 705 miles of ground-based snowmobile track surveys were completed, including about 506 miles on the Uinta-Wasatch-Cache National Forest. No lynx tracks were observed on these surveys. An additional 1,266 miles were aerially surveyed (UWC and Ashley NFs). Two possible lynx tracks were located by aerial reconnaissance; however, weather conditions prohibited ground verification. These were in the West Fork/Beaver Creek and Burnt Fork/Fish Lake areas on the North Slope of the Uinta Mountains (Wasatch-Cache NF planning area). In addition, 8 lynx sightings were also reported during the survey period. Four of these reports were considered likely to be reliable; one of these was in the Uinta NF planning area (Lake Creek area).<sup>6/</sup> This study fulfilled Objective-2-18 in the 2003 Forest Plan Objective-2-18 (LRMP, pg. 2-15) which called for surveying the 2 LAUs by 2013 to determine the presence or absence of Canada lynx.</p> <p>In 2011-12 over snow, ground surveys were continued with no tracks being found. No additional sightings were reported. Given the limited amount of survey time expended, tracks could have been missed. The High Uinta Wilderness forms an island which the survey did not intrude into. Canada lynx may exist there but surveyors did not have detected them. Forest management activities did not significantly affect their habitat in 2011.</p> <hr/> <p><sup>1/</sup> Koehler, G., &amp; Brittell, J. (1990). Managing spruce-fir habitat for lynx and snowshoe hares. <i>Journal of Forestry</i>, pp. 10-14.</p> <p><sup>2/</sup> Ruediger, B., Clarr, J., Gniadek, S., Holt, B., Lewis, L., Mighton, S., et al. (2000). <i>Canada lynx conservation assessment and strategy</i>. Missoula, Montana: USDA Forest Service, USDI Fish and Wildlife Service, USDI Bureau of Land Management, USDI National Park Service.</p> <p><sup>3/</sup> USDA Forest Service, Intermountain Region. 2003. Final Environmental Impact Statement for the 2003 Land and Resource Management Plan, Uinta National Forest. Intermountain Region. 273 pg.</p> <p><sup>4/</sup> Colorado Division of Wildlife. 2006-2007 Lynx Research Report. Division of Wildlife, Mammals Research, Lynx Conservation, Post-Release Monitoring of Lynx Reintroduced to Colorado. <a href="http://wildlife.state.co.us/NR/rdonlyres/4D36282D-0C6D-4E11-A206-07DF57A2BFF6/0/ShenkFinal200607AnnualReportsecure.pdf">http://wildlife.state.co.us/NR/rdonlyres/4D36282D-0C6D-4E11-A206-07DF57A2BFF6/0/ShenkFinal200607AnnualReportsecure.pdf</a></p> <p><sup>5/</sup> Colorado Division of Wildlife. 2008-2009 Lynx Research Report. Division of Wildlife, Mammals Research, Lynx Conservation, Post-Release Monitoring of Lynx Reintroduced to Colorado. <a href="http://wildlife.state.co.us/NR/rdonlyres/AD9B39DC-79B8-4E2E-9499-4E120FA41751/0/LynxAnnualReport20082009.pdf">http://wildlife.state.co.us/NR/rdonlyres/AD9B39DC-79B8-4E2E-9499-4E120FA41751/0/LynxAnnualReport20082009.pdf</a></p> <p><sup>6/</sup> Berg, N.D. and R.M. Inman. 2010. Uinta Mountains Lynx and Wolverine Survey Report. Unpublished. Uinta-Wasatch-Cache National Forest. Salt lake City, Utah. 44 pp.</p> <p><sup>7/</sup> Federal Register, Volume 24, Number 36. 2009. Revised Designation of Critical Habitat for the Contiguous United States Population of Canada Lynx. Published February 25, 2009. pp. 8616-8702.</p>
<b>Clay phacelia:</b> Documentation of observations and project surveys in potential habitat	Not Applicable for the FY 2011 Report.

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Indicator	Monitoring
(every 5 years)	
<b>Ute ladies'-tresses:</b> Documentation of observations and project surveys in potential habitat (every 5 years)	Not Applicable for the FY 2011 Report.
<b>Ute ladies'-tresses:</b> Population trends (every 5 years)	Not Applicable for the FY 2011 Report.

3. Are **National Register eligible sites** and districts being protected?

**DFC:** Visitors to the Forest find opportunities to touch, explore, enjoy, and learn about their cultural heritage. They recognize and respect the diversity of past Forest users, and understand the fundamental relationship between people and the land. This access to the past is constantly growing through an active heritage program, which is fully integrated into other management areas including recreation, interpretation, and environmental education. A long-term management plan is developed in consultation with local Tribes, Historical Societies, and other interested publics to address management of heritage resources, including historic Forest Service structures. Information about past human activities provides a context for understanding current ecological issues, and provides a foundation for ecological restoration projects. Knowledge of past activities is increased through archaeological and historical research. Known sites are protected against erosion and impacts from recreation.

Indicator	Monitoring
Mitigation measures including pre-disturbance surveys applied/not applied (every 5 years)	<p><b><u>FY 2011:</u></b></p> <p><i>The Forest Plan requires monitoring at least 3 projects annually, and that the results of this are to be summarized every 5 years. (Forest Plan, pg. 6-20) The results of monitoring each of these are summarized below. Monitoring these 3 projects, a very limited sample size, suggests that mitigation to address potential effects to <i>Historic Properties</i> is being incorporated into project design and implemented.</i></p> <p>In fiscal year 2011, 6 cultural resource surveys were conducted on the Uinta NF covering 2,590 acres, and 2 new cultural resources were recorded. All sites were located within or adjacent to proposed undertakings which were protected using simple avoidance as mitigation and given the determination of no adverse effect of historic properties per 36 CFR 800.5(b). Additionally, there were several small scale projects, examples include range trough relocations and recreation trail realignments. Survey was conducted on these small scale projects to assess affects to cultural resources where the determination of no historic properties affected per 36 CFR 800.4(d) was made. In the case where a previously recorded site was in the project area, the site was again protected using simple avoidance as mitigation to adverse effects and given the determination of no adverse effect of historic properties per 36CFR800.5(b). Lastly, there were several projects where cultural resource consideration was given and it was determined the proposed action had no potential to effect historic properties per 36 CFR 800.3(a). Examples of these actions include new issue and renewal of special use permits where no ground disturbance or modifications of any kind were being conducted on FS lands.</p> <p>All ground disturbing projects in FY 2011 were surveyed for cultural resources sites, and the potential effects to the sites were evaluated. Three projects were monitored for Forest Plan consistency during FY 2011: a) Mutual Dell Organization Camp (Special Use Permit), b) Upper Strawberry Livestock Grazing Allotments project, and the c) Badger Hollow Sagebrush Treatment project.</p> <p>The <b>Mutual Dell Organizational Camp</b> does not contain sites or features thought to be eligible to the National Register. No pre-project surveys were conducted as the maintenance and development was taking place in</p>



Indicator	Monitoring
	<p>previously disturbed areas.</p> <p>The <b>Upper Strawberry Livestock Grazing Allotments</b> project consisted of the installation of 11 miles of buck and pole fence, and a modification to the grazing use allowed on the allotment. The Forest Heritage Specialist oversaw a Class III intensive pedestrian survey of the proposed fence line.</p> <p>Cultural resource inventories were conducted prior to the installation of the fence line. One historic era cabin was noted, however, its exact construction date is unknown (estimated at 1935). A buck and pole fence was constructed around the cabin to protect it from livestock grazing, and to indicate to the public that the cabin was considered important enough to protect. Monitoring found the fence had been vandalized and used as firewood, and that there are a number of hazard trees around the cabin that threaten the structure.</p> <p>Mitigation measures were applied in the form of pre-project surveys and the construction of a fence around the cabin. The area of potential effect (APE) for this fence line was subjected to a Class III inventory prior to construction. No issues were identified at the time of the inventory.</p> <p>The <b>Badger Hollow Sagebrush Treatment</b> project was a vegetation chaining treatment to thin decadent sagebrush to improve Sage Grouse habitat and lek sites. Monitoring revealed one historic era (pre-1917) camp site or homestead denoted by the presence of pre-WWI artifacts. The site measured approximately 200 feet by 200 feet (~0.91 acres). It is not known how much the chaining further scattered the artifacts, as the site was not recorded prior to the chaining. The historic artifact scatter did not appear to meet any of the four criteria for listing on the National Register of Historic Places. A pre-disturbance Class III intensive cultural resource survey was conducted of the area of potential effect (APE) for this undertaking. No cultural resources were noted at the time of the survey.</p>
Unapproved impacts to sites (every 5 years)	<p><b><u>FY 2011:</u></b></p> <p>See the preceding discussion.</p>

4. Is **permitted grazing** in compliance with the Forest Plan? Are Forest Plan **utilization standards** effective in mitigating impacts of grazing?

**DFC:** Grazing opportunities are maintained on 71 open cattle and sheep allotments and continue to support the livestock industry in the local communities. Livestock grazing continues to be a viable and sustainable use of vegetation on these allotments, and is managed to ensure that the long-term resource goals for soil productivity, vegetative communities, wildlife habitats, and water quality are achieved. See also the DFC for Vegetation.

Indicator	Monitoring
Compliance with utilization standards (every 5 years)	<p><b><u>FY 2011:</u></b></p> <p><i>The Forest Plan states that at least 10% of active allotments are to be monitored annually, and that the results of this are to be summarized every 5 years.</i> (Forest Plan, pg. 6-9) Therefore, other than as presented below, monitoring results for this monitoring element were not updated for this annual monitoring and evaluation report.</p> <p>All term grazing permits on the Forest include the Forest Plan utilization standards. The permits require the permittee to monitor their livestock use, and to move their livestock to another grazing unit or from the allotment before these standards are exceeded. These requirements are reviewed with each permittee prior to each grazing season.</p> <p>In FY 2011 utilization was monitored in one or more pastures on 4 allotments on the Spanish Fork Ranger District and 15 allotments on the Heber-Kamas Ranger District (Uinta NF planning area portion). These 19 allotments represent about 29% of the active allotments within the Uinta NF planning area, which exceeds the 10% monitoring requirement. FY 2011 was a fairly wet season, and utilization was generally well within established limits.</p>
Allotments administered to standard (annually)	<p><b><u>FY 2011:</u></b></p> <p>There are currently 66 active and 2 vacant grazing allotments on the Uinta planning area. The 2 vacant allotments were grazed by domestic sheep when the Forest Plan was being revised. The permittees subsequently vacated these allotments. They have not been grazed since due to conflicts with bighorn sheep and the heavy recreation use in the area, and a lack of demand. The 66 active allotments encompass about 632,120 acres of National Forest System (NFS) lands.<sup>1/</sup></p> <p>Eleven (11) allotments on the Spanish Fork Ranger District, and ten (10) allotments on the Uinta planning area portion of the Heber-Kamas Ranger District were administered to standard<sup>2/</sup>. In total, 21 allotments (~32% of the active allotments on the Forest) encompassing about 121,390 acres of NFS lands (about 19% of the acreage of active allotments on the Forest) were administered to standard on the Uinta National Forest.<sup>1/</sup> On the other allotments, agency employees met with the permittees, issued annual operating instructions, assured payment of grazing fees, and monitored compliance with the grazing permit. However, due to budget limitations, these allotments were not monitored to the same intensity as the allotments administered to standard.</p>

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Indicator	Monitoring
	<p><sup>1/</sup> SOURCE: INFRA data base.</p> <p><sup>2/</sup> <u>Administration to Standard</u>: During the fiscal year, an Agency employee qualified in grazing permit administration successfully administers grazing allotments to standard by implementing direction found in forest plans, allotment management plans, annual operating instructions, grazing permits or agreements, and other relevant documents. (SOURCE: Workplan database)</p>
Range condition and trend (every 5 years)	<p><i>The Forest Plan states that some portion of the Forest is to be monitored annually, and that the results of this are to be summarized every 5 years. (Forest Plan, pg. 6-9)</i></p> <p>In FY2011, data was collected at 10 upland range studies (located on 6 allotments) in the Uinta planning area. The results of this monitoring are not applicable for the FY 2011 Report.</p>
Riparian condition and trend (every 5 years)	<p><i>The Forest Plan states that some portion of the Forest is to be monitored annually, and that the results of this are to be summarized every 5 years. (Forest Plan, pg. 6-9)</i></p> <p>In FY2011, data was collected at 13 riparian studies were conducted on 7 allotments in the Uinta planning area. The results of this monitoring are not applicable for the FY 2011 Report.</p>

5. Are infestations of **noxious weeds** being contained, controlled, or eliminated?

**DFC:** Noxious weeds and undesirable invasive plants are effectively combated using integrated pest management. Priority is first given to eliminating weeds from critical habitats and preventing new infestations, then to reducing density or eliminating longer-established populations. The Forest uses public education to motivate the public to employ weed prevention practices.

Indicator	Monitoring
Application of Forest Plan direction and project mitigation measures including permit and contractual requirements (every 5 years)	<p><i>The Forest Plan requires monitoring at least 3 projects annually, and that the results of this are to be summarized every 5 years. (Forest Plan, pg. 6-10)</i></p> <p style="text-align: center;"><b><u>FY 2011:</u></b></p> <p>Three projects were monitored for Forest Plan consistency during FY 2011: a) Mutual Dell Organization Camp (Special Use Permit), b) Upper Strawberry Livestock Grazing Allotments project, and the c) Badger Hollow Sagebrush Treatment project. The results of monitoring each of these are summarized below. Monitoring these 3 projects, a very limited sample size, suggests that mitigation to address noxious weeds is being incorporated into project design but post-implementation monitoring (weed surveys) and subsequent treatment may not be.</p> <p><b><u>Mutual Dell Organization Camp:</u></b> This project included the installation of a composting restroom, a shower facility, a buried propane tank and pavilion, all of which are within the special use permitted area. The purpose of the project was to address health and safety concerns of the camp.</p> <p>A field review of the proposed project was completed in 2009 prior to work commencing. Review of the small NEPA forms completed in 2009 showed that TES plants were cleared for the project to proceed. An addendum was included in the paperwork for newly listed Regional Forester sensitive plant species which were not listed on the small NEPA forms at the time of the original 2009 review. Missing from the small NEPA forms was mention of noxious and invasive weed control. However reseeding of the disturbed areas with native plant species was mentioned. Reseeding would lessen the likelihood of noxious weeds becoming established in the disturbed areas.</p> <p>Monitoring found only very limited areas of vegetation were disturbed during the project work. With reseeding of the disturbed areas using a weed-free native plant seed mix, the areas should recover quickly. These re-seeded areas should be monitored for weeds however if any become established the weeds should be treated. Some noxious weeds already exist in the project area, (i.e., houndstongue). These could serve as a seed source for invasion of the newly disturbed areas, so these infestations should be treated.</p> <p><b><u>Upper Strawberry Grazing Allotments Project:</u></b> This project area includes the Strawberry, Twin Peaks, and West Daniels Grazing Allotments. The field review occurred on the Strawberry Allotment. The EIS decision for this project area converted the Strawberry Allotment class of livestock from sheep to cattle. It also authorized a portion of the allotment to be fenced off (~11 miles of buck and pole fence) and closed to grazing. Noxious weeds are to receive</p>

Indicator	Monitoring
	<p>annual treatment within the project area.</p> <p>A buck and pole fence was constructed along the ridgeline above the Strawberry River drainage, on the Strawberry Grazing Allotment to exclude cattle from the area closed to grazing. The buck and pole fence was in excellent condition, and appears to be working for its intended purpose. It also appears to help prevent the creation of unauthorized routes. This would help prevent the spread of noxious weeds, since these routes often serve as vectors for the spread on weeds. No noxious weeds were observed in the area reviewed.</p> <p><b><u>Badger Hollow Sagebrush Treatment:</u></b> Sagebrush was treated with a Dixie harrow to provide sage grouse with more suitable brood-rearing habitat. Within the project area additional acres were mowed with a brush-hog, and other areas were left untreated. Sagebrush was thinned in a mosaic pattern to increase vegetative diversity. Noxious weeds were slated to be treated within and adjacent to the treatment areas to reduce their potential for spread.</p> <p>The area reviewed was Chicken Springs Ridge. This project was completed in the fall of 2009, after almost two full seasons of growth and recovery since the treatment was completed. It appeared that the Dixie harrowing treatment was very effective at reducing the sagebrush cover. The treatment area still blended in well with the surrounding areas visually. The treated area had a wide variety of plant species present. No seeding was done and the area has recovered well after the treatment naturally. Compared to the untreated sagebrush covered areas, there were more species manifesting their presence in the treated area. The majority of plant species present were desirable species and there was limited bare ground present. It did not appear that there were excessive amounts of any undesirable plant species present. There was some non-native thistle present but in a very small amount (these should be treated). Rabbit-brush was present within the treated area, and it did not appear to be overly abundant at the review location. The spread of rabbit brush was identified in the NEPA as a concern for this project area. The monitoring team could not evaluate resolution of this issue, since some rabbit brush was present post treatment but a pre-treatment survey was not completed. Treatments in this area appear to have met the objectives of the project.</p>
Acres of weeds treated (annually)	<p><b><u>FY 2011:</u></b></p> <p>1,648 total acres were reported<sup>1/</sup> as treated in the Uinta National Forest planning area. Although most of these acres were treated by Forest Service employees, some treatment was done by volunteers (primarily pulling and or grubbing species that can be effectively controlled by this type of treatment). In addition, the Forest worked with the counties and partners and received external (non-appropriated) funding to assist in treating weeds during FY2011-FY2013. This will help maintain an active weed treatment program as federal budgets decline.</p> <hr/> <p><sup>1/</sup> SOURCE: FACTS data base.</p>

Indicator	Monitoring
Estimated acres infested (every 5 years).	<p><b><u>FY 2011:</u></b></p> <p>Work continued in inventorying weed infestations on Heber and Spanish Fork ranger districts in high probability areas near dispersed recreation areas, roads and trails. These inventories were conducted under the agreement with Utah State University. In FY 2011 about 3,352 acres were surveyed on the two districts. These surveys found less than 15 acres of weed infestations. Data from this and other past and ongoing surveys will be summarized and reported in the future.</p>

6. Is long-term **soil productivity** being maintained?

**DFC:** Most soils have adequate protective ground cover, soil organic matter, and large woody material. Soils have adequate physical properties for vegetative growth and soil-hydrologic function. Physical, chemical, and biological processes in most soils function similarly to soils that have not been disturbed. Degradation of soil quality and loss of soil productivity is prevented. Soil hydrologic function and productivity in riparian areas is protected, preserving the ability to serve as a filter for good water quality and regulation of nutrient cycling. Soil productivity, quality, and function are restored where adversely impaired and contributing to an overall decline in watershed condition.

Indicator	Monitoring
Detrimental soil disturbance (every 5 years)	<p><i>Detrimentially disturbed soil is soil that has been detrimentally displaced, compacted, puddled, or severely burned. No more than 15% of an activity area should have detrimentally disturbed soil after the completion of all management activities.</i></p> <p style="text-align: center;"><b><u>FY 2011:</u></b></p> <p><i>The Forest Plan requires monitoring at least 3 projects annually, and that the results of this are to be summarized every 5 years. (Forest Plan, pg. 6-12) Three projects were monitored for Forest Plan consistency during FY 2011: a) Mutual Dell Organization Camp (Special Use Permit), b) Upper Strawberry Livestock Grazing Allotments project, and the c) Badger Hollow Sagebrush Treatment project. The results of this monitoring are described below. Monitoring these 3 projects, a very limited sample size, suggests that mitigation to address soil productivity is being incorporated into project design and implemented.</i></p> <p><b>Mutual Dell Organization Camp.</b> This project is located on the Pleasant Grove Ranger District. The camp project included installing a composting restroom, shower facility, buried propane tank, and pavilion within the permitted area in order to address health and safety concerns of the camp. No new areas of soil disturbance were observed, as the areas of disturbance were within areas that had been previously disturbed. Although some erosion was observed, soil movement was not reaching stream channels. Silt fences should have been installed around construction areas to reduce erosion and sediment transport into stream channels.</p> <p><b>Upper Strawberry Grazing Allotments.</b> The EIS decision for this project area converted the Strawberry Allotment class of livestock from sheep to cattle. It also authorized a portion of the allotment to be fenced off (~11 miles of buck and pole fence) and closed to grazing. This fence portion of this project is located on the Heber-Kamas Ranger District along the ridgeline above the Strawberry River drainage. The fence was installed to eliminate drift of livestock into areas with high phosphorus content in the soils, and therefore considered not suitable for grazing. The fence will also restrict the creation of unauthorized routes and improve water and fish habitat downstream. Soil movement is a concern in this area as it has a high phosphorous content. No soil disturbance was noted due to fence construction. No trailing has occurred along the fence line. No detrimental soil</p>

Indicator	Monitoring
	<p>impacts were observed during monitoring.</p> <p><b>Badger Hollow Sagebrush Treatment.</b> This project is located on the Heber-Kamas Ranger District. The purpose and need for this project was to improve sage grouse habitat by reducing sagebrush canopy cover and increasing the forb and grass component of the plant community. Approximately 1,200 acres was slated to be treated with a Dixie harrow. An additional 300 acres was slated to be mowed with a brush-hog and 1,600 acres were to be left untreated. The Chicken Ridge unit portion of the project was monitored. Design features from the NEPA document that pertain to the soil resource included:</p> <ul style="list-style-type: none"> <li>• A 50 foot Riparian Habitat Conservation Area buffer of no treatment should be maintained on Strawberry Reservoir and tributaries. <ul style="list-style-type: none"> <li>✓ Monitoring showed the no-treatment distance was 62 feet. No transport of sediment was found from the treatment area into the no-treatment area.</li> </ul> </li> <li>• Equipment will not be permitted during the wet season (April 1-July 15) in seasonally wet drainage bottoms and RHCAs <ul style="list-style-type: none"> <li>✓ Monitoring found that equipment operated from September 12 – October 5, 2009. No soil disturbance noted due to equipment operation over wet soil.</li> </ul> </li> </ul> <p>Two transects in the treated area were established during the monitoring trip. Bare ground cover occupied 17% of the monitoring points on Transect #1, and 14% on Transect #2. There was evidence of some erosion occurring in the project area. Pedestals were noted as well as litter deposition in bare interspaces.</p>
Down woody debris (every 5 years)	<p><i>Coarse woody debris is defined in Forest Service Handbook 2509.18 as organic materials such as plant stems, branches, and logs with a diameter greater than 3 inches. Coarse woody debris guidelines apply to ecological types that are capable of producing forested and woodland ecosystems. The minimum amount of large woody debris required to maintain nutrient and moisture supplies adequate to sustain site productivity varies by ecological type.</i></p> <p style="text-align: center;"><b><u>FY 2011:</u></b></p> <p>Down woody debris was not monitored in FY 2011.</p>
Ground cover (every 5 years)	<p><i>Effective ground cover is defined as consisting of vegetation, litter, and rock fragments larger than three-fourths inch in diameter. Effective ground cover is expressed as the percentage of material, other than bare ground, covering the land surface and includes live vegetation, dead vegetation, litter, cobble, gravel, stones, and bedrock. It may include management-induced materials.</i></p>



Indicator	Monitoring
	<p><i>Litter consists of the surface layer (Oi-horizon) of recently deposited and partially decomposed plant remains, mainly leaves and twigs (branches less than three inches in diameter). Decomposed plant material (Oe and Oa horizon) is sometimes called "duff" and would <b>not</b> be included as litter.</i></p> <p><i>The Forest Plan requires monitoring at least 3 projects annually, and that the results of this are to be summarized every 5 years. (Forest Plan, pg. 6-12)</i></p> <p style="text-align: center;"><b><u>FY 2011:</u></b></p> <p>In addition to the three projects monitored for detrimental soil disturbance during FY 2011 [(1) Mutual Dell Organization Camp, (2) Upper Strawberry Livestock Grazing Allotments project, and the (3) Badger Hollow Sagebrush Treatment project], the Vernon Grazing Allotment project was monitored for ground cover. Findings for the three projects monitored for detrimental soil disturbance were described in a previous section of this document. Results of monitoring ground cover on the Vernon Allotment project follows. For two of the projects (Mutual Dell and Upper Strawberry Allotment fence) monitored for detrimental soil disturbance, the projects created minimal soil disturbance and effects on ground cover due to the type and scope of the treatments. Monitoring for the other two projects, a very limited sample size, showed that ground cover was meeting desired conditions.</p> <p><b>Vernon Allotment:</b> This project is located near Vernon, UT on the Spanish Fork Ranger District. The purpose of this project was to authorize continued grazing within the Vernon Allotment. Soil condition evaluations were made within capable and suitable grazing areas. Samples were taken in representative areas across various soil types. Pastures sampled for ground cover fit within the Mountain Big Sagebrush vegetation type. According to Region 4 guidelines this type needs a minimum of 70% effective ground cover to be considered in a properly functioning condition. The sample sites show that the rangeland vegetation cover types meet the requirement with ground cover ranging from 87% to 100%.</p>

7. Is **water quality** being adequately protected and meeting desired conditions?

**DFC:** Water quality is managed to meet clean water standards established by the State of Utah. All existing water rights are validated. Streams are managed to maintain natural fluvial processes where possible, in turn providing high quality aquatic habitat and water quality. Upland vegetation in all management areas is managed to maintain sufficient ground and soil cover to limit erosion and sediment transport to streams. Riparian Habitat Conservation Areas (RHCAs), regardless of width, are in a stable or upward trend. RHCAs and their corresponding stream channels provide quality habitat for associated terrestrial and aquatic wildlife species. Forest management activities are implemented in a manner that prevents unacceptable watershed impacts.

Indicator	Monitoring
<p>Application of Best Management Practices (BMPs) designed to protect or improve water quality (every 5 years)</p>	<p><i>The Forest Plan requires monitoring at least 3 projects annually, and that the results of this are to be summarized every 5 years. (Forest Plan, pg. 6-13)</i></p> <p style="text-align: center;"><b><u>FY 2011:</u></b></p> <p>Three projects were monitored for Forest Plan consistency during FY 2011: 1) Mutual Dell Organization Camp (Special Use Permit), 2) Upper Strawberry Livestock Grazing Allotments project, and the 3) Badger Hollow Sagebrush Treatment project. Monitoring these 3 projects, a very limited sample size, suggests that mitigation to protect water is being incorporated into project design, is being implemented, and is effective in preventing sediment generated by the projects from reaching water bodies.</p> <p>A 2009 decision authorized the following improvements in the <b>Mutual Dell Organization Camp</b>: installation of a composting restroom, a shower facility, bury a propane tank, and install a pavilion in already developed sites within the permitted area. The field visit found that the disturbance appears to be almost entirely within the existing disturbance footprint. During the monitoring visit several areas were currently under construction. The permittee did not implement any BMPs (e.g., silt fences, matting, mulching, etc.) to mitigate erosion and stream sedimentation; however, there was minimal erosion occurring. No sediment was observed entering stream channels adjacent to or below the project area.</p> <p>This project area for the <b>Upper Strawberry Livestock Grazing Allotments</b> includes the Strawberry, Twin Peaks, and West Daniels Grazing Allotments. The field review occurred on the Strawberry Allotment. The EIS decision for this project area converted the Strawberry Allotment class of livestock from sheep to cattle. It also authorized a portion of the allotment to be fenced off (~11 miles of buck and pole fence) and closed to grazing. The 2011 monitoring focused on the fence construction. Monitoring found that portions of the fence have been constructed, based on funding and labor resource availability. Since the fence is not complete, the Rangeland Management Specialist (Jim Percy, Heber-Kamas RD) has not authorized grazing in this pasture, and will not do so until the fence is completed. The fence was installed to eliminate livestock use in an area where grazing was contributing to deposition of sediment with high phosphorus content into the Strawberry River and some of its tributaries. The</p>

Indicator	Monitoring
	<p>fence will also restrict the creation of unauthorized routes. No soil disturbance was noted due to fence construction. No trailing has occurred along the fence line. No detrimental soil impacts were observed during monitoring.</p> <p>The purpose and need for <b>Badger Hollow Sagebrush Treatment</b> is to improve sage-grouse habitat through the reduction of sagebrush canopy cover. Approximately 1,200 acres of sagebrush were slated to be treated with a Dixie harrow. An additional 300 acres were slated to be mowed with a brush-hog and 1,600 acres were to be left untreated. Monitoring involved conducting ground cover transects and reviewing the effectiveness of buffers to minimize sedimentation on the areas that has been treated. Two transects were established to determine the amount of ground cover in the treated areas. These indicated the treated areas had 14% and 17% bare soil. A 50-foot wide treatment buffer was included in the NEPA decision to minimize sedimentation to stream and aquatic resources during and after treatment. Inspection of buffers showed these buffer requirements were met. Inspection of the nearby stream channels showed no evidence of sediment loading from the treatments. This indicates, that on these soils and with these types of treatments the 50-foot wide buffer is quite effective at minimizing sedimentation to streams.</p>
Compliance with water quality standards (annually)	<p>Currently, the Forest maintains a network of 23 baseline water quality sites on the Uinta National Forest. These sites are monitored on approximately a 4-year rotation in cooperation with the Utah Division of Water Quality (UDWQ) and/or other partners. Standards of Quality for Waters of the State are listed in “<i>Utah Administrative Code – Rule R317-2</i>”. The parameters evaluated for exceedences include dissolved oxygen (DO) concentration and saturation, temperature, pH, and Total Suspended Solids (TSS). Total phosphorus (TP) is also evaluated as an indicator value, rather than as a standard.</p> <p>The chemical water quality of streams on the Uinta National Forest has been monitored since the late 1970s and several changes to the baseline sites have been made. From 1978 to 1980 three sites near Strawberry Reservoir and White River were sampled. From 1985 to 1989, 11 sites were sampled with several sites on streams near the Forest Boundary. From 1990 to 2006, water quality samples were collected at 25 baseline sites on streams near the Forest boundary. From 2007 to the present, 23 baseline sites have been sampled on a 4-year rotation schedule.</p> <p>To assess the beneficial use support of waters of the State, the Utah Division of Water Quality has developed listing criteria that is used to compare data against standards and indicators. The listing criteria are found in several tables in the 2006 Utah 303(d) list document (Utah State of 2006). The criteria vary depending upon the water classifications such as drinking water (Class 1C), primary and secondary contact (Class 2A, 2B), bacteria, aquatic life (Class 3A, 3B, 3C, 3D). For many of the criteria, the degree of support use (full, partial, non-supporting) is dependent upon percentage of the samples that violate the criterion during a given period. For example, for aquatic life beneficial use, the degree of use support would be fully supporting if for any one pollutant, criterion was exceed only once or was not exceeded in less than 10 percent of the samples if the criterion was exceeded at least</p>

Indicator	Monitoring
	<p>two times. Therefore, it should be noted that although there may be water samples whose parameters may exceed the criterion, but the degree of support of the beneficial use class would be assessed using the State beneficial use support protocols.</p> <p>Macroinvertebrates have also been collected on many streams of the Forest and the Hilsenhoff Biotic Index (HBI) is used as a biological indicator of water quality. The HBI Index is calculated as the density-weighted mean of tolerance values for the taxa of macroinvertebrates present at each site. This value is compared to a standard value that corresponds to a rating such as Poor, Fair, Good, Very Good, and Excellent. For each sample round, three individual samples were collected at each site. In 2003, one sample round was collected at each site. At each site beginning in 2004, most of the sites had two samples rounds that occurred each year, one in late spring/early summer and one in the late summer/fall.</p> <p>The Hilsenhoff Biotic Index is a measure of the tolerance of organisms in a sample to organic pollution (sewage effluent, animal wastes) and low dissolved oxygen levels. It is calculated by multiplying the number of individuals of each species by its assigned tolerance value, summing these products, and dividing by the total number of individuals. On a 0-10 scale, tolerance values range from intolerant (0) to tolerant (10). For the purpose of characterizing species' tolerance, intolerant = 0-4, facultative = 5-7, and tolerant = 8-10. Tolerance values are listed in Hilsenhoff (1987). The most recent values for each species are listed in Quality Assurance document, Bode et al. (2002). Impact ranges are: 0-4.50, non-impacted; 4.51-6.50, slightly impacted; 6.51-8.50, moderately impacted, and 8.51-10.00, severely impacted.</p> <p style="text-align: center;"><b><u>FY 2011:</u></b></p> <p>In 2011, eleven (11) baseline sites were monitored for chemical, nutrient and metals parameters. These sites were: (1) Left Fork White River above the Forest boundary, (2) Trout Creek above Strawberry Reservoir, (3) Tie Fork above Soldier Creek, and (4) Right Fork of Little Hobble Creek, (5) Dry Fork Creek above Chipman Creek, (6) North Fork American Fork River, (7) Salt Creek at the Forest boundary, (8) Peteetneet Creek above Maple Dell Campground, (9) Summit Creek above the Forest boundary, (10) Right Fork Hobble Creek at Cherry Campground, and (11) Vernon Creek at the private land boundary. All water quality standards were met. The only parameter that did not meet State indicator values was total phosphorus during the October 2011 sampling month. Left Fork White River above the Forest boundary, Tie Fork above Soldier Creek, and the Right Fork of Little Hobble Creek were just above the indicator value for total phosphorus (0.0503 to 0.053 mg/l). Right Fork Hobble Creek at Cherry Campground was slightly above the indicator value for total phosphorus (0.0562 mg/l) and Trout Creek above Strawberry Reservoir was substantially above the indicator value (0.202 mg/l). The reasons for the higher values are not known at this time.</p> <p>Macroinvertebrates were monitored at six sites in July and September of 2011. The sites monitored and results</p>

Indicator	Monitoring
	<p>(average HBI index) were: Strawberry River above US 40 (HBI 4.33), Tie Fork (HBI 4.95), Indian Creek (HBI 5.01), Trout Creek (HBI 3.95), Right Fork Little Hobble Creek (HBI 4.33), and Left Fork White River (HBI 4.87). This data indicates that Strawberry River above US 40, Trout Creek, and Right Fork Little Hobble Creek are non-impacted and Tie Fork, Indian Creek, and Left Fork White River are slightly impacted, largely due to the naturally erosive soils in these areas.</p>
Number of 303(d) listed water bodies (annually)	<p>The Utah Division of Water Quality assesses the water of the state and provides a report to Congress on those waters that are listed as impaired. <i>“Pursuant to Section 303(d) of the Clean Water Act as amended, each State is required to identify those assessment units (AUs) for which existing pollution controls are not stringent enough to implement state water quality standards. Thus, those waters or assessment units (i.e., lakes, reservoirs, rivers, and streams) that are not currently achieving or are not expected to achieve those standards are identified as water quality limited.”</i> (State of Utah, 2006)</p> <p style="text-align: center;"><b><u>FY 2011:</u></b></p> <p>The information is from the Final Utah integrated 305(b) and 303(d) report that is approved by the EPA. All water bodies of the Uinta planning area are supporting their beneficial uses except those that are listed below. Several projects in drainages listed as impaired have been initiated by UWCNF to reduce sediment to streams and lake. These include road realignments in drainages west of Strawberry Reservoir and in the Soldier Creek drainage.</p> <p><u>Streams</u> – Diamond Fork from confluence with Soldier Creek to Sixth Water (benthic macroinvertebrates), Provo Deer Creek from confluence with Deer Creek Reservoir to headwaters (benthic macroinvertebrates, E. coli.)</p> <p><u>Lakes</u> – Strawberry Reservoir, Mill Hollow Reservoir and Big East Lake continue to be listed as impaired. Strawberry Reservoir is listed as impaired for total phosphorus and dissolved oxygen. A Total Maximum Daily Load (TMDL) determination for Strawberry Reservoir and its tributaries was approved by in 2007. The Forest submitted water quality data and reports to the Utah Division of Water Quality who then prepared a limnological assessment of water quality for these reservoirs.</p>

8. Are **airsheds** on the Forest meeting or trending toward desired conditions?

**DFC:** Smoke emissions from prescribed and wildland fires are within the historical frequency and distribution for the various vegetation types across the Forest. Resulting ambient air quality and visibility values across the Forest are within federal and state standards for particulate matter and visibility.

Indicator	Monitoring
Forest Service management activities do/don't result in exceedences from established NAAQs standards (every 5 years)	<b>FY 2011:</b> The Uinta-Wasatch-Cache NF was compliant with State and USFS smoke management policy. One prescribed fire was completed on the Uinta NF in FY11- Monks Hollow/Brimhall, which was 519 acres. Clearance was obtained from the Utah DEQ prior to burning.
Degradation of lichen biomonitoring sites (every 5 years)	Not Applicable for the FY 2011 Report.
Exceedances from NAAQs standards (every 5 years)	<p><b><u>FY 2011:</u></b></p> <p>In March of 2008 EPA strengthened the 8-hour standard for ozone. Before its revocation, the level of the annual standard was 0.080 parts per million to 0.075 parts per million. Some locations that previously met the ozone standard may exceed the current level. The USEPA reports air quality summary information by calendar year.</p> <p>For the six air quality criteria pollutants in calendar years 2010 and 2011, Salt Lake and Utah counties did not exceed air quality standards for carbon monoxide, nitrogen dioxide, ozone, sulfur dioxide but exceeded air quality standards for particulate matter (PM). In 2010 and 2011 Salt Lake and Utah counties exceeded PM 2.5 (98 percentile) standard. In 2011, Utah County exceeded PM 2.5 (weighted average) standard. In 2010, Salt Lake County exceeded PM10 (24-hr 2<sup>nd</sup> maximum) standard.</p>

9. Are **vegetation conditions** stable or moving toward desired future conditions?

**DFC:** Deteriorated vegetated communities are assessed for estimated potential for recovery, and active restoration work is completed as appropriate. Suitable habitat conditions are provided for plant-pollinating insects. Vegetative communities exist in a full range of seral stages and age classes. Vegetation management focuses on improving the diversity of forested and non-forested communities, with an emphasis on aspen stand regeneration and insect and disease control in conifer species. Vegetation is managed to create a more diverse mosaic of species and size classes within the landscape in an effort to move the vegetation towards desired future conditions. Wildlife habitat needs are considered in designing treatment projects, but do not necessarily drive the purpose and need for treatment. Forested vegetation that is classified as capable and available is managed to provide a portion of the Forest’s Allowable Sale Quantity (ASQ). Forested vegetation throughout the remainder of the Forest is managed for general forest health and other forest resource needs.

The Uinta National Forest supports a wide variety of vegetation types. The most common vegetation community types on the Forest are aspen forest, oak/maple, sagebrush, conifer forest, pinyon/juniper woodlands, mountain brush, and riparian.

The desired future condition of each habitat type is a vegetation community where species composition and age-class distribution are within the historic range of variability for that community type and approach patterns described under properly functioning conditions. Vegetation conditions that are within the historic range of variability are desired because these are habitat conditions under which all native species evolved and to which they are adapted. Vegetation composition and structure are important because they largely determine types and amounts of food and cover available for each species.

Indicator	Monitoring
Clearcut size and timber management practices according to Forest Plan direction (annually)	<p style="text-align: right;"><b><u>FY 2011:</u></b> <sup>1/</sup></p> <p>The acreage of timber harvest, by harvest method , reported for FY2011 follows:</p> <ul style="list-style-type: none"> <li>• <u>Clearcut</u>: None (0 acres) were implemented</li> <li>• <u>Group selection</u>: 18 acres</li> <li>• <u>Individual tree/small group selection</u>: 200 acres</li> </ul> <p>Timber harvest occurred in accordance with Forest Plan direction.</p> <hr style="width: 10%; margin-left: 0;"/> <p><sup>1/</sup> SOURCE: FACTS – Regeneration and Intermediate Harvest Report.</p>
Prescribed fire and wildland fire use according to Forest Plan direction (every 5 years)	Not Applicable for the FY 2011 Report. (See the following section on “Acreage with approved wildland fire use plan”.)
Acreage with approved wildland fire use plan (every 5 years)	We no longer have “Wildland Fire Use” fires (see the “ <i>State of the Forest Report For The Uinta National Forest Planning Area, Fiscal Year 2003-2010</i> ”

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Indicator	Monitoring
	for more information).
Acres of hazardous fuels treated (annually)	<p style="text-align: center;"><b><u>FY 2011:</u></b></p> <p>About 4,820 acres were reported as treated in the Uinta National Forest planning area.</p>
<b>Aspen, spruce/fir, Douglas-fir -</b> a. Extent of conversion (acres) to younger age classes (every 5 years) b. Extent and distribution of old and mature (every 5 years) c. Extent of insect/disease infestations (every 5 years)	Not Applicable for the FY 2011 Report.
<b>Riparian forest types -</b> Extent and distribution of old and mature (every 10 years)	Not Applicable for the FY 2011 Report.
<b>Other forest types -</b> a. Extent and distribution of old and mature (every 10 years) b. Extent of insect/disease infestations (every 5 years)	Not Applicable for the FY 2011 Report.
<b>Sagebrush –</b> Extent and distribution with >15% sage canopy cover (every 10 years)	Not Applicable for the FY 2011 Report.
<b>Other rangeland types –</b> Extent, distribution, and trend (every 10 years)	Not Applicable for the FY 2011 Report.



10. Are management activities effective in preventing excessive **catastrophic fire** events?

**DFC:** Fire is effectively and safely reintroduced into the ecosystem wherever possible, and fuels levels and vegetation are moving towards desired future conditions. The reduction of fuels in the wildland urban interface protects homes, forest infrastructure, and sensitive watersheds from catastrophic wildfire. The Forest has implemented the National Fire Plan and associated Cohesive Strategy, President Bush’s Healthy Forests Initiative, and other forest policies. Fuels treatments consist of prescribed fire, wildland fire use, mechanical treatments, biological treatments, and other approved fuels treatment techniques. These treatments play an active role in the management of forested and non-forested vegetation health, rangeland health, wildlife habitat, watershed, and social concerns across the Forest. All fuels treatment methods are utilized to improve vegetation structure and age class diversity. Concurrent with this emphasis on fuels treatments, the Forest maintains an effective fire suppression organization that utilizes the appropriate management response to fires. Assessments for determining whether hazard fuel reductions are necessary have been completed. The Wasatch Front Fuels Assessment prioritizes treatment areas across state, local, and federal boundaries.

Indicator	Monitoring
Acreage of human and naturally ignited wildland fire and wildland fire use (every 5 years)	<p><b><u>FY 2011:</u></b></p> <p>There were 16 fires on the Uinta NF planning area, totaling 157 acres. There were 2 fires over 10 acres (both on Spanish Fork Ranger District) - the Elderberry (144 acres) and the Dry (12 acres). Human caused acres burned approximately 1 acre, and those of unknown causes burned about 156 acres.</p> <p>We no longer have “Wildland Fire Use” fires (see the “<i>State of the Forest Report For The Uinta National Forest Planning Area, Fiscal Year 2003-2010</i>” for more information).</p>
Fire condition classes (every 5 years)	Not Applicable for the FY 2011 Report.

11. Are **goods and services** being provided in accordance with Forest Plan goals and objectives?

**DFC:** Management of the Forest contributes both tangible and intangible social and economic benefits to communities. Quality of life is maintained and enhanced by factors such as the availability of a variety of recreational opportunities, the ability to view sustainable populations of wildlife and fish in quality habitats, maintenance and improvement of air quality and water quality and quantity, and the ability to retreat from fast-paced urban life in a variety of forest settings. The economic diversity of local communities is enhanced by providing sustainable and predictable levels of goods and services such as recreation, wood products, forage, and other products consistent with management direction and ecosystem health. Forest landscapes and activities contribute to a sense of place and members of the public are assured that the ecosystems of the Uinta National Forest are maintained and/or improved for the benefit of current and future generations. Timber harvest activities conducted to achieve management objectives provide opportunities for the local dependant timber industry. Grazing opportunities are maintained on 71 open cattle and sheep allotments and continue to support the livestock industry in the local communities.

Indicator	Monitoring
<p>Allowable Timber Sale Quantity (annually)</p> <p>Total Timber Sale Program Quantity (annually)</p> <p>Other Forest products (Fuelwood and Christmas Trees Permits) (annually)</p>	<p><b>Goal:</b> Goals are listed in the following table. Fuelwood demand has dropped substantially, ranging between 649 and 1,615 hundred cubic feet (CCF) per year between 1982 and 2002. Average demand over the last 25 years was about 3,875 CCF. Supplies have come primarily by the Heber Ranger District. The fuelwood supply is limited by access, but is adequate to meet or exceed demand. Demand over the next few years is expected to stay about the same. The Forest Plan objective is 800-1,200 cords/year, which equates to 1,025-1,535 CCF/year. Personal use Christmas tree permits are issued on the Heber and Spanish Fork Ranger Districts. Commercial Christmas tree sales are not offered. Demand for personal use permits remains extremely high on the Heber Ranger District and permits are sold out within a few hours of going on sale.</p> <p>The ASQ under the previous Forest Plan was 1.9 MMBF/Year (<math>\approx</math> 3,300 CCF/Yr). The ASQ and TSPQ were reduced in the 2003 Revised Forest Plan (see the following table). During the 1991-2002 period about 2,560 CCF/Yr of timber chargeable toward the ASQ was sold, and the TSPQ volume sold was about 5,460 CCF/Yr. (2001-2002 State of the Forest Report, pg. 39-40). All sales advertised during the 2003-2004 period were sold. Purchasers continue to be locally-owned, small, and family-operated sawmills.</p> <p style="text-align: center;"><b><u>FY 2011:</u></b></p> <p>Timber sales are being sold each year on the Forest, but due primarily to budget constraints the volumes sold are generally less than Forest Plan objectives (see the following table). The volume sold over the 2003 (post plan approval) thru 2011 period chargeable toward the ASQ was 14,826 CCF (or 95% of the average annual corrected Forest Plan objective for ASQ), and the volume sold chargeable toward the TSPQ was 17,632 CCF (or 52% of the average annual corrected Forest Plan objective for TSPQ). Most commercial sales offered on the Forest during this period have been sold when offered, although 2 sales offered in 2010 did not sell.</p> <p>Fuelwood sales have remained strong, and demand has increased in recent years in response to energy prices. Also, the minimum permit size increased in 2006 from 3 to 4 cords, and consequently the volume of fuelwood sold</p>

Indicator	Monitoring																																																																	
	<p>increased. Fuelwood was not included in the ASQ or TSPQ objectives. Fuelwood sales over the FY2004 thru FY 2011 period have exceeded Forest Plan projections (158-236% of the Forest Plan objective).</p> <p>Christmas tree sales have also remained strong. Permit offerings are primarily on the Heber Ranger District part of the Forest, and permits offered here continue to sell out within a few hours. Permits for pinyon and juniper Christmas trees continue to be offered on the Spanish Fork District (largely on the Vernon unit), but demand for these is limited.</p> <p style="text-align: center;"><b>Timber Products Sold on Uinta National Forest</b></p> <table><tr><th></th><th>Allowable Sale Quantity (ASQ) <sup>3/, 6/</sup></th><th>Total Timber Sale Program Quantity (TSPQ) <sup>2/, 3/, 6/</sup></th><th>Personal Use Fuelwood Permits <sup>4/</sup></th><th>Christmas Tree Permits (also equals # of trees) <sup>4/</sup></th></tr><tr><td><b>1982-2002</b></td><td>N/A</td><td>N/A</td><td>1,117.3 CCF</td><td>1,863 Permits</td></tr><tr><td><b>2003 Forest Plan Objective <sup>1/</sup></b></td><td>1,725 CCF/Year</td><td>3,745 CCF/Year</td><td>1,025-1,535 CCF</td><td>N/A</td></tr><tr><td><b>FY 2003 (post Forest Plan approval)</b></td><td>388 CCF <sup>5/</sup></td><td>388 CCF <sup>5/</sup></td><td>1,024 CCF <sup>7/</sup></td><td>1,989 Permits <sup>7/</sup></td></tr><tr><td><b>FY 2004</b></td><td>515 CCF</td><td>1,054 CCF</td><td>1,221 CCF</td><td>1,833 Permits</td></tr><tr><td><b>FY 2005</b></td><td>322 CCF</td><td>322 CCF</td><td>1,206 CCF</td><td>1,800 Permits</td></tr><tr><td><b>FY 2006</b></td><td>5,117 CCF</td><td>5,762 CCF</td><td>1,635 CCF</td><td>1,800 Permits</td></tr><tr><td><b>FY 2007</b></td><td>346 CCF</td><td>1,872 CCF</td><td>2,110 CCF</td><td>1,807 Permits</td></tr><tr><td><b>FY 2008</b></td><td>2,012 CCF</td><td>2,108 CCF</td><td>2,578 CCF</td><td>2,404 Permits</td></tr><tr><td><b>FY 2009</b></td><td>91 CCF</td><td>91 CCF</td><td>3,023 CCF</td><td>2,401 Permits</td></tr><tr><td><b>FY 2010</b></td><td>229 CCF</td><td>229 CCF</td><td>3,506 CCF</td><td>2,402 Permits</td></tr><tr><td><b>FY 2011</b></td><td>5,806 CCF</td><td>5,806 CCF</td><td>4,085 CCF</td><td>2,400 Permits</td></tr><tr><td><b>Average for planning period</b></td><td>1,647 CCF/Year (FY03-FY11 <sup>5/</sup>)</td><td>1,959 CCF/Year (FY03-FY11 <sup>5/</sup>)</td><td>2,421 CCF/Year (FY04 – FY11)</td><td>2,106 Permits/Year (FY04-FY11)</td></tr></table> <p><sup>1/</sup> The Forest Plan objectives are the average volume/year over the 10-year (2003-2012) planning. Objectives for timber (O-3-2 and O-3-3) are on pg. 2-17 of the 2003 Forest Plan (as corrected 11/27/2006).</p> <p><sup>2/</sup> Personal use firewood permits are not included in the TSPQ.</p> <p><sup>3/</sup> SOURCE: Periodic Timber Sale Accomplishment Report, Regional Sale Report.</p> <p><sup>4/</sup> SOURCE: FY Cut and Sold Report.</p> <p><sup>5/</sup> Does not include 4,140 CCF from sales advertised in FY02, and awarded in FY03 prior to approval of the revised Forest Plan).</p> <p><sup>6/</sup> Includes sales offered the prior FY but not awarded (i.e. sold) till the current fiscal year (see footnote 5/ above for exception).</p> <p><sup>7/</sup> Much of the amount reported was sold or authorized in FY03 prior to approval of the Revised Forest Plan (i.e. 10/2002 thru 3/2003).</p>		Allowable Sale Quantity (ASQ) <sup>3/, 6/</sup>	Total Timber Sale Program Quantity (TSPQ) <sup>2/, 3/, 6/</sup>	Personal Use Fuelwood Permits <sup>4/</sup>	Christmas Tree Permits (also equals # of trees) <sup>4/</sup>	<b>1982-2002</b>	N/A	N/A	1,117.3 CCF	1,863 Permits	<b>2003 Forest Plan Objective <sup>1/</sup></b>	1,725 CCF/Year	3,745 CCF/Year	1,025-1,535 CCF	N/A	<b>FY 2003 (post Forest Plan approval)</b>	388 CCF <sup>5/</sup>	388 CCF <sup>5/</sup>	1,024 CCF <sup>7/</sup>	1,989 Permits <sup>7/</sup>	<b>FY 2004</b>	515 CCF	1,054 CCF	1,221 CCF	1,833 Permits	<b>FY 2005</b>	322 CCF	322 CCF	1,206 CCF	1,800 Permits	<b>FY 2006</b>	5,117 CCF	5,762 CCF	1,635 CCF	1,800 Permits	<b>FY 2007</b>	346 CCF	1,872 CCF	2,110 CCF	1,807 Permits	<b>FY 2008</b>	2,012 CCF	2,108 CCF	2,578 CCF	2,404 Permits	<b>FY 2009</b>	91 CCF	91 CCF	3,023 CCF	2,401 Permits	<b>FY 2010</b>	229 CCF	229 CCF	3,506 CCF	2,402 Permits	<b>FY 2011</b>	5,806 CCF	5,806 CCF	4,085 CCF	2,400 Permits	<b>Average for planning period</b>	1,647 CCF/Year (FY03-FY11 <sup>5/</sup> )	1,959 CCF/Year (FY03-FY11 <sup>5/</sup> )	2,421 CCF/Year (FY04 – FY11)	2,106 Permits/Year (FY04-FY11)
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Level of permitted livestock grazing (annually)	<i>The 2003 Forest Plan objective (O-3-1) is “Permit approximately 100,000 Animal Unit Months (AUMs) of forage per year for use by livestock” (LRMP, pg. 2-17). Authorized use may differ from permitted use, depending on range</i>																																																																	

Indicator	Monitoring																				
	<p><i>conditions, market and economic factors, other conditions.</i></p> <p style="text-align: center;"><b><u>FY 2011:</u></b></p> <p>As can be seen below, the Forest has met, and slightly exceeded the objective of permitting approximately 100,000 AUMs of livestock use. Authorized use has been less than permitted use, and generally less than the Forest Plan objective. No grazing was permitted on the Pleasant Grove Ranger District.</p> <p style="text-align: center;"><b>Grazing Animal Unit Months (AUMs) by Fiscal Year on the Uinta National Forest</b></p> <table><tr><th rowspan="2">Grazing Season</th><th colspan="3">Permitted Use <sup>(a)</sup></th><th colspan="3">Authorized Use <sup>(a)</sup></th></tr><tr><th>Cattle</th><th>Sheep</th><th>Total</th><th>Cattle</th><th>Sheep</th><th>Total</th></tr><tr><td>2011</td><td>59,155</td><td>40,581</td><td>99,736</td><td>55,140</td><td>38,820</td><td>93,960</td></tr></table> <p><sup>(a)</sup> Source: INFRA database.</p>	Grazing Season	Permitted Use <sup>(a)</sup>			Authorized Use <sup>(a)</sup>			Cattle	Sheep	Total	Cattle	Sheep	Total	2011	59,155	40,581	99,736	55,140	38,820	93,960
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2011	59,155	40,581	99,736	55,140	38,820	93,960															
Acres leased for oil and gas exploration (annually).	<p><i>Forest Plan Subgoal-3-5 provides: “If consistent with ecosystem health and integrity, the demand for mineral and energy resources through environmentally responsible exploration, development, and production on National Forest System lands is satisfied through contributions by the Forest.” (LRMP, pg. 2-17) The Forest Plan describes the desired future condition relative to oil and gas exploration and development as “Special use permits for oil and gas exploration have been issued in the past, and future proposals will be entertained. The Forest will examine and act upon formal worthy proposals with environmental considerations and apply the appropriate stipulation(s). Leasing of National Forest System lands in the high and moderate areas as identified in the Western Uinta Basin Oil and Gas Leasing FEIS (USDA 1997b) will continue to be offered competitively. That FEIS covers the following management areas: Diamond Fork (eastern side), Strawberry Reservoir (portions south of U.S. Highway 40), Upper Spanish Fork Canyon, White River, and Willow Creek. The remaining management areas were not covered in that FEIS, but will be analyzed for future land allocation.” (LRMP, page 5-6)</i></p> <p style="text-align: center;"><b><u>FY 2011:</u></b></p> <p>Acres and number of leases are shown in the following tables. Of the approximately 898,360 acres of National Forest System (NFS) lands on the Uinta National Forest, about 207,280 acres are not legally available for the Forest Service to lease. These lands include designated wilderness areas (~58,410 acres), Strawberry Project Lands (~61,340 acres), and other lands without federal mineral rights (~32,660 acres). This leaves about 736,070 acres legally available for oil and gas leasing on the Forest. (FEIS for Uinta Oil and Gas Leasing) No oil and gas wells have been drilled on the Forest since the Forest Plan was approved.</p> <p>An EIS was initiated in February of 2006 to identify National Forest System (NFS) lands within the Uinta National Forest planning area available for oil and gas leasing, and to identify specific lands that will be offered to BLM to authorize leasing. The Draft EIS was released in February of 2008. The Final EIS and associated Record of Decision</p>																				

Indicator	Monitoring																																																																																																																																																															
	<p>were approved February, 2012 (outside the time frame for this Monitoring Report which ended September 30, 2011). This EIS fulfilled a portion of the desired condition described for minerals on page 5-6 of the 2003 Forest Plan.</p> <p><b>FY 2011:</b> On September 10, 2012 the BLM made a decision resulting from a lawsuit, <i>Utah Rivers Council v. United States Forest Service and United States Bureau of Land Management</i> to suspend 67 oil and gas leases on the Uinta NF sold under a competitive sale in 2004 and issued in 2005. The suspension of operations and production of these leases has been placed on hold until NEPA and other applicable laws are reviewed and completed by the BLM. Presently, the Forest Service is reviewing stipulations identified in the <i>Final supplemental EIS, Uinta NF Oil and Gas Leasing and Record of Decision</i>, dated February 18, 2011 for adoptability in the beginning of 2013 for BLM’s consideration as to possible actions which may be pursued as to the applicability of new stipulation, if any may apply.</p> <p style="text-align: center;"><b>Acres of Oil and Gas Leases by Fiscal Year on Uinta National Forest</b></p> <table><tr><th rowspan="2">Fiscal Year</th><th colspan="6">National Forest System Acres<sup>3/</sup> (rounded to nearest 10)</th></tr><tr><th>Lease Advertised and Bid On</th><th>Lease Authorized</th><th>Lease Suspended</th><th>Lease Terminated</th><th>Bid Refunded – Lease Never Authorized</th><th>Authorized Active Leases</th></tr><tr><td>Pre-2003</td><td>23,000</td><td>23,000</td><td>0</td><td>0</td><td>0</td><td>23,000</td></tr><tr><td>2003</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>23,000</td></tr><tr><td>2004</td><td>118,660</td><td>0</td><td>0</td><td>0</td><td>0</td><td>23,000</td></tr><tr><td>2005</td><td>45,950</td><td>0</td><td>0</td><td>0</td><td>0</td><td>23,000</td></tr><tr><td>2006</td><td>0</td><td>138,760</td><td>0</td><td>0</td><td>0</td><td>161,760</td></tr><tr><td>2007</td><td>0</td><td>0</td><td>61,040</td><td>0</td><td>15,260<sup>1/</sup></td><td>100,720</td></tr><tr><td>2008</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>100,720</td></tr><tr><td>2009</td><td>0</td><td>0</td><td>10,720</td><td>0</td><td>0</td><td>90,000</td></tr><tr><td>2010</td><td>0</td><td>0</td><td>138,760<sup>2/</sup></td><td>0</td><td>10,596</td><td>90,000</td></tr><tr><td>2011</td><td>0</td><td>0</td><td>138,760</td><td>7,520</td><td>0</td><td>82,480</td></tr></table> <p style="text-align: center;"><b>Number of Oil and Gas Leases by Fiscal Year on Uinta National Forest</b></p> <table><tr><th rowspan="2">Fiscal Year</th><th colspan="6">Number of Leases</th></tr><tr><th>Lease Advertised and Bid On</th><th>Lease Authorized</th><th>Lease Suspended</th><th>Lease Terminated</th><th>Bid Refunded – Lease Never Authorized</th><th>Authorized Active Leases</th></tr><tr><td>Pre-2003</td><td>10</td><td>10</td><td>0</td><td>0</td><td>0</td><td>10</td></tr><tr><td>2003</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>10</td></tr><tr><td>2004</td><td>58</td><td>65</td><td>0</td><td>0</td><td>0</td><td>75</td></tr><tr><td>2005</td><td>21</td><td>0</td><td>0</td><td>0</td><td>0</td><td>75</td></tr><tr><td>2006</td><td>0</td><td>2</td><td>0</td><td>0</td><td>0</td><td>77</td></tr><tr><td>2007</td><td>0</td><td>0</td><td>29</td><td>0</td><td>7<sup>1/</sup></td><td>48</td></tr><tr><td>2008</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>48</td></tr><tr><td>2009</td><td>0</td><td>0</td><td>5</td><td>0</td><td>0</td><td>43</td></tr><tr><td>2010</td><td>0</td><td>0</td><td>67<sup>2/</sup></td><td>0</td><td>6<sup>1/</sup></td><td>43</td></tr></table>	Fiscal Year	National Forest System Acres <sup>3/</sup> (rounded to nearest 10)						Lease Advertised and Bid On	Lease Authorized	Lease Suspended	Lease Terminated	Bid Refunded – Lease Never Authorized	Authorized Active Leases	Pre-2003	23,000	23,000	0	0	0	23,000	2003	0	0	0	0	0	23,000	2004	118,660	0	0	0	0	23,000	2005	45,950	0	0	0	0	23,000	2006	0	138,760	0	0	0	161,760	2007	0	0	61,040	0	15,260 <sup>1/</sup>	100,720	2008	0	0	0	0	0	100,720	2009	0	0	10,720	0	0	90,000	2010	0	0	138,760 <sup>2/</sup>	0	10,596	90,000	2011	0	0	138,760	7,520	0	82,480	Fiscal Year	Number of Leases						Lease Advertised and Bid On	Lease Authorized	Lease Suspended	Lease Terminated	Bid Refunded – Lease Never Authorized	Authorized Active Leases	Pre-2003	10	10	0	0	0	10	2003	0	0	0	0	0	10	2004	58	65	0	0	0	75	2005	21	0	0	0	0	75	2006	0	2	0	0	0	77	2007	0	0	29	0	7 <sup>1/</sup>	48	2008	0	0	0	0	0	48	2009	0	0	5	0	0	43	2010	0	0	67 <sup>2/</sup>	0	6 <sup>1/</sup>	43
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Indicator	Monitoring						
	2011	0	0	67 <sup>2/</sup>	2	0	41
	<sup>1/</sup> These leases were offered and bid on in 2005 while under protest. These leases were never issued and the bids were refunded. <sup>2/</sup> These include the 29 leases previously suspended in 2007. These 67 leases were suspended in response to litigation. <sup>3/</sup> Acres derived from Forest GIS database analysis with exception being 6 leases bid on and never authorized. The acres shown in the BLM LR 2000 database for these leases were used.						
Number of Recreation Special Use permits (annually)	<p><i>The 2003 Forest Plan contains the following goal and sub-goal for recreation special uses: “Diverse and suitable recreational opportunities are provided responsive to public demand while maintaining ecosystem health and contributing to social and economic sustainability” (FW-Goal-6; pg. 2-18). “The current level of summer special use activity is maintained, consistent with resource capability. Opportunities for winter special use activities are evaluated” (Subgoal-6-11; pg. 2-19). The 2003 Forest Plan also contains 4 standards for recreation special uses. These pertain to providing for recreation residences, and prohibitions on issuance of outfitter and guide permits in wilderness areas on the Forest (pg. 3-31).</i></p> <p style="text-align: center;"><b><u>FY 2011:</u></b></p> <p>Demand for recreation special use permits (e.g., summer home residences, races, group camping events, etc.) continues to be high. The number of recreation special use permits has ranged from 161 in FY2004 to a high of 305 in FY2009. In FY 2011 there were 186 recreation special use permits authorized on the Uinta National Forest. <sup>1/</sup></p> <p>_____</p> <p><sup>1/</sup> SOURCE: INFRA database.</p>						
Number of lands Special Use permits (annually)	<p><i>The 2003 Forest Plan does not contain any general goals or objectives specific to lands special use permits. The Forest Plan does contain a management prescription category (Rx = 8.2) for communication sites and utility corridors, and contains several standards and guidelines that provide direction for mitigating resource impacts from authorized special uses (e.g., raptor protection on powerlines).</i></p> <p style="text-align: center;"><b><u>FY 2011:</u></b></p> <p>Demand for lands special use permits (e.g., for communication sites, powerlines, utility corridors, etc.) continues to be high. The number of lands special use permits has ranged from 170 in FY2005 to a high of 210 in FY2010. In FY 2011 there were 196 lands special use permits authorized on the Uinta National Forest. <sup>1/</sup></p> <p>_____</p> <p><sup>1/</sup> SOURCE: INFRA database.</p>						

12. Are we providing a diversity of **recreational opportunities** while protecting natural resources? Are conflicts between user groups minimal?

**DFC:** <sup>1/</sup> Summer use dispersed recreation management plans are developed. Developed recreation sites are managed to meaningful measures standards. Recreation special uses have site plans and are managed to standard. Travel management plans have been completed, and motorized trails have been built or reconstructed to meet trail standards. The portions of the Bonneville Shoreline Trail that are on the Forest have been completed. Off-highway vehicle (OHV) and all-terrain vehicle (ATV) use is limited to existing roads and trails, reducing indiscriminate use that causes resource damage in critical watersheds and habitats.

Indicator	Monitoring
Acreage with approved Travel Management Plan (every 5 years)	Not Applicable for the FY 2011 Report.
Miles of non-motorized trail (annually)	<b><u>FY 2011:</u></b> 527
Miles of motorized trail and road opportunities (annually)	<b><u>FY 2011:</u></b> 472
Miles of trails groomed for winter use (annually)	<b><u>FY 2011:</u></b> 272 (cross country and snowmobile)
Trailheads maintained for winter use (annually)	<b><u>FY 2011:</u></b> 16
Campground capacity (annually)	<b><u>FY 2011:</u></b> 12,711 (PAOT capacity)
Developed recreation sites meeting accessibility (ADA) standards (every 5 years)	Not Applicable for the FY 2011 Report.

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Indicator	Monitoring
Day-use developed site capacity (annually)	<b><u>FY 2011:</u></b> 919
Scenery Management Objectives compliance (every 5 years)	Not Applicable for the FY 2011 Report.
Compliance with travel management direction (every 5 years)	<b><u>FY 2011:</u></b> Six (6) incident reports, 15 violation notices and 14 written warnings were issued by Forest Service law enforcement personnel for travel management violations on the Uinta NF planning area in FY 2011. Additionally, the Forest has cooperative agreement with Juab, Utah, and Wasatch counties for enforcement on National Forest System lands.
Compliance with wilderness direction (every 5 years)	Not Applicable for the FY 2011 Report.
Non-Forest Service participant assistance in compliance, education, and enforcement (every 5 years)	Not Applicable for the FY 2011 Report.

<sup>1/</sup> The Uinta-Wasatch-Cache (UWC) NF has developed a **Recreation Strategy** (USDA FS, UWC NF, 2012) to organize and position the Forest to deliver a sustainable recreation program. This strategy is not a decision document; it is a roadmap to sustainability. The strategy is designed to be dynamic and respond to new information and changing conditions. The basic tenet of the recreation strategy is to weigh provision of recreational amenities and opportunities with natural and financial resources to insure a balance. Under this strategy we will provide recreational opportunities that our visitors demand at a forest-wide scale. The strategy fits within the framework of both the Uinta and Wasatch-Cache Revised Forest Plans. The Recreation Strategy contains the following description of the Forest Recreation Niche and Overall Desired Condition for the recreation program on the Forest:

The UWC NF is where civilization meets the "Wild". Metropolitan areas and communities bordering the forest make up some of the fastest growing areas in the Intermountain West. Quick, convenient access is available to forest visitors year round, making the UWC NF an intensely used destination spanning backyard to backcountry. Forest lands have sustained local communities for thousands of years. Corridors and travel ways lead visitors to natural settings and spectacular vistas with fresh water and clean air. The "*greatest snow on earth*" draws people from around the world. The Forest recognizes the importance of its role in the need to find balance and maintain relevance, while providing sustainable recreation for a growing diverse population.

The Recreation Strategy also describes the kinds of recreational activities, program-wide goals, and operating tenets for the UWC NF as a whole. It also identifies and maps 5 "recreation niche settings" on the Forest. These are: backcountry, dispersed play, neighborhood influence, scenic travelways, and ski resorts. The 'settings' are landscapes that provide unique opportunities, and thus must be managed differently. Descriptions of recreational activities and desired conditions for each setting are also provided.



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### 13. Is adequate **access** to and across the Forest being provided?

**DFC:** Miles of classified roads remain relatively unchanged. The Forest is well accessible with many roads in place and functioning for many years. Roads (particularly arterial and collector roads) are maintained and constructed to a standard that is providing a safe economical facility. Local roads provide access to and through the area. Ecosystem integrity, public safety, and available funding are in balance with access needs and desires to maintain a minimum road system. When possible, roads or portions of roads that have negatively affected watershed and aquatic conditions are relocated or hardened.

Indicator	Monitoring
Miles of classified road (annually)	<p><b><u>FY 2011:</u></b> In FY 2010 the total miles of classified road on the Forest was 1,208 and in FY 2012 was 1,205. <sup>1/</sup> The data base where this information resides was not queried for this in FY 2011 and has since been updated; therefore, information for FY 2011 is not available.</p> <p><sup>1/</sup> SOURCE: INFRA data base.</p>
Miles of classified road open for public use (every 5 years)	<p><b><u>FY 2011:</u></b> In FY 2010 the miles of classified road open for public use on the Forest was 1,059 and in FY 2012 was 1,090. <sup>1/</sup> The data base where this information resides was not queried for this in FY 2011 and has since been updated; therefore, information for FY 2011 is not available.</p> <p><sup>1/</sup> SOURCE: INFRA data base.</p>
Miles of new road construction (annually)	<b><u>FY 2011:</u></b> None.
Miles of classified roads reconstructed or relocated (annually)	<b><u>FY 2011:</u></b> 4.0
Miles of classified road maintained (annually)	<b><u>FY 2011:</u></b> About 249.2 miles of classified road were maintained in FY 2011. Appropriated funding for road maintenance is decreasing, and in response the Forest is looking to find more ways to partner to maintain roads, as well as prioritizing roads for maintenance.
Miles of unclassified road decommissioned (annually)	<b><u>FY 2011:</u></b> 5.7
Miles of unclassified road (every 10 years)	Not Applicable for the FY 2011 Report.

