



Section O

Environmental Conservation and Recreation

Information on the environment and the outdoors in New York State — including State parks and other commercial or public recreation; hunting and fishing; forest management; air, land, and water pollution; and earthquakes and mineral resources.

Highlights

- There are 199 State Parks and Historic Sites and they were visited over 55 million times in the 2003 fiscal year.
- Over \$4.5 million worth of forest products were sold from state-owned forests in 2002.
- The state issued almost 1.3 million hunting, fishing, and trapping licenses in 2002.
- There were 877 confirmed or suspected hazardous waste sites in New York State as of January 2003.

- | | |
|---|--|
| O-1 Acreage of and Attendance at State-Owned Public Campsites Within the Adirondack and Catskill Forest Preserves: 1996-2002 | O-11 Tour Participants at the State Capitol, Executive Mansion and Corning Tower: Fiscal Years 1996-97 — 2002-03 |
| O-2 Public Use of State-Owned Summer Recreational Facilities Within the Adirondack and Catskill Forest Preserves, NYS: 1975-2002 | O-12 State-Owned Lands Under Jurisdiction of the Department of Environmental Conservation, NYS: Selected Years 1950-2002 |
| O-3 Public and Commercial Camping Facilities by Region, NYS: 2001 | O-13 Cooperative Forest Management, NYS: Fiscal Years 1980-81 — 2002-03 |
| O-4 Public and Commercial Day Use Facilities by Operator, NYS: 2001 | O-14 Primary Use Impairment and Severity of Water Quality Problem for Each Waterbody Type, NYS: 2002 |
| O-5 Public and Commercial Day Use Facilities by State Park Region, NYS: 2001 | O-15 Seedlings Distributed from the State-Owned Saratoga Nursery, NYS: 1975-2003 |
| O-6 Public and Commercial Camping Facilities by Operator, NYS: 2001 | O-16 Sales of Forest Products from State-Owned Forests, NYS: 1975-2002 |
| O-7 Attendance at Selected State-Owned Recreational Facilities Within the Adirondack and Catskill Forest Preserves, NYS: 1993-2002 | O-17 Forest Fires and Acres Burned, NYS: Selected Years 1955-2002 |
| O-8 Acreage of and Attendance at State Parks and Historic Sites, NYS by Region: Fiscal Years 1996-97 — 2002-03 | O-18 Search and Rescue Missions, NYS: 1963-2002 |
| O-9 Acreage of and Attendance at Facilities Operated by the Office of Parks, Recreation and Historic Preservation: Fiscal Years 1996-97 — 2002-03 | O-19 Resident Hunting, Fishing and Trapping Licenses by Type, NYS: Selected Years 1940-2002 |
| O-10 Attendance at State Parks and Historic Sites by Type of Activity, NYS: Fiscal Years 1996-97 — 2002-03 | O-20 Hunting Accidents, Fatal and Nonfatal, NYS: 1940-2002 |
| | O-21 Calculated Deer Take, NYS: Selected Years 1965-2002 |



- O-22 Resident and Nonresident Hunting, Fishing and Trapping Licenses by Type, NYS by County: License Year Ended September 30, 2002
- O-23 Environmental Conservation, Division of Law Enforcement, Annual Activity, NYS: Fiscal Years 1997-98 — 2002-03
- O-24 Motorboat and Snowmobile Registrations, NYS by County: 1999-2001 Average and 2002
- O-25 Fish Distributed by State Hatcheries, NYS: Selected Fiscal Years 1949-50 — 2002-03
- O-26 Fish Distributed by State Hatcheries by Size and Species, NYS: Fiscal Year 2002-03
- O-27 Marine Recreational Fish Catch, NYS: 1995-2002
- O-28 Marine Commercial Fishing, Value of Products, NYS: 1994-2001
- O-29 Marine Commercial Fishing Licenses, NYS: 1997-2002

- O-30 Location and Intensity of Prominent Earthquakes in NYS: 1737-2002
- O-31 Air Pollution by Types of Contaminant, NYS: 1964-2002
- O-32 Air Pollution Sources by Permit Type, NYS by County: As of August 18, 2003
- O-33 Active Solid Waste Disposal Sites, NYS by County: Selected Years 1970-2003
- O-34 Hazardous Waste Sites Confirmed or Suspected, by Class, NYS: January 2003

Figures

- O-1 New York State Park Regions: 2004
- O-2 Location and Intensity of Significant Earthquakes, NYS: 1737-2003
- O-3 Mineral Resources, NYS: 2003

TABLE O-1
Acres and Attendance at State-Owned Public Campgrounds
Within the Adirondack and Catskill Forest Preserves
1996-2002

Campsite	County	Acres Developed	Attendance						
			1996	1997	1998	1999	2000	2001	2002
New York State		6,452	1,380,857	1,410,756	1,410,792	1,424,218	1,419,427	1,574,749	1,554,679
Alger Island	Herkimer	45	3,846	3,813	5,276	5,399	5,310	5,945	5,192
Ausable Point	Clinton	30	43,747	46,498	42,565	47,682	44,148	62,564	59,874
Beaverkill	Sullivan	62	11,672	11,218	13,394	14,324	14,214	16,914	18,297
Brown Tract Pond	Hamilton	20	11,774	10,600	10,593	10,271	9,417	10,413	10,774
Buck Pond	Hamilton	150	16,744	15,620	14,569	15,567	15,723	17,049	16,681
Caroga Lake	Fulton	40	20,964	20,301	20,476	22,280	18,646	15,637	33,841
Cranberry Lake	St. Lawrence	90	32,580	30,153	33,103	31,915	34,009	36,228	35,581
Crown Point	Essex	39	16,078	14,037	12,540	10,175	10,004	18,634	16,796
Devil's Tombstone	Greene	24	5,148	5,006	5,002	4,469	4,185	4,165	3,701
Eagle Point	Warren	16	14,964	15,006	16,765	15,805	14,796	14,558	13,193
Eighth Lake	Hamilton	75	33,206	34,539	34,729	31,762	36,319	36,039	35,728
Fish Creek Pond	Franklin	121	101,944	99,333	102,651	101,955	112,989	119,691	116,352
Forked Lake	Hamilton	27	11,496	10,385	9,352	9,823	8,976	9,290	9,763
Fourth Lake Day Use Area	Herkimer	10	1,221	941	1,050	1,120	965	1,239	1,437
Golden Beach	Hamilton	40	37,114	36,482	38,394	40,093	37,980	37,371	38,713
Hearthstone Point	Warren	89	53,861	56,161	56,412	57,799	56,122	57,426	53,890
Hinckley Reservoir	Herkimer	2,782	10,247	9,955	10,449	11,905	8,051	11,418	12,063
Indian Lake Islands	Hamilton	15	14,964	16,619	17,831	18,167	17,058	17,310	17,019
Lake Durant	Hamilton	25	19,041	17,550	16,909	15,978	16,842	17,430	16,901
Lake Eaton	Hamilton	30	24,975	22,352	24,933	24,936	25,884	29,386	29,031
Lake George Battleground	Warren	12	17,859	17,652	17,579	18,191	17,488	21,107	19,073
Lake George Islands	Warren	305	92,823	98,019	82,288	87,258	80,900	85,254	81,745
Lake Harris	Essex	21	11,771	10,973	11,886	12,671	11,319	13,134	13,021
Lewey Lake	Hamilton	40	38,991	37,675	37,237	33,827	37,363	35,439	37,139
Limekiln Lake	Hamilton	50	32,673	32,478	34,844	35,355	34,566	35,531	36,114
Lincoln Pond	Essex	160	8,427	9,323	9,852	10,886	11,130	12,620	12,239
Little Pond	Delaware	46	15,961	19,020	19,470	17,813	17,408	18,561	18,481
Little Sand Point	Hamilton	20	10,340	9,227	9,477	10,343	12,882	12,132	11,058
Luzerne	Warren	625	35,158	38,006	37,358	39,267	36,913	39,132	36,442
Meacham Lake	Franklin	100	38,689	40,620	39,699	46,383	47,838	53,198	49,389
Meadowbrook	Essex	13	9,053	6,820	6,761	7,365	6,668	7,257	7,581
Moffitt Beach	Hamilton	75	46,441	45,581	49,475	49,105	47,340	51,385	51,587
Mongaup Pond	Sullivan	275	38,881	43,032	45,987	41,517	39,203	45,462	44,012
Nicks Lake	Herkimer	200	38,245	40,604	39,553	36,676	40,762	43,603	38,091
Northampton Beach	Fulton	60	81,636	93,670	95,467	102,163	104,568	133,316	128,243
North/South Lake	Greene	128	113,034	118,564	114,921	106,405	107,234	132,529	128,686
Paradox Lake	Essex	6	14,279	14,241	13,075	13,435	13,241	14,671	17,260
Point Comfort	Hamilton	15	10,137	8,850	9,565	8,940	8,405	9,875	9,139
Poke-O-Moonshine	Essex	3	3,347	3,128	2,584	2,193	1,395	1,927	2,914
Poplar Point	Hamilton	15	4,191	2,711	4,017	4,038	3,259	4,799	4,347
Putnam Road	Essex	46	15,460	15,140	15,268	16,380	16,743	16,515	16,006
Rogers Rock	Warren	186	68,056	73,892	72,872	77,900	76,846	85,534	84,797
Rollins Pond	Franklin	95	53,718	58,246	58,056	60,002	60,976	62,486	60,452
Sacandaga	Hamilton	25	19,588	18,103	21,003	21,335	22,848	22,989	23,791
Saranac Lake Islands	Essex	NA	14,883	17,039	18,377	20,827	19,226	19,336	18,749
Sharp Bridge	Essex	10	2,570	2,403	1,552	1,625	1,422	1,907	1,985
Taylor Pond	Clinton	10	4,062	3,934	4,036	4,455	4,400	5,469	5,091
Tioga Point	Fulton	25	1,229	1,615	2,085	1,959	1,726	1,968	2,193
Wilmington Notch	Essex	9	14,356	11,086	10,107	8,778	9,075	8,612	9,773
Wilson Park	Ulster	125	27,468	30,164	26,913	25,181	22,683	27,965	28,123
Woodland Valley	Ulster	15	11,945	12,371	12,435	10,520	11,962	12,329	12,331

NA Not available.

SOURCE: New York State Department of Environmental Conservation, Division of Operations.

TABLE O-2

**Public Use of State-Owned Recreational Facilities¹
Within the Adirondack and Catskill Forest Preserves
New York State — 1975-2002**

Operation Year Ended October 31	Individual Users			Days of Use			Camping Permits Sold
	Total ²	Day-Users Only	Campers	Total ²	Day-Users Only	Camper Use ³	
1975	2,452,315	1,833,652	618,663	4,100,883	1,833,652	2,267,231	154,605
1976	2,156,313	1,556,908	599,405	3,842,936	1,556,908	2,286,028	149,149
1977	2,091,877	1,530,867	561,010	3,557,416	1,530,867	2,026,549	140,867
1978	2,200,576	1,598,611	601,965	3,711,003	1,598,611	2,112,392	152,092
1979	2,371,042	1,831,248	539,794	3,793,084	1,831,248	1,961,836	133,847
1980	1,926,170	1,427,775	498,395	2,715,578	1,427,775	1,287,803	141,291
1981	895,132	429,211	465,921	1,593,926	429,211	1,164,715	133,128
1982	939,036	496,684	442,352	1,602,588	496,684	1,105,904	124,259
1983	946,857	487,331	459,526	1,636,146	487,331	1,148,815	133,187
1984	957,800	513,489	444,311	1,624,267	513,489	1,110,778	126,946
1985	987,583	529,902	457,681	1,674,104	529,902	1,144,202	130,766
1986	946,910	479,949	466,961	1,647,352	479,949	1,167,403	128,356
1987	1,056,696	585,481	471,215	1,763,519	585,481	1,178,038	124,436
1988	1,139,162 ^r	641,354	497,808	1,910,764	641,354	1,269,410 ^r	140,836
1989	1,078,473	596,835	481,638	1,829,828	596,835	1,232,993	136,373
1990	931,499	505,682	425,817	1,570,224	505,682	1,064,542	130,468
1991	943,255	486,771	456,484	1,627,981	486,771	1,141,210	131,251
1992	818,890	392,258	426,632	1,458,838	392,258	1,066,580	127,851
1993	1,560,294	470,674	1,089,620	a	a	a	137,971
1994	1,583,642	415,759	1,167,883	a	a	a	121,156
1995	1,611,443	459,103	1,152,340	a	a	a	139,208
1996	1,524,896	410,335	1,114,561	a	a	a	114,213
1997	1,565,825	424,808	1,141,017	a	a	a	113,055
1998	1,513,931	374,300	1,139,630	a	a	a	113,601
1999	1,486,827	373,107	1,113,720	a	a	a	120,167
2000	1,412,666	313,116	1,099,550	a	a	a	109,683
2001	1,521,527	373,324	1,148,203	a	a	a	123,393
2002	1,423,079	313,988	1,109,091	a	a	a	114,847

r Revised.

a As of 1993, "Days of Use" are included in "Individual Users."

1 Operated by the Bureau of Recreation, New York State Department of Environmental Conservation.

2 After 1980, includes utilization of developed summer recreation areas only.

3 Measured in camper days (which is number of campers times number of days camped).

SOURCE: New York State Department of Environmental Conservation, Division of Operations.

TABLE O-3

**Public and Commercial Camping Facilities by Region
New York State — 2001**

Operator	Places with Vacation Camping		Number of Campsites		Places with Electric Campsites		Number of Electric Sites		Places with Group Camps	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	1,456	100.0%	107,876	100.0%	1,097	100.0%	63,262	100.0%	774	100.0%
Allegany	105	7.2	8,554	7.9	85	7.7	6,152	9.7	27	3.5
Capital District	131	9.0	9,633	8.9	96	8.8	6,337	10.0	54	7.0
Central	225	15.5	16,240	15.1	172	15.7	10,593	16.7	82	10.6
Finger Lakes	162	11.1	11,621	10.8	124	11.3	7,135	11.3	66	8.5
Forest Preserve	259	17.8	19,808	18.4	206	18.8	9,096	14.4	103	13.3
Genesee	76	5.2	9,376	8.7	61	5.6	7,126	11.3	34	4.4
Long Island	26	1.8	2,382	2.2	15	1.4	545	0.9	36	4.7
New York City	—	—	—	—	—	—	—	—	—	—
Niagara	60	4.1	5,258	4.9	41	3.7	2,978	4.7	32	4.1
Palisades	114	7.8	9,919	9.2	86	7.8	5,091	8.0	201	26.0
Taconic	56	3.8	3,167	2.9	26	2.4	1,336	2.1	77	9.9
Thousand Islands	242	16.6	11,918	11	185	16.9	6,873	10.9	62	8.0

— Represents zero.

SOURCE: New York State Office of Parks, Recreation and Historic Preservation.

TABLE O-4
Public and Commercial Day Use Facilities by Operator
New York State — 2001

Operator	Places with Picnic Tables				Places with Tennis Courts				Places with Basketball Courts			
	Number of Facilities		Number of Tables		Number of Facilities		Number of Courts		Number of Facilities		Number of Courts	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	4,898	100.0%	105,846	100.0%	1,835	100.0%	5,092	100.0%	1,793	100.0%	2,344	100.0%
State	286	5.8	42,710	40.4	30	1.6	230	4.5	40	2.2	64	2.7
County	168	3.4	22,174	20.9	56	3.1	108	2.1	27	1.5	63	2.7
City/Village	1,232	25.2	10,199	9.6	536	29.2	1,100	21.6	497	27.7	620	26.5
Town	1,000	20.4	9,275	8.8	385	21.0	514	10.1	379	21.1	408	17.4
Federal	6	0.1	51	0.1	1	0.1	6	0.1	—	—	—	—
School District	652	13.3	132	0.1	330	18.0	1,236	24.3	529	29.5	915	39.0
Nonprofit	140	2.9	1,289	1.2	36	2.0	46	0.9	41	2.3	28	1.2
Private Club	189	3.9	2,481	2.3	144	7.8	451	8.9	42	2.3	47	2.0
Commercial	1,225	25.0	17,535	16.6	317	17.3	1,401	27.5	238	13.3	199	8.5

— Represents zero.

SOURCE: New York State Office of Parks, Recreation and Historic Preservation.

TABLE O-5
Public and Commercial Day Use Facilities by State Park Region
New York State — 2001

State Park Region	Places with Picnic Tables		Number of Picnic Tables(e)		Places with Tennis Courts		Places with Basketball Courts	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	4,898	100.0%	105,846	100.0%	1,835	100.0%	1,793	100.0%
Allegany	162	3.3	2,642	2.5	32	1.7	25	1.4
Capital District	558	11.4	9,273	8.8	200	10.9	250	13.9
Central	826	16.9	15,271	14.4	292	15.9	382	21.3
Finger Lakes	403	8.2	8,579	8.1	110	6.0	43	2.4
Forest Preserve	362	7.4	6,408	6.1	73	4.0	116	6.5
Genesee	230	4.7	8,752	8.3	77	4.2	57	3.2
Long Island	810	16.5	11,603	11.0	382	20.8	432	24.1
New York City	236	4.8	2,201	2.1	123	6.7	24	1.3
Niagara	271	5.5	16,054	15.2	132	7.2	91	5.1
Palisades	351	7.2	9,385	8.9	122	6.6	104	5.8
Taconic	368	7.5	8,032	7.6	199	10.8	169	9.4
Thousand Islands	321	6.6	7,646	7.2	93	5.1	100	5.6

e Estimated.

SOURCE: New York State Office of Parks, Recreation and Historic Preservation.

TABLE O-6
Public and Commercial Camping Facilities by Operator
New York State — 2001

Operator	Places with Vacation Camping		Number of Campsites		Places with Cabins		Number of Cabins		Places with Group Camps	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	1,456	100.0%	107,876	100.0%	455	100.0%	3,509	100.0%	774	100.0%
State	142	9.8	15,815	14.7	25	5.5	833	23.7	19	2.5
County	39	2.7	2,786	2.6	3	0.7	38	1.1	16	2.1
City/Village	18	1.2	849	0.8	—	—	—	—	3	0.4
Town	42	2.9	1,970	1.8	1	0.2	1	0.1	5	0.6
Federal	5	0.3	86	0.1	—	—	—	—	1	0.1
School District	3	0.2	24	—	—	—	—	—	2	0.3
Nonprofit	34	2.3	1,940	1.8	15	3.3	138	3.9	215	27.8
Private Club	28	1.9	1,447	1.3	21	4.6	155	4.4	109	14.2
Commercial	1145	78.6	82,959	76.9	390	85.7	2,344	66.8	404	52.2

— Represents zero or unreported.

SOURCE: New York State Office of Parks, Recreation and Historic Preservation.

TABLE O-7
Attendance¹ at Selected State-Owned Recreational Facilities²
Within the Adirondack and Catskill Forest Preserves
New York State — 1993-2002

	1993	1994	1995	1996	1997	1998	1999(r)	2000(r)	2001	2002
Adirondack Forest Preserve										
Lake George Beach	52,585	39,260	47,688	45,883	44,472	80,041	63,125	49,251	NA	NA
Lake George Battlefield	8,697	5,953	7,119	7,028	5,869	6,552	5,820	5,897	5,435	7,588
Prospect Mountain Highway	83,058	82,138	84,056	77,994	84,731	82,229	70,889	84,486	86,614	75,940
Catskill Forest Preserve										
Ski Center										
Belleayre Mountain	88,800	70,247	81,489	71,209	83,854	84,042	107,211	141,886	NA	NA

r Revised.

NA Not available.

jurisdiction of the New York State Office of Parks, Recreation and Historic Preservation.

SOURCE: New York State Department of Environmental Conservation.

1 Seasonal only; none of these facilities are open year-round.

2 Under the jurisdiction of the New York State Department of Environmental Conservation. See Tables O-8 and O-9 for facilities under the

TABLE O-8

**Acreeage of and Attendance at State Parks and Historic Sites
New York State by Region
Fiscal Years 1996-97 — 2002-03**

Region	Facilities			Attendance (thousands)						
	State Parks(r)	Historic Sites	Acres(r)	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03
New York State ¹	168	35	305,266	61,891	65,302	60,050	57,006	53,949	55,363	55,409
Allegany	3	—	66,215	2,110	1,790	1,838	1,907	1,809	1,850	1,880
Central New York	16	7	13,851	2,879	2,915	2,841	2,875	2,782	2,863	2,840
Finger Lakes	19	2	13,361	3,376	3,252	3,530	3,494	2,819	2,833	2,922
Genesee	6	—	22,424	1,627	1,366	1,368	1,398	1,093	1,181	1,183
Long Island	28	2	26,479	18,588	19,529	19,422	18,774	18,095	19,442	19,180
New York City	8	—	904	4,341	6,055	4,987	3,153	3,135	3,228	3,320
Niagara Frontier	18	1	6,444	14,396	15,074	11,146	10,708	10,378	10,186	10,071
Palisades	19	6	95,876	6,954	7,259	7,463	7,609	7,181	7,138	7,173
Saratoga/Capital District	12	9	13,695	1,938	1,998	2,028	1,968	1,989	2,225	2,394
Taonic	11	6	30,357	3,736	4,243	3,664	3,339	2,969	2,723	2,645
Thousand Islands	28	2	15,660	1,946	1,821	1,763	1,781	1,699	1,694	1,801

— Represents zero.

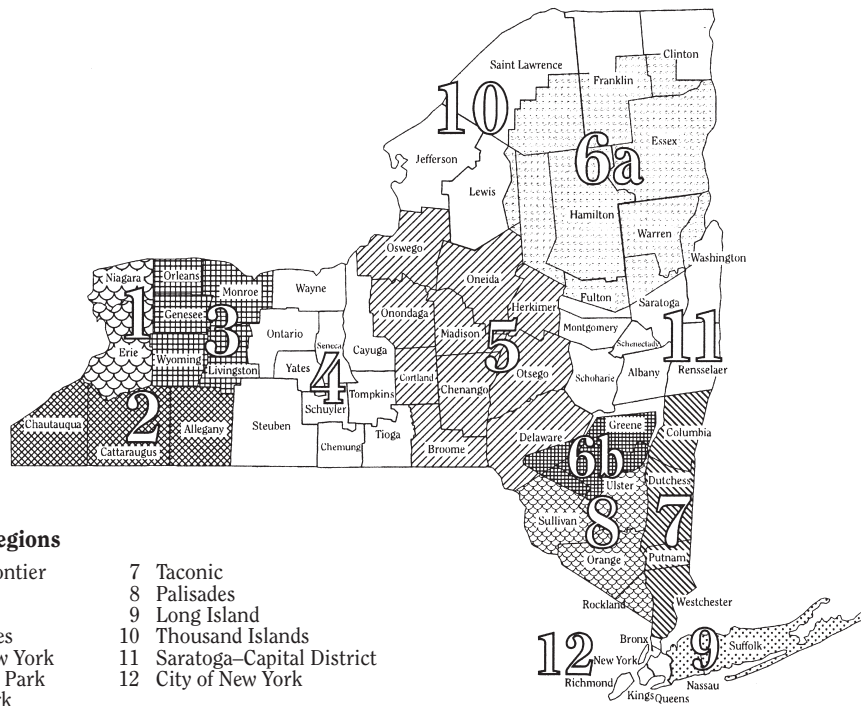
r Revised.

1 Not including Adirondack and Catskill Forest Preserves.

SOURCE: New York State Office of Parks, Recreation and Historic Preservation.

FIGURE O-1

New York State Park Regions — 2004



SOURCE: New York State Office of Parks, Recreation, and Historic Preservation.

TABLE O-9

**Acreege of and Attendance at Facilities Operated by the Office of Parks,
Recreation and Historic Preservation
Fiscal Years 1996-97 — 2002-03**

Facility	County	Acres	Attendance (thousands)						
			1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03
A.E. Smith/Sunken Meadow	Suffolk	1,288	1,475	1,550	1,539	1,451	1,356	1,634	1,652
Allan H. Treman	Tompkins	91	159	108	107	129	126	145	132
Allegany	Cattaraugus	64,800	1,802	1,461	1,407	1,438	1,455	1,442	1,463
Amherst	Erie	77	—	—	—	—	—	—	—
Appalachian Trail	Putnam	544	—	—	—	—	—	—	—
Athens Boat Launch	Greene	3	—	—	—	—	—	—	—
Barcelona Harbor of Refuge	Chautauqua	4	—	—	—	—	—	—	—
Battle Island	Oswego	235	36	43	42	40	37	40	40
Bayard Cutting Arboretum	Suffolk	690	79	83	105	116	117	129	118
Bayswater Point	Queens	21	—	—	—	—	—	10	19
Bear Mountain/Iona	Orange/Rockland	5,067	1,401	1,547	1,387	1,738	1,105	1,288	1,016
Beaver Island	Erie	952	256	259	274	227	187	201	204
Beechwood	Wayne	172	—	—	—	—	—	—	—
Belmont Lake	Suffolk	463	305	355	344	331	305	345	338
Bennington Battlefield (NHL/NR ²)	Rensselaer	276	20	16	12	21	19	19	19
Bethpage	Suffolk/Nassau	1,477	875	822	770	764	813	915	779
Betty & Wilbur Davis	Otsego	191	—	—	—	—	—	—	—
Big Six Mile Creek Marina	Erie	19	50	51	34	31	26	39	37
Black Diamond Trail	Tompkins	160	a	a	a	a	a	a	a
Black Lake Boat Launch	St. Lawrence	3	12	43	22	19	24	31	24
Black River Recreationway	Jefferson	61	b	b	b	b	b	b	b
Blauvelt	Rockland	590	—	—	—	—	—	—	—
Bonavista	Seneca	251	17	24	23	23	15	15	19
Bowman Lake	Chenango	653	34	40	46	51	48	45	52
Braddock Bay	Monroe	387	—	—	—	—	—	—	—
Bristol Beach	Ulster	165	19	21	23	19	21	22	22
Brookhaven	Suffolk/Nassau	1,638	—	—	—	—	—	—	—
Buckhorn Island	Erie	895	17	17	19	14	17	15	17
Burnham Point	Jefferson	12	13	13	13	13	9	10	9
Buttermilk Falls	Tompkins	793	134	154	150	147	136	153	148
Caleb Smith	Suffolk	546	50	37	35	34	28	39	34
Camp Hero	Suffolk	754	62	101	104	107	106	101	118
Canadarago Marine Park	Otsego	4	24	20	17	28	32	33	32
Canandaigua Lake Marine Park	Ontario	15	108	63	61	58	48	59	64
Canoe Picnic Point	Jefferson	70	7	7	7	10	7	8	11
Captree	Suffolk	340	1,693	1,632	1,573	1,423	1,519	1,797	1,847
Catharine Valley Trail	Chemung/Schuyler	217	a	a	a	a	a	a	a
Caumsett (NR ²)	Suffolk	1,520	266	286	277	279	296	316	254
Cayuga Lake	Seneca	141	171	193	218	266	184	190	168
Cedar Island	St. Lawrence	10	4	4	4	4	3	2	3
Cedar Point	Jefferson	48	65	64	65	66	48	58	59
Chaumont Boat Launch	Jefferson	27	24	7	11	11	24	21	21
Chenango Valley	Broome	1,137	316	277	298	262	251	257	236
Cherry Plain	Rensselaer	175	25	24	27	34	16	22	25
Chimney Bluffs	Wayne	597	182	121	110	114	70	45	43
Chittenango Falls	Madison	193	59	58	61	60	58	65	51
Clarence Fahnestock	Putnam	12,650	240	250	240	195	187	185	172
Clark Reservation	Onondaga	377	67	48	29	40	37	40	50
Clay Pit Ponds	Richmond	258	45	54	54	50	46	48	45
Clermont (NHL/NR ²)	Columbia/Dutchess	589	82	100	103	114	96	105	95
Clinton House (NR ²)	Dutchess	1	—	—	—	—	1	2	1
Cold Spring Harbor	Suffolk	45	—	—	—	—	—	—	—
Coles Creek	St. Lawrence	1,800	129	113	121	123	121	126	130
Conesus Lake Boat Launch	Livingston	3	78	32	31	30	13	14	20
Connetquot River	Suffolk	3,473	269	235	282	220	227	246	232
Coxsackie Boat Launch	Greene	4	—	—	—	—	—	—	—
Crab Island	Clinton	40	—	—	—	—	—	—	—
Craio (NHL/NR ²)	Rensselaer	1	9	9	9	12	9	10	9
Croil Island	St. Lawrence	796	—	—	—	—	—	—	—
Crown Point (NHL/NR ²)	Essex	380	26	27	32	32	45	56	57
Cuba Lake Reservation	Allegany/Cattaraugus	696	—	—	—	—	—	—	—
Cumberland Bay	Clinton	350	94	83	73	83	69	72	58
Darien Lakes	Genesee	1,845	77	61	76	77	66	72	66
Deans Cove Boat Launch	Seneca	10	6	—	—	—	50	34	22
Delta Lake	Oneida	400	197	184	167	164	152	143	138
DeVeaux Wood	Niagara	51	—	—	—	—	—	—	4
Devil's Hole	Niagara	42	266	270	257	242	204	184	179
DeWolf Point	Jefferson	13	15	11	10	8	7	7	9
Durand Eastman Right-of-Way	Monroe	19	—	—	—	—	—	—	—
Earl W. Brydges Artpark	Niagara	155	436	423	470	327	253	179	90
East River	Kings	9	—	—	—	—	—	—	—
Eel Weir	St. Lawrence	16	9	14	11	5	8	6	7
Empire-Fulton Ferry	Kings	9	45	48	67	76	63	58	44
Evangola	Erie	733	211	202	217	204	148	122	109
Fair Haven Beach	Cayuga	830	388	323	312	327	268	251	309
Fillmore Glen	Cayuga	941	60	58	67	63	63	84	99
Fort Montgomery (NHL/NR ²)	Rockland	150c	—	—	—	—	—	—	—
Fort Niagara	Niagara	504	791	740	783	785	936	782	657
Fort Ontario (NR ²)	Oswego	36	163	345	231	166	128	153	114
Four Mile Creek Campsite	Niagara	248	75	47	83	83	48	69	59

(Continued on the following page)

TABLE O-9 (continued)

**Acreage of and Attendance at Facilities Operated by the Office of Parks,
Recreation and Historic Preservation
Fiscal Years 1996-97 — 2002-03**

Facility	County	Acres	Attendance (thousands)						
			1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03
Franklin D. Roosevelt	Westchester	761	869	948	780	670	561	552	531
Galop Island	St. Lawrence	675	—	—	—	—	—	—	—
Ganondagan (NHL/NR ²)	Ontario	535	25	27	37	28	31	27	29
Gantry Plaza	Queens	3	—	—	93	119	96	107	92
Genesee Valley Greenway	Monroe	195	—	—	—	—	—	—	—
Gilbert Lake	Otsego	1,584	101	100	101	106	98	111	106
Gilgo Beach	Suffolk	1,223	—	—	—	—	—	—	—
Glimmerglass	Otsego	593	93	70	85	92	82	110	101
Golden Hill	Niagara	510	188	183	213	219	213	236	224
Goose Pond Mountain	Orange	1,558	—	—	—	—	—	—	—
Grafton Lakes	Rensselaer	2,357	185	188	178	185	139	184	184
Graniteville Quarry	Richmond	4	—	—	—	—	—	—	—
Grant Cottages (NR ²)	Saratoga	1	—	—	—	—	—	—	—
Grass Point	Jefferson	114	47	39	41	38	33	31	29
Great Chazy Boat Launch	Clinton	7	18	13	14	21	24	22	41
Green Lakes	Onondaga	1,955	839	848	824	928	971	1,116	1,144
Guy Park (NR ²)	Montgomery	1	—	—	—	—	—	—	—
Hamlin Beach	Monroe	1,287	302	270	303	343	272	320	322
Harlem Valley Trail	Columbia/Dutch	1	—	—	—	—	—	—	—
Harriet Holister Spencer	Ontario	678	51	50	55	49	32	21	27
Harriman: Anthony Wayne	Orange/Rockland	46,613	1,225	1,249	1,232	1,163	1,157	1,332	1,332
Beaver Pond	Orange/Rockland		76	76	85	75	47	56	49
Group Camp	Orange/Rockland		287	298	290	274	246	232	426
Hiker Lake	Orange/Rockland		45	44	43	45	39	43	33
Lake Tiorati	Orange/Rockland		436	497	555	549	869	522	530
Lake Welch	Orange/Rockland		297	297	309	307	206	252	217
Sebago Lake	Orange/Rockland		170	194	184	148	138	125	158
Hart's Brook Nature	Westchester	123	—	—	—	—	—	—	—
Haverstraw Beach	Rockland	73	—	—	—	—	—	—	—
Heckscher	Suffolk	1,657	1,398	1,527	1,546	1,628	1,609	1,333	1,046
Helen L. McNitt	Madison	134	—	—	—	—	—	—	—
Hempstead Lake	Nassau	737	431	436	405	468	346	381	371
Herkimer Home (NR ²)	Herkimer	155	31	34	33	31	29	28	26
High Tor	Rockland	618	27	29	34	32	28	34	37
Highland Lakes	Orange	3,115	—	—	—	—	—	—	—
Higley Flow	St. Lawrence	1,115	40	38	26	29	29	32	36
Hither Hills	Suffolk	1,755	380	397	389	398	397	393	380
Hithe Woods	Suffolk	557	—	—	—	—	—	—	—
Honeoye Boat Launch	Ontario	9	61	56	64	58	42	26	27
Hook Mountain	Rockland	676	—	—	—	—	—	—	—
Hudson Boat Boat Launch	Columbia	3	—	—	—	—	—	—	—
Hudson Highlands	Dutchess/Putnam	5,564	116	130	149	115	81	88	82
Hudson River Islands	Columbia	235	b	b	b	b	b	b	b
Hudson River Park	Kings	550	—	—	—	—	—	—	—
Hunt's Pond	Chenango	235	8	10	14	11	10	11	15
Hyde Hall (NHL/NR ²)	Otsego	12	—	—	—	—	—	—	—
Irondequoit Bay	Monroe	35	149	—	—	—	—	—	—
Jacques Cartier	St. Lawrence	461	42	46	38	34	32	33	34
James Baird	Dutchess	590	553	480	500	419	349	327	410
John B. Thacher	Albany	1,348	253	245	245	182	193	190	222
John Brown Farm (NR ²)	Essex	270	40	45	61	39	70	47	72
John Burroughs Memorial (NR ²)	Delaware	3	—	—	—	—	—	—	—
John Jay Homestead (NHL/NR ²)	Westchester	64	72	66	75	105	110	64	64
Johnson Hall (NHL/NR ²)	Fulton	19	71	74	75	76	63	70	71
Jones Beach	Nassau	2,413	6,035	6,458	6,198	5,906	5,689	5,954	6,209
Joseph Davis	Niagara	388	91	97	108	104	63	47	31
Keewaydin	Jefferson	241	62	68	62	68	71	62	70
Keuka Lake	Yates	621	122	121	127	125	108	111	118
Knox Farm	Erie	633	—	—	—	—	—	—	24
Knox Headquarters (NHL/NR ²)	Orange	48	6	7	8	9	4	10	13
Kring Point	Jefferson	61	60	62	68	66	52	55	57
Lake Erie	Chautauqua	355	123	129	159	211	145	165	163
Lake Ontario Parkway	Monroe/Orleans	2,624	—	—	—	—	—	—	—
Lake Lauderdale	Washington	117	—	—	—	—	—	—	—
Lake Superior	Sullivan	1,409	—	—	—	—	—	—	—
Lake Taghkanic	Columbia	1,569	189	204	194	180	161	185	199
Lakeside Beach	Orleans	744	79	78	86	85	81	86	85
Lennox Forest Demonstration	Delaware	172	—	—	—	—	—	—	—
Letchworth	Livingston/Wyoming	14,345	889	904	836	812	625	647	639
Lodi Point State Marine	Seneca	12	51	20	17	23	12	24	21
Long Point	Jefferson	23	24	20	22	23	26	23	24
Long Point (Cayuga Lake)	Cayuga	272	18	20	17	17	16	21	27
Long Point (on Lake Chautauqua)	Chautauqua	360	185	200	272	258	209	243	254
Lorenzo (NR ²)	Madison	33	33	31	40	25	78	73	63
Macomb Reservation	Clinton	600	32	36	35	35	41	38	30
Margaret Lewis Norrie	Dutchess	346	453	438	435	404	349	332	291
Mark Twain	Chemung	469	55	58	61	47	48	51	52
Mary Island	Jefferson	13	5	6	5	4	3	3	3
Max V. Shaul	Schoharie	70	17	8	6	7	6	6	6
Mexico Point	Oswego	122	—	—	—	—	—	—	—

(Continued on the following page)

TABLE O-9 (continued)

**Acreege of and Attendance at Facilities Operated by the Office of Parks,
Recreation and Historic Preservation
Fiscal Years 1996-97 — 2002-03**

Facility	County	Acres	Attendance (thousands)						
			1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03
Mexico Point Marine Park	Oswego	20	59	39	43	42	42	39	50
Mills Mansion (NHL/NR ²)	Dutchess	1	20	29	31	37	29	29	29
Mine Kill	Schoharie	500	66	62	59	51	41	53	46
Minnewaska	Ulster	11,990	318	352	382	320	347	430	366
Montauk Downs	Suffolk	171	202	215	220	219	210	228	215
Montauk Point	Suffolk	862	849	901	917	926	913	919	901
Moreau Lake	Saratoga	4,156	173	171	179	192	169	287	287
Napeague	Suffolk	1,364	184	202	202	204	196	185	191
New Windsor Cantonment(NR ²)	Orange	120	12	12	13	13	19	20	19
Newtown Battlefield (NHL/NR ²)	Chemung	372	d	d	d	d	d	d	d
Niagara Reservation	Niagara	435	10,857	11,714	7,615	7,588	7,516	7,494	7,585
Nissequoque River	Suffolk	153	—	—	—	—	39	54	53
Nyack Beach	Rockland	61	184	175	194	195	262	287	287
Oak Orchard Marine Park	Orleans	81	53	21	17	18	14	14	13
Ogden & Ruth Livingston Mills	Dutchess	637	f	f	f	f	f	f	f
Olana (NHL/NR ²)	Columbia	763	191	241	217	272	291	130	95
Old Croton Aqueduct (NR ²)	Westchester	216	570	914	578	420	354	237	198
Old Erie Canal	Madison/Oneida/Onondaga	982	110	133	155	163	135	92	99
Old Fort Niagara (NHL/NR ²)	Niagara	25	—	—	—	—	—	—	—
Oquaga Creek	Broome/Delaware/Chemung	1,385	51	48	42	45	44	53	48
Orient Beach	Suffolk	364	168	160	152	162	129	118	88
Oriskany Battlefield(NHL/NR ²)	Oneida	86	—	7	6	8	24	21	14
Palisades	Rockland	20	—	—	—	—	—	—	—
Palisades Interstate	Rockland	1,839	—	—	—	—	—	—	—
Peebles Island	Saratoga	142	59	60	78	81	102	88	95
Peter Jay	Westchester	22	—	—	—	—	—	—	—
Philipse Manor Hall (NHL/NR ²)	Westchester	2	—	—	—	8	28	23	28
Pinnacle State Golf Course	Steuben	715	36	40	42	39	36	29	30
Pixley Falls	Oneida	375	20	26	37	21	38	42	37
Planting Fields Arboretum (NR ²)	Nassau	409	227	206	196	159	133	157	148
Point Au Roche	Clinton	856	78	85	84	95	91	103	117
Point Au Roche Boat Launch	Clinton	9	10	9	9	11	12	11	17
Rattlesnake Point	Monroe	38	—	—	—	—	—	—	—
Reservoir	Niagara	132	193	171	172	143	121	113	98
Rexford Aqueduct	Saratoga	1	—	—	—	—	—	—	—
Riverbank	New York	28	3,160	4,757	3,333	1,900	1,734	1,657	1,750
Robert H. Treman	Tompkins	1,075	124	163	179	182	146	163	175
Robert Moses	Suffolk	875	3,123	3,320	3,538	3,336	3,222	3,663	3,646
Robert Moses	St. Lawrence	2,322	280	279	330	321	324	286	288
Roberto Clemente	Bronx	22	1,091	1,196	1,440	1,008	1,196	1,348	1,370
Rock Island Light House	Jefferson	4	1	1	1	1	1	2	4
Rockefeller Park Preserve	Westchester	1,099	219	204	197	232	231	277	249
Rockland Lake	Rockland	1,133	2,047	2,005	2,221	2,235	2,199	2,007	2,233
Sackets Harbor (NR ² /UCP)	Jefferson	32	121	145	107	112	87	82	107
Sag Harbour	Suffolk	341	—	—	33	36	38	42	34
Sampson	Seneca	1,905	382	451	391	422	196	192	185
Saratoga Lake Boat Launch	Saratoga	3	32	28	37	54	56	70	65
Saratoga Spa	Saratoga	2,033	848	902	871	842	949	989	1,071
Schodack Island	Rensselaer/Greene/Columbia	1,052	—	—	—	—	—	—	30
Schoharie Crossing (NHL/NR ²)	Montgomery	240	103	114	94	103	69	81	82
Schuyler Mansion (NHL/NR ²)	Albany	3	9	8	7	8	7	6	5
Selkirk Shores	Oswego	980	397	286	294	317	239	180	227
Senate House (NR ²)	Ulster	3	26	33	30	21	24	19	22
Seneca Lake	Ontario/Seneca	141	244	171	354	310	234	177	245
Shadmoor	Suffolk	100	—	—	—	—	—	—	—
Silver Lake	Wyoming	776	—	—	19	33	22	28	38
Southwick Beach	Jefferson	464	96	90	101	107	91	98	99
State Park at the Fair	Onondaga	1	—	—	—	—	—	—	—
St. Lawrence	St. Lawrence	318	26	19	20	25	25	18	14
Sterling Conservation Easment	Cayuga	250	—	—	—	—	—	—	—
Sterling Forest	Orange	18,113	—	—	—	—	—	—	—
Stony Brook	Steuben	568	164	151	166	162	118	128	138
Stony Creek Boat Launch	Jefferson	23	18	6	10	11	22	20	14
Stony Point Battlefield(NHL/NR ²)	Rockland	87	13	21	18	14	12	18	30
Storm King	Orange	1,884	—	—	—	—	—	—	—
Strawberry Island	Erie	5	—	—	—	—	—	—	—
Taonic: Copake Falls	Columbia	1,709	142	169	144	144	122	144	154
Taonic: Rudd Pond	Dutchess	2,279	21	20	21	43	19	43	47
Tallman Mountain	Rockland	687	346	377	368	360	359	325	296
Taughannock Falls	Tompkins	746	404	440	450	401	381	423	419
Thompson's Lake	Albany	308	42	62	58	49	37	47	48
Trail View	Nassau/Sufolk	400	—	—	—	—	—	—	—
Valley Stream	Nassau	97	161	183	205	182	157	172	163
Verona Beach	Oneida	1,735	241	265	272	272	242	206	195
Von Steuben Memorial	Oneida	64	—	3	4	3	7	5	2
Walt Whitman Birthplace (NR ²)	Suffolk	1	23	16	14	14	15	15	15
Wonder Lake	Putnam	813	—	—	—	—	—	—	—
Washington Headquarters (NHL/NR ²)	Orange	7	19	25	20	17	16	25	21
Waterson Point	Jefferson	6	5	3	3	2	1	1	1
Watkins Glen	Schuyler	776	414	440	522	506	459	464	425

(Continued on the following page)

TABLE O-9 (continued)

**Acreage of and Attendance at Facilities Operated by the Office of Parks,
Recreation and Historic Preservation
Fiscal Years 1996-97 — 2002-03**

Facility	County	Acres	Attendance (thousands)						
			1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03
Witterhahn-Warneck	Jefferson	11	—	—	—	—	—	—	—
Wellesley Island	Jefferson	2,636	332	200	182	166	156	164	196
Westcott Beach	Jefferson	319	117	116	124	125	112	129	128
Whetstone Gulf	Lewis	2,100	113	128	134	134	132	124	145
Whirlpool	Niagara	109	471	467	450	423	366	352	328
Wildwood	Suffolk	767	333	374	378	411	235	306	346
Wilson Hill Boat Launch	St. Lawrence	4	7	8	10	11	14	16	16
Wilson-Tuscarora	Niagara	424	359	344	347	197	200	195	205
Wonder Lake	Putnam	813	—	—	—	—	—	—	—
Woodlawn Beach	Erie	106	135	89	104	121	80	158	220

— Represents zero or not reported.

a Under development.

b Undeveloped.

c Acres are included in Bear Mountain.

d Under management of Chemung County.

f Attendance figures are included with Margaret Lewis Norrie.

1 National Historic Landmark.

2 National Register.

SOURCE: New York State Department of Parks, Recreation and Historic Preservation.

TABLE O-10

**Attendance at State Parks and Historic Sites¹
by Type of Activity
New York State — Fiscal Years 1996-97 — 2002-03**

Type of Activity	Attendance (thousands)						
	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03
All Activities	61,891	65,302	60,050	57,006	53,949	55,363	55,409
Parking	33,375	33,529	34,815	33,505	32,005	33,494	33,599
Campsites	2,402	2,392	2,447	2,524	2,108	2,404	2,609
General Admission	2,778	2,796	6,712	7,163	7,987	7,186	6,512
Golf	1,097	1,073	1,094	999	926	1,017	898
Cabins	454	435	449	461	450	436	454
Other ²	21,785	25,077	14,533	12,354	10,473	10,826	11,337

1 Not including Adirondack and Catskill Forest Preserves.

2 Includes walk-ins, bicycles, etc. Totals are estimated.

SOURCE: New York State Office of Parks, Recreation and Historic Preservation.

TABLE O-11

**Tour Participants at the State Capitol, Executive Mansion and the Corning Tower
Fiscal Years 1996-97 — 2002-03**

Type of Tour	Participants						
	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03
New York State Capitol	34,748	33,218	33,905	35,401	36,727	41,632	39,497
Executive Mansion	3,064	3,428	2,419a	3,758	3,305	2,666	2,623
Observation Deck of Corning Tower	45,961	44,118	23,565a	25,503	42,509	37,100	33,104

a Figures reflect the fact that facilities were closed for renovations during certain periods.

SOURCE: New York State Office of General Services, Visitor Services Office.

TABLE O-12
State-Owned Lands
Under Jurisdiction of the Department of Environmental Conservation
New York State — Selected Years 1950-2002

Year	Acres ¹	Year	Acres ¹
1950	3,051,940	1985	3,715,209
1955	3,101,897	1986	3,752,894
1960	3,186,887	1987	3,760,944
1965	3,478,435	1988	3,789,786
1970	3,533,524	1989	NA
1976	3,549,731	1990	NA
1977	3,550,968	1991	3,924,422
1978	3,567,944	1992	3,955,758
1979	3,597,349	1993	3,965,185
1980	3,657,015	1994	3,970,329
1981	3,665,906	1995	3,988,905
1982	3,679,989	1996	3,992,657
1983	3,685,738	1997	3,997,889
1984	3,693,473	1998	4,010,750
		1999	4,192,360
		2000	4,198,082
		2001	4,213,613
		2002	4,227,218

NA Not available.

1 In addition to Forest Preserves, acreage includes several nonforest preserve classifications, some of which are cited in the 1972 and 1986

Environmental Quality Bond Acts. Also includes lands encumbered by conservation easement.

SOURCE: New York State Department of Environmental Conservation, Division of Lands and Forests.

TABLE O-13
Cooperative Forest Management¹
New York State — Fiscal Years 1980-81 — 2002-03

Fiscal Year	Forest Owners Served	Forest Products Marked (acres)	Forest Improvement ² (acres)	Forest Management Plans ³ (acres)
1980-81	5,247	9,780	17,039	164,945
1981-82	3,713	6,575	6,555	165,139
1982-83	4,039	10,202	6,899	128,898
1983-84	3,735	8,060	3,212	141,681
1984-85	3,668	7,590	3,395	138,190
1985-86	4,099	6,606	3,412	138,202
1986-87	2,283	6,643	2,506	146,535
1987-88	3,214	6,552	3,841	138,830
1988-89	2,832	6,977	2,610	137,013
1989-90	2,792	5,002	3,295	106,594
1990-91	2,726	4,608	2,284	97,673
1991-92	2,968	4,072	2,924	109,269
1992-93	2,885	2,991	5,373	138,661
1993-94	2,831	13,076	6,373	163,454
1994-95	3,336	15,294	5,012	246,013
1995-96	2,810	37,178	4,302	202,343
1996-97	3,560	32,352	16,187	143,710
1997-98	3,248	1,576	3,931	122,040
1998-99	2,419	17,581	5,000	143,658
1999-2000	2,871	23,776	5,225	141,559
2000-01	2,477	26,804	2,904	122,575
2001-02	1,859	22,574	4,055	160,354
2002-03	1,701	35,374	4,047	194,931

1 Forestry services to private owners of forest lands who sign agreements with the Department of Environmental Conservation to follow New York State forest management standards.

2 Includes advice on tree pruning and/or cutting of immature trees to improve the overall quality of a forest.

3 Includes plans for planting, maintaining and harvesting forests.

SOURCE: New York State Department of Environmental Conservation, Division of Lands and Forests.

TABLE O-14

**Primary Use Impairment and Severity of Water Quality Problem for
Each Waterbody Type
New York State — 2002**

Use Impairment	Total ¹	Not Supporting	Partially Supporting	Full Support, Minor Impacts	Impacts Needs Verification	No Known Impacts
--- Rivers and Streams --- (miles)						
Total Miles in New York	52,337	223	1,398	6,413	4,521	202,180
Water Supply	4,604	—	70	264	213	4,057
Shellfishing	X	X	X	X	X	X
Public Bathing	NA	22	75	321	364	NA
Fish Consumption	52,337	90	537	115	53	51,542
Aquatic Life	52,337	111	481	3,041	2,230	46,475
Recreation	52,337	—	110	771	654	50,801
Aesthetics	52,337	—	125	1,901	1,007	49,305
--- Lakes and Reservoirs --- (acres)						
Total Acres in New York	790,782	17,562	405,027	737,482	211,040	3,373,586
Water Supply	233,314	—	15,500	102,682	33,698	638,902
Shellfishing	X	X	X	X	X	X
Public Bathing	404,757	4,200	102,230	178,012	42,832	463,508
Fish Consumption	790,782	3,125	161,653	51	813	625,140
Aquatic Life	790,782	9,007	39,370	54,692	28,730	658,983
Recreation	790,787	480	74,250	153,705	19,664	542,688
Aesthetics	790,782	750	12,024	248,340	85,303	444,365
--- Estuary Waters --- (square miles)						
Total Square Miles in New York	1,530.0	137.9	811.5	1,981.6	59.4	6,190.0
Water Supply	X	X	X	X	X	X
Shellfishing	1,271.6	119.1	48.7	197.0	—	1,164.8
Public Bathing	1,409.2	2.4	57.7	190.4	—	1,279.5
Fish Consumption	1,530.0	15.6	554.4	735.1	0.1	224.8
Aquatic Life	1,530.0	0.8	124.2	371.7	1.4	1,032.7
Recreation	1,530.0	—	26.5	327.9	2.0	1,173.6
Aesthetics	1,530.0	—	—	159.5	55.9	1,314.6
--- Great Lakes Shoreline --- (shore miles)						
Total Shore Miles in New York	577.0	—	444.7	148.9	25.0	2,803.7
Water Supply	547.0e	—	—	—	—	547.0e
Shellfishing	X	X	X	X	X	X
Public Bathing	567.0e	—	22.0	40.3	3.0	502.0e
Fish Consumption	577.0	—	394.9	—	—	182.1
Aquatic Life	577.0	—	—	6.8	21.0	549.2
Recreation	577.0	—	21.0	43.3	—	512.7
Aesthetics	577.0	—	6.8	58.5	1.0	510.7
--- Atlantic Ocean Coastal --- (shore miles)						
Total Shore Miles in New York	117.5	—	—	—	—	705.0
Water Supply	X	X	X	X	X	X
Shellfishing	117.5	—	—	—	—	117.5
Public Bathing	117.5	—	—	—	—	117.5
Fish Consumption	117.5	—	—	—	—	117.5
Aquatic Life	117.5	—	—	—	—	117.5
Recreation	117.5	—	—	—	—	117.5
Aesthetics	117.5	—	—	—	—	117.5

NOTE: The data in this table is being collected differently from previous years. Some data can be included in more than one category, thus inflating the total.

— Represents zero.

X Not applicable.

NA Not available.

e Estimated.

1 For Rivers and Streams, the DEC looked at a total of 52,337 miles of New York State rivers and streams. They kept data on every mile (52,337) regarding fish consumption, aquatic life, recreation, and aesthetics. For water supplies, 4,604 miles of data is available.

The DEC looked at a total of 790,782 acres of Lakes and Reservoirs. Every acre (790,782) was looked at for data on fish consumption, aquatic life, recreation, and aesthetics. However, only 233,314 acres of data was collected for water supplies and 404,757 acres for public bathing.

The DEC collected data on a total of 1,530 miles of Estuary Waters. They looked at every mile (1,530) for data on fish consumption, aquatic life, recreation, and aesthetics. 1,271.6 miles was collected for shellfishing and 1,409.2 for public bathing.

The DEC looked at a total of 577 shore miles of the Great Lake Shoreline. They looked at every shore mile (577) for fish consumption, aquatic life, recreation, and aesthetics. They looked at an estimated 547 shore miles for water supply and an estimated 567 shore miles for public bathing.

Lastly, for the Atlantic Ocean Coastal category, the DEC looked at a total of 117.5 shore miles. Every shore mile (117.5) was looked at for shellfishing, public bathing, fish consumption, aquatic life, recreation, and aesthetics.

SOURCE: New York State Department of Environmental Conservation, Division of Water.

TABLE O-15

**Seedlings Distributed from the State-Owned Saratoga Nursery
New York State — 1975-2003**
(thousands except receipts)

Year	Total	Tree Seedlings		Shrub Seedlings	Receipts
		To State Land	To Nonstate Land		
1975	8,527	225	7,945	357	\$ 184,043
1976	8,067	113	7,347	607	222,649
1977	6,215	103	5,385	727	202,152
1978	7,108	75	6,340	693	226,252
1979	7,247	240	6,340	667	259,305
1980	8,349	136	7,694	519	377,550
1981	6,670	109	6,159	402	307,481
1982	5,147	71	4,502	574	334,870
1983	6,327	281	5,888	158	508,051
1984	6,495	254	5,967	274	516,000
1985	5,121	190	4,581	350	544,564
1986	6,318	233	5,826	259	549,873
1987	6,724	253	6,192	279	508,885
1988	5,930	194	5,379	357	550,668
1989	5,711	213	5,274	224	555,574
1990	4,902	483	4,016	403	543,443
1991	3,815	182	3,329	304	386,309
1992	3,802	468	2,921	413	413,619
1993	3,115	388	2,380	347	339,534
1994	2,835	350	2,245	240	335,041
1995	2,250	236	1,696	318	318,190
1996	1,467	171	1,048	248	278,102
1997	1,334	252	866	216	267,512
1998	1,228	152	888	188	275,036
1999	1,087	358	563	166	215,081
2000	1,339	271	934	134	360,259
2001	1,192	227	805	160	279,347
2002	1,338	177	961	200	311,896
2003	1,196	187	819	190	287,129

SOURCE: New York State Department of Environmental Conservation,
Division of Lands and Forests.

TABLE O-16

**Sales of Forest Products from State-Owned Forests
New York State — 1975-2002**

Year	Board Feet (millions)	Pulpwood (cords)	Firewood (cords)	Receipts (dollars)
1975	7.83	56,400	16,300	\$ 623,886
1976	6.18	51,100	22,000	478,825
1977	15.01	68,600	28,300	1,071,259
1978	10.78	68,500	54,344	1,113,517
1979	8.23	65,439	49,748	1,097,404
1980	10.71	68,682	69,128	1,470,990
1981	15.86	83,775	62,292	1,770,051
1982	17.83	65,286	48,474	2,064,581
1983	21.94	59,177	39,969	2,455,892
1984	13.65	57,858	35,268	1,984,289
1985	20.35	56,646	36,911	1,818,985
1986	26.71	56,131	35,565	2,316,601
1987	38.46	54,685	28,453	3,288,139
1988	36.67	53,226	27,351	3,442,404
1989	31.67	56,676	25,157	4,560,123
1990	19.23	54,413	30,471	3,040,595
1991	16.03	40,184	27,041	2,620,827
1992	22.48	49,621	28,955	3,365,035
1993	23.47	44,137	25,197	4,039,372
1994	24.57	48,776	26,566	3,958,898
1995	33.07	44,760	22,870	6,024,918
1996	20.98	39,306	21,956	4,078,645
1997	25.92	44,897	13,866	3,404,467
1998	26.32	65,348	14,637	6,692,293
1999	19.17	49,986	10,786	5,872,419
2000	21.98	34,947	13,791	7,302,178
2001	24.66	34,300	12,454	5,218,567
2002	25.53	26,031	11,306	4,509,014

SOURCE: New York State Department of Environmental Conservation,
Division of Lands and Forests.

TABLE O-17

**Forest Fires and Acres Burned
New York State — Selected Years 1955-2002**

Year	Forest Fires	Acres Burned	Average Acres Burned Per Fire
1955	1,720	23,127	13.4
1960	714	5,065	7.1
1965	1,200	8,469	7.1
1970	631	2,262	3.6
1971	596	2,203	3.7
1972	508	2,693	5.1
1973	669	3,300	4.9
1974	558	2,268	4.1
1975	795	2,968	3.7
1976	484	6,140	12.7
1977	895	7,016	7.8
1978	792	7,143	9.0
1979	552	2,593	4.7
1980	772	5,391	7.0
1981	655	5,540	8.4
1982	610	3,389	5.5
1983	356	1,585	4.5
1984	319	1,516	4.8
1985	644	3,666	5.7
1986	460	3,799	8.3
1987	267	1,072	4.0
1988	556	5,031	9.0
1989	603	11,730	19.5
1990	322	1,589	4.9
1991	535	3,453	6.5
1992	292	2,014	6.9
1993	243	992	4.1
1994	129	1,177	9.1
1995	379	7,334	19.4
1996	79	211	2.7
1997	309	1,218	3.9
1998	346	2,569	7.4
1999	629	5,557	9.3
2000	134	451	3.4
2001	460	4,545	9.9
2002	324	2,062	6.4

SOURCE: New York State Department of Environmental Conservation, Division of Forest Protection and Fire Management.

TABLE O-18

**Search and Rescue Missions
New York State — 1963-2002**

Year	Missions	Staff Time ¹ (hours)	Year	Missions	Staff Time ¹ (hours)
1963	76	1,296	1985	201	5,698
1964	53	816	1986	211	5,730
			1987	253	5,064
1965	106	3,050	1988	223	8,063
1966	116	1,877	1989	259	6,081
1967	130	2,447			
1968	100	1,805	1990r	259	7,804
1969	113	4,028	1991r	252	4,290
			1992	244	11,282
1970	116	1,320	1993	241	8,907
1971	104	9,255	1994	208	5,100
1972	138	8,604			
1973	178	15,941a	1995	212	6,200
1974	144	15,941a	1996	236	7,700
			1997	251	6,494
1975	162	4,049	1998	209	7,049
1976	211	6,741	1999	228	4,130
1977	202	5,324			
1978	156	3,334	2000	286	10,725
1979	163	4,445	2001	373	8,768
			2002	257	10,313
1980	164	4,382			
1981	163	5,300			
1982	184	6,858			
1983	215	7,003			
1984	188	5,381			

r Revised.

a Reflects time spent by Environmental Conservation Officers as well as Department Foresters on several unusually large searches.

¹ Spent by Forest Rangers of the Department of Environmental Conservation.

SOURCE: New York State Department of Environmental Conservation, Division of Forest Protection and Fire Management.

TABLE O-19

**Resident Hunting, Fishing and Trapping Licenses by Type
New York State — Selected Years 1940-2002**

Year ¹	All Licenses	Combination Hunting and Fishing	Hunting	Fishing	Big Game	Trapping	Bow Hunting ²	Sportsman
1940	776,187	254,134	159,334	196,090	158,226	8,403		
1945	801,576	221,164	160,748	204,923	202,746	11,995		
1950	1,273,085	231,101	219,315	458,673	348,131	14,729	1,136	
1955	1,509,684	265,464	268,072	524,369	419,700	12,771	19,308	
1960	1,444,898	204,576	280,450	511,391	418,953	9,152	20,376	
1965	1,515,990	210,268	299,173	501,410	482,950	8,349	13,840	
1970	1,803,637	252,860	309,992	585,276	599,683	9,533	46,293	
1971	1,617,055	223,525	269,952	534,797	527,953	9,047	51,781	
1972	1,670,542	219,503	257,469	597,105	526,831	11,682	57,952	
1973	1,626,248	220,220	253,558	572,220	510,134	11,699	58,417	
1974	1,773,304	242,925	267,389	581,372	591,374	15,399	74,845	
1975	1,877,385	247,045	270,155	617,128	632,549	16,799	93,709	
1976	1,798,618	214,754	257,208	567,807	649,073	15,507	94,269	
1977	1,743,747	195,644	239,159	542,141	649,225	17,545	100,033	
1978	1,696,417	188,334	227,520	533,473	636,327	19,483	91,280	
1979	1,508,204	54,049	180,011	524,970	437,835	22,527	89,628	192,641
1980	1,527,827	37,947	163,251	554,726	409,860	31,543	90,932	232,723
1981	1,538,830	34,303	154,758	558,935	406,056	26,970	80,517	263,629
1982	1,535,119	25,499	114,859	561,951	360,542	23,221	90,586	284,279
1983	1,493,689	25,338	97,159	525,573	352,548	21,534	99,688	255,029
1984	1,533,027	21,631	80,017	494,219	336,617	17,081	103,519	248,041
1985	1,559,190	20,807	71,484	512,062	332,559	16,882	108,413	253,168
1986	1,520,601	19,805	63,155	510,910	306,308	14,457	103,622	259,152
1987	1,542,091	18,931	57,192	521,806	287,938	15,613	128,507	263,953
1988	1,558,674	18,697	52,886	528,065	275,399	17,087	139,831	274,692
1989	1,560,980	17,231	46,782	523,901	261,754	14,723	152,175	287,880
1990	1,560,517	16,056	42,029	541,344	248,057	11,513	156,958	291,184
1991	1,572,428	15,293	40,006	543,590	236,227	9,164	167,676	298,064
1992	1,455,793	21a	59,328	454,975	212,816	7,740	165,880	363,673
1993	1,413,718	20a	47,178	419,140	192,569	7,167	171,771	373,179
1994	1,401,897	20a	43,025	412,256	184,079	6,878	168,272	375,766
1995	1,389,602	19a	42,248	420,041	177,763	7,700	165,225	363,509
1996	1,355,435	20a	38,764	396,467	176,870	7,224	165,203	355,846
1997r	1,346,862	19a	36,336	395,527	162,655	8,656	163,363	355,425
1998	1,336,342	19a	34,814	395,747	149,902	9,045	163,657	351,435
1999	1,342,615	18a	30,700	386,240	142,415	8,938	167,149	362,605
2000	1,336,706	17a	28,482	370,894	134,203	7,899	170,587	365,892
2001	1,354,059	18a	26,002	381,723	129,395	7,619	173,847	368,145
2002	1,285,285	—	24,204	349,570	119,297	8,424	168,732	355,219

(Continued on the following page)

TABLE O-19 (continued)

**Resident Hunting, Fishing and Trapping Licenses by Type
New York State — Selected Years 1940-2002**

Year ¹	Hunting and Big Game	3-Day Fishing	Muzzle Loading ²	Junior Archery	Junior Trapping	Senior License	Free Combination	Junior Hunting
1940								
1945								
1950								
1955								
1960								
1965								
1970								
1971								
1972								
1973								
1974								
1975								
1976								
1977								
1978								
1979			3,905	2,638				
1980			3,865	2,980				
1981			4,801	3,573	5,288			
1982	53,448	6,907	5,526	3,757	4,544			
1983	79,572	19,139	10,364	3,845	3,900			
1984	80,520	29,171	11,448	3,838	2,854	42,414	61,657	
1985	82,158	31,209	13,102	3,982	2,332	46,910	64,122	
1986	80,665	33,495	12,433	4,372	1,881	48,377	61,969	
1987	79,292	35,414	15,712	4,333	1,546	48,511	63,343	
1988	77,269	37,209	18,798	4,088	1,481	48,052	65,120	
1989	74,823	38,352	24,084	4,105	1,111	47,786	66,273	
1990	68,509	38,040	28,196	3,998	780	48,004	65,849	
1991	65,704	36,601	34,539	4,007	499	48,280	72,778	
1992	99a	31,413	35,023	4,080	391	92,430	10,583	17,341
1993	96a	32,614	41,358	4,314	327	93,549	9,952	20,484
1994	93a	31,582	46,958	4,372	339	97,459	9,520	21,278
1995	88a	31,125	46,465	4,214	399	100,621	9,261	20,923
1996	89a	28,535	49,573	3,985	404	102,786	9,442	20,227
1997r	89a	27,315	58,761	3,806	431	104,435	9,185	20,859
1998	87a	26,744	63,569	3,732	601	105,104	10,302	21,584
1999	87a	24,390	74,963	3,747	781	106,830	12,051	21,701
2000	87a	26,744	84,885	4,104	490	107,507	13,312	21,603
2001	87a	23,564	92,438	4,120	518	109,811	15,313	21,459
2002	—	18,287	95,034	4,084	650	105,965	16,103	19,716

— Represents zero.

² Resident and Nonresident.

a These licenses were discontinued in 1991; 1992 through 1996 figures represent lifetime licenses purchased prior to October 1, 1991.

SOURCE: New York State Department of Environmental Conservation, Division of Fish, Wildlife and Marine Resources.

¹ 1940 to 1955 are on a calendar year basis; all other years are by license year ending September 30.

TABLE O-20
Hunting Accidents, Fatal and Nonfatal
New York State — 1940-2002

Year	Total	Nonfatal	Fatal	Year	Total	Nonfatal	Fatal
1940	194	168	26	1970	130	124	6
1941	231	194	37	1971	100	97	3
1942	191	158	33	1972	74	67	7
1943	100	86	14	1973	103	96	7
1944	117	108	9	1974	122	111	11
1945	117	94	23	1975d	122	109	13
1946	104	93	11	1976	84	77	7
1947	97	80	17	1977	94	87	7
1948	110	96	14	1978	78	67	11
1949a	133	115	18	1979	110	94	16
1950	113	100	13	1980	90	83	7
1951b	141	124	17	1981	96	90	6
1952	120	106	14	1982	88	79	9
1953	112	105	7	1983	71	69	2
1954	120	110	10	1984	97	90	7
1955	130	118	12	1985f	96	90	6
1956	143	132	11	1986	70	65	5
1957	125	113	12	1987	87	81	6
1958	141	128	13	1988	78	72	6
1959	137	122	15	1989	75	69	6
1960c	143	128	15	1990r	91	88	3
1961	140	123	17	1991	98	87	11
1962	102	91	11	1992	64	57	7
1963	147	138	9	1993r	67	63	4
1964	124	117	7	1994	52	51	1
1965	157	146	11	1995	62	55	7
1966	166	153	13	1996	57	48	9
1967	159	148	11	1997	55	54	1
1968	130	121	9	1998	64	62	2
1969	103	95	8	1999	54	50	4
				2000	43	39	4
				2001	57	50	7
				2002	61	59	2

r Revised.

a Hunter education became mandatory for new hunters under 17 years old.

b Hunter education became mandatory for new hunters under 21 years old.

c Hunter education became mandatory for all new hunters.

d Hunter education course 6-hour minimum established.

f Hunter education course 10-hour minimum established.

SOURCE: New York State Department of Environment Conservation, Division of Fish, Wildlife and Marine Resources.

TABLE O-21
Calculated Deer Take
New York State — Selected Years 1965-2002

Year	Total	Males		Females	
		Adults	Fawns	Adults	Fawns
1965	67,420	43,846	5,379	13,670	4,525
1970	65,013	36,538	6,450	16,648	5,377
1971	48,290	35,821	3,109	6,852	2,508
1972	55,638	41,071	3,571	8,130	2,866
1973	75,379	49,979	5,849	14,776	4,775
1974	103,303	63,266	8,944	23,786	7,307
1975	103,225	59,055	9,496	26,937	7,737
1976	90,215	54,879	7,808	21,140	6,388
1977	83,204	55,880	6,407	15,631	5,286
1978	85,559	51,872	7,549	19,921	6,217
1979	94,059	59,086	7,855	20,685	6,433
1980	136,255	75,441	14,177	35,100	11,537
1981r	166,322	83,669	19,558	46,962	16,133
1982	185,455	78,460	24,436	62,338	20,221
1983	167,449	79,746	20,082	51,111	16,510
1984r	170,310	77,596	21,676	53,174	17,864
1985r	149,083	80,732	17,167	36,972	14,212
1986	178,713	90,719	21,622	48,665	17,707
1987	204,715	97,595	25,883	59,577	21,660
1988	193,464	92,987	23,804	58,464	18,209
1989	181,879	99,589	20,600	45,623	16,067
1990	190,810	103,258	20,314	51,757	15,481
1991	212,633	110,701	24,326	58,765	18,841
1992	233,144	117,984	28,257	64,385	22,518
1993	220,288	102,431	26,408	71,340	20,109
1994	165,683	89,328	18,460	45,106	12,789
1995	188,284	113,566	16,670	45,648	12,400
1996r	202,765	104,689	22,781	59,161	16,134
1997	216,836	119,090	21,811	58,772	17,163
1998	230,758	121,911	23,652	67,672	17,523
1999	255,959	125,392	26,305	84,432	19,830
2000	295,859	140,857	31,317	98,265	25,420
2001	281,870	127,084	31,414	100,800	22,572
2002	308,216	128,292	36,958	113,317	29,649

r Revised.

SOURCE: New York State Department of Environmental Conservation, Division of Fish, Wildlife and Marine Resources.

TABLE O-22

**Resident and Nonresident Hunting, Fishing and Trapping Licenses by Type
New York State by County
License Year Ended September 30, 2002**

County of Issue	All Licenses	Resident								
		3-Day Fishing	Fishing	Hunting	Trapping	Junior Trapping	Big Game	Sportsman	Junior Archery	Junior Hunt
New York State	1,496,881	18,524	358,014	25,455	8,459	650	123,302	363,786	4,116	19,874
New York City	31,445	237	8,644	1,251	35	—	4,005	8,567	32	158
Bronx	3,307	5	1,246	72	1	—	339	890	—	12
Kings	8,344	45	2,321	291	11	—	995	2,263	7	44
New York	1,673	69	1,322	1	—	—	—	—	—	—
Queens	14,091	99	3,233	779	17	—	1,929	4,243	11	80
Richmond	4,030	19	522	108	6	—	742	1,171	14	22
Rest of State	1,465,436	18,287	349,370	24,204	8,424	650	119,297	355,219	4,084	19,716
Albany	41,557	192	9,977	578	195	1	2,417	8,640	62	238
Allegany	15,766	83	1,666	302	129	13	1,843	4,772	110	466
Broome	36,693	266	9,204	581	140	7	3,694	9,622	126	639
Cattaraugus	25,459	112	3,689	456	244	23	2,837	7,709	141	670
Cayuga	18,487	206	5,252	310	87	4	1,556	4,593	70	319
Chautauqua	45,203	430	7,581	588	222	15	3,053	9,694	165	810
Chemung	21,364	112	4,605	301	99	1	1,838	6,310	66	317
Chenango	15,602	86	2,383	279	137	2	1,978	4,520	61	264
Clinton	22,134	103	5,555	425	139	5	1,682	4,769	21	276
Columbia	12,131	35	1,994	198	106	20	1,305	3,049	48	176
Cortland	15,843	68	3,395	308	102	14	1,951	4,422	85	336
Delaware	21,594	310	3,056	361	173	10	2,401	5,198	58	305
Dutchess	29,174	219	7,968	486	174	1	2,445	7,826	93	351
Erie	98,361	857	26,876	1,425	338	32	6,491	29,439	329	1,358
Essex	19,312	445	3,923	173	120	—	1,001	3,290	19	232
Franklin	19,436	296	3,830	283	192	10	1,910	3,975	15	214
Fulton	14,009	109	3,545	214	68	1	1,317	3,398	21	225
Genesee	14,849	117	2,906	233	150	18	1,204	4,764	103	303
Greene	9,376	310	2,065	188	50	3	1,028	2,209	29	141
Hamilton	6,902	437	1,808	24	39	3	174	690	4	29
Herkimer	17,234	123	3,857	355	140	8	2,120	4,523	39	285
Jefferson	50,071	1,945	11,800	688	272	21	3,871	8,393	88	515
Lewis	13,830	67	1,485	216	190	17	2,115	3,440	41	297
Livingston	14,649	81	2,472	222	115	9	1,385	4,744	89	300
Madison	17,232	106	4,282	292	125	4	1,868	4,487	55	266
Monroe	72,896	1,331	25,491	934	199	7	3,855	18,412	194	717
Montgomery	9,879	47	2,289	152	46	2	936	2,741	21	147
Nassau	20,722	244	3,634	1,083	46	1	3,140	6,179	27	184
Niagara	39,681	409	9,069	498	176	21	1,954	10,687	176	584
Oneida	41,111	277	11,257	638	236	13	4,019	9,743	75	494
Onondaga	63,162	915	21,337	927	263	21	4,067	15,397	106	568
Ontario	30,141	306	8,278	453	311	17	1,993	8,558	134	479
Orange	41,072	282	12,472	688	242	26	2,859	10,633	96	524
Orleans	12,792	147	1,915	105	71	5	454	2,387	46	178
Oswego	67,622	1,343	12,132	502	321	24	2,896	9,036	71	494
Otsego	18,247	76	3,163	374	186	13	2,114	5,157	64	430
Putnam	8,072	65	2,578	120	44	—	526	1,619	27	90
Rensselaer	22,169	125	5,762	337	111	7	2,317	5,420	63	266
Rockland	20,274	154	5,957	240	50	3	708	2,919	26	117
St. Lawrence	47,869	457	8,537	648	455	33	5,539	10,334	100	688
Saratoga	26,692	241	9,512	325	135	—	1,779	6,020	34	239
Schenectady	15,164	92	5,749	212	54	11	951	3,408	16	139
Schoharie	10,351	77	1,597	280	126	2	1,260	2,973	32	211
Schuyler	7,504	58	1,500	99	50	1	515	1,849	30	102
Seneca	8,975	86	2,354	111	52	4	517	2,307	34	163
Steuben	31,758	142	4,087	551	222	16	3,466	9,644	176	637
Suffolk	42,019	255	8,442	2,855	148	3	5,870	11,662	78	537
Sullivan	26,953	987	6,628	183	153	4	1,916	4,934	48	256
Tioga	10,659	61	1,360	155	71	3	1,015	3,176	39	185
Tompkins	14,791	153	3,650	196	77	16	1,261	3,944	59	228
Ulster	25,534	315	7,929	422	190	115	2,002	5,835	60	415
Warren	30,832	1,778	8,475	280	145	11	1,770	4,787	40	298
Washington	14,756	85	2,796	237	121	19	1,460	3,308	39	201
Wayne	24,914	465	6,756	261	143	1	1,154	5,845	89	322
Westchester	26,637	103	7,135	592	91	—	2,077	6,951	51	156
Wyoming	9,224	42	1,344	175	97	7	995	3,149	44	213
Yates	6,696	54	1,011	85	46	2	428	1,729	51	122

(Continued on the following page)

TABLE O-22 (continued)

Resident and Nonresident Hunting, Fishing and Trapping Licenses by Type
New York State by County
License Year Ended September 30, 2002

County of Issue	Resident		Nonresident						Resident and Nonresident	
	Senior License	Free Combination	Fishing	5-Day Fishing	Combine	Hunting	Big Game	Trap	Bow-Hunting	Muzzle-Loader
New York State	108,466	16,204	66,049	64,612	6,231	9,546	30,562	26	175,741	97,264
New York City	2,501	101	394	90	47	96	423	—	4,184	680
Bronx	350	13	24	7	1	13	33	—	285	16
Kings	739	13	62	11	13	14	81	—	1,260	174
New York	61	9	161	50	—	—	—	—	—	—
Queens	1,089	56	115	17	12	38	75	—	1,933	365
Richmond	262	10	32	5	21	31	234	—	706	125
Rest of State	105,965	16,103	65,655	64,522	6,184	9,450	30,139	26	171,557	96,584
Albany	2,405	356	2,843	688	1,178	1,733	4,777	26	4,908	343
Allegany	1,285	194	265	141	171	109	764	—	2,360	1,093
Broome	3,001	280	1,209	414	144	371	1,029	—	4,670	1,296
Cattaraugus	1,755	296	765	274	174	242	1,307	—	3,618	1,147
Cayuga	1,446	212	1,067	769	15	41	80	—	2,332	128
Chautauqua	2,619	312	5,615	4,542	701	726	2,474	—	4,427	1,229
Chemung	1,575	177	646	243	120	159	648	—	3,188	959
Chenango	1,208	225	184	172	53	210	540	—	2,253	1,047
Clinton	1,362	335	1,589	743	73	135	397	—	1,424	3,101
Columbia	1,094	117	216	78	466	96	755	—	1,715	663
Cortland	997	129	213	223	15	69	201	—	2,274	1,041
Delaware	1,773	212	1,946	998	118	267	1,038	—	2,498	872
Dutchess	2,185	238	341	160	113	211	373	—	4,365	1,625
Erie	8,082	932	842	823	51	137	497	—	15,592	4,260
Essex	1,244	190	2,318	2,644	67	126	464	—	753	2,303
Franklin	1,278	372	1,150	1,507	44	69	323	—	1,002	2,966
Fulton	1,153	256	249	250	6	26	109	—	1,155	1,907
Genesee	1,020	185	103	136	1	11	70	—	2,437	1,088
Greene	865	99	348	210	35	76	294	—	1,064	362
Hamilton	460	73	819	1,597	10	39	177	—	158	361
Herkimer	1,268	184	296	397	23	75	238	—	1,694	1,609
Jefferson	3,096	857	3,491	5,991	27	190	319	—	2,632	5,875
Lewis	897	400	138	196	15	53	176	—	831	3,256
Livingston	1,027	142	109	131	19	13	120	—	2,646	1,025
Madison	1,342	209	171	202	11	41	91	—	2,066	1,614
Monroe	5,985	630	513	968	7	56	214	—	10,201	3,182
Montgomery	826	129	136	164	2	20	93	—	1,086	1,042
Nassau	1,889	212	40	31	7	38	60	—	3,222	685
Niagara	3,014	594	1,757	2,453	21	54	301	—	5,954	1,959
Oneida	3,597	623	517	542	33	88	285	—	3,886	4,788
Onondaga	5,352	796	613	625	19	87	230	—	7,322	4,517
Ontario	1,875	191	345	587	15	41	193	—	4,510	1,855
Orange	2,607	312	1,062	280	169	337	1,088	—	5,581	1,814
Orleans	731	96	1,570	3,172	6	7	54	—	1,221	627
Oswego	2,454	484	13,169	16,418	101	204	382	—	3,771	3,820
Otsego	1,408	220	289	362	68	295	472	—	2,337	1,219
Putnam	512	72	399	71	82	171	275	—	1,103	318
Rensselaer	1,706	275	315	167	276	126	689	—	2,909	1,298
Rockland	1,032	92	3,254	277	499	707	2,052	—	1,694	493
St. Lawrence	3,184	1,152	2,064	2,420	60	120	374	—	3,028	8,676
Saratoga	2,230	352	456	359	13	36	135	—	2,186	2,640
Schenectady	1,477	197	86	89	4	35	45	—	1,603	996
Schoharie	751	148	100	84	30	156	276	—	1,474	774
Schuyler	753	70	616	438	22	25	153	—	911	312
Seneca	772	88	457	451	13	31	66	—	1,056	413
Steuben	2,320	289	725	525	312	246	1,472	—	4,929	1,999
Suffolk	2,834	294	219	103	11	99	124	—	7,499	986
Sullivan	2,021	172	2,932	1,745	149	223	1,035	—	2,517	1,050
Tioga	906	112	721	93	97	196	464	—	1,527	478
Tompkins	959	162	515	434	39	37	171	—	2,098	792
Ulster	2,204	237	682	367	36	97	331	—	3,172	1,125
Warren	1,463	274	2,343	4,427	41	60	415	—	1,471	2,754
Washington	1,202	190	874	260	192	244	593	—	1,369	1,566
Wayne	1,853	247	945	2,299	18	43	68	—	3,009	1,396
Westchester	2,302	233	604	78	162	328	539	—	4,478	757
Wyoming	645	86	41	103	3	4	66	—	1,479	731
Yates	664	92	363	601	27	14	163	—	892	352

— Represents zero.

SOURCE: New York State Department of Environmental Conservation, Division of Fish, Wildlife and Marine Resources.

TABLE O-23
Environmental Conservation, Division of Law Enforcement
Annual Activity
New York State — Fiscal Years 1997-98 — 2002-03

	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03
Bureau of Environmental Conservation Investigation (BECI)¹						
Total Investigations	253	524	524	313	438	326
Total Litigations	103	43	37	47	44	94
Total Recoveries	\$ 1,226,777	\$ 638,808	\$ 629,757	\$ 425,620	\$ 1,546,169	\$ 3,937,283
Number of Staff	26	26	28	31	32	32
Uniform²						
Total Cases	14,201	15,763	10,878	10,269	15,807	17,686
Total Recoveries	\$ 1,387,825	\$ 1,738,436	\$ 1,384,520	\$ 1,096,712	\$ 1,035,954	\$ 1,281,191
Number of Staff	218	234	230	232	236	234

1 BECI is a detective force assigned to longer-term investigations.

2 Generally short-term investigations (i.e., one or two days) by uniformed Environmental Conservation Officers.

SOURCE: New York State Department of Environmental Conservation, Division of Law Enforcement.

TABLE O-24

**Motorboat and Snowmobile Registrations
New York State by County
1999-2001 Average and 2002**

County	Motorboats				Snowmobiles			
	By County of Principal Use		By County of Residence		By County of Principal Use		By County of Residence	
	1999-2001 Average ¹	2002	1999-2001 Average ¹	2002	1999-2001 Average ¹	2002	1999-2001 Average ¹	2002
New York State	527,287	531,579	527,287	531,579	140,746	157,479	140,746	157,479
New York City	21,671	21,754	27,334	27,264	95	110	347	376
Bronx	3,327	3,365	3,233	3,252	10	9	24	25
Kings	4,961	4,917	5,302	5,153	17	18	50	52
New York	1,832	2,014	4,497	4,728	11	21	44	46
Queens	6,795	6,720	9,113	8,944	28	32	102	113
Richmond	4,756	4,738	5,188	5,187	29	30	128	140
Rest of State	500,620	505,668	487,500	491,496	138,872	156,863	123,688	136,591
Albany	6,925	6,908	10,618	10,613	2,068	2,166	2,640	2,766
Allegany	2,338	2,386	2,021	2,051	774	873	701	795
Broome	5,952	6,081	8,227	8,301	1,479	1,617	1,555	1,675
Cattaraugus	3,331	3,309	3,424	3,346	2,305	2,654	1,992	2,260
Cayuga	6,792	6,863	5,734	5,827	1,833	1,987	1,959	2,101
Chautauqua	10,940	10,757	8,251	8,093	5,405	6,497	3,202	3,451
Chemung	1,981	2,119	4,706	4,715	305	350	310	336
Chenango	2,054	2,099	2,378	2,400	1,520	1,687	1,477	1,656
Clinton	6,664	6,744	6,124	6,180	2,420	2,939	2,419	2,927
Columbia	3,109	3,169	2,959	3,022	887	1,017	904	1,027
Cortland	2,259	2,199	2,471	2,497	1,260	1,438	1,275	1,431
Delaware	1,244	1,287	1,384	1,418	2,081	2,455	1,584	1,884
Dutchess	7,357	7,411	8,242	8,295	1,445	1,692	1,794	2,063
Erie	27,233	26,719	29,388	28,778	8,863	10,078	9,105	10,260
Essex	5,964	6,147	4,443	4,617	1,429	1,646	1,331	1,557
Franklin	5,516	5,581	4,286	4,325	2,291	2,758	2,078	2,489
Fulton	7,074	7,220	4,893	4,952	3,089	3,182	2,940	3,040
Genesee	1,372	1,363	2,478	2,486	1,622	1,882	1,717	1,982
Greene	2,510	2,581	2,465	2,519	1,037	1,117	918	967
Hamilton	4,871	4,954	2,162	2,194	3,188	3,354	1,065	1,145
Herkimer	4,665	4,701	4,025	3,962	10,022	11,602	3,902	4,364
Jefferson	16,390	16,681	10,714	10,954	2,606	2,925	2,992	3,253
Lewis	2,123	2,109	1,940	1,916	7,403	8,548	2,410	2,628
Livingston	4,539	4,569	4,040	4,140	915	1,029	945	1,085
Madison	4,856	4,922	4,687	4,715	2,627	2,830	2,790	3,056
Monroe	25,417	25,346	32,275	31,896	3,863	4,345	4,446	4,928
Montgomery	1,695	1,759	2,480	2,493	1,827	1,952	1,947	2,058
Nassau	37,572	38,015	39,011	39,281	362	404	772	826
Niagara	10,065	9,935	10,094	9,937	2,052	2,321	2,181	2,425
Oneida	11,417	11,290	12,473	12,346	8,062	9,008	8,149	9,004
Onondaga	18,586	19,120	24,449	24,549	5,274	5,743	6,172	6,796
Ontario	8,913	9,264	7,702	8,007	1,285	1,412	1,510	1,640
Orange	9,498	9,714	10,077	10,317	1,995	2,342	2,100	2,438
Orleans	2,588	2,702	2,389	2,441	738	838	759	873
Oswego	15,158	14,737	9,966	10,090	9,500	10,690	5,933	6,275
Otsego	3,294	3,339	2,779	2,818	1,689	1,943	1,719	1,990
Putnam	2,854	3,048	3,233	3,388	262	290	428	448
Rensselaer	4,846	4,839	6,511	6,418	1,871	2,023	2,033	2,195
Rockland	5,894	5,820	5,401	5,359	270	286	458	476
St. Lawrence	12,470	12,651	10,700	10,765	4,739	5,083	4,619	4,895
Saratoga	14,001	14,429	13,813	14,205	4,417	4,701	4,627	4,942
Schenectady	5,352	5,211	7,659	7,404	1,345	1,426	1,712	1,806
Schoharie	892	925	1,164	1,240	1,473	1,637	1,344	1,498
Schuyler	4,216	4,203	1,675	1,705	318	330	305	335
Seneca	4,430	4,441	3,154	3,226	435	477	456	489
Steuben	5,671	5,718	5,701	5,762	900	1,062	928	1,059
Suffolk	85,385	87,067	79,249	81,164	1,070	1,238	1,756	2,054
Sullivan	4,428	4,478	3,371	3,481	1,587	2,882	1,356	1,608
Tioga	1,943	1,934	2,838	2,824	630	645	595	615
Tompkins	4,821	4,901	3,904	3,956	616	708	647	729
Ulster	5,963	6,055	6,326	6,391	1,657	1,858	1,754	1,952
Warren	13,251	13,462	7,524	7,739	3,295	3,591	2,323	2,513
Washington	3,245	3,420	3,493	3,637	2,384	2,623	2,317	2,554
Wayne	8,260	8,385	7,351	7,450	2,894	3,124	3,138	3,375
Westchester	13,244	13,360	14,083	14,166	407	410	741	778
Wyoming	2,611	2,638	1,928	1,937	2,473	2,789	2,093	2,408
Yates	4,580	4,583	2,669	2,788	307	359	362	411
Out of State, uncoded and multiple county of use ²	4,995	4,157	12,453	12,819	1,778	506	16,711	20,512

1 Because of rounding, total may differ slightly from the sum of the components.

2 Not included in Rest of State.

SOURCE: New York State Department of Motor Vehicles.

TABLE O-25

**Fish Distributed by State Hatcheries
New York State — Selected Fiscal Years 1949-50 — 2002-03**

Fiscal Ended March 31	All Species		Trout and Salmon		Warm Water	
	Number (thousands)	Weight (pounds)	Number (thousands)	Weight (pounds)	Number (thousands)	Weight (pounds)
1950	518,341	354,032	7,791	339,372	510,550	14,660
1955	289,457	375,806	8,552	361,662	280,905	14,144
1960	388,987	535,898	6,582	511,154	382,404	24,744
1965	382,803	636,984	7,989	606,661	374,814	30,323
1970	269,122	606,329	5,773	601,216	263,349	5,113
1971	326,172	529,263	5,764	524,105	320,407	5,158
1972	143,377	609,767	5,698	606,826	137,680	2,941
1973	219,379	591,212	4,728	585,942	214,650	5,270
1976	180,156	790,773	8,867	781,033	171,289	9,740
1977	461,883	759,206	7,628	749,202	454,254	10,004
1978	100,571	626,691	5,446	620,353	95,125	6,338
1979	97,584	593,163	6,187	588,178	91,397	4,985
1980	174,130	611,474	7,268	606,561	166,862	4,913
1981	119,118	680,644	9,811	670,759	109,307	9,885
1982	189,069	766,668	9,409	758,140	179,659	8,528
1983	171,836	1,046,554	13,102	1,036,373	158,733	10,181
1984	175,398	1,206,055	12,023	1,200,279	163,375	5,776
1985	196,317	1,162,827	13,386	1,155,940	182,931	6,887
1986	201,115	1,145,248	13,101	1,128,582	188,014	16,666
1987	181,314	1,141,165	12,974	1,125,012	168,339	16,153
1988	162,832	975,702	11,211	959,804	151,621	15,898
1989r	157,299	1,108,825	12,186	1,088,875	145,114	19,950
1990r	165,988	1,134,032	11,513	1,118,847	154,475	15,185
1991r	161,130	1,072,010	11,123	1,057,936	150,007	14,074
1992r	143,929	965,731	10,928	952,912	133,001	12,819
1993	24,934	896,794	10,592	886,834	14,342	9,960
1994	161,812	1,017,000	9,202	992,369	152,611	24,368
1995	200,956	903,517	8,070	878,952	192,886	24,565
1996	189,531	869,566	7,908	839,255	181,623	30,311
1997	195,965	901,095	8,492	879,514	187,473	21,581
1998	194,662	1,000,611	8,659	978,544	186,003	22,067
1999	210,120	989,258	7,654	961,500	202,466	27,759
2000	156,607	1,006,155	7,863	980,138	148,744	26,017
2001	206,428	936,903	7,294	910,436	199,135	26,467
2002	211,969	995,422	8,225	968,481	203,744	26,941
2003	199,393	950,566	7,731	929,078	191,662	21,488

NOTE: Detail may not add to totals due to rounding.
r Revised.

SOURCE: New York State Department of Environmental Conservation,
Division of Fish, Wildlife and Marine Resources.

TABLE O-26

**Fish Distributed by State Hatcheries by Size and Species
New York State — Fiscal Year 2002-03(a)**

Species	All Sizes		Size Categories — measured in inches					
	Number (thousands)	Weight (pounds)	Fry ¹	1 - 4 1/4	4 1/2 - 5 3/4	6 - 6 3/4	7 - 7 3/4	8 and Over
All species	199,392,510	950,566	190,949,000	2,910,225	1,430,415	822,640	1,045,560	2,234,670
Warm Water								
Walleye	191,050,975	7,608	190,541,000	441,310	68,665	—	—	—
Muskellunge	479,160	2,037	408,000	49,990	2,600	1,240	—	17,330
Tiger Muskellunge	127,665	11,035	—	—	35,000	—	16,160	76,505
Sturgeon	—	—	—	—	—	—	—	—
Paddle Fish	790	208	—	—	—	—	—	790
Pan Fish	3,000	600	—	—	—	—	—	3,000
Trout								
Brook	508,685	49,729	—	62,085	349,770	—	600	96,230
Brown	2,196,145	556,797	—	148,000	95,060	147,300	239,650	1,566,135
Rainbow	551,905	111,295	—	94,300	38,800	51,300	5,500	362,005
Rainbow (Steelhead)	843,520	47,765	—	—	645,520	198,000	—	—
Lake	837,300	73,817	—	—	40,000	203,750	499,050	94,500
Splake	18,040	4,433	—	—	—	—	700	17,340
Salmon								
Landlocked	860,785	45,960	—	460,000	—	221,050	178,900	835
Coho	260,000	20,185	—	—	155,000	—	105,000	—
Chinook	1,634,000	18,987	—	1,634,000	—	—	—	—
Kokanee	20,540	110	—	20,540	—	—	—	—

— Represents zero.

a April 1, 2002 through March 31, 2003.

¹ Includes eggs and fish under one inch in length.

SOURCE: New York State Department of Environmental Conservation,
Division of Fish, Wildlife and Marine Resources.

TABLE O-27
Marine Recreational Fish Catch
New York State — 1995-2002
(thousands)

Species	1995(r)	1996(r)	1997(r)	1998	1999	2000	2001	2002
All Species	10,316	10,843	10,733	9,145	13,567	32,812	20,728	18,652
Bluefish	1,732	1,304	1,715	1,356	1,867	3,195	3,549	1,768
Black Sea Bass	434	409	740	91	820	1,495	806	1,632
Scup	262	1,144	940	927	1,072	4,237	3,400	2,337
Summer Flounder	2,138	2,398	3,303	2,752	4,020	5,029	5,927	4,796
Winter Flounder	1,064	1,452	615	182	288	456	519	275
Striped Bass	1,314	1,854	1,256	1,051	1,424	1,572	1,014	790
Tautog	572	203	259	586	983	459	360	1,583
Weakfish	110	106	204	51	54	106	97	88
Atlantic Mackerel	21	5	33	14	27	16	31	—
Atlantic Cod	194	11	21	14	—	80	16	—
Northern Puffers	12	13	58	6	140	4	19	42
Other	2,463	1,944	1,581	2,175	2,872	16,163	4,991	5,341
Number of Anglers	487	584	522	476	376	479	513	436
Number of Trips	4,019	4,372	4,276	3,431	2,903	4,444	4,624	4,118

NOTE: Detail may not add to totals due to rounding.
r Revised.

— Represents zero.

SOURCE: New York State Department of Environmental Conservation, Division of Fish, Wildlife and Marine Resources.

TABLE O-28
Marine Commercial Fishing
Value of Products
New York State — 1994-2001

Principal Species	Value of Products (thousands of dollars)							
	1994	1995	1996	1997	1998	1999	2000	2001
All Species ¹	\$ 66,800	\$ 81,474	\$ 86,735	\$ 96,763	\$ 84,323	\$ 76,249	\$ 59,501	\$ 55,187
Finfish ¹								
Whiting	5,793	5,724	5,581	6,560	6,285	4,629	2,340	4,218
Yellowtail Flounder	45	71	287	960	468	1,012	597	499
Summer Flounder	2,888	3,791	1,987	2,033	1,971	1,837	1,975	1,779
Tile Fish	2,592	2,340	3,577	4,247	3,330	1,898	2,006	3,191
Scup	1,563	1,311	1,066	1,301	1,020	718	906	702
Winter Flounder	598	683	691	780	1,048	924	1,003	1,147
Atlantic Cod	311	256	183	66	100	161	123	191
Striped Bass	509	1,403	1,252	1,151	1,255	1,226	1,510	1,583
Swordfish	826	893	451	697	680	662	604	532
Bluefish	594	578	568	568	632	741	632	527
Butterfish	360	496	657	660	556	513	461	601
Tunas	4,791	4,632	1,664	1,828	885	1,644	920	775
Weakfish	4,792	156	231	246	371	437	337	374
Mollusks and Crustacea ¹								
American Lobster	13,055	22,118	32,938	38,053	29,851	27,333	11,988	7,357
Squid	6,912	3,814	3,339	6,271	6,742	7,454	7,688	6,036
Hard Clam	14,565	20,293	17,491	18,753	19,185	17,777	17,547	13,502
Oyster	756	1,683	3,427	2,440	1,359	392	1,311	2,137
Bay Scallop	1,765	203	a	66	22	96	1	58
Surf Clam	3,460	3,659	3,851	3,700	2,497	2,203	3,602	4,885

NOTE: All Species includes other species not listed in this table and thus will not add to detail.

¹ May include values for species not identified separately.

SOURCE: New York State Department of Environmental Conservation, Division of Fish, Wildlife and Marine Resources.

r Revised.

a Less than one.

TABLE O-29
Marine Commercial Fishing Licenses
New York State — 1997-2002

Type of License	1997	1998	1999	2000(a)	2001	2002
All Licenses	10,645	9,059	8,834	8,258	7,298	7,231
Resident Commercial (Lobster)	888	761	746	657	600	554
Resident Non-Commercial (Lobster)	1,718	1,728	1,581	882	996	1,051
Non-Resident Lobster	63	63	61	48	45	40
Lobster Landings	10	12	9	13	10	12
Resident Crab	1,027	715	724	697	683	675
Non-Resident Crab	36	26	26	31	30	34
Commercial Striped Bass	641	580	585	544	554	554
Commercial Fluke	418	440	386	359	360	357
Shellfish Bed	4	7	10	10	10	8
Menhaden Purse Seine Vessel	55	33	35	23	20	4
Marine Hatchery	17	16	16	16	20	23
Marine On/Off Bottom Culture	33	37	43	47	49	54
Food Fish Landing	54	46	40	46	46	46
Resident Food Fish	1,473	1,285	1,355	1,287	1,225	1,197
Non-Resident Food Fish	68	67	67	66	57	50
Shellfish Shipper — Class A	26	23	21	20	21	20
Shellfish Shipper — Class B	118	115	117	117	118	120
Shellfish Shipper — Class C	114	117	108	98	94	91
Shellfish Shipper — Class D	66	59	50	49	49	50
Shellfish Shipper — Class E	22	14	13	13	19	19
Shellfish Shipper — Class F	632	378	356	299	312	309
Shellfish Shipper — Class G	32	33	34	27	25	20
Diggers	3,130	2,504	2,451	1,977	1,955	1,943

r Revised.

a All Licenses for 2000 include several new categories of individual licenses that are not included on this table. As such, detail will not add to totals.

SOURCE: New York State Department of Environmental Conservation; Division of Fish, Wildlife and Marine Resources.

TABLE O-30
Location and Intensity of
Significant Earthquakes in New York State
1737-2002

Date	Locality	Size	Damage in New York
Dec. 18, 1737	New York City	5.2	Bells rang, several chimneys fell
January 16, 1840	Herkimer	3.7	
September 2, 1847	Offshore New York City	3.5	No reference. No damage reported
September 9, 1848	Rockland Lake	V	Felt by many
March 12, 1853	Lowville	VI	Machinery knocked over
February 7, 1855	Saugerties ¹	VI	Cryoseism ^{2,3}
October 23, 1857	Buffalo (Lockport ¹)	4.0	Bells rang, crocks fell from shelves
December 18, 1867	Canton	4.7	Sleepers awakened
December 11, 1874	Tarrytown	3.4	
November 4, 1877	Lyon Mountain ¹	VII	Chimneys down, walls cracked, window damaged, crocks overturned
August 10, 1884	New York Bight (New York City)	5.2	Chimneys and bricks fell, walls cracked
May 28, 1897	Dannemora	4.5	No damage reported
February 3, 1916	Schenectady	3.8	Broke windows, people thrown out of bed
March 18, 1928	Saranac Lake	4.0	
August 12, 1929	Attica	5.2	250 chimneys fell, brick buildings damaged, Attica prison walls, wells went dry
April 20, 1931	Warrensburg	4.8	Chimneys fell, church spire twisted
April 15, 1934	Dannemora	3.9	House shifted
July 9, 1937	Brooklyn ¹	3.5	No damage reported
September 5, 1944	Corwall, Ontario/Massena, New York	5.8	Nearly all chimneys fell, buildings damaged, \$2 million damage
September 5, 1944	Corwall, Ontario/Massena, New York	4.5	Chimneys destroyed, houses damaged
September 3, 1951	Rockland County	3.6	No damage reported
January 1, 1966	Attica	4.7	Chimneys and walls damaged
June 13, 1967	Attica	3.9	Chimneys and walls damaged
May 23, 1971	Blue Mountain Lake	4.1	No damage reported
May 23, 1971	Blue Mountain Lake	3.5	No damage reported
June 7, 1974	Wappingers Falls	3.0	Windows broken
June 9, 1975	Plattsburgh (Altona)	3.5	Chimneys and fire places cracked
November 3, 1975	Raquette Lake	4.0	No damage reported
February 2, 1983	Scarsdale-Lagrangeville	3.0	Chimneys cracked
October 7, 1983	Goodnow, Adirondack Mountains	5.1	Tombstones rotated, some cracked chimneys, windows broken, walls damaged
October 19, 1985	Ardsley	4.0	Windows broken, walls damaged
June 17, 1991	Richmondville	4.0	No damage reported
March 10, 1992	East Hampton, Suffolk County	4.1	No damage reported ²
April 20, 2000	Newcomb	3.8	Aftershock of the 1983 event. No damage reported
April 20, 2002	Au Sable Forks	5.1	Cracked walls, chimneys fell, road collapsed, power outages
May 24, 2002	Au Sable Forks	3.1	Aftershock of the April 20, 2002 event, no damage reported

1 Locality uncertain.

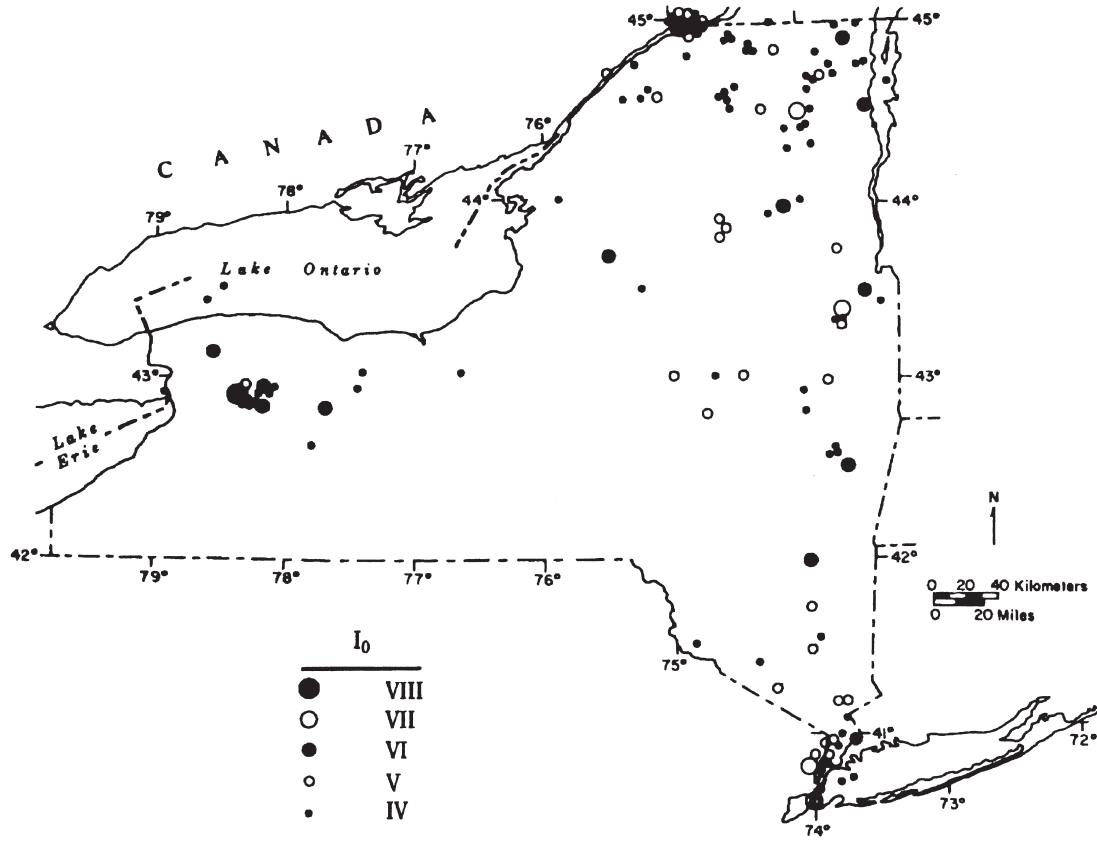
2 Damage uncertain.

3 Frostquake.

SOURCE: New York State Education Department, Geological Survey.

FIGURE O-2

**Location and Intensity of Significant Earthquakes
New York State — 1737-2003**



I₀ Maximum Modified Mercalli Intensity

SOURCE: New York State Education Department, Geological Survey.

Modified Mercalli Earthquake Intensity Scale

- I. Not felt except by a very few under especially favorable circumstances.
- II. Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.
- III. Felt quite noticeably indoors, especially on upper floors of buildings but many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibration like passing of truck. Duration estimated.
- IV. During the day felt indoors by many, outdoors by few. At night some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
- V. Felt by nearly everyone, many awakened. Some dishes, windows, etc., broken; a few instances of cracked plaster; unstable objects overturned. Disturbance of trees, poles and other tall objects sometimes noted. Pendulum clocks may stop.
- VI. Felt by all, many frightened and run outdoors. Some heavy furniture moved; a few instances of fallen plaster or damaged chimneys. Damage slight.
- VII. Everybody runs outdoors. Damage negligible in building of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving motor cars.
- VIII. Damage slight in specially designed structures; considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structure. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving motor cars disturbed.
- IX. Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.
- X. Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from river banks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks.
- XI. Few, if any, (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.
- XII. Damage total. Practically all works of construction are damaged greatly or destroyed. Waves seen on ground surface. Lines of sight and level are distorted. Objects are thrown upward into the air.

TABLE O-31
Air Pollution by Types of Contaminant
New York State
1964-2002

Year	All Suspended Particulates ¹		Sulfur Dioxide (ppm) ⁴	Carbon Monoxide				Ozone	
	Annual Geometric Mean ² (m/cm) ³	Number of Sites in Violation		Number of Times a Running 8-hour Average Exceeded NYS Standard ⁵		Number of Days During Which a Running 8-hour Average Exceeded NYS Standard ⁵			Number of Days During Which One or More of the One-Hour Averages Exceeded NYS Standard ⁶
				NYC ⁷	NYS ⁸	NYC ⁷	NYS ⁸		
1964	96.0								
1965	92.5								
1966	89.0	48							
1967	82.5	57							
1968	79.0	62							
1969	72.5	57							
1970	73.0	67	0.036						
1971	76.2	77	0.034						
1972	71.2	59	0.021						
1973	68.9	52	0.019					19	
1974	63.4	36	0.019					35	
1975	56.2	23	0.016					37	
1976	57.1	8	0.015					47	
1977	51.6	14	0.017					45	
1978	50.5	9	0.015					36	
1979	51.7	4	0.016					37	
1980	54.9	3	0.015					41	
1981	51.4	6	0.014	52	5	43	5	24	
1982	44.6	2	0.014	21	4	21	4	20	
1983	39.4	—	0.013	22	2	20	2	36	
1984	44.7	—	0.013	23	4	23	3	17	
1985	41.6	—	0.012	4	—	4	—	15	
1986	40.5	—	0.012	2	1	2	1	9	
1987	44.3	—	0.011	1	2	1	2	20	
1988	44.1	—	0.012	—	1	—	1	33	
1989	43.0	—	0.012	2	—	2	—	8	
1990	35.9	—	0.011	4	—	3	—	9	
1991	37.8	—	0.011	2	—	2	—	15	
1992	32.9	—	0.009	—	—	—	—	2	
1993	32.3	—	0.008	—	—	—	—	9	
1994	39.3	—	0.008r	—	—	—	—	8	
1995	37.5	—	0.006	1	—	1	—	8	
1996	35.6	—	0.006	—	—	—	—	4	
1997	34.8	—	0.006	—	—	—	—	8	
1998	36.0	—	0.006	—	—	—	—	3	
1999	42.2a	—	0.007	—	—	—	—	10	
2000	41.1a	—	0.007	—	—	—	—	1	
2001r	37.8a	—	0.007	—	—	—	—	5	
2002	34.3	—	0.006	—	—	—	—	11	

NA Not available.

— Represents zero.

r Revised.

a No longer representative, only 2 monitoring sites.

1 Any matter, solid or liquid, dispersed into the atmosphere and capable of being collected by a high-volume air sampler.

2 Annual geometric mean: 50 percent of the values sampled during the year are higher and 50 percent are lower.

3 Micrograms of contaminant per cubic meter of air.

4 Parts (of contaminant) per million parts of air by volume.

5 NYS Ambient Air Quality Standard of 9 ppm (parts per million parts of air).

6 NYS Ambient Air Quality Standard of 0.12 ppm (parts per million parts of air). Readings are taken from continuous sampling stations.

7 Midtown Manhattan Traffic Site — 110 East 45th Street (1981-1989); Alexander's Department Store — 59th Street (1990-1991); Bloomingdales (1992-1995); Brooklyn Transit (1984-1995).

8 Statewide (excluding Traffic Sites).

SOURCE: New York State Department of Environmental Conservation, Division of Air Resources.

TABLE O-32

**Air Pollution Sources by Permit Type
New York State by County
As of August 18, 2003**

County	Title V ¹	State Facility	Registration
New York State	554	1,188	7,308
New York City	140	243	4,122
Bronx	24	43	591
Kings	42	72	1,000
New York	34	63	1,378
Queens	34	51	985
Richmond	6	14	168
Rest of State	414	945	3,186
Albany	13	21	56
Allegany	3	5	15
Broome	7	15	45
Cattaraugus	3	17	37
Cayuga	3	4	17
Chautauqua	13	19	47
Chemung	4	11	25
Chenango	4	9	13
Clinton	2	18	20
Columbia	4	6	5
Cortland	2	12	15
Delaware	3	6	10
Dutchess	4	18	51
Erie	31	73	266
Essex	1	6	5
Franklin	1	11	9
Fulton	3	12	26
Genesee	4	6	19
Greene	3	13	5
Hamilton	—	—	1
Herkimer	4	20	20
Jefferson	6	20	19
Lewis	3	13	9
Livingston	4	5	15
Madison	—	5	22
Monroe	20	53	132
Montgomery	1	11	22
Nassau	32	37	580
Niagara	20	36	64
Oneida	7	37	59
Onondaga	16	48	92
Ontario	6	12	31
Orange	23	35	76
Orleans	1	5	9
Oswego	12	13	19
Otsego	—	5	9
Putnam	1	4	16
Rensselaer	9	17	23
Rockland	12	16	108
St. Lawrence	7	18	30
Saratoga	6	17	49
Schenectady	5	17	19
Schoharie	1	5	5
Schuyler	2	3	4
Seneca	3	6	13
Steuben	7	18	36
Suffolk	50	80	569
Sullivan	1	7	7
Tioga	—	6	11
Tompkins	4	3	11
Ulster	7	15	25
Warren	4	12	12
Washington	7	17	19
Wayne	5	7	27
Westchester	16	31	316
Wyoming	3	8	14
Yates	1	1	7

— Represents zero.

SOURCE: New York State Department of Environmental Conservation, Division of Air Resources.

¹ Title V permits are issued under the authority of the Clean Air Act Amendments of 1990 to major sources of air pollution.

TABLE O-33

Active Solid Waste Disposal Sites¹
New York State by County
Selected Years 1970-2003

County	1970	1982	1984	1986	1988	1990	1992	1994	1996	2000	2003	Permitted Landfills ²
New York State	861	524	511	354	263	220	127	67	67	53	47	41
New York City	6	5	3	2	2	2	1	1	1	1	—	—
Rest of State	855	519	508	352	261	218	126	66	66	52	47	41
Albany	12	13	12	8	5	5	4	3	3	3	3	2
Allegany	16	9	9	2	1	1	1	1	1	2	2	2
Broome	10	4	4	3	3	2	2	2	2	2	1	1
Cattaraugus	36	5	5	4	2	—	—	—	—	—	—	—
Cayuga	22	10	10	9	6	1	1	1	1	1	1	1
Chautauqua	14	3	3	4	3	2	2	2	2	2	2	2
Chemung	11	2	2	2	1	1	1	1	1	1	1	1
Chenango	18	9	9	8	7	6	2	1	1	1	1	1
Clinton	14	4	4	3	3	3	2	1	1	1	1	1
Columbia	13	14	14	5	1	—	—	—	—	—	—	—
Cortland	12	2	2	3	1	1	1	1	1	1	1	1
Delaware	16	5	5	4	2	1	1	1	1	1	1	1
Dutchess	14	15	15	11	9	6	4	—	—	—	—	—
Erie	31	23	24	7	5	3	3	2	2	2	2	2
Essex	17	16	17	14	14	14	3	2	2	1	1	1
Franklin	17	16	16	16	16	15	2	1	1	1	1	1
Fulton	12	9	9	5	4	1	1	1	1	1	1	1
Genesee	11	6	6	2	1	1	1	1	1	1	—	—
Greene	6	6	6	5	4	4	4	1	1	1	1	1
Hamilton	9	8	8	6	5	5	5	2	2	—	—	—
Herkimer	14	7	6	5	3	3	1	1	1	1	—	—
Jefferson	21	12	13	13	7	6	5	2	2	2	2	1
Lewis	12	9	9	11	4	1	—	—	—	—	—	—
Livingston	16	5	5	3	2	1	1	1	1	1	—	—
Madison	12	1	1	1	1	1	1	2	2	1	1	1
Monroe	21	11	11	2	2	2	2	3	3	2	2	2
Montgomery	29	2	2	2	2	2	2	1	1	—	—	—
Nassau	10	11	11	2	1	1	—	—	—	—	—	—
Niagara	7	10	10	7	5	4	2	2	2	2	3	2
Oneida	17	10	8	6	4	4	2	1	1	—	—	—
Onondaga	23	17	17	14	5	4	2	—	1	—	—	—
Ontario	17	9	9	2	3	3	3	2	2	2	2	2
Orange	26	6	6	6	5	5	5	2	2	2	2	2
Orleans	9	2	2	1	1	—	—	—	—	—	—	—
Oswego	15	3	2	1	1	1	1	1	1	1	1	1
Otsego	17	10	10	7	1	1	—	—	—	—	—	—
Putnam	6	6	6	2	2	2	1	—	—	—	—	—
Rensselaer	15	16	16	12	13	10	8	1	1	1	—	—
Rockland	4	5	5	3	4	4	3	3	3	1	1	—
St. Lawrence	36	36	36	28	7	5	2	—	—	—	—	—
Saratoga	19	17	17	18	18	17	5	3	3	2	2	2
Schenectady	12	7	7	6	6	6	4	—	—	—	—	—
Schoharie	10	2	2	1	1	1	—	—	—	—	—	—
Schuyler	4	4	4	1	—	—	—	—	—	—	—	—
Seneca	12	8	8	1	1	1	1	1	1	1	1	1
Steuben	19	5	5	2	2	2	2	2	2	2	2	2
Suffolk	17	24	15	13	13	12	7	4	3	3	3	3
Sullivan	16	9	9	6	6	3	2	1	1	1	1	1
Tioga	6	3	3	3	2	2	1	—	—	—	—	—
Tompkins	3	2	2	1	1	1	1	1	1	1	1	1
Ulster	21	18	18	16	15	15	15	2	2	—	—	—
Warren	11	12	12	12	12	12	2	1	1	—	—	—
Washington	13	16	16	14	12	11	3	3	3	2	2	—
Wayne	13	11	11	6	3	1	—	—	—	—	—	—
Westchester	17	9	9	1	1	1	1	1	1	1	1	1
Wyoming	14	3	3	1	1	—	—	—	—	—	—	—
Yates	10	2	2	1	1	1	1	1	1	1	—	—

— Represents zero.

¹ Active sanitary, industrial and ash monofill landfills. Does not include active construction and demolition debris landfills.

² Operating under a Part 360 permit or SAPA Equivalency Permit as of August 2003.

SOURCE: New York State Department of Environmental Conservation, Division of Solid and Hazardous Materials.

TABLE O-34

**Hazardous Waste Sites
Confirmed or Suspected, by Class
New York State — January 2003**

County	Total	Class ¹				
		2	2A	3	4	5
New York State	877	511	31	80	239	16
New York City	38	29	1	3	3	2
Bronx	3	2	1	—	—	—
Kings	9	6	—	2	—	1
New York	1	1	—	—	—	—
Queens	16	12	—	1	3	—
Richmond	9	8	—	—	—	1
Rest of State	839	482	30	77	236	14
Albany	19	8	—	4	7	—
Allegany	7	2	1	—	2	2
Broome	23	14	—	1	8	—
Cattaraugus	14	7	—	1	5	1
Cayuga	7	6	—	1	—	—
Chautauqua	15	6	—	4	5	—
Chemung	10	5	1	1	3	—
Chenango	7	3	—	1	3	—
Clinton	8	3	—	—	5	—
Columbia	5	4	—	1	—	—
Cortland	5	4	—	—	1	—
Delaware	8	5	—	—	3	—
Dutchess	32	23	—	1	8	—
Erie	64	27	1	10	23	3
Essex	1	1	—	—	—	—
Franklin	1	1	—	—	—	—
Fulton	4	1	—	1	2	—
Genesee	5	4	—	—	1	—
Greene	7	5	—	2	—	—
Hamilton	—	—	—	—	—	—
Herkimer	12	6	—	2	3	1
Jefferson	6	4	—	—	2	—
Lewis	3	1	—	1	1	—
Livingston	5	4	1	—	—	—
Madison	4	2	—	1	1	—
Monroe	53	33	4	6	9	1
Montgomery	3	1	—	—	2	—
Nassau	82	67	1	2	12	—
Niagara	53	16	1	11	24	1
Oneida	28	16	—	1	9	2
Onondaga	38	18	1	5	14	—
Ontario	8	4	1	2	1	—
Orange	28	18	1	2	7	—
Orleans	9	8	—	—	1	—
Oswego	12	8	—	1	3	—
Otsego	2	2	—	—	—	—
Putnam	5	1	—	—	4	—
Rensselaer	18	11	1	2	4	—
Rockland	18	13	1	—	3	1
St. Lawrence	20	5	1	—	14	—
Saratoga	18	8	—	5	5	—
Schenectady	13	8	1	2	2	—
Schoharie	2	2	—	—	—	—
Schuyler	2	2	—	—	—	—
Seneca	9	3	2	1	3	—
Steuben	9	2	—	1	6	—
Suffolk	57	41	6	—	9	1
Sullivan	2	1	—	—	1	—
Tioga	10	6	1	—	3	—
Tompkins	6	3	—	1	2	—
Ulster	15	9	2	1	3	—
Warren	4	4	—	—	—	—
Washington	9	6	—	—	2	1
Wayne	3	1	—	1	1	—
Westchester	24	16	1	—	7	—
Wyoming	4	2	—	1	1	—
Yates	3	1	1	—	1	—

NOTE: There are no sites classified as Class 1 in New York State.

— Represents zero.

1 Definitions of Classes:

- 1 Immediate Action Required: site causes or presents an imminent danger of irreparable damage to public health or the environment.
- 2 Action Required: site is a significant threat to public health or the environment.
- 2A Inadequate Data: not enough information to decide whether a site needs remediation.

3 Action May be Deferred: site contains hazardous waste but does not present a significant threat to public health or the environment.

4 Requires Continued Management: site has been properly closed or remediated.

5 No Further Action Required.

SOURCE: New York State Department of Environmental Conservation, Division of Environmental Remediation.

FIGURE O-3
New York State
Mineral Resources
2003



SOURCE: New York State Geological Survey/U.S. Geological Survey.

