

4.24 Recreation

4.24.1 Introduction

Reservoirs and tailwaters in the TVA system offer a broad range of water- and land-based recreational opportunities. TVA projects span the landscape from high-elevation reservoirs near the Smoky Mountains to reservoirs over 1,000 feet lower in elevation on the Tennessee River, not far from its confluence with the Ohio River. The reservoir and river environments span an equally diverse range of conditions, from cold-water discharges supporting trout fisheries to warm-water discharges supporting bass, walleye, and trophy catfish.

Resource Issues

- ▶ Public recreation use
- ▶ Commercial recreation use
- ▶ Private recreation use

TVA reservoirs and tailwaters attract recreation visitors who live within and outside the TVA region. There are 49 projects in the TVA system; 35 of these projects are the focus of the ROS. These reservoirs provide over 647,000 acres of reservoir surface area, about 11,000 miles of shoreline for recreation, and cumulatively over 1,200 river miles.

The 35 projects in the ROS (Table 4.24-01) provide opportunities for three groups of recreation users: the general public who use existing public access sites along the shoreline; individuals who use commercial recreation facilities, such as marinas, rental companies, and outfitters; and shoreline property and condominium owners who have private access to the resource. Each of these three groups of recreation users may be affected differently by proposed reservoir operations policy alternatives, and changes in recreation use patterns by these three user groups may result in different regional economic effects. The three key recreation groups evaluated in this section are:

- **Public recreation use**—at public access sites;
- **Commercial recreation use**—at commercial facilities; and,
- **Private recreation use**—at private access sites.

To estimate existing recreation use of TVA projects, these three types of recreation use (public, commercial, and private) were studied at 13 project reservoirs and six project tailwater areas (Table 4.24-01). Recreation use data gathered from these areas were used to statistically estimate recreation use on the remaining 22 project reservoirs and the 29 project tailwater areas that were not surveyed. Separate estimates of use were developed for various types of recreational activities and by user type (public access users, commercial patrons, and private property owners) and were then summed to estimate total recreation use (measured in user days¹) of the TVA reservoirs and tailwater areas.

¹ A user day is equivalent to a recreation day, defined as a visit by one individual to a recreation area for recreation purposes during all or part of a 24-hour period of time.

4.24 Recreation

Table 4.24-01 General Characteristics of the ROS Projects

Project Name	Recreation Classification: Mainstem (M), Run-of-River (ROR), or Tributary (TR) ¹	Population: Urban (U), Rural (R), or Remote (RE) ²	Total Reservoir Use Level: High (H), Medium (M), or Low (L) ²	Start of Annual Drawdowns—Existing Operations ³	Number of Sampling Days
Chickamauga	M	U	H	Jul 1 (1.5 ft) / resumes Oct 1	15
Fort Loudoun	M	U	H	Nov 1	
Guntersville	M	R	H	Jul 1 (1.0 ft) / resumes Nov 1	15 ⁹
Kentucky	M	R	H	Jul 5 sloped to Dec 1	15
Nickajack ⁴	M	U	H	—	
Pickwick	M	R	M	Jul 1	15 ⁹
Tellico ⁵	M	R	H	Nov 1	15
Watts Bar	M	R	M	Aug 1 (1.0 ft) / resumes Sep 1	
Wheeler	M	U	H	Aug 1	
Wilson ⁴	M	U	H	Dec 1	
Apalachia	ROR	RE	L	—	
Fort Patrick Henry	ROR	U	L	—	
Great Falls ⁶	ROR	R	L	Oct 1	
Melton Hill	ROR	U	M	—	15 ⁹
Ocoee #1 ⁷	ROR	R	L	Nov 1	
Ocoee #2	ROR	R	--	—	
Ocoee #3	ROR	RE	L	—	
Wilbur	ROR	RE	L	—	
Bear Creek	TR	R	L	Nov 15	
Blue Ridge	TR	R	M	Aug 1	10
Boone	TR	U	L	Sep (Labor Day)	
Cedar Creek	TR	R	L	Nov 1	
Chatuge	TR	R	M	Aug 1	15
Cherokee	TR	R	M	Aug 1	15
Douglas	TR	R	M	Aug 1	10 ⁹
Fontana	TR	RE	L	Aug 1	
Hiwassee	TR	RE	L	Aug 1	10
Little Bear Creek	TR	R	L	Nov 1	
Normandy	TR	R	L	Nov 1 (earlier minimum flow drops)	

Table 4.24-01 General Characteristics of the ROS Projects (continued)

Project Name	Recreation Classification: Mainstem (M), Run-of-River (ROR), or Tributary (TR) ¹	Population: Urban (U), Rural (R), or Remote (RE) ²	Total Reservoir Use Level: High (H), Medium (M), or Low (L) ²	Start of Annual Drawdowns—Existing Operations ³	Number of Sampling Days
Norris	TR	R	H	Aug 1	15 ⁹
Nottely	TR	R	L	Aug 1	
South Holston	TR	RE	L	Aug 1	10 ⁹
Tims Ford	TR	R	M	Oct 15	
Upper Bear Creek ⁸	TR	R	L	–	
Watauga	TR	RE	L	Aug 1	

¹ Reservoirs were stratified to facilitate survey sampling for the recreation study. The stratification is similar to the project categories provided in Section 1.6.2 but is not identical. For recreation, the projects were stratified primarily by how the water fluctuates at each project. Mainstem projects are generally referred to as mainstem projects, while tributary projects are separated between storage and run-of-river projects.

² For purposes of estimating recreation use, each project was classified by TVA staff as being urban, rural, or remote, and generally whether existing use was likely to be high, medium, or low.

³ See Appendix A, Water Control System Description Tables, and Chapter 3, Reservoir Operations Policy Alternatives.

⁴ Nickajack and Wilson are operated as run-of-river projects but are located on the mainstem Tennessee River and are treated here as mainstem projects in the recreation analysis.

⁵ Tellico is located on the Little Tennessee River but is connected by canal to the mainstem Fort Loudoun project and is treated here as a mainstem project. It is operated in a manner similar to other mainstem projects.

⁶ Although classified as a tributary-type project, Great Falls is operated more like a run-of-river project once it is filled (June 1); for recreation purposes, it was classified as run-of-river.

⁷ Although Ocoee #1 does have flood storage volume when at summer pool and releases are being made for whitewater rafting below Ocoee #2, it basically operates as a run-of-river project.

⁸ Hydropower is not produced at Upper Bear Creek, but the discharge can be controlled by a valve. This valve is used to provide downstream recreation releases and can draw the reservoir in summer months. It therefore was treated as a tributary project for the recreation analysis.

⁹ Tailwater field surveys were conducted on these TVA projects.

The recreation use data collected at the 13 reservoirs and six project tailwater areas focused on water-based recreational activities or activities that could be affected by changes in reservoir levels or flows. Recreational activities that occur in project areas not immediately adjacent to the reservoir or tailwater areas where participation rates would not be affected by changes in project operations (such as golfing, swimming in pools, mountain hiking, and camping in areas not adjacent to project waters) were not targeted in this study. All preferred activities that could be affected by changes in reservoir levels or flows for the sample period—mid-May through mid-October—were considered in developing recreation use estimates.

For recreation survey purposes, the 35 ROS projects were classified as mainstem projects (located on the mainstem Tennessee River), run-of-river projects (operationally, these reservoirs have little storage volume), and tributary projects (located on tributaries to the

4.24 Recreation

Tennessee River) (Table 4.24-01). All of the run-of-river projects are on tributaries to the Tennessee River except for Great Falls, which is on a tributary to the Cumberland River. Run-of-river projects were categorized separately because of their operational differences. These three categories were used to summarize existing recreation use of affected reservoirs by public, commercial, and private users.

4.24.2 Regulatory Programs and TVA Management Activities

Recreation use of TVA reservoirs and tailwater areas is regulated and managed through state and federal regulations. Section 26a of the TVA Act requires that TVA approval be obtained before carrying out any construction activities affecting navigation, flood control, and public lands, along the shoreline of TVA projects. In addition to policies concerning recreation, the SMI established policies regarding the management of the TVA reservoir shorelines, including vegetation, private access to the water, and other factors that influence the amount and quality of recreational activities. Fishing activity is regulated by state laws and regulations pertaining to fishing seasons and fish catch limits. State laws and regulations also govern boating activity and boating safety within the TVA reservoir system. Commercial rafting activities in several of the TVA tailwaters are managed by TVA, the USFS, and state agencies.

4.24.3 Recreation Use

Existing Conditions

Public Recreation Use

Over 6,800 miles of shoreline at TVA projects is public land, or about 62 percent of the total shoreline miles of the projects. The types of recreational activities that were evaluated at public access sites were primarily water-based activities, including:

- Bank fishing (shore fishing);
- Motor boating, including fishing from a boat, pleasure boating, house boating, water skiing, and water tubing or towing;
- Canoeing and kayaking;
- Personal watercraft use;
- Swimming, including beach use;
- Other water-based activities, including sailing, rafting, diving, and hunting; and,
- Non-water activities adjacent to the reservoir or tailwater areas, including tent or vehicle camping, sightseeing, walking and hiking, biking, hunting, and picnicking.

Public recreation use for the 35 ROS projects totaled over 4.0 million user days, which accounted for 18 percent of the total estimated use (Figure 4.24-01). Of the total public recreation use, 57 percent occurred on mainstem projects, while 34 percent occurred on tributary projects and 9 percent occurred on run-of-river projects (Figure 4.24-01). (See Appendix D8 for estimates of use by reservoir.)

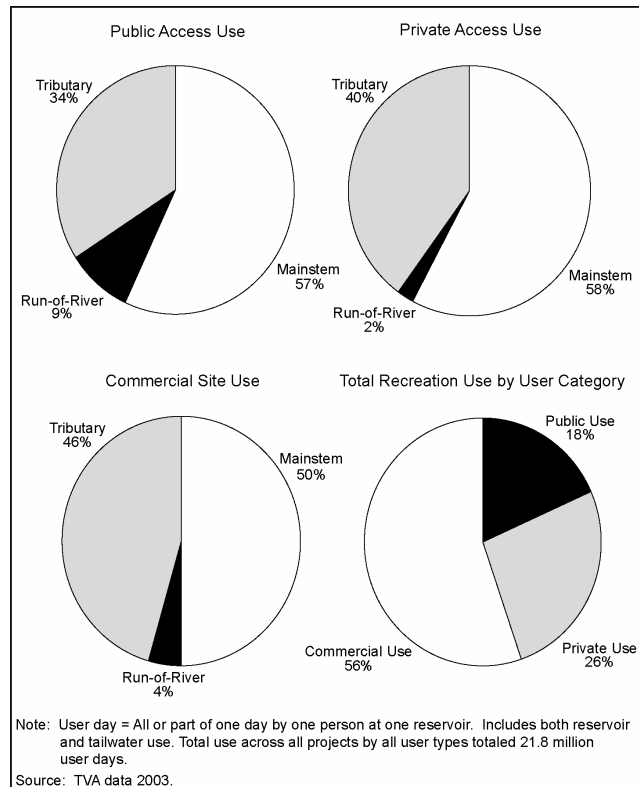


Figure 4.24-01 Annual Recreation Use (User Days) of the 35 ROS Projects by Public Access, Private Access, and Commercial Site Users (2002)

Of the 4.0 million public recreation user days across all 35 ROS projects, 81 percent occurred on reservoirs while 19 percent occurred in tailwater areas (Figure 4.24-02). The preference for reservoir recreation was evident for both mainstem and tributary projects. Public recreation use on run-of-river projects was more equally divided.

On a seasonal basis, public recreation use of reservoirs and tailwater areas was greatest during summer (June through August), representing 46 percent of all public use; and use was at least double that of any other season (Figures 4.24-03 and 4.24-04). This trend was evident for mainstem, run-of-river, and tributary projects. Winter (November to March) and spring (April to May) public use were nearly equal, ranging from 18 to 24 percent of total annual use. Fall (September to October) use ranged from 9 to 14 percent of total annual use.

4.24 Recreation

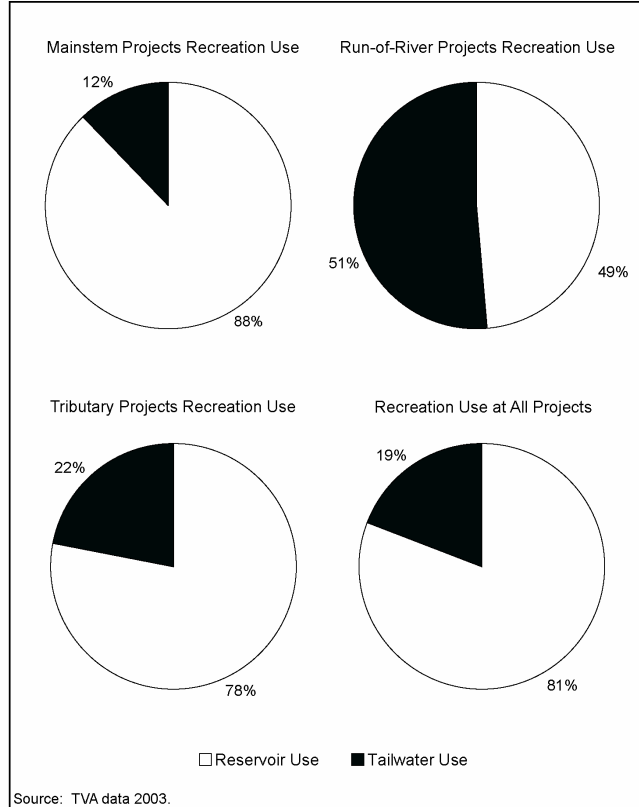


Figure 4.24-02 Comparative Public Access Recreation Use (User Days) at ROS Reservoirs and Tailwaters (2002)

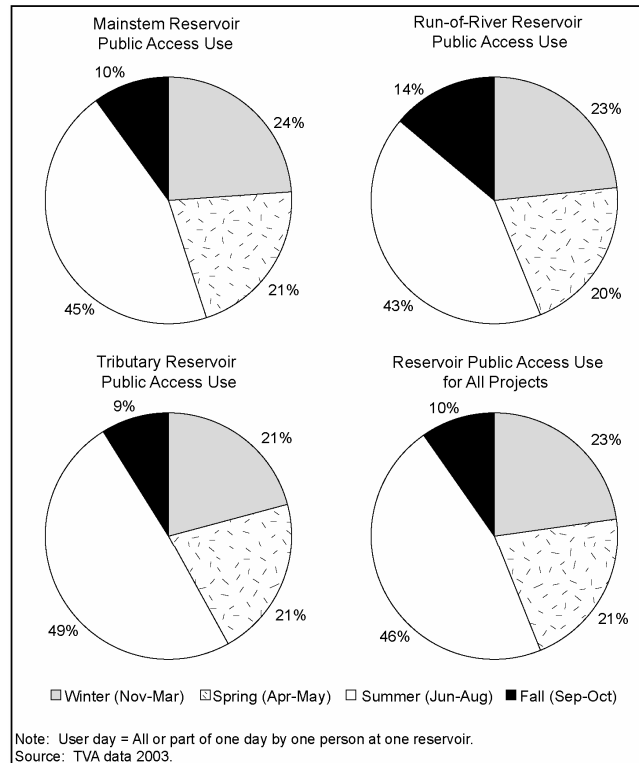


Figure 4.24-03 Reservoir Use (User Days) by Season at Public Access Sites (2002)

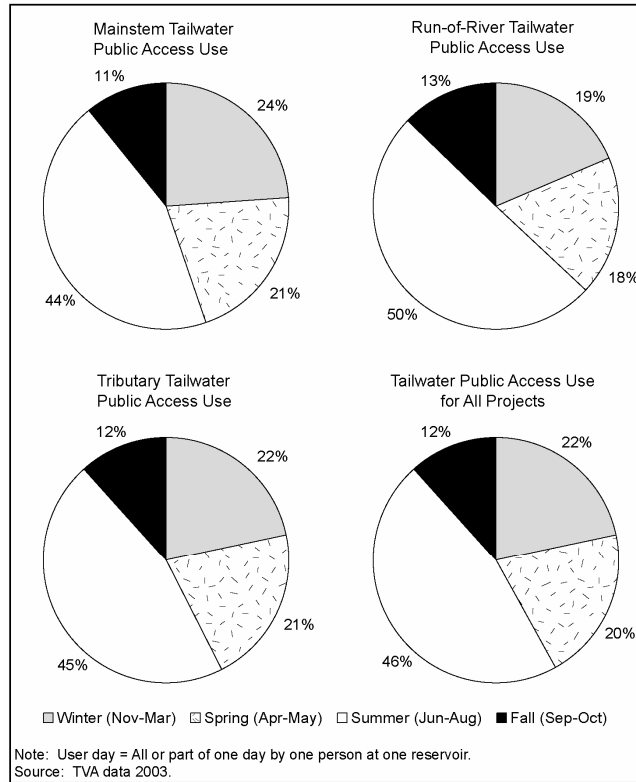


Figure 4.24-04 Public Access Use (User Days) at ROS Tailwaters (2002)

Comparisons of annual public recreation use on reservoirs are shown in Figure 4.24-05. Over 50 percent of system-wide public recreation use on reservoirs was related to motor boating (including fishing from a boat, pleasure boating, house boating, water skiing, water tubing/towing, and waterfowl hunting), while 16 percent was related to non-water-based recreational activities (including horseback riding, picnicking, tent or vehicle camping, sightseeing, hunting, walking/hiking/jogging, biking, and reading/relaxing), 16 percent was related to swimming (including beach use), and 9 percent was related to bank fishing. The remaining recreational activities at reservoir public access sites were personal watercraft use (5 percent), other water-based activities (including sailing, rafting, and diving—3 percent), and canoeing or kayaking (0.5 percent).

Recreation use activity profiles, expressed as user days, at areas below project dams are shown in Table 4.24-02 for the six TVA projects where field survey data were collected on tailwater area use. Public recreation use for these six projects was higher in the reservoir than below the dam for all recreational activities except for canoeing and kayaking, which were similar. For motor boating, the dominant public access recreational activity, 82 percent occurred in the reservoir as compared to below the dam on these six projects. Several recreational activities at particular projects, however, occurred more frequently in tailwater areas than in reservoirs. At Norris, participation in bank fishing, canoeing, and kayaking was greater below the dam than in the reservoir. Bank fishing activity at Douglas was nearly equal in the reservoir and below the dam, as was canoeing and kayaking.

4.24 Recreation

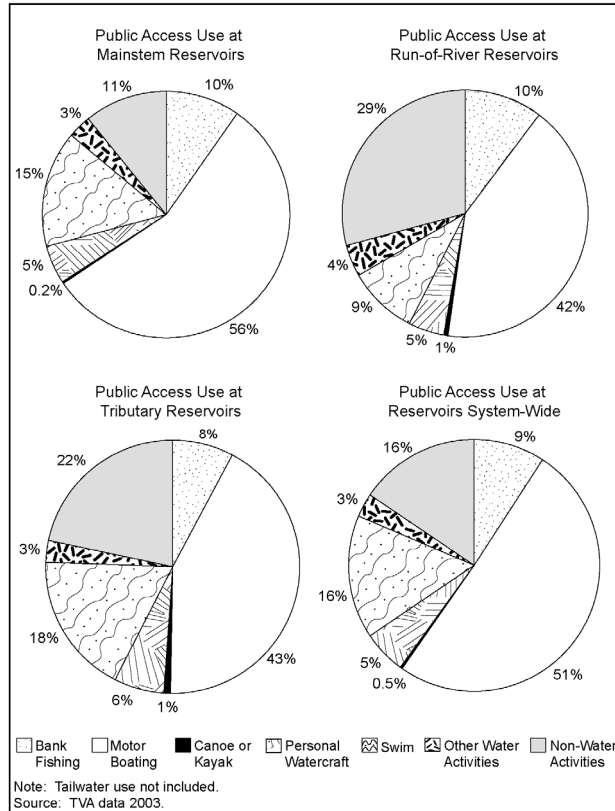


Figure 4.24-05 User Profiles for Public Access Recreation Use at ROS Reservoirs (2002)

Commercial Recreational Use

A variety of commercial recreational facilities and providers located on or near TVA reservoirs and tailwater areas provide access and services to recreation users. Recreation use attributable to commercial operations, such as marinas, watercraft rental operations, and outfitters who provide direct access to a project, was derived from surveys of commercial operators on the 13 projects that were sampled.

The types of recreational activities that were evaluated in the commercial operator survey included:

- Boat launches;
- Boat slip rentals;
- Personal watercraft rentals;
- Motor boat rentals;
- House boat and pontoon boat rentals;
- Paddle boat, raft, float tube, sail boat, and other rentals;
- White-water rafting services;
- Electric and non-electric campsites; and,
- Guide services.

Table 4.24-02 Comparisons of Types of Recreation Use at Public Access Sites at Six TVA Projects

TVA Project	Bank Fishing		Motor Boating		Canoeing or Kayaking		Personal Watercraft		Swim		Other Water-Based Activities		Non-Water-Based Activities	
	Total (user days)	%	Total (user days)	%	Total (user days)	%	Total (user days)	%	Total (user days)	%	Total (user days)	%	Total (user days)	%
Guntersville														
Reservoir	15,207	87.8	96,874	93.9	0	--	3,801	94.9	12,204	99.8	17,553	94.6	21,507	97.1
Tailwater	2,115	12.2	6,290	6.1	0	--	205	5.1	23	0.2	1,000	5.4	648	2.9
Pickwick														
Reservoir	24,557	85.0	93,813	84.0	108	100	6,038	72.2	7,165	100	2,306	80.5	25,213	97.7
Tailwater	4,337	15.0	17,842	16.0	0	0.0	2,320	27.8	0	0.0	559	19.5	588	2.3
Douglas														
Reservoir	4,043	52.1	13,514	65.7	1,619	50.0	694	60.1	724	87.8	176	73.9	6,232	63.4
Tailwater	3,718	47.9	7,040	34.3	1,619	50.0	460	39.9	100	12.2	62	26.1	3,597	36.6
Melton Hill														
Reservoir	4,349	70.8	14,797	68.1	116	76.7	819	57.4	552	62.7	2,515	80.1	17,479	92.3
Tailwater	1,790	29.2	6,933	31.9	35	23.3	607	42.6	329	37.3	626	19.9	1,463	7.7
Norris														
Reservoir	1,166	13.8	20,583	77.3	84	10.2	2,016	100	33,550	99.3	263	91.5	7,933	49.4
Tailwater	7,279	86.2	6,033	22.7	740	89.8	0	0.0	249	0.7	24	8.5	8,112	50.6
South Holston														
Reservoir	3,638	65.0	24,854	65.0	702	65.0	2,152	65.0	1,349	65.0	534	65.0	16,675	65.0
Tailwater	1,959	35.0	13,383	35.0	378	35.0	1,159	35.0	727	35.0	287	35.0	8,979	35.0
Total reservoirs	52,959	71.4	264,435	82.1	2,630	48.7	15,519	76.6	55,545	97.5	23,347	90.1	95,039	80.3
Total tailwater	21,197	28.6	57,520	17.9	2,772	51.3	4,751	23.4	1,428	2.5	2,559	9.9	23,386	19.7

Note: For these six TVA projects, recreation use was surveyed below the dam.

4.24 Recreation

Commercial recreation use accounted for more than half of the total recreation use of the 35 ROS projects, accounting for 12.1 million (56 percent) of all user days by the three recreation user types (Figure 4.24-01). Commercial recreation use was more than double private recreation use and more than triple public recreation use. See Appendix D8 for estimates of use by reservoir.

About 53 percent of commercial recreation use across all projects was generated from marina boat slips (Figure 4.24-06). Camping accounted for 32 percent of commercial recreation use, and 13 percent of commercial use was generated through boat launches. These three activities accounted for about 98 percent of all commercial recreation across the 35 projects. This use pattern was evident for mainstem and tributary projects. Run-of-river project use showed lower use percentages for boat slip rentals, campsites, and boat launches, but a higher use percentage for other activities.

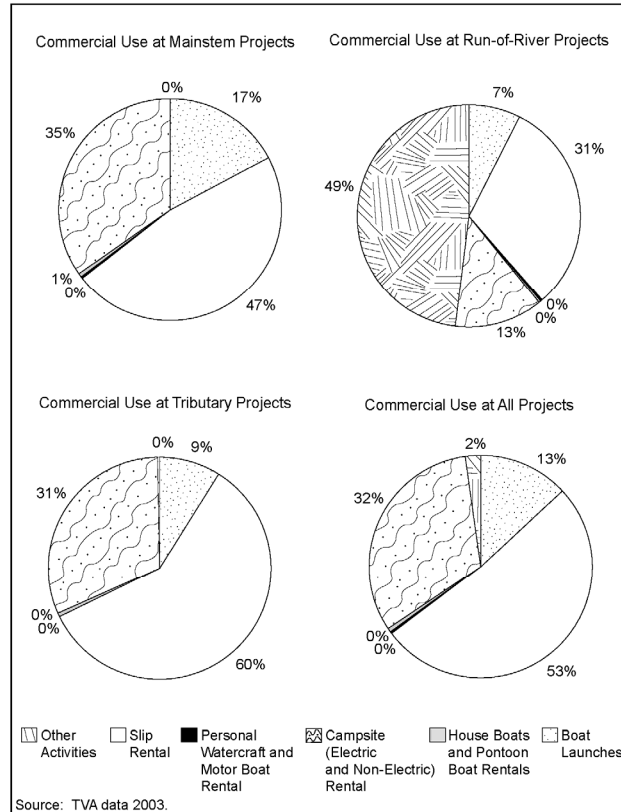


Figure 4.24-06 Commercial Recreation Use Activities by Project Type (2002)

Of the commercial recreation use across the 35 ROS projects, 50 percent occurred on mainstem projects (6.1 million user days) while 46 percent occurred on tributary projects (5.4 million user days, Figure 4.24-01). Commercial recreation use on run-of-river projects was minor, accounting for only 4 percent of the total commercial recreation use across the 35 ROS projects.

Of the 35 ROS projects, 64 percent of the commercial recreation use occurred at five projects:

- Norris, with 2.3 million user days (19 percent);
- Kentucky, with 2.2 million user days (18 percent);
- Gunterville, with 1.4 million user days (12 percent);
- Cherokee, with 1.0 million user days (8 percent); and,
- Watts Bar, with 0.9 million user days (7 percent).

A total of 7.7 million commercial recreation user days was reported at these five projects, with boat slip use accounting for 4.0 million user days and camping accounting for 2.8 million user days. These two commercial uses also dominated the commercial use across the 35 ROS projects.

The majority of commercial recreation use occurred during the May through August period, with 7.4 million user days (or 61 percent of the total commercial use) across the 35 projects (Table 4.24-03). The June through August months accounted for 49 percent of total commercial use, with July being slightly higher than both August and June (Figure 4.24-07). Boat slip rentals, as noted previously, accounted for a majority of commercial recreation use during these months (Table 4.24-03).

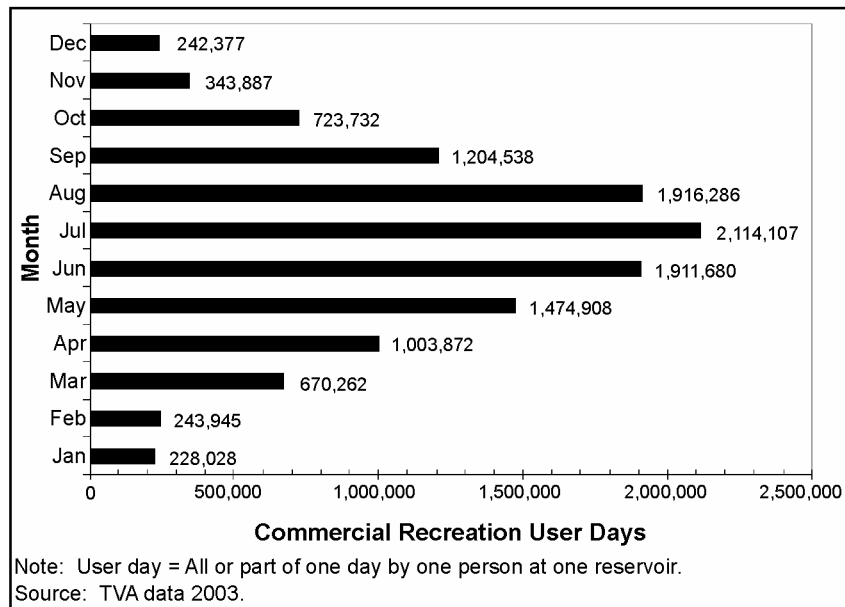


Figure 4.24-07 Commercial Recreation Use at the 35 Reservoirs Studied in the ROS (2002)

4.24 Recreation

Table 4.24-03 Commercial Recreational Activities across All Affected Reservoirs

Recreational Activity	Jan-Feb	Mar-Apr	May-Jun	Jul-Aug	Sep-Oct	Nov-Dec	Annual
Boat launches	56,574	210,469	465,469	558,177	209,471	63,561	1,563,720
Slips	249,252	751,887	1,731,530	2,214,599	1,008,881	311,260	6,267,410
Paddle boats	301	622	4,058	4,276	1,414	292	10,963
Rafts	0	0	0	0	0	0	0
Sail boats	0	22	204	240	166	5	637
Personal watercrafts	32	390	2,950	5,447	1,180	267	10,268
Motor boats	273	2,090	3,659	4,346	1,857	332	12,557
House boats	32	105	298	413	209	49	1,106
Pontoon boats	387	5,300	17,539	23,059	7,224	949	54,458
Float tubes	0	0	194	441	80	0	715
Other rentals	24	86	41	46	95	24	316
Whitewater rafting	0	6,479	67,641	143,364	37,151	114	254,749
Electric campsites	161,246	655,453	976,577	962,337	606,893	202,991	3,565,497
Non-electric campsites	2,915	39,258	114,054	111,499	52,247	5,610	325,582
Hunting or fishing guides	936	1,974	2,374	2,148	1,400	811	9,644
All recreational activities	471,973	1,674,133	3,386,588	4,030,393	1,928,270	586,264	12,077,622

Private Recreation Use

Approximately 4,200 miles (38 percent) of the shoreline adjacent to TVA reservoirs and tailwater areas is either privately owned with direct access to the water or subject to reservoir access rights held by private landowners whose property adjoins TVA waterfront property. Some of these private lands have been developed for residential uses, including single-family homes and condominiums. Users of these residential areas include permanent, seasonal, and weekend residents. In many cases, seasonal, permanent, and weekend residents contribute significantly to the use of TVA reservoirs and, to a lesser degree, to the tailwater areas. Recreation users with private water use facilities on the reservoir and tailwater project areas were surveyed as to their recreation use of these projects. These users included shoreline property owners and condominium owners.

The types of recreational activities that were evaluated in terms of private use were:

- Pleasure boating (including house boating);
- Sailing;
- Water skiing, tubing or other towing activities;
- Personal watercraft use;
- Canoeing or kayaking;
- Fishing from a boat;
- Fishing from shore;
- Tent or vehicle camping;
- Sightseeing;
- Swimming or beach use; and,
- Windsurfing.

Private recreation use by shoreline property owners totaled 5.7 million user days, or 26 percent of the total of all recreation user types across the 35 projects (Figure 4.24-01). Private recreation use across all projects occurred primarily from May through August, with 29 percent of user days occurring during May through June, and 32 percent occurring during July through August (Figure 4.24-08). This pattern in time of use by shoreline property owners was evident for mainstem, run-of-river, and tributary projects. Private recreation use was greatest during July (1.0 million user days), followed by June and August (0.9 million user days each) (Figure 4.24-09). See Appendix D8 for estimates of use by reservoir.

Private recreation use on mainstem projects totaled 3.3 million user days, or 58 percent of the total private recreation use (Figure 4.24-01). Recreation use by shoreline property owners on tributary projects totaled 2.3 million user days, or 40 percent of the total private recreation use. Run-of-river projects had fewer than 130,000 private recreation user days, or 2 percent of the total private recreation use. Two projects accounted for 23 percent of the total private recreation use: Watts Bar (12 percent) and Wheeler (11 percent) (see Appendix D8 for estimates of use by reservoir).

Recreation activity profiles for shoreline property owners at the 13 surveyed projects were dominated by pleasure boating/house boating (92 percent of respondents participated in this activity), fishing from a boat (75 percent participated), water skiing/tubing/towing (70 percent participated), fishing from shore (65 percent participated), swimming or beach use (60 percent participated), personal watercraft use (54 percent participated), and sightseeing (49 percent participated) (Table 4.24-04).

4.24 Recreation

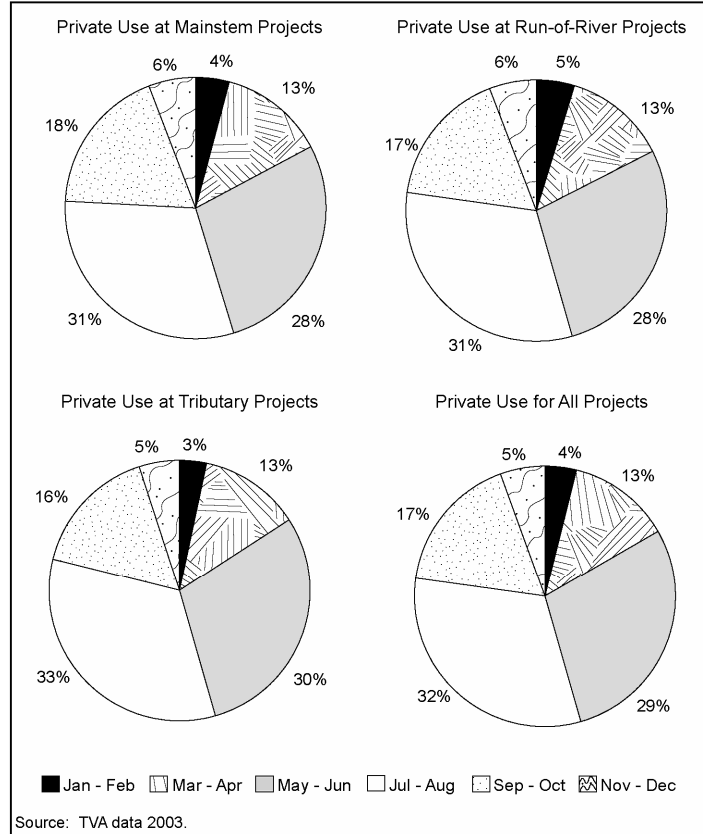


Figure 4.24-08 Private Recreation Use by Project Type (2002)

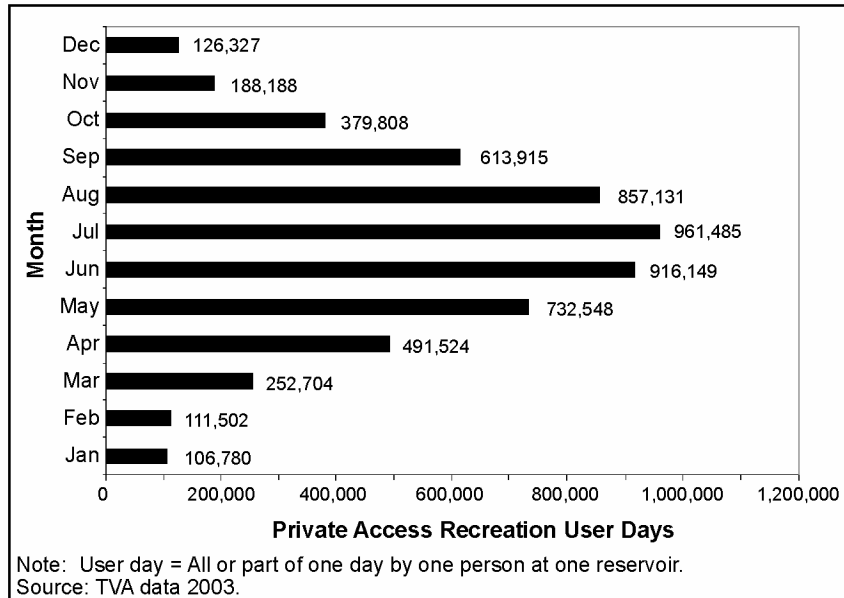


Figure 4.24-09 Private Recreation Use at the 35 Reservoirs Studied in the ROS (2002)

Future Trends

Recreation use of the TVA reservoir system is projected to increase through the year 2030. Outdoor recreation use of federal reservoir projects managed by the U.S. Forest Service, for the types of recreational activities considered for the 35 ROS projects, is expected to increase by 28 percent from 2000 to 2030 (English et al. 1993). The activities with the smallest increases over this three-decade period include fishing (16 percent), boating (16 percent), and swimming (18 percent).

The fishing activity projections may be optimistic, however, as the number of fresh-water anglers nationally (not including Great Lakes fishing) decreased by 8 percent from 1991 to 2001 (USFWS 2002a). The number of fishing days nationally decreased by 11 percent from 1996 to 2001, with a 17 percent decrease in fishing expenditures over the same time period (English et al. 1993). These national trends for angling are evident for the group of seven states encompassing the 35 TVA reservoirs analyzed (USFWS 2002b–e, 2003a–c). Tennessee, however, showed higher numbers of anglers and angling days but lower total angling expenditures from 1996 to 2001 (the differences were not statistically significant [USFWS 2003a]).

Other recreational activities are expected to increase significantly from 2000 to 2030. These activities, including canoeing, rafting, water skiing, sailing, and camping, are anticipated to increase in the range of 27 percent (water skiing) to 105 percent (sailing) (English et al. 1993). Camping, a popular activity in the TVA system, is expected to increase nationally by 44 percent (English et al. 1993). Outdoor recreation, which has grown consistently in importance to the American life style since the early 1960s, is projected to continue and increase in importance. The main attractor for outdoor recreation is, and will continue to be, the presence of water (Cordell et al. 1999).

Table 4.24-04 Private Recreation Activity Profiles at the 13 Surveyed Projects

Surveyed Project	Pleasure Boating (Includes House Boating)	Sailing	Water Skiing, Tubing, or Other Tow	Private Watercraft Use	Canoeing or Kayaking	Fishing (from Boat)	Fishing (from Shore)	Tent or Vehicle Camping	Sight-Seeing	Swimming or Beach Use	Wind-Surfing
Blue Ridge	96.9%	9.2%	84.7%	63.4%	52.7%	71.8%	60.3%	7.6%	53.4%	61.8%	0.0%
Chatuge	95.6%	11.7%	77.6%	47.0%	33.1%	71.6%	59.6%	6.9%	53.9%	62.1%	3.2%
Cherokee	93.0%	3.0%	67.0%	52.0%	19.0%	84.0%	68.0%	19.0%	44.0%	61.0%	1.0%
Chickamauga	89.1%	6.6%	62.5%	61.3%	28.4%	63.8%	66.3%	9.4%	46.3%	50.9%	1.9%
Douglas	93.7%	6.9%	68.8%	55.0%	17.5%	85.2%	73.5%	8.5%	54.0%	63.0%	0.5%
Guntersville	87.9%	13.5%	68.6%	51.2%	27.5%	72.9%	66.7%	6.8%	38.6%	55.6%	2.9%
Hiwassee	100.0%	3.4%	79.3%	31.0%	51.7%	82.8%	69.0%	3.4%	62.1%	79.3%	0.0%
Kentucky	91.1%	10.1%	61.6%	50.8%	12.0%	88.4%	67.4%	7.8%	53.5%	57.8%	1.6%
Melton Hill	77.8%	1.6%	55.6%	34.9%	49.2%	54.0%	54.0%	6.3%	42.9%	50.8%	0.0%
Norris	95.8%	2.1%	80.0%	54.7%	24.2%	69.5%	60.0%	8.4%	53.7%	67.4%	1.1%
Pickwick	91.9%	5.7%	77.2%	61.8%	14.6%	74.0%	69.1%	4.1%	48.0%	60.2%	1.6%
South Holston	93.9%	4.1%	71.4%	53.1%	14.3%	79.6%	63.3%	16.3%	51.0%	53.1%	2.0%
Tellico	92.3%	5.8%	59.1%	37.2%	24.8%	62.4%	47.5%	5.4%	56.6%	57.0%	1.7%
All surveyed projects	92.3%	7.1%	70.3%	53.6%	23.8%	75.0%	65.4%	8.7%	49.3%	59.6%	1.6%