

PART 2

HEALTHY PRODUCTIVE LANDS

Healthy and productive public lands and waters support and sustain natural ecological communities that provide numerous benefits for the American people, including open space, recreational opportunities, wildlife habitat, clean water, clean air, energy and minerals, livestock forage, and other economic, environmental, and social benefits. The BLM's rangelands maintain not only the economies of Western rural communities, but also their history, social fabric, and cultural identity.

To effectively fulfill its mission, the BLM implements sound management practices to (1) assess the conditions and trends of public land resources, (2) identify risks to these resources, (3) restore resources that are in a deteriorated, undesirable condition, and/or (4) maintain resources that are in healthy condition. The BLM works closely with other Federal agencies, American Indian tribes, local and State agencies, constituent groups, other public and private partners, and the general public in developing programs and projects to restore, maintain, protect, and preserve public land resources and their values.

Land resource condition is sometimes defined in Federal and State laws, such as those related to air and water quality. Condition can also be defined in more general terms, requiring subsequent interpretation and the development of measurable standards on a regional basis, such as the BLM's rangeland health standards. The BLM balances the use and protection of public land resources through cooperative conservation projects, citizen-based stewardship, and other on-the-ground partnership activities to achieve long-term public land health and stability of the public lands.

Table 2-1, Percent of Rangeland Acreage by Ecological Status by State, provides a summary of the ecological site inventories conducted by the BLM over the years. This table is updated annually to reflect new inventory work and changes in the ecological status. Ecological site inventories provide land managers with useful information for determining site capability, and for assessing the implementation of land use plans and achievement of resource management objectives.

Table 2-2, Condition of Riparian-Wetland Areas, was first reported in *Public Land Statistics* in 1995. While riparian-wetland areas comprise a small percentage of the public lands administered by the BLM, their benefits far exceed their relatively small acreage. To manage these areas on a watershed basis, the BLM, along with the Forest Service and the Natural Resources Conservation Service (NRCS), has initiated the Accelerating Cooperative Riparian Restoration and Management strategy to restore and maintain these areas in proper functioning condition. A riparian-wetland area is considered to be functioning properly when adequate vegetation, landform, or large woody debris is present to dissipate energies associated with high-flow events.

Table 2-3, Resource Conservation and Improvement Accomplishments, is a summary of the many conservation, rehabilitation, and development projects completed on the BLM public lands during the past year. These projects stabilize soils, maintain or improve water quality, reduce siltation and salinity, reduce surface runoff, and control flooding. They also assist in improving ecologic site condition, promoting healthy riparian areas and wetlands, and enhancing overall rangeland health.

Table 2-4, Forest Development Accomplishments in Acres, shows the numerous reforestation and improvement projects completed during Fiscal Year 2006 to restore forest health conditions on the BLM public lands. The table was slightly modified in Fiscal Year 2005 to reflect changes in the BLM's forest management practices. The columns "Reforestation – Seeding" and "Genetic Tree Improvement – Seeding" were removed as the BLM no longer sows tree seed as a reforestation practice; there were no acres reported in either category for at least 10 years. A column entitled "Pruning" was added as the BLM is now using this practice for disease control and fuel hazard reduction.

Table 2-5, Types of Wildlife Habitat on Public Lands, describes the various types of wildlife habitats that exist on BLM-administered public lands. No single Federal or State agency manages more fish and wildlife habitat than the BLM. As the quality and quantity of the fish and wildlife habitats decrease across the country, the varied habitats on the BLM public lands become increasingly important in maintaining the Nation's fish and wildlife heritage.

Table 2-6, Estimated Number of Big Game Animals on Public Lands, shows an estimate of the numbers of big game species located on the BLM public lands. Most of this information was provided by the various State wildlife agencies.

Table 2-7, Fish and Wildlife Habitat Improvements Completed, portrays the variety of improvement projects used to enhance fish and wildlife habitats on public lands over the past year. Habitat quality and quantity are the keys to the future of wildlife. On-the-ground activities to preserve, enhance, or restore wildlife habitat represent a wise investment in the future. Most habitat improvement efforts are accomplished in cooperation with State wildlife agencies, conservation groups, and a variety of other public and private partners.

Table 2-8, Emergency Fire Rehabilitation Projects, displays the BLM's fire rehabilitation projects to stabilize soils and restore watersheds following wildfires. Fire rehabilitation actions are necessary to prevent unacceptable resource degradation, minimize threats to public health and safety, prevent unacceptable off-site damage, and minimize the potential for the recurrence of wildfire. The number and acreage of fire rehabilitation projects vary yearly, depending on the severity of the wildfire season occurring on BLM-managed public lands.

Table 2-1. PERCENT OF RANGELAND ACREAGE BY ECOLOGICAL STATUS BY STATE, FISCAL YEAR 2006

	Percent by Ecological Status /a/				
	Percent Acres Inventoried /b/	Potential Natural Community	Late Seral	Mid Seral	Early Seral
Arizona	53	8	43	38	10
California	15	3	21	45	31
Colorado	47	7	27	41	25
Idaho	73	3	25	38	34
Montana, North, and South Dakota	69	9	68	22	1
Nevada	39	4	38	46	12
New Mexico	76	4	24	43	30
Oregon and Washington	56	1	28	59	13
Utah	60	12	30	45	13
Wyoming	59	27	38	30	5
Total Bureauwide	53	9	35	41	16

Note: The BLM's inventory of ecological status of rangelands is used to report on the condition of rangelands as mandated in the Public Rangelands Improvement Act of 1978. The Total Bureauwide figures represents a weighted average.

/a/ Expressed in degree of similarity of present vegetation to the potential natural, or climax, plant community: Potential Natural Community = 76-100 percent similarity; Late Seral = 51-75 percent similarity; Mid Seral = 26-50 percent similarity; Early Seral = 0-25 percent similarity.

/b/ The percent of each state that has been inventoried using Ecological Site Inventories (ESI) or the Soil-Vegetation Inventory Method. Ecological Site Inventories are being conducted to fill in data gaps. This table will be updated annually to reflect new data and changes in seral stages. The percent acres inventoried in Fiscal Year 2006 is less than what was reported previous to Fiscal Year 2004 because now only the acres actually categorized to seral stage are being reported. Acres that could not be categorized to seral stage were reported as Unclassified in reports previous to Fiscal Year 2004 and are no longer being reported in this table.

Table 2-2.

**CONDITION OF RIPARIAN-WETLAND AREAS,
FISCAL YEAR 2006**

Condition of Riparian Areas – Miles /a/

State	Proper Functioning Condition /b/	Functioning- At-Risk /c/				Non Functional /d/	Unknown /e/	Total
		Trend Up	Trend Not Apparent	Trend Down	Total			
Alaska	107,505 (100%)	10 (0%)	0 (0%)	0 (0%)	10 (0%)	47 (0%)	3 (0%)	107,565
Arizona	320 (36%)	136 (15%)	207 (24%)	73 (8%)	416 (47%)	24 (3%)	119 (14%)	879
California	1,042 (43%)	441 (18%)	510 (21%)	97 (4%)	1,048 (43%)	88 (4%)	263 (11%)	2,441
Colorado	2,472 (57%)	480 (11%)	632 (15%)	122 (3%)	1,234 (29%)	573 (13%)	29 (1%)	4,308
Eastern States	5 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	5
Idaho	1,948 (46%)	349 (8%)	1,333 (31%)	166 (4%)	1,848 (43%)	335 (8%)	142 (3%)	4,273
Montana	1,682 (41%)	99 (2%)	1,609 (39%)	73 (2%)	1,781 (43%)	484 (12%)	172 (4%)	4,119
Nevada	893 (34%)	431 (16%)	323 (12%)	519 (19%)	1,273 (47%)	478 (18%)	20 (1%)	2,664
New Mexico	230 (49%)	138 (29%)	47 (10%)	20 (4%)	205 (44%)	33 (7%)	2 (0)	470
Oregon	2,949 (41%)	1,053 (15%)	1,059 (15%)	224 (3%)	2,336 (32%)	96 (1%)	1,837 (25%)	7,218
Utah	2,886 (59%)	433 (9%)	789 (16%)	416 (9%)	1,638 (33%)	356 (7%)	11 (0%)	4,891
Wyoming	1,576 (36%)	897 (21%)	893 (21%)	597 (14%)	2,387 (55%)	248 (6%)	144 (3%)	4,355
Total Lower 48	16,003 (45%)	4,457 (13%)	7,402 (21%)	2,307 (6%)	14,166 (40%)	2,715 (8%)	2,739 (8%)	35,623
Total	123,508 (86%)	4,467 (3%)	7,402 (5%)	2,307 (2%)	14,176 (10%)	2,762 (2%)	2,742 (2%)	143,188

Table 2-2.

**CONDITION OF RIPARIAN-WETLAND AREAS,
FISCAL YEAR 2006 – continued**

Condition of Wetland Areas - Acres /f/

State	Proper Functioning Condition <i>/b/</i>	Functioning- At-Risk <i>/c/</i>				Non Functional <i>/d/</i>	Unknown <i>/e/</i>	Total
		Trend Up	Trend Not Apparent	Trend Down	Total			
Alaska	12,403,564 (98%)	224 (0%)	0 (0%)	0 (0%)	224 (0%)	0 (0%)	148,510 (1%)	12,552,298
Arizona	276 (1%)	17,830 (80%)	102 (0%)	96 (0%)	18,028 (81%)	3,027 (14%)	929 (4%)	22,260
California	5,173 (33%)	2,688 (17%)	6,198 (40%)	699 (5%)	9,585 (62%)	419 (3%)	298 (2%)	15,475
Colorado	7,181 (72%)	175 (2%)	648 (7%)	94 (1%)	917 (9%)	22 (0%)	1,795 (18%)	9,915
Eastern States	119 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	119
Idaho	1,575 (41%)	591 (15%)	656 (17%)	276 (7%)	1,523 (39%)	265 (7%)	502 (13%)	3,865
Montana	5,725 (42%)	313 (2%)	2,726 (20%)	67 (0%)	3,106 (23%)	302 (2%)	4,352 (32%)	13,485
Nevada	8,855 (47%)	559 (3%)	829 (4%)	1,733 (9%)	3,121 (17%)	283 (2%)	6,277 (33%)	18,536
New Mexico	3,064 (38%)	1,046 (13%)	583 (7%)	2 (0%)	1,631 (20%)	907 (11%)	2,499 (31%)	8,101
Oregon	139,141 (92%)	2,492 (2%)	1,731 (1%)	395 (0%)	4,618 (3%)	462 (0%)	7,237 (5%)	151,458
Utah	8,613 (48%)	3,092 (17%)	1,115 (6%)	459 (3%)	4,666 (26%)	1,505 (8%)	3,060 (17%)	17,844
Wyoming	5,770 (38%)	294 (2%)	4,112 (27%)	2,247 (15%)	6,653 (44%)	354 (2%)	2,354 (16%)	15,131
Total Lower 48	185,492 (67%)	29,080 (11%)	18,700 (7%)	6,068 (2%)	53,848 (19%)	7,546 (3%)	29,303 (11%)	276,189
Total	12,589,056 (98%)	29,304 (0%)	18,700 (0%)	6,068 (0%)	54,072 (0%)	7,546 (0%)	177,813 (1%)	12,828,487

**Table 2-2. CONDITION OF RIPARIAN-WETLAND AREAS,
FISCAL YEAR 2006 – concluded**

Note: Totals for the columns may not appear to be correct because the percentages and numbers are rounded to the nearest whole number.

/a/ Riparian areas are green zones along flowing water habitats such as rivers, streams, and creeks (referred to as lotic habitat areas), and are reported in miles.

/b/ Riparian and wetland areas are functioning properly when adequate vegetation, landform, or large woody debris is present to dissipate energy associated with high-flow events.

/c/ “Functioning-At-Risk” areas are functioning, but an existing soil, water, or vegetation attribute makes them susceptible to degradation. The trend is an assessment of apparent direction of change in conditions either towards or away from site stability. Trend is determined by comparing the present condition with previous photos; by utilizing trend studies, inventories, or other documentation; or by using professional knowledge, judgment, and experience. The lack of historical information on the condition of a site may lead to a “trend not apparent” assessment.

/d/ “Nonfunctional” areas do not contain sufficient vegetation, landform, or large woody debris to dissipate energies associated with high-flow events.

/e/ “Unknown” areas have not been assessed by the BLM.

/f/ Wetland areas are standing water habitats such as bogs, marshes, wet meadows, and estuaries (referred to as lentic habitat areas), and are reported in acres.

Table 2-3. RESOURCE CONSERVATION AND IMPROVEMENT ACCOMPLISHMENTS, FISCAL YEAR 2006

Practice	Units	Arizona	California	Colorado	Idaho	Montana	Nevada	New Mexico	Oregon	Utah	Wyoming	Total
Soil Stabilization & Improvement												
Brush Control	Acres	3,000	0	3,394	12,573	0	2,712	34,744	20,561	3,828	19,616	100,428
Seeding/Planting	Acres	2,686	141	397	23,037	0	7,697	310	2,984	9,616	1,005	47,873
Soil Stabilization	Acres	1,836	0	0	94,731	0	4,689	0	6,805	7,766	210	116,037
Weed Control	Acres	0	390	612	0	49	2,193	5,616	2,497	0	40	11,397
Water Management												
Detention &												
Diversion	Quantity	7	0	8	0	1	0	9	5	1	0	31
Pipelines -Waters	Quantity	1	1	3	0	60	3	8	9	8	25	118
- Length	Miles	1	1	1	0	36	1	9	11	13	23	96
Reservoirs	Quantity	0	0	25	2	71	2	0	0	1	8	109
Springs	Quantity	0	3	1	38	16	0	0	5	1	14	78
Water Catchments	Quantity	0	1	1	0	0	0	2	0	1	1	6
	Gallons	0	1,000	1,500	0	0	0	6,450	0	80,000	2,200	91,150
Wells	Quantity	1	1	7	1	8	4	2	3	1	15	43
Storage/Drinking	Quantity	0	0	0	0	0	0	0	1	1	0	2
	Gallons	0	0	0	0	0	0	0	3,000	1,800	0	4,800
Program Facilities												
Cattleguards	Quantity	0	0	2	5	14	18	1	5	10	4	59
Fences	Miles	6	25	24	220	71	66	20	66	24	63	585

Source: The Bureau of Land Management's Rangeland Improvement Project System (RIPS) data as of December 13, 2006.

Table 2-4. FOREST DEVELOPMENT ACCOMPLISHMENTS IN ACRES, FISCAL YEAR 2006

Administrative State	Reforestation /a/			Stand Productivity /b/	Genetic Tree Improvement /c/	Stand Improvement /d/			Stand Conversion /e/	Pruning
	Planting	Site Preparation	Protection	Fertilization	Planted	Release	Pre-Commercial Thinning	Commercial Thinning		
Alaska	0	0	0	0	0	0	0	0	0	0
Arizona	0	0	0	0	0	0	1,000	100	0	0
California	55	27	0	0	0	0	781	724	0	0
Colorado	0	0	0	0	0	0	854	267	0	276
Idaho	200	200	0	0	60	0	0	1,275	0	0
Montana	220	1,025	98	0	0	0	722	513	164	0
Nevada	121	121	121	0	0	26	670	1,009	0	66
New Mexico	0	0	0	0	1	10	0	143	0	0
Oregon	1,909	539	9,292	0	1,371	6,474	13,268	11,769	145	3,547
- Eastern /f/	132	195	43	0	0	0	1,313	2,635	113	50
- Western /g/	1,777	344	9,249	0	1,371	6,474	11,955	9,134	32	3,497
Utah	80	0	0	0	0	0	0	55	0	0
Wyoming	127	0	0	0	0	6	318	179	575	2
Total	2,712	1,912	9,511	0	1,432	6,516	17,613	16,034	884	3,891
Group Totals	15,567 (Reforestation)					44,938 (Stand Improvement)				

**Table 2-4. FOREST DEVELOPMENT ACCOMPLISHMENTS IN ACRES, FISCAL YEAR 2006
– concluded**

- /a/ “Reforestation” is the reestablishment of forest cover, either naturally or artificially.
- /b/ “Stand Productivity” improvement is a cultural practice to improve the growth of trees.
- /c/ “Genetic Tree Improvement” is the use of genetically improved seeds or plants when doing reforestation.
- /d/ “Stand Improvement” is an intermediate treatment made to improve the composition, structure, condition, health, and growth of forest or woodland stands.
- /e/ “Stand Conversion” is a change from one silvicultural system or from one tree species to another.
- /f/ Eastern Oregon comprises public lands that include, and extend eastward from, Range 9 East, Willamette Meridan, and public lands in the State of Washington.
- /g/ Western Oregon comprises the revested Oregon and California (O&C) lands, the reconveyed Coos Bay Wagon Road lands, and other public lands that include, and extend westward from Range 8 East, Willamette Meridan.

Table 2-5. TYPES OF WILDLIFE HABITAT ON PUBLIC LANDS, FISCAL YEAR 2006

Administrative State	Lakes	Reservoirs	Fishable Streams
	<i>Acres</i>	<i>Acres</i>	<i>Miles</i>
Alaska	2,600,000	0	96,424
Arizona	1,164	10,160	160
California	129	65	1,071
Colorado	561	18,149	2,934
Eastern States	0	0	0
Idaho	687	36,924	3,350
Montana	3,500	34,000	1,234
Nevada	24,570	11,300	2,381
New Mexico	21	1,131	278
Oregon	59,375	14,146	3,534
Utah	2,906	24,828	2,644
Wyoming	3,573	33,181	2,475
Total	2,696,486	183,884	116,485

Administrative State	Big Game	Small Game	Waterfowl
	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>
Alaska	62,243,000	58,522,000	29,430,000
Arizona	13,426,985	13,460,585	32,225
California	1,719,500	2,130,250	9,455
Colorado	8,225,014	8,582,671	55,330
Eastern States	1,557	1,600	3,157
Idaho	9,226,816	11,310,336	80,780
Montana	7,483,000	5,632,098	308,000
Nevada	20,887,867	58,264,529	44,776
New Mexico	11,070,610	12,720,610	22,319
Oregon	9,452,859	8,134,220	92,983
Utah	19,221,912	15,788,040	91,524
Wyoming	18,713,215	18,713,215	86,249
Total	181,672,335	213,260,154	30,256,798

Note: Due to the relatively static nature of the data for habitat acres/miles, this table is updated on a 5-year basis. If a change in data is warranted, a state may change its data prior to the next general scheduled update. There were no changes in Fiscal Year 2006.

Table 2-6.

**ESTIMATED NUMBER OF BIG GAME ANIMALS ON PUBLIC LANDS,
FISCAL YEAR 2006**

Administrative State	Antelope	Barbary Sheep	Bear	Bighorn Sheep	Buffalo	Caribou
Alaska	0	0	7,600	700 /a/	400	990,000
Arizona	1,260	0	96	3,046	0	0
California	405	0	675	40	0	0
Colorado	13,219	31	2,055	1,830	0	0
Eastern States	0	0	4	0	0	0
Idaho	14,000	0	1,350	2,282	0	0
Montana	90,000	0	600	1,275	0	0
Nevada	11,690	0	0	6,669	0	0
New Mexico	9,885	745	605	125	0	0
Oregon	11,650	50	2,440	1,290	0	0
Utah	9,500	0	500	3,500	265	0
Wyoming	231,993	0	509	1,081	0	0
Total	393,602	826	16,434	21,838	665	990,000

Table 2-6. ESTIMATED NUMBER OF BIG GAME ANIMALS ON PUBLIC LANDS, FISCAL YEAR 2006 – concluded

Administrative State	Deer	Elk	Javelina Wild Boar	Moose	Mountain Goat	Turkey
Alaska	625	0	0	26,500	400	0
Arizona	41,800	129	11,400	0	0	525
California	14,900	670	450	0	0	7,455
Colorado	292,800	91,375	0	38	15	3,435
Eastern States	120	0	0	0	0	40
Idaho	0	0	0	0	0	0
Montana	91,500	20,700	0	500	285	2,500
Nevada	113,800	3,300	0	0	0	70
New Mexico	24,500	14,325	1,550	0	0	1,650
Oregon	182,110	11,533	0	0	100	12,960
Utah	245,650	37,700	0	206	0	3,000
Wyoming	220,444	38,778	0	4,298	70	2,840
Total	1,228,249	218,510	13,400	31,542	870	34,475

Note: For the purposes of this table, the term “public lands” refers to those lands managed by the BLM. Due to the relatively static nature of the data for estimated number of big game animals on public lands, this table is usually updated on a 5-year basis. If a change in data is warranted, a state may change its data prior to the next general scheduled update. There were no changes in Fiscal Year 2006.

/a/ The sheep numbers for Alaska are for Dall Sheep.

Table 2-7.

**FISH AND WILDLIFE HABITAT IMPROVEMENTS COMPLETED
DURING FISCAL YEAR 2006**

Administrative State	Protective Fencing	Spawning Bed Development	Streambank Stabilization	Habitat Disking and Chaining
	<i>Miles</i>	<i>Miles</i>	<i>Miles</i>	<i>Acres</i>
Alaska	N/A	N/A	N/A	N/A
Arizona	9	0	4	0
California	N/A	N/A	N/A	N/A
Colorado	23.1	0	32	1,590
Eastern States	0	0	1	0
Idaho	57.8	38.5	36	200
Montana	11.5	24	1	72
Nevada	7	.5	30	2,175
New Mexico	N/A	N/A	N/A	N/A
Oregon	0	1	42	0
Utah	54	0	0.25	51,420
Wyoming	N/A	N/A	N/A	N/A
Total	162.4	64	146.25	55,457

Table 2-7.

**FISH AND WILDLIFE HABITAT IMPROVEMENTS COMPLETED
DURING FISCAL YEAR 2006 – concluded**

Administrative State	Lake Improvements	Seeding	Prescribed Burning	Wetland Improvements
	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>	<i>Acres</i>
Alaska	N/A	N/A	N/A	N/A
Arizona	0	360	0	0
California	N/A	N/A	N/A	N/A
Colorado	30	403	506	3,050
Eastern States	0	20	180	0
Idaho	0	28,612	1,509	21
Montana	50	91	4,881	280
Nevada	0	6,300	525	1,030
New Mexico	N/A	N/A	N/A	N/A
Oregon	1	8,000	18,000	16
Utah	0	20,486	7,972	0
Wyoming	N/A	N/A	N/A	N/A
Total	81	64,272	33,573	4,397

Note: N/A indicates that a state did not submit information in time for publication.

Table 2-8.

**EMERGENCY FIRE STABILIZATION AND
REHABILITATION PROJECTS, FISCAL YEAR 2006**

	Number <i>/a/</i>	Acres Treated <i>/b/</i>	Funding <i>/c/</i>
Alaska	37	1,626	\$852,977
Arizona	17	34,114	1,651,892
California	27	97,977	1,041,779
Colorado	19	2,240	360,446
Idaho	92	892,407	8,365,786
Montana	11	82,673	128,450
Nevada	182	1,711,361	10,959,228
New Mexico	10	193	10,062
Oregon	58	146,491	3,965,571
South Dakota	1	2,000	3,107
Utah	115	477,133	7,345,477
Washington	1	440	9,985
Wyoming	5	6,252	132,666
Total	575	3,454,907	\$34,827,426

/a/ The number of projects equals the number of approved Emergency Stabilization and Burned Area Rehabilitation (ES/BAR) Plans.

/b/ Includes the acres of emergency stabilization and burned-area rehabilitation treatments applied; acres of weed inventories, treatments, and treatments evaluated; and acres of treatments monitored. (Note: Some of these activities may occur on the same acreage.)

/c/ Includes expenditures in Fiscal Year 2006 for treatments, monitoring, and inventory/assessment; these may include funding for treatments approved in 2003, 2004, and 2005 as well as planning costs for many of the Fiscal Year 2006 fires. Idaho expenditures include seed purchased by the National Seed Warehouse. Grand Total does not include indirect support and other program oversight and development costs (approximately \$993,000) or funds expended in the Native Plant Materials Development Program (\$4.6 million).