Forestry Program for Oregon Strategy B: Ensure that Oregon's forests provide diverse social and economic outputs and benefits valued by the public in a fair, balanced, and efficient manner.

Indicator B.c. Forest ecosystem services contributions to society

Why is this indicator important?

Maintaining and enhancing public and private forests' non-commodity contributions to state and local economies, to communities, and to quality-of-life is very important to Oregonians and recognized as important nationally. These values, such as clean water, habitat for fisheries, and scenery are often taken for granted because they are not generally traded in markets. As such, they have no "price" and are therefore seemingly provided for free. However, the goods and services that ecosystems provide are very familiar to us and would cost billions of dollars. The demand for ecosystem services (specifically recreation, carbon sequestration, passive use values such as biodiversity, and water quality) is often constrained by the availability of healthy forest environments that support or provide these services. Trends in the demand for and availability of ecosystem services is an important indicator of management and policy effects on the forested landscape's ability to provide these services.

Desired trend

Oregon forest ecosystem services produced are stable or increasing and are sustainable.

Indicator information also posted at: http://www.oregon.gov/ODF/indicators/index.shtml

What does this indicator tell us about sustainable forest management?

Condition

mixed or fair

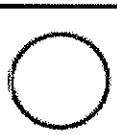
Recreation: Total recreation visits in 2007 for national forests, state parks, and state forests in Oregon were 66 million, mostly by Oregonians. Converting this estimate to economic values results in a total recreation value of $514 million accruing to Oregonians and non-residents that visited national forests, state parks, and state forests in Oregon. This is a lower bound estimate given incomplete or missing visitation data for many recreation resources. Oregon contains an estimated 25,500 linear miles of trails, 54,600 campsites, 33 million acres of recreational land and 818,300 acres of recreational freshwater. Federal management encompasses the vast majority of trail miles and land; private campgrounds, in particular for RVs/trailers, managed the majority of campsites; and federal (46 percent) and state (30 percent) governments manage the majority of recreational freshwater resources. For recreation, the condition can be classified as "good" but with reservations (See "Trend" below). Location specific information, along with comprehensive use and resource data, would better link local resource demand and supply, potentially enabling measurement of accessibility and crowding concerns. Passive Use, Carbon Sequestration, and Water Quality: Data on supply and demand conditions are currently insufficient for indicator reporting.

Trend

uncertain

Recreation: Total recreation demand and use has increased by 28% between 1987 and 2002; however, total population also increased by 30% during this period. In Oregon, motorized recreation (OHV, snowmobiling, boating), non-motorized recreation, hunting and fishing, and camping have increased since 1987, with hiking showing no increase, and decreases in picnicking, backpacking and horseback riding. Comparable national data do not exist to draw any comparison; however, other indicators suggest increased participation in all activity types over time for the Nation. Recreation use values per person, based on the literature, are increasing at a rate of about $1 per person per activity day faster than inflation, signaling outdoor recreation is increasing in value for people. Trends in the supply, quality and accessibility of places to recreate are unknown given the lack of temporal data. It also is uncertain how well the supply of recreation is meeting demand in Oregon, although supply is expected to remain largely constant while total population and recreation demand and values are increasing. Recent Wilderness designations in Oregon, particularly near urban population centers will alter future forest recreation uses and potentially address perceived key shortages of certain recreation opportunities. Passive Use, Carbon Sequestration, and Water Quality: Data on supply and demand trends are currently insufficient for indicator reporting.

Information



inadequate

Recreation: Statewide data for this indicator are inadequate. While use estimates are reliable and accurate for national forests and state parks by location, estimates for other public and private lands/water are sparse or not known. Supply estimates are reliable and accurate, but based on voluntary reporting for 2001 only with no expectations of new data collection. Value estimates are derived from the literature for Oregon and Washington, and thus may not be accurate for Oregonians' recreational use of lands/water in Oregon for any given year. Passive Use, Carbon Sequestration, and Water Quality: Statewide data are inadequate.

Metrics and Data Sources

Metric	Data Source
Recreation use estimate on national forests, National Visitor Use Monitoring Data (2000-2004)	Dr. Eric White, USDA Forest Service
Recreation use estimate on state parks, 2007	Tom Hughes, Oregon Parks and Recreation Dept.
Recreation use estimates on state forests, 2007 (camping only)	John Barnes, Oregon Dept. of Forestry
Oregon supply of outdoor recreation resources and facilities by major suppliers, 2001	Oregon Parks and Recreation Dept.
Oregon recreation user occasions and trends, 1987-2002	Oregon Parks and Recreation Dept.
National recreation participation trends, 1994/95 – 2000/01 (National Survey of Recreation and the Environment)	USDA Forest Service
Monetary estimates, Recreation Use Values Database	Dr. Randall Rosenberger, Oregon State University

Reference: Rosenberger, Randall S. and J. Baur. 2009. *Developing Sustainability Metrics B.c. for Forest Ecosystem Services Contributions to Society*. Department of Forest Ecosystems and Society, Oregon State University. Corvallis, Oregon. 56 pp.

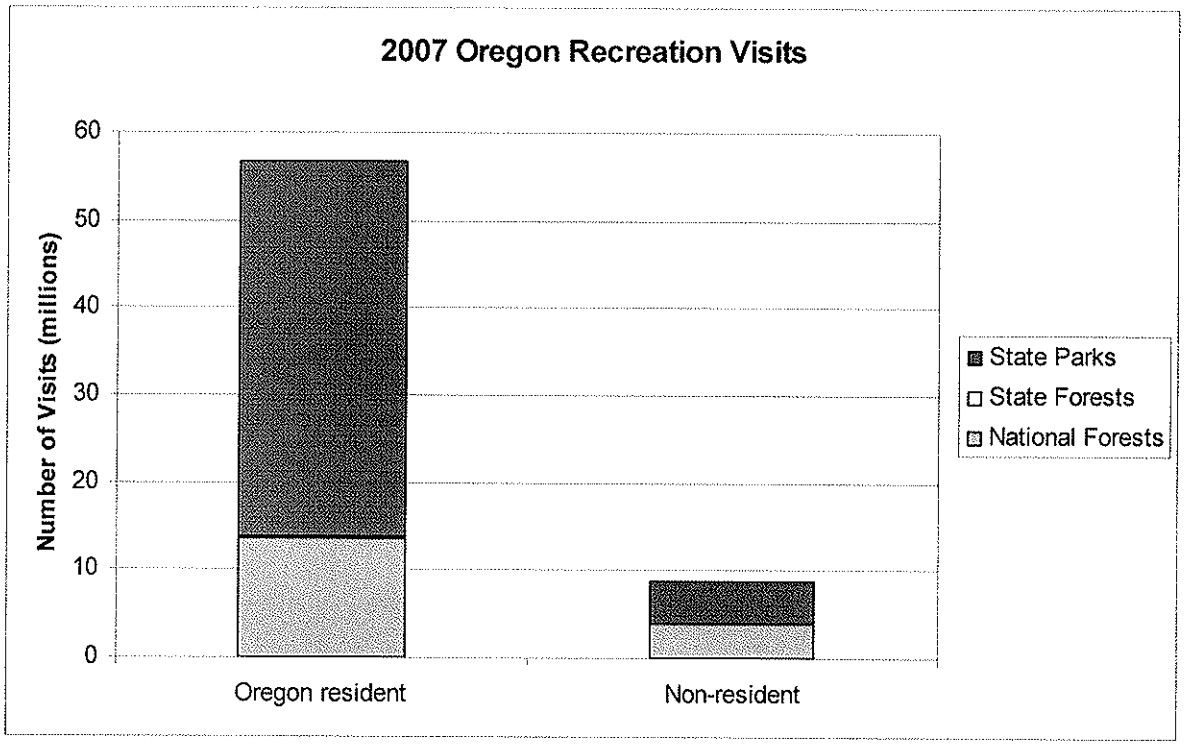


Figure 1. Total recreation visits by resident and non-resident at national forests, state parks and state forest campgrounds in Oregon, 2007.

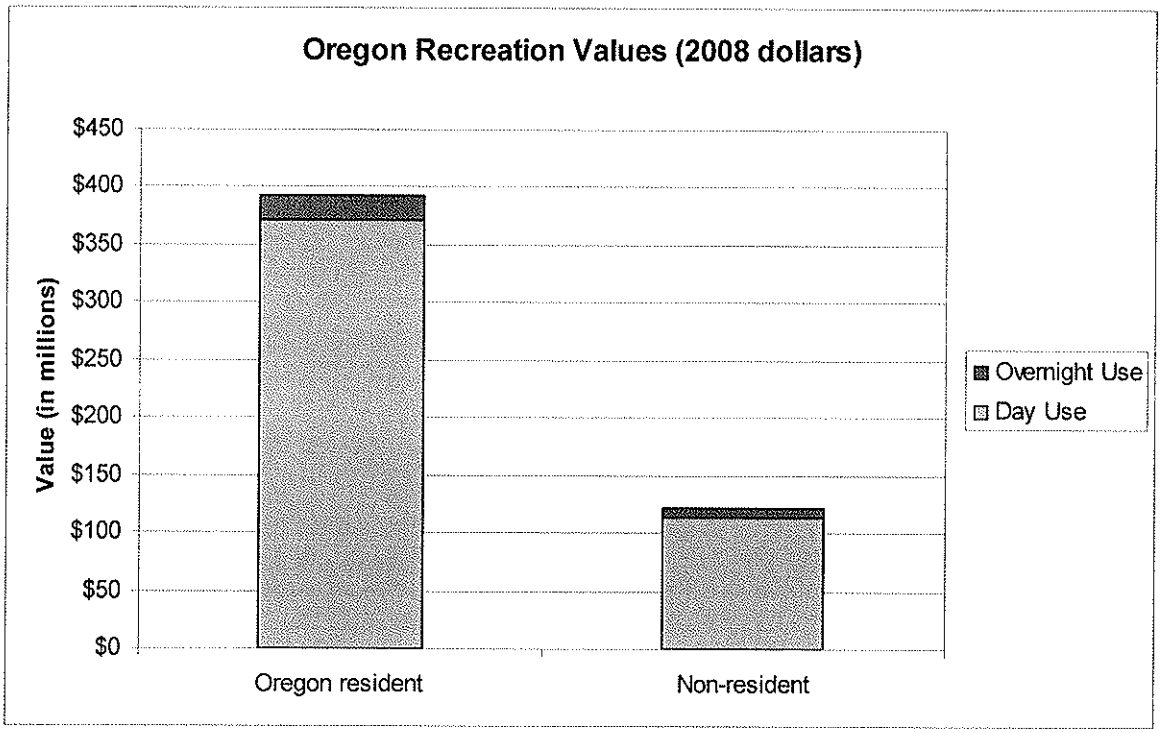


Figure 2. Total recreation value by resident and non-resident for national forests, state parks, and state forest campgrounds in Oregon, 2007

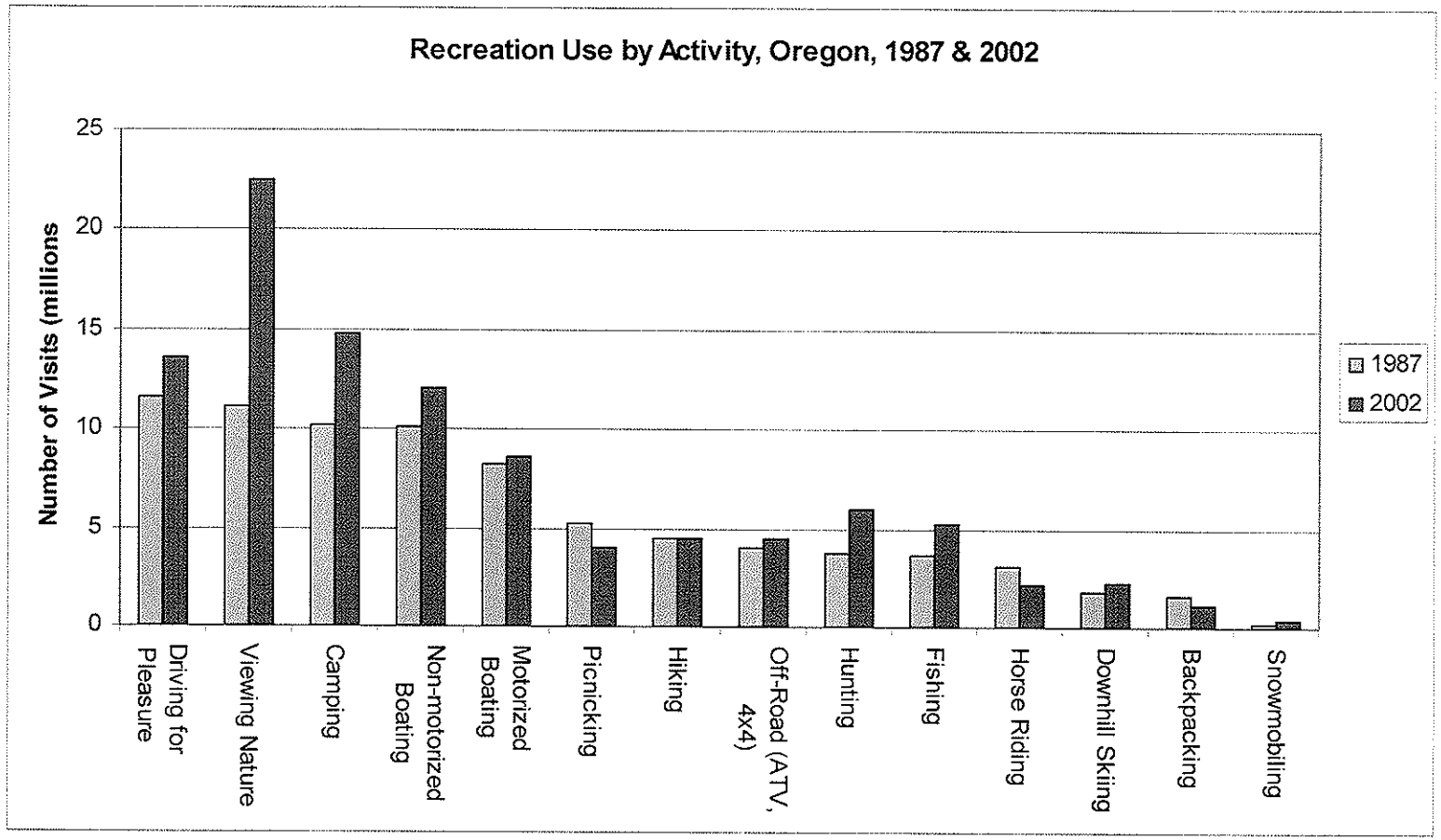


Figure 3. Reported changes in recreation use by activity type in Oregon, 1987-2002.

Table 1. 2001 Statewide Supply of Outdoor Recreation Resources and Facilities By Major Suppliers (OPRD)

ITEM	UNITS	STATEWIDE TOTAL	FEDERAL	STATE	COUNTY	MUNICIPAL	OTHER PUBLIC	PRIVATE	SCHOOLS	UTILITIES
Hiking Trails	Linear Miles	9,703	8,705	558	96	284	59	0	0	2
Bicycle Trails	Linear Miles	1,947	1,198	343	46	240	82	0	36	3
Designated 4x4 Trails	Linear Miles	305	253	52	0	0	0	0	0	0
Designated ATV Trails	Linear Miles	2,707	2,473	223	0	11	0	0	0	0
Designated Bridle Trails	Linear Miles	5,768	5,461	272	22	14	0	0	0	0
Nature/Interpretive Trails	Linear Miles	621	151	218	42	81	43	1	75	10
Designated Cross-Country Ski Trails	Linear Miles	1,154	925	110	0	0	3	117	0	0
Designated Snowmobile Trails	Linear Miles	3,369	3,354	4	0	0	12	0	0	0
Downhill Skiing Areas	Acres	10,730	0	0	0	0	0	10,730	0	0
Downhill Skiing Lifts	Lift Capacity	76,005	0	0	0	0	0	76,005	0	0
Day Use Picnic Tables	Tables	26,175	9,224	4,581	3,998	5,875	2,188	4	0	305
RV/Trailer Campsites	Sites	43,901	8,673	3,936	2,566	621	1,085	26,878	0	142
Tent Campsites	Sites	10,707	4,772	2,288	1,498	241	188	1,658	0	62
Freshwater Beach Area Total	Square Feet	25,763,750	1,740,271	8,001,361	2,313,600	11,861,716	1,786,802	50,000	0	10,000
Freshwater Beach Areas	Areas	118,514	88	85	87,772	4,228	26,333	1	0	7
Freshwater Beach Length	Miles	700	4	112	31	526	26	0	0	1
Boat Ramps	Lanes	783	240	99	216	98	76	41	0	13
Non-Motorized Boat Launches	Sites	322	91	57	69	66	29	1	0	9
Windsurfing Access Sites	Sites	92	25	13	13	19	16	0	0	6
Fishing Piers	Linear Miles	80,165	12,919	2,558	51,963	7,997	4,508	0	0	220
Designated Hunting Areas	Acres	17,749,202	16,159,729	1,568,012	3,001	400	18,060	0	0	0
Outdoor Recreational Land	Acres	33,007,111	30,993,055	1,673,352	34,514	267,368	28,396	262	9,775	391
Outdoor Recreational Water	Acres	818,299	377,656	241,827	96,456	91,789	6,049	0	0	4,522